



INSTALL INSTRUCTIONS:
COGNITO Caster Adjustable
Radius Arm Kit
SKU: 120-90408

PARTS LIST FOR SKU: 120-90408

QTY.	PART #	DESCRIPTION
1	8522	FSD Radius Arm Driver
1	8523	FSD Radius Arm Passenger
1	8524	Radius Arm Clevis and Rod End Passenger
1	8525	Radius Arm Clevis and Rod End Driver
1	HP9164	FSD Radius Arm Pivot Bushing Kit
2	HP9202	FSD Radius Arm Hardware



HP9164 – FSD Radius Arm Pivot Bushing Kit

QTY.	PART #	DESCRIPTION
2	5617	Ford Radius Arm, Crush Sleeve
4	POLY-BUSHING-2509.1	Black Polyurethane Spring Bushing
1	-	M18x2.5 Lock Nut
1	-	7/16" SAE Flat Washer

WARNING

Please read this entire instruction sheet before beginning installation. Proper installation of these components requires a qualified mechanic. Always wear safety glasses when using power tools, and take appropriate precautions when working under a vehicle. If these instructions are not properly followed you may jeopardize your, and your passenger's safety, and severe frame, suspension or tire damage may also result from improper installation.

HP9202 – FSD Radius Arm Hardware

QTY.	PART #	DESCRIPTION
4	6198	FSD Radius Arm Misalignment Spacer
4	H-15267	9/16"-12 x 3.50 Lg. Cap Screw
4	H-33088	9/16" SAE Flat Washer
2	H-37270	9/16"-12 Lock Nut

INTRODUCTION

Cognito caster adjustable radius arms are an off-road styled, boxed sheet metal design that is a direct replacement for OEM radius arms. The modified axle mounting geometry provides an adjustable caster range thus resulting in excellent ground clearance over OEM arms with drop brackets. This radius arm kit can also be used with Cognito 6" and 8" lifts with a short radius arm drop bracket that provides excellent ground clearance for proper off-road use and style. Caster adjustment is necessary when adding larger tires that warrant caster angle and cross caster adjustments for proper street drivability. The solution from Cognito is a fine adjustment that is easy to make on the truck without having to disassemble any components. The adjustment is on the lower axle mount rather than the upper to prevent the front axle and tires from being pulled rearward during adjustment, which can cause large tires to rub the fender wells or front of the cab.

REQUIREMENTS

- Installation requires a qualified mechanic
- A lift is required to perform the installation of these products and always ensure the vehicle is properly supported before attempting installation or serious injury may occur.
- Read instructions carefully and study the pictures before attempting installation.

TECHNICAL INFORMATION

- Check the parts and hardware packages against the parts list to assure that your kit is complete
- Each lift kit, and options to lift kits, are packaged separately. Therefore installation procedures are covered in separate instructions. Familiarize yourself with each specific set of instructions before beginning.
- Follow the OE specifications when replacing or re-installing OE fasteners, retainers, and hardware specified in the OEM manual

INSTALLATION

Figure 1: Radius Arm and Bushing Components



1. Locate the following parts (Figure 1).
 - (1) – Super Duty Radius Arm Driver (Part # 8522)
 - (1) – Super Duty Radius Arm Passenger (Part # 8523)
 - (4) – Poly Bushing (Part # POLY-BUSHING-2509.1)
 - (2) – Pivot Crush Sleeve (Part # 5617)

Figure 2: Install Radius Arm Bushings



Figure 3: Grease Bushings



2. Install (2) poly bushings per radius arm from each side (Figure 2). A light lubricant, WD-40, may be used to install but do not grease the outside of the bushing. Once the bushings are installed in radius arms, then grease the inside bore of each bushing (Figure 3).

Figure 4: Install Radius Arm Crush Sleeves



Figure 5: Radius Arm Pivot Assembly



3. Install the crush sleeve by using a press or rubber mallet (Figure 4). Once installed, the crush sleeve should be flush with the bushing faces on both sides of the radius arm (Figure 5).

Figure 6: Radius Arm Clevis and Hardware



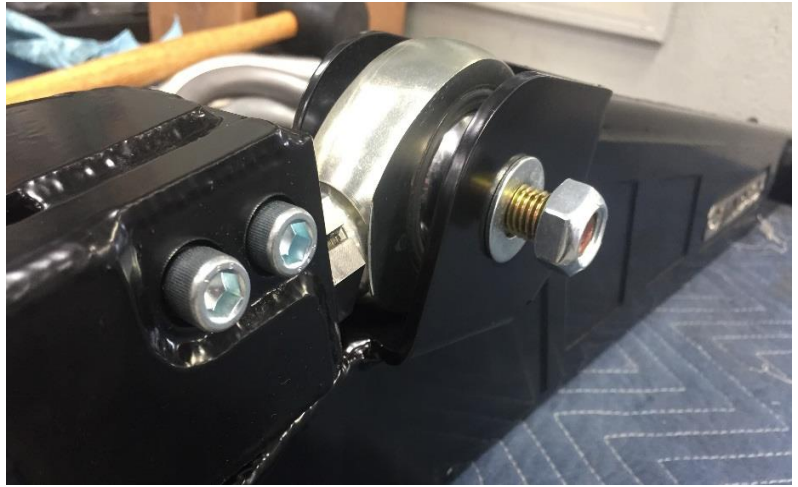
4. Locate the following components.

