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## 1958-64 Impala Front tubular upper control arm kit for air bag and hydraulic applications.

## Part # CTA-85A

Installation will require jack stands, floor jack, and related hand tools. A Service manual will also have a procedure detailed on removing the upper control arm. The procedure we use is as follows.

- 1. Make sure the car is in park or in gear and set the parking brake. We also block the rear wheels. Raise the front and support the car with jack stands under the frame rails
- 2. Remove the tires.
- 3. Place a floor jack under the lower control arm out next to the lower ball joint. With the floor jack lift the suspension until the upper control arm is off the bump stop. For safety reasons place a jack stand under the lower arm to help support it if the floor jack was to leak down.
- 4. Remove the upper ball joint cotter pin and nut. Use a pickle fork and separate the ball joint from the spindle.
- 5. Loosen the bolts that hold the upper control arm shaft to the frame. Remove all the alignment shims from the location and continue removing the upper control arm nuts.
- 6. Slide the upper arm off the studs. If the steering shaft or headers are 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.

- 7. With the arm removed locate the correct upper control arm for the side you are working on. A fast reference is the upper bump stop goes towards the front of the car. By slightly angling the upper control arm through the inner fender well install the new upper control arm.
- 8. Slide the upper arm shaft over the frame studs. If you removed one or both of the studs, re-install them now.







10. The next step will be installing the upper ball joint into the spindle. Tighten down the upper ball joint to the spindle and torque to 65 footpounds. Lubricate the upper ball joint after installation. The upper control arm bushings are aalready lubricated during assembly.

Make sure the stud is in the upper arm shaft, use a drift punch and drive the stud back into the frame

9.Install one 1/8- inch alignment shim on each bolt. The shims go between the frame and the upper shaft and then tighten down the bolts. The shims supplied in the kit are not alignment shims (8). They are for upper arm shaft removal.



After

completing the upper arm installation an alignment will be required. The following specifications will only work with Global West control arms. They **will not** work with stock control arms.



Caster	Camber	Toe-in
Driver side 4 1/2 degrees positive	0 degree negative	1/16 toe in
Passenger side 5 degrees positive	0 degree negative	1/16 toe in

## About Alignment and ride height!

The ability to get the camber in alignment is based on ride height and the frame condition. It is possible depending on these conditions that you cannot get enough adjustment either because of the frame, inadequate bolt length (upper control arm bolt). We designed the upper control arms to be used for a one inch drop in ride height using Part # S-83 or S-84 or stock ride height. If the car is lower then this, camber may be off slightly from our specification. The car may have too much positive camber. Positive camber is what the factory called for in the fifties and sixties, however the new suspension system and tires are not working at optimum with positive camber. We designed the upper control arm shaft in the control arm to be offset. The offset provides a possible fix if a problem arises during the alignment. We (Global West) assemble the upper arms with the most likely scenario; the offset is pushing the upper control arm out towards the tire. This will give you the best chance of getting the proper camber required. If you have a condition (not likely) that you have too much positive camber, the correct procedure will be to rotate the shaft in the control arm. This requires removing the upper arm off the car, pressing one bushing out of the control arm, sliding the shaft out, place the words offset (engraved in the shaft) towards the engine, and reassemble the control arm. The following procedure for shaft removal is:

A press is required.

- 1. Remove the upper control arm cotter pin, nut, grease fitting and thrust washers from both sides of the control arm.
- 2. Locate a tube or housing of some kind that fits around the blue bushings in the arm.





3. Place the control arm with the housing in the press so you can press against the shaft and push the blue bushing out.







You will only be able to press about 1/8 inch before the shaft will bottom out on the arm. Press both

bushings out of the arm 1/8 of an inch.

4. When both bushings are press out 1/8 of an inch, slide the shaft to one side, place one of the shims provided in your kit between the white plastic inner thrust washer and the shaft. You will only install the shims on one side.





5. Place the arm back into the press and press the bushing with the steel shim out another 1/8 of an inch. Remove the arm from the press and slide the shaft up so you can install another shim against the previous. You will continue this process until all 8 shims are used. The bushing will then come out.





- 6. Slide the shaft out of the control arm and flip the shaft so the words engraved on the shaft saying (offset) are towards the engine. Note: The words should not be upside down looking at the top of the arm. You are now ready to reinstall the bushings.
- 7. The white plastic thrust washer 1-1/4 od goes on the shaft first, **one on each side**.



## 8. Press the blue bushing into the housing.

Important: Do not apply pressure across the control arm to press the bushings in. This will damage the control arm and void the warranty. Press the bushing into the housing by applying pressure only to the housing the bushing is going in to. See photo below.

Align the 2 holes up before pressing and press the bushing in. Flip the arm over and press the other bushing in as well.





9.

After both bushings are pressed in, install the inner white plastic sleeves. Lubricate the inside of the sleeve where the shaft will ride and the inside of the blue housing. We recommend water repellant synthetic grease. Boat hub grease can be used also. You may have to slightly tap the insert into the bushings.



10. Place the white plastic outer thrust washer on the

shaft next. Then the steel outer thrust washer and slotted hex nut. Tighten down the hex nut until the thrust washers have contact with the bushing face. The bushing adjusts similar to a wheel bearing. Adjust the nut until contact and the washer s are seated. Back off the nut and retighten down until the washers again just have contact, then tighten the nut 1/8 of a turn. This is 1 flat on the nut. Re cotter pin the slotted hex nut. Next install the grease fitting.



11. Re-install the upper control arm and align.