



P/N C8003
TUBULAR REAR CONTROL ARM
1978-1988 GM INTERMEDIATE

Parts list

<u>Item</u>	<u>Qty</u>	<u>Description</u>	<u>Item</u>	<u>Qty</u>	<u>Description</u>
A	2	Lower control arm	B	8	Poly bushing
C	6	Tube	D	1	Axle brkt (outer) passenger (01200)
E	1	Axle brkt (inner) passenger (01250)	F	6	M12 x 100mm bolt
G	6	M12 Nylock nut	H	1	Sway bar brkt passenger
I	4	3/8" x 1 1/2" bolt	J	8	3/8" washer
K	8	3/8" Nylock nut	L	4	3/8" x 2 1/2" bolt
M	4	Grease fitting	N	1	Axle brkt (inner) driver (01251)
O	1	Axle brkt (outer) driver 01201	P	1	Sway bar brkt driver
Q	4	Washer 1/2" ID	--	2	1/2 oz. Sil-PTFE grease

These arms are designed to replace the stock factory control arms found on 1978-1988 GM "A" and "G" bodies. They are adjustable in three (3) positions:

1. Stock- For use with unmodified engines, but increased handling and control.
2. Street Performance- For mildly modified engines and racetracks that offer good traction.
3. Bracket Race- For high horsepower engines and/or tracks that offer marginal traction.

Sway bar brackets are included in this kit. These brackets allow you to retain your sway bar when the control arms are placed in any of the three locations.

Pre-Assemble the Control Arms:

- a. Install with a soft-faced mallet or arbor press the polyurethane bushings (item B) in each end of the control arm.
- b. With the supplied grease, pre-lube the inside of the polyurethane bushings.
- c. Install with a mallet and block of wood or arbor press the steel tubes (item C) into the polyurethane bushings.
- d. Anticipating working on the passenger side first, take either control arm and assemble the inner axle bracket (item E stamped 01250) inward toward the center of the car and (item D stamped 1200) outward. Both brackets need to be on the rear side of the control arm. The (2) small cross-welded in tubes are towards the rear of the car. Refer to the illustration. Install the 12mm x 100mm bolt through the bottom holes and fasten the 12mm Nylock nut snug only.
- e. Perform the same operation for the driver side control arms and keeping them separate.

