

# SFR XJ Long Arm Bracket Installation Instructions



Thank you for your purchase. Please thoroughly read and understand these instructions before starting. If you have any questions let us know and we will be glad to help. This is a fairly in depth conversion and installation should be done by qualified personnel. Installation requires cutting, drilling, and general mechanical knowledge. Depending on options some welding may be required as well. This kit was designed to be used in conjunction with a 4" or greater lift height using springs, shocks and other components of your choosing. Due to the nature of this kit, and the wide range of possible combinations of other components there is some modification and fitting to be expected.

**Any modification to your steering, brakes, or suspension will alter how your vehicle drives. Care must be taken to avoid loss of control or rollover of modified vehicles. SFR Products are sold for Off-Road vehicles. The driver of the vehicle is responsible for its safe operation and use.**

The first thing you need to do is verify that you have everything. Please let us know if you are missing anything.

The kit should include:

- 2 - Long arm brackets
- 2 - 9/16" flag nuts
- 16 - 3/8"x1" bolts with nuts and washers
- 4 - 9/16"x4" bolts, 2 nuts, 6 washers
- 2 - Self tapping 3/8" bolts
- 4 - 10mm crossmember bolts

In addition the 4-link kit will have

- 6 Currie Johnny Joints
- 2 SFR threaded upper link clevis ends
- 2 Aluminum lower link arms
- 2 Aluminum Upper Link arms

**NOTE:** Our 4 link kit is designed to use stock style upper control arm bushings at the axle, but we use larger 7/16" hardware. You can drill the stock bushing sleeve out for the larger bolts, but we recommend replacing your upper control arm bushings with bushings for the 2007+ JK Wrangler instead. They are the same bushing, but with the larger sleeve. Chances are your bushings are worn and this is a good time to replace them anyways.

If you chose the 3-link option instead you will have

- 6 Currie Johnny Joints (5 threaded Joints & 1 Press in)
- 2 Aluminum lower link arms
- 1 Aluminum Upper Link arm
- 1 Clevis style link end

Before beginning there are a number of tools you will need, in addition to a good selection of normal wrenches, sockets, etc. Air tools will make the job go much easier, but are not mandatory.

- Grinder with cut-off wheel, flap wheel, etc.
- Sawzall with metal blades, extra long blades help
- Drill with 3/8" and 5/16" bits
- Welder. 220V professional grade is recommended. Optional for bracket installation, mandatory if installing 3-link upper axle mount
- A plasma cutter is recommended, but not needed.

There are a number of places throughout this job where you will need to install a part, check fit, and remove the part again. We recommend installing everything loosely at first until all clearances have been verified. If you already have frame stiffeners installed be aware that some trimming or modification may be necessary. How much or little depends on the design of your stiffeners.

1. Start by taking some basic measurements from your Jeep as it sits. Where the axle centerline is in the wheel well, ride height, caster/pinion angle, etc. You will want to reference these later.
2. Securely lift the front of the Jeep off the ground and place on solid sturdy jack stands. You will want to place them under the frame in such a way that they will not interfere with the bracket placement. If you can support from in front of the axle this will make things easiest. NEVER support your vehicle by a hydraulic jack alone. Always use proper stands.
3. Remove the springs and all the original link arms. You may want to go ahead and disconnect the track bar, steering, etc. and remove the front axle entirely.
4. Support the transmission and remove the crossmember.
5. The stock crossmember uses 2 10mm bolts and 2 studs to attach it to the frame. With the additional thickness of the new long arm brackets these will not be long enough. There are a variety of ways to remove the 2 studs. Shown is the simplest, locking 2 nuts against each other and using them to unscrew the stud. You can also weld a nut to the stud, or use a stud extracting tool.



5. You may notice that there is a second set of holes in the frame for the crossmember. They are generally not threaded from the factory, but we have provided an extra hole in our brackets for the forward one. There is a steel insert welded into the frame that can be tapped for a bolt fairly easily.



6. Use your grinder, sawzall, plasma, etc. to remove the stock lower link mounts. You'll want to remove as much as possible without cutting into the frame itself at all. This is also a good time to clean all the paint and undercoating off the frame and floor if you intend to weld the brackets in place.



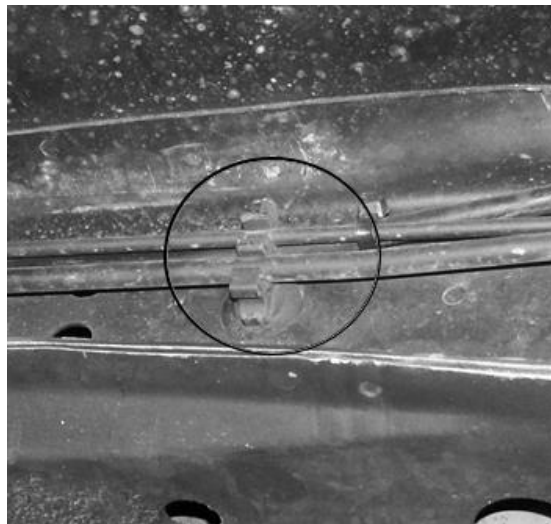
7. The stock upper link arm brackets will also need to be trimmed for clearance. They do not need to be removed entirely, but should be cut back approximately as shown.