- (1) - Radius Arm Clevis and Rod End Passenger (Part # 8525)
- (2) – FSD Radius Arm Misalignment Spacer (Part # 6198)
- (1) - 9/16"-12 x 3.50 Lg. Cap Screw
- (2) - 9/16" SAE Flat Washer
- (1) - 9/16" Lock Nut

Figure 7: Install Spacers



Figure 8: Attach clevis.



5. Insert the spacers into the rod end from each side as shown (Figure 7). Install the rod end into the radius arm pivot pocket and assemble using the supplied hardware. The cap screw should be inserted from the outside of the vehicle towards the center with one washer per side of the pivot pocket as shown (Figure 8). Do not tighten at this time.

Figure 9: Radius Arm Bolt Locations



6. Before starting step 5, chock the tires and raise the vehicle or support front axle housing at a position so the front tires are just touching the ground (Figure 9). Remove the passenger side OE radius arm by removing the three M18 bolts (A, B, C).

Figure 10: Front Radius Arm Mounting

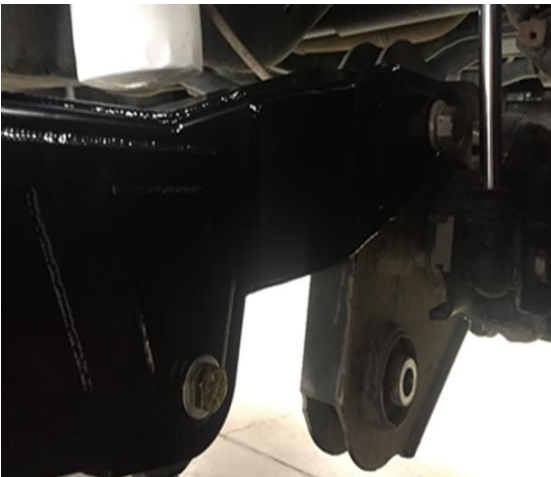


Figure 11: Mount position "B"



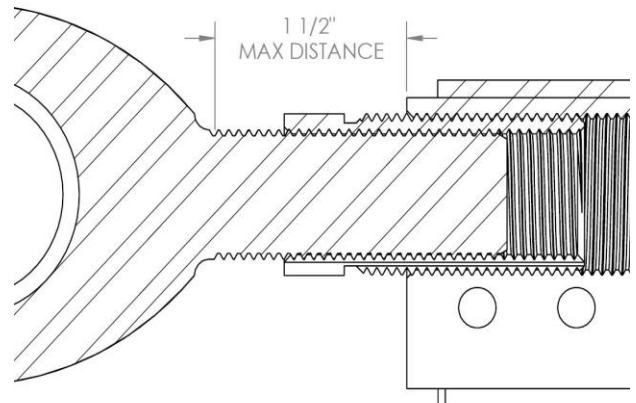
7. Install the Cognito radius arm by inserting the upper front axle mount into radius arm front pivot pocket (Figure 10). Assemble using the OE M18 bolt previously removed, but do not tighten at this time.

8. If installing a Cognito 4" Drop Down Bracket Kit (Part # 120-70088), refer to Install Sheet, 7167 before proceeding. Install the rear of the radius arm by inserting the bushings into the frame or drop bracket pivot pocket (Figure 11). Assemble using the OE M18 bolt previously removed, but do not tighten at this time.

Figure 12: Radius Arm Clevis Adjusting



Figure 13: Rod End MAX. Distance



9. Prior to mounting the radius arm clevis, make sure the rod end and adjuster sleeve are threaded all the way into the clevis (Figure 12). Adjust the radius arm clevis length by rotating the adjuster nut until the clevis is aligned with the lower front axle mount (Figure 12). When adjusting, make sure the distance between end of radius arm and rod end does not exceed 1 1/2 in. (Figure 13).

Figure 14: Clevis Installed



Figure 15: Adjuster Clamp Screws



10. Assemble using the OE M18 bolt previously removed, and tighten all three OE M18 bolts to the OE torque specification (Figure 14). Clamp the adjuster nut by tightening both 3/8-16 socket head cap screws to 35 ft.-lbs. and (1) 9/16-12" x 3.50 Lg. cap screw to 135 ft.-lbs. (Figure 15).

11. Repeat steps (4 – 10) for the installation of the driver side components listed below:

- (1) - Super Duty Radius Arm Driver (Part # 8522)
- (1) - Radius Arm Clevis and Rod End Passenger (Part # 8525)
- (2) - FSD Radius Arm Spacer (Part # 6198)
- (1) - 9/16"-12 x 3-1/2" Lg. Cap Screw
- (2) - 9/16" SAE Flat Washer
- (1) - 9/16"-12 Lock Nut