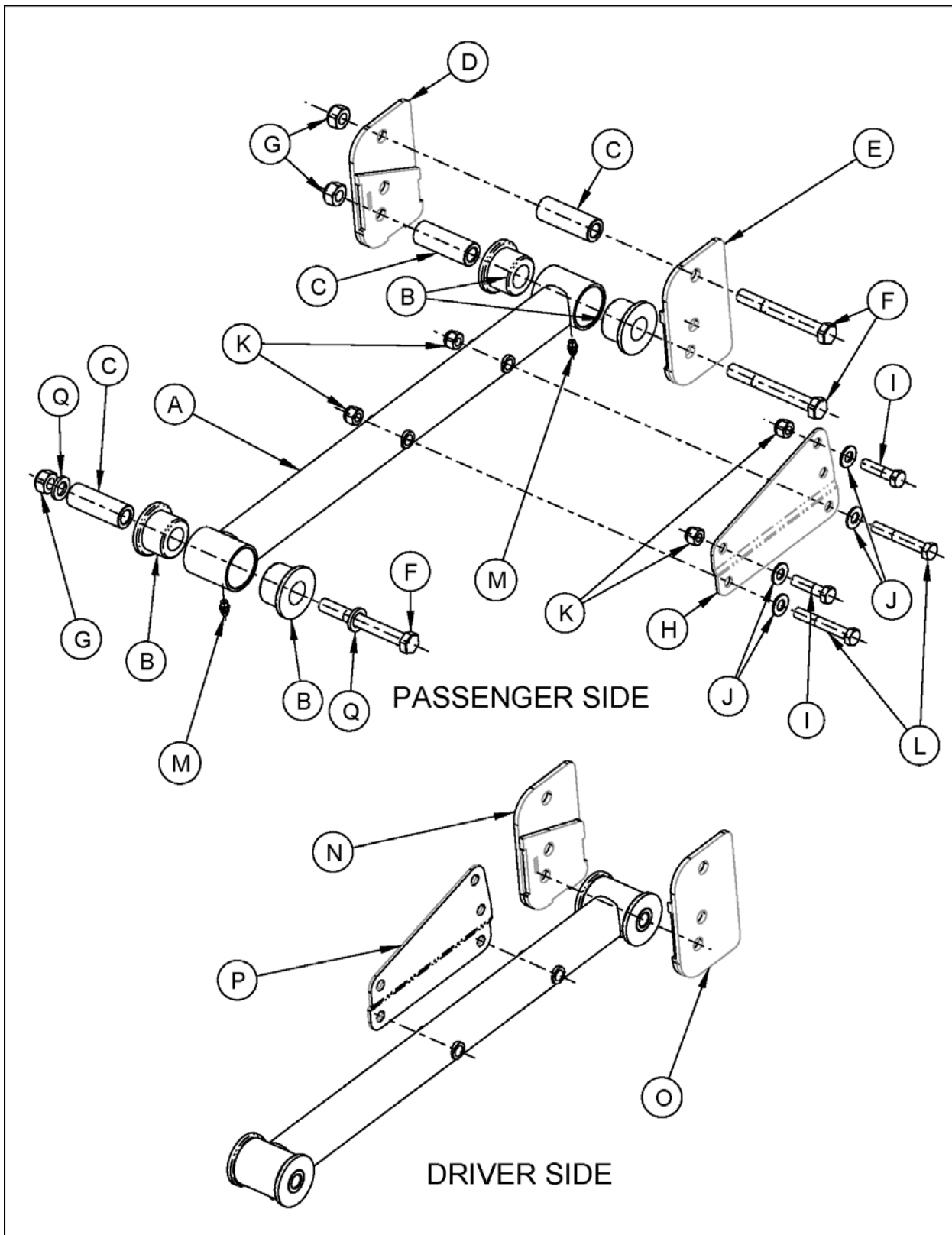
For Technical Assistance, call Competition Engineering's Tech Lines at

(203) 458-0542 or (203)-458-0546, 8:30am-5:00pm Eastern Time

Competition Engineering

80 CARTER DRIVE, GUILFORD, CT. 06437

Phone (203) 453-5200 Fax (203) 453-6906 www.competitionengineering.com



Control Arm Installation:

1. Jack up and support the rear of the vehicle with jack stands. Make sure to place the stands under the frame of the vehicle. Allow the jack to support the weight of the rear axle.
2. Remove the bolts that retain the sway bar and store the sway bar off to the side.
3. Remove the passenger side stock control arm bolts and lower the control arm. (It may be necessary to remove or loosen the exhaust system to remove the front bolt from the control arm).
4. Install the front of the new control arm into the front mounting pocket of the chassis using the supplied 12mm x 100mm bolt and Nylock nut, but do not tighten at this time.

