



SYNERGY MFG. 870 INDUSTRIAL WAY, SAN LUIS OBISPO, CA (805) 242-0397

8031 – Synergy Jeep JK Front Long Arm Frame Brackets

GENERAL NOTES:

- These instructions are also available on our website; www.synergymfg.com. Check the website before you begin for any updated instructions and additional photos for your reference.
- The installation of these control arm brackets requires major cutting and grinding. Most of the factory control arm mounts on the frame will need to be cut off and ground smooth.

PARTS LIST:

- **8031 – JK Front Long Arm Frame Brackets**
 - (1) 8031-01-L Front Long Arm Frame Side Bracket, Left Side
 - (1) 8031-01-R Front Long Arm Frame Side Bracket, Right Side
 - (1) 803102-L Long Inside Frame Rail Nut Tab, Left Side
 - (1) 803102-R Long Inside Frame Rail Nut Tab, Right Side
 - (2) 803103 Bottom Frame Rail Nut Tab
 - (4) 1/2"-13 UNC x 1.25" long flat head socket cap screw
 - (4) 1/2"-13 UNC x 1.5" long hex head bolt
 - (8) 1/2" GR8 flat washer
 - (2) 9/16"-12 UNC x 4" long hex head bolt
 - (2) 9/16"-12 UNC stover lock nut
 - (4) 9/16" GR8 flat washer
 - (2) 1/2"-13 UNC x 3.25" long hex head bolt
 - (2) 1/2"-13 UNC stover lock nut

Parts / Tools Needed to complete installation:

- Basic simple hand tools.
- A grinder with a grinding disc and cut-off wheel or a sawzall
- Floor jack or automobile lift and two sturdy jack stands.

INSTALLATION:

REMOVE STOCK FRONT CONTROL ARM BRACKETS

- 1) Remove the stock upper and lower control arms. The exhaust on the passenger side frame mount prevents the upper control arm bolt from being removed in one piece. You will have to cut the head of the bolt off to remove the bolt. A sawzall or grinder with a cut-off wheel works well.
- 2) Cut off the inner part of the lower control arm bracket.



- 3) Using a cut-off wheel, cut the outer part of the lower control arm bracket as shown below. Be careful to not cut through the frame.



- 4) Grind the cut edge off of the remaining part of the lower control arm bracket on the inner frame. Do not remove this section of the factory lower control arm bracket. You need retain the two layers of brackets welded to the frame for the proper spacing of the new control arm brackets.



- 5) Cut off the upper control arm mount from the frame



- 6) Remove the threaded inserts for the transmission skid plate. These are located on the bottom of the frame just to the rear of the stock lower control arm brackets. Thread the skid plate bolts into the threaded inserts so there is about a 1/2" of thread showing. Strike the head of the bolt upward with a large hammer to break the threaded insert loose from the frame. Remove the threaded insert and bolt.



- 7) Clean and paint the frame where the control arm brackets were removed.

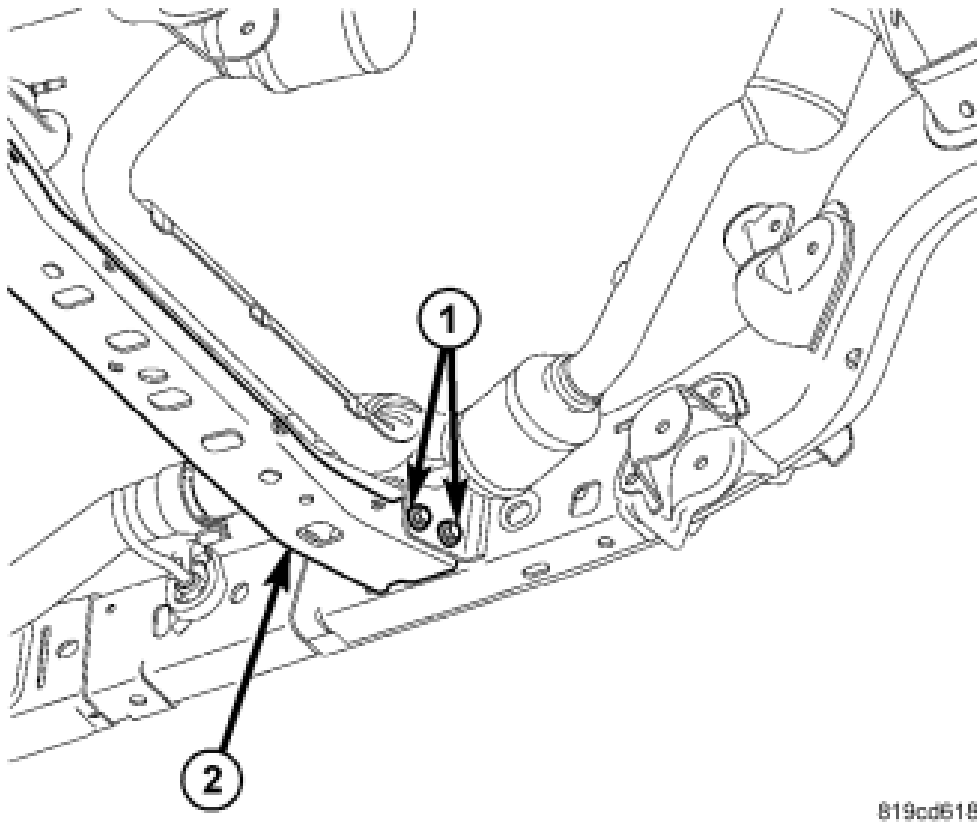
INSTALL NEW FRONT LONG ARM CONTROL ARM BRACKETS

- 8) Insert the lower nut tab in the frame.





- 9) Remove the nuts from the transmission cross member bolts (1). Make sure the nuts are on the front side of the cross member, if not, flip the cross member bolts around.



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- 10) Position the new control arm bracket over the transmission cross member bolts. Install the ½" flat head allen screws in the bottom of the control arm bracket to the nut tab. Tighten just enough to bring the control arm bracket to the bottom of the frame



- 11) Install the nuts to the transmission cross member bolts, loosely tighten to bring the control arm bracket against the front of the transmission cross member.
- 12) Insert the side nut tab through the rectangular hole in the control arm bracket and frame. Secure the tab with (2) ½" bolts with flat washers.



- 13) Tighten all the hardware for the control arm brackets to 90 ft-lbs
- Installation is Complete