



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

## 8585 – 03-12 DODGE 2500/3500 4X4, 06-08 1500 MEGACAB 4X4 LONG ARM FRONT UPPER CONTROL ARMS

V2.0

### **GENERAL NOTES:**

- These instructions are also available on our website; [www.synergymfg.com](http://www.synergymfg.com). Check the website before you begin for any updated instructions and additional photos for your reference.
- These arms are designed to be installed with Synergy Dodge Long Arm Brackets (8581). Full long arm kit installation instructions are provided with the 8581 parts. Use 8581 Instructions for installation, save these for a quick reference guide for control arm installation and torque specs.
- Upper control arms require slight trimming of the forward cab mount, see 8581 instructions for details.
- The use of this long arm kit eliminates the need for factory cam washers. We recommend using Synergy Cam Bolt Eliminator Kit (8560-16 or 8560-18) in conjunction with this long arm kit.

### **PARTS LIST:**

- **8585 DODGE LONG ARM, FRONT UPPER CONTROL ARMS**
  - (1) 858501-L Drivers side front upper control arm
  - (1) 858501-R Passenger side front upper control arm

### **Parts / Tools Needed to complete installation:**

- Basic simple hand tools.
- Quality jack and jack stands
- Torque wrench

APPROXIMATE INSTALL TIME: 1-2 hours

### **INSTALLATION:**

- 1) Work on one side of the vehicle at a time. Begin on the drivers side.
- 2) *Upper Control Arm Installation* – Install the lower control arm first; see 8583 for notes on install.
- 3) Next, determine driver side arm from passenger side arm. See image below to help distinguish between the two arms.



- 4) The control arms come assembled at their shortest length. Install them at their shortest length. Install upper control arm as shown with the Johnny joint at the axle side and the bushing up at the frame side. Position the grease zerk on the Johnny joint so it points down.
- 5) Use the OEM bolt at the axle side. Install so the nut is on the outside. Use the 9/16-12 UNC x 4.0" long bolt at the bracket side. Use a washer under the bolt head. Install the stover nut on the inside of the bracket.
  - Note – all control arm hardware for the bracket side is included in the 8581 Long arm bracket kit.



- 6) Adjust control arm length by turning adjuster sleeve with the arm fully installed. Do not remove the control arm and unthread the forged joint by hand. The Synergy double adjuster assembly is designed to be adjusted without removal from vehicle. When looking at the arm from the forged joint end, turn the adjuster clockwise to shorten the arm, counter clockwise to lengthen it.
- 7) We recommend the following control arm lengths for proper caster settings and axle placement.

Stock Height Vehicles

- Lower Control arm = 34-1/8"
- Upper Control arm = 32-3/8"
- Factory = 38-7/8"

3" Lifted Vehicles

- Lower Control arm = 34-1/4"
- Upper Control arm = 32-3/4"
- TB length = 39-1/8"

6" Lifted Vehicles

- Lower Control arm = 34-1/2"
- Upper Control arm = 32-3/4"
- TB Length = 39-7/16"
- NOTE – 2-1/2" Bump Stop Spacer required

- 8) With control arms lengths set, torque control arm bolts as follows:
  - Lower Control Arm bolt at axle (18mm) = 160 ft-lbs
  - Lower Control Arm bolt at axle (16mm) = 145 ft-lbs
  - Upper Control Arm bolt at axle = 125 ft-lbs
  - Lower Control Arm bolt at frame = 160 ft-lbs
  - Upper Control Arm bolt at frame = 125 ft-lbs
  - Track Bar Bolt = 145-150 ft-lbs
- 9) Reinstall wheels and tires and lower the truck to the ground. Be sure the Johnny joints are neutral at ride heights and torque the pinch bolt bungs to 80 ft-lbs. Put a wrench on the adjuster sleeve at this time and try to move the adjuster. Make sure pinch bolt has adequately clamped onto Johnny Joint shank so that the adjuster is not movable. If movable, increase torque on pinch bolt but do not exceed 90 ft-lbs.
- 10) Recheck all hardware after 100 miles of driving.

Installation is Complete