5. Slide the rear control arm upward with the brackets on the outside of the pocket. Align the top holes of the brackets with the stock hole location in the pocket. Start the 12mm x 100mm bolt in the hole and install the spacer tube (item C) on the bolt inside the pocket. (This tube supports the pocket from collapsing when the bolt is tightened). Fasten the 12mm Nylock nut on the bolt and firmly tighten.
6. Repeat the same steps 3 through 5 for the driver side control arm. On the driver side control arm the bracket inward will be (item N stamped 01251) and on the outward side of the control arm (item O stamped 01201).
7. Lower the vehicle off the jack stands. With the vehicle's weight on all four wheels, measure the pinion angle using an angle finder such as Competitions Engineering P/N C5010. The desired angle with the (4) link control arms and coil springs should be 1° to 2° downward angle.
Note: These angles are measured relative to the driveshaft angle.
8. Note: Before doing any welding on a car you must disconnect both battery cables. In this order; first disconnect the negative battery wire cable and then the positive battery cable. (For later reconnecting see step 17).
When the desired angle has been determined, you must tack weld the brackets in place.
9. Now that the brackets are tacked firmly, you can jack the car back up and support them again with the jack stands and support the axle with the jack.
10. Remove the 12mm bolts and nuts from the rear side of the lower control arms and let them hang from the front suspended bolt. This will ensure the poly-bushings of the control arm don't melt in place while welding.
11. Removal of the rear wheels from the car will help give visibility for welding. The outer and inner brackets must now be fully welded around the outside of the pockets to ensure no failure or loss of control of the vehicle.
12. After welding the brackets to the axle pockets, and allowed to cool, you can decide which of the of the (3) positions is desired for application: Top hole for Stock position (See Photo #1), middle for Street Performance (See Photo #2), and bottom for Bracket Race position (see Photo #3). Re-install the control arms on the welded brackets with the 12mm x 100mm bolts and secure with the 12mm Nylock nuts.

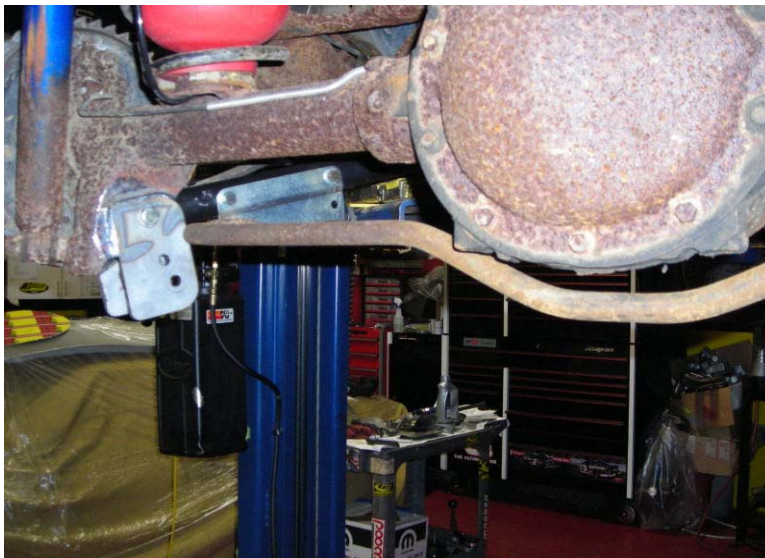


Photo #1



Photo #2



Photo #3

13. After the control arms are reinstalled with the 12mm bolts and nuts, the sway bar brackets can be installed as per photos 1,2,or 3 with the brackets mounted to the inside of the control arm with the offset facing outward. Fasten with 3/8" x 2-1/2" bolts (item L) with a 3/8" washer (item J) under the head and install a 3/8" Nylock nut (item K) on the backside. The sway bar bracket mounted upward for the Street Performance or Bracket Race position using the appropriate holes for the sway bar to clear the bottom of the axle housing. For the stock location of the lower control arm, the sway bar brackets can be installed mounted downward and use the appropriate set of holes for the sway bar to clear the bottom of the axle housing. The sway bar is fastened to the sway bar brackets with 3/8" x 1-1/2" bolts (item I) with washers under the head (item J) fastened with 3/8" Nylock nut (item K) on the backside.
14. Now that the lower control arms have been installed, re-check all bolts and nuts securely:
 - 1/2" bolts - 75 ft/lbs Torque
 - 3/8" bolts -45 ft/lbs. Torque
15. Install grease fittings and lubricate the bushings with a grease gun and recommended SIL-PTFE grease.
16. Re-install the rear wheels and torque the nuts according to manufacturers specifications.
17. Re-install the battery cables, connecting the positive cable first, followed by the negative cable.
18. Road Test the vehicle and routinely check bolt torque.