8. On the inside of the frame rails the horizontal pinch seam will need to be trimmed back parallel with the frame rail. It should be roughly one inch from the bend line. If you're running frame stiffeners you will need to trim more off to allow the brackets to shift over the thickness of the stiffeners.



9. On the drivers side frame rail your fuel and brake lines are held in place by plastic clips. You will need to remove the forward plastic clip holding the lines, as it prevents the upper link bolt from going in all the way. On late models you may also want to separate the large emissions tube and relocate it to run around the bracket rather than behind it with the fuel lines.

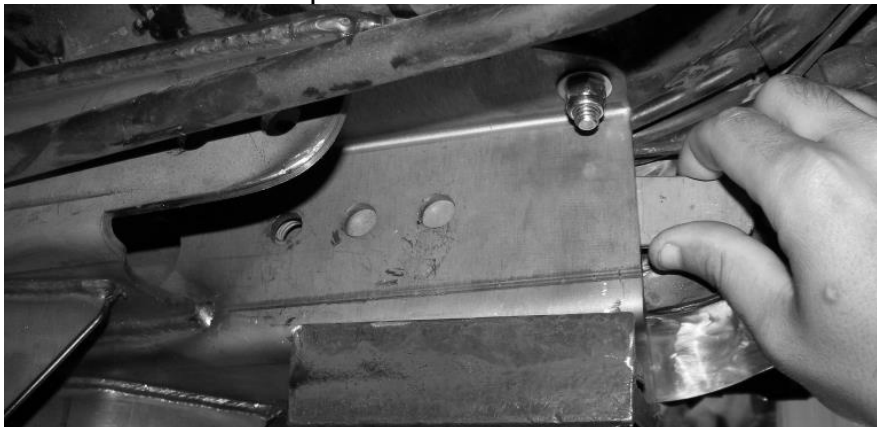


10. At this point you should be ready to install the brackets. They should simply slide up over the frame rail, and can be held in place by the crossmember bolts for the next steps.
11. Inside the vehicle you will want to remove the kick panel and door sill plastics to allow you to lift up the carpeting so you don't drill through it in the next step.

12. Drill all but the rear 2 bolt holes for each bracket to 3/8" from underneath. The rear holes use self threading bolts and should be drilled to 5/16"



13. Install and tighten all the through floor bolts, as well as the 4 self threading bolts. Air tools will help here.
14. At this point you can reinstall the crossmember using the provided bolts.
15. If you want you may now also weld the brackets to the frame using the provided slots and holes. If you're installing over the top of frame stiffeners this is highly recommended.
16. You're now ready to install your link arms. If you are using our 4 link kit you will use the rearward holes for the upper links. If you are building your own you can use either hole depending on your desired geometry. The 2 flagged nuts slide down between the bracket and the frame to line up with the bolt holes.



17. Once you have installed all of your suspension links and reassembled any of the other front end components you took apart at the start you should refer to the measurements you took at the beginning to get your axle placement and caster dialed in. Getting a professional alignment is highly recommended.

**The following section is for the installation of our 3-Link or 4-Link kit in conjunction with our long arm brackets.**

18. **The 4 link** kit is designed to use stock style upper control arm bushings at the axle, but with larger 7/16" hardware. You can drill the stock bushing sleeve out for the larger bolts, but we recommend replacing your upper control arm bushings with bushings for the 2007+ JK Wrangler instead. They are the same bushing, but with the larger sleeve.
19. **The 3 link** version of our kit comes with a Johnny Joint style replacement for the upper control arm bushing on the drivers side of the front axle. The stock bushing should be removed, and this joint pressed into the cast in mount on top of the differential. **UNDER NO CIRCUMSTANCE** should the upper link be attached to the stock passenger side axle bracket. That bracket is far too weak for a 3 link application.
20. Before threading your link ends into the aluminum links we highly recommend giving them a good coating of anti-seize.
21. The lower links should be set to roughly 30.5" long center to center of bolt, and the uppers should be about 28.25". This is just a basic starting setting, final caster adjustment should be done during an alignment after everything is installed.
22. Use a grinder, plasma cutter, or other means to remove the stock passenger upper link mount from the axle, then grind the surface smooth.
23. We recommend loosely installing the lower links to help position the axle, then attach the upper link(s) Use the caster/pinion angle measurement you took in step 1 to help you get the axle in the correct position at ride height.
24. Torque all link arm mounting bolts and jam nuts.
25. We recommend getting a full alignment including caster adjustment. Many alignment shops will ignore caster on a solid axle vehicle, thinking it is not adjustable or just being lazy, but it is an important setting and should not be neglected. With all 4 links being easily adjustable for length there is no excuse for not doing it.