

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SYNERGY MFG. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF SYNERGY MFG IS PROHIBITED.

Revisions			
Rev.	Description	Date	Approved
A	Initial Release Per ECO 19-033	3/7/19	A.S.



Jeep JL Adjustable Front Lower Control Arms

Installation Instructions

Applications:
2018+ Jeep Wrangler (JL/JLU)



TITLE:
JEEP JL ADJUSTABLE FRONT LOWER CONTROL ARMS INSTALLATION INSTRUCTIONS

SIZE	DWG NO:	REV
A	8851-01-INST	A
	SCALE: N/A	PAGE 1 OF 5



PARTS LIST

8851-01 ADJUSTABLE FRONT LOWER CONTROL ARMS		
QTY	Part Number	Description
1	885101-L-PC	Left Lower Control Arm Powder Coated
1	885101-R-PC	Right Lower Control Arm Powder Coated
2	3622-12-12-PL	Adjuster Sleeve
2	4320-02	Dual Durometer Bushing
2	4807-02	Dual Durometer Bushing Flex Joint
2	N/A	1/2-20 Top Lock Nut
2	N/A	1/2-20 x 1.75 Grade 8 Bolt

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 or videos for your reference.
- These control arms are a direct replacement for the stock control arms. They are compatible with stock and lifted Jeeps as a heavy-duty upgrade and allow you to correctly align the front axle after the Jeep has been lifted.
- These control arms feature a double adjuster sleeve which allows you to adjust the length of the arms without removing them from the vehicle.
- Anti-seize has been applied to both sides of the double adjuster sleeve. You can apply more anti-seize if you would prefer. More anti-seize may be beneficial in wetter climates.
- These control arms feature Synergy Dual Durometer Bushings which are free-floating Teflon lined bushings that require no grease for the duration of their use.
- These control arms are 24.0" collapsed and 25.5" extended.
- It is recommended to have the vehicle suspension aligned after any suspension change or modification.

TOOLS REQUIRED

- 15mm, 19mm (or 3/4"), 21mm, 24mm Sockets and wrenches
- 1 1/2" Wrench (or large Crescent wrench)
- Torque wrench
- Cut off wheel or pry bar

INSTALLATION

1. The control arms come assembled to the shortest length. Make any length adjustments by only turning the adjuster sleeve so there is equal thread on the flex joint and adjuster sleeve.
2. If you are just replacing the lower control arms, they can be replaced one at a time with the vehicle sitting on level ground, without removing the tires & wheels or any other suspension part. If the vehicle is raised up and the suspension is allowed to droop, it may be more difficult to align the bolts in the arms due to the track bar 'pulling' the axle over.
3. There is a bracket crimped to the front brake lines that attaches to the factory control arms. These brackets need to be removed when installing the Synergy MFG front control arms. It is possible to either pry open the bracket and remove the line from the bracket, or use a cutoff wheel to remove a majority of the bracket from the brake line. It is critical that care be taken with either step to not damage the brake

lines. We recommend trimming the bracket off the brake line in order to prevent damage to the brake lines. **Figure 1** shows the bracket marked in sharpie, **Figure 2** shows an angle grinder being used to cut the bracket and **Figure 3** shows the completed cut bracket.



Figures 1 and 2. Marking and Trimming Factory Brake Line Bracket



Figure 3. Brake Line Trimmed

4. With the brackets removed or trimmed, remove the right side front lower control arm. The bolt head is a 21mm and the nut is 24mm.
5. The Synergy MFG control arms are left and right specific. Be sure they are installed correctly and the flex joints are aligned properly. The flex joint at the adjuster end of the control arm is angled so that the bushings are put in a zero-bind condition at ride height. The threaded shank should be pointing 'in' towards the center of the Jeep.

Install the new control arms with the adjuster at the frame end. See **Figure 4**. The arms are bent in for tire clearance, and up for ground clearance. The bends should be in, towards the center of the Jeep. Be sure to orient them correctly and with the pinch bolts facing up. Reuse the factory mounting bolts. It is easiest to install the frame side first, then swing the axle side up into the bracket. **NOTE:** When installing with an aftermarket axle housing, the control arm mounting brackets on the axle may be different than stock. Because these control arms are bent for maximum ground clearance and tire clearance, slight clearancing of the control arm brackets may be required to prevent interference.



Figure 4. Control Arm Correctly Installed (Frame Side Shown)

6. With the right-side control arm in place with hardware through both ends, snug the hardware and move to the left-hand side.
7. Remove the left-hand factory control arm. Install the Synergy MFG control arm. Snug hardware.
8. With the vehicle on the ground at ride height, torque the factory control arm bolts to 190 lb-ft.
9. Adjust control arms to the same length with the 1 ½" wrench or crescent wrench. Adjusting the length of the control arms will change caster and pinion angle. We recommend adjusting the control arm length so that the vehicle has approximately 6 degrees of caster. See **Table 2** for initial control arm length recommendations.
10. Once final length adjustments are made, tighten the adjuster pinch bolts (19mm or 3/4") to 90 lb-ft.
11. Retorque bolts after the first 100 miles of driving.
12. Installation is complete.



JEEP JL ADJUSTABLE FRONT LOWER CONTROL ARMS INSTALLATION INSTRUCTIONS

Table 1. Jeep JL Bolt Torques

Bolted Joint Location	Wrench Size	Torque
JL Lug Nuts	22mm	125lb-ft
Front Lower Control Arm to Frame	21mm	190lb-ft
Front Lower Control Arm to Axle	21mm	190lb-ft
Synergy MFG Control Arm Pinch Bolts	19mm	90lb-ft

Table 2. Recommended Front Control Arm Lengths

Lift	UCA Length	LCA Length
2-3"	20.25"	24.25"
4-5"	20.25"	24.5"