



Global West Suspension
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Part # CTA-31A --- Corvette tubular upper control arm kit --- 1963-82

Global West tubular control arms are pre-assembled for easy installation. New alignment specifications are also provided because we have put new geometry into the control arms.



1. To install lift the vehicle up so the front tires are off the ground and place jack stands under the frame. Remove the front tires off the vehicle.
2. Slide the floor jack under the lower control arm as close to the ball joint as you can and raise the lower arm up until the upper control arm lifts off the bump stop on the frame.
3. Remove the upper ball joint cotter pin and nut. Using a suitable tool like a pickle fork, remove the upper ball joint from the spindle.
4. Using a 7/16 wrench, remove the upper control arm cross shaft nuts holding the arm to the frame. Remove the shim packs on each bolt. Slide the upper control arm off the bolts and out through the fender well opening or engine compartment. Whatever is most convenient?



If you cannot remove the upper control arm because the exhaust or steering is in the way, you will need to remove the serrated bolt / stud out of the frame. **Do not try to unscrew the studs or take an impact gun and blast them off the frame. You will damage the frame and the stud. You must press the stud straight out. We use a C clamp and socket.**



Place the 3/4 socket over the head of the bolt/stud and with a C clamp over the socket and stud, screw the C clamp together. The stud will

pop out of the frame.

Note: When you reinstall the stud in the frame with the new upper arm. Make sure the stud is in the upper arm shaft, use a drift punch and drive the stud back into the frame.

5. Once you have removed the upper control arm from the car. Remove the bump stop from the upper control arm.
6. Install the tubular control arm marked D (driver side) or P (passenger side) corresponding to the side you are working on. The letter is underneath the control arm by the bump stop. Slide the arm through the wheel side onto the frame.
7. Slide the upper arm shaft onto the frame bolts. If you had to remove one or both of the bolts, slide the bolts through the frame and control arm and tilt the arm so you can place a drift punch onto the head of the bolt and tap it into the frame. The bolt should re-seat.
8. Place two 1/8-inch shims on each bolt between the control arm shaft and frame. Tighten down the nuts at this time. The torque is 55 foot-pounds.
9. Slide the ball joint into the spindle and tighten the nut to 65 foot-pounds.
10. Lubricate the upper ball joint before installing the wheel.

Note: Control arm bushings are pre-lubricated.

11. Proceed to the other side and follow the same procedure. Once the car is back on the ground an alignment will be required. The following charts will give you different alignment settings for various applications.



Street alignment manual steering

Caster	Camber	Toe-in
Driver side 1 ½ degrees positive	Negative ½ degree	3/32 total toe-in
Passenger side 2 degrees positive	Negative ½ degree	

Street alignment power steering

Caster	Camber	Toe-in
Driver side 3 degrees positive	Negative ½ degree	3/32 total toe-in
Passenger side 3 1/2 degrees positive	Negative ½ degree	

Road race base alignment

Caster	Camber	Toe-in
Driver side 6 degrees positive	Negative 1 ½ degree	3/32 total toe-in
Passenger side 6 degrees positive	Negative 1 ½ degree	

Road racing alignment is based on the cars spring rates and related components are set up for road racing. This is merely a starting point we have determined based on our geometry and prior testing.