Dodge Off Road, LLC

Specializing in Dodge Ram Solid-Axle 4x4
Suspension and Steering for Off Road Applications
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DODGE OFF ROAD 3rd and 4th GEN LONG ARM KIT INSTRUCTIONS

For all 2003 to 2013 Ram 2500 4x4 Trucks, and all 2003-2012 Ram 3500 4x4 trucks.

Thank you for your purchase of our long arm kit! This kit represents over a decade of testing and fine tuning to not only be the strongest long arm kit available, but also the easiest to install.

Tools Needed

Tape measure, metal cutting tool, grinder, drill with multiple bits up to 9/16", a hole saw at least 1.25" up to 1.5", assorted sockets and wrenches, vehicle jack, jack stands, and a moderate level of suspension and mechanical know-how.

Installation Procedure

There are a few things you should know before you begin installing this kit on your truck. Please read all instructions before beginning installation.

First, go out and spray your control arm bolts with PB Blaster or Liquid Wrench right now. There is a good chance those bolts will be seized in place, so spray them as far in advance of installation as possible.

Installation of this kit does require that you cut the lower control arm mount off of the frame. You cannot easily return your truck to stock once this is done. Going back to stock would require welding the lower control arm mount back on. So hold on to that if you think there is even a remote chance you will ever want to lower the truck. If you cut it cleanly off of the frame, it can easily be welded back in place.

Trucks with 3" to 5" of lift, you should have ordered the bent upper arms for the most room. If you did not, the long arms can still work. You will need to cut your body mount as much as possible and then weld in some gussets. This can be done later, but you'll want to reinforce the body mount at some point so it does not sag over time. If your truck has more than 5" lift, you shouldn't need to notch the body mount as much, but you'll want to cycle the suspension and check for clearance under full compression to make sure. Every setup is a little different so please take the time to cycle your suspension and make sure everything is good before you drive the truck.

Once installation is complete, a front end alignment is strongly advised. You can still use your factory cam bolts on all versions of the long arms so the alignment procedure is the same as with stock arms.

This kit includes all hardware required for installation. You will have a bag of 9/16" hardware that includes washers and nuts.

There are 10 bolts that are 4.5" long. There are 2 bolts that are 5" long. The 5" long bolts go through the upper mounts and through the frame. The lower arm bolt is a 4.5" bolt but it has a lock nut on it instead of a standard nut. The standard nuts are to be used around the perimeter of the bracket, while the locknuts are used on the upper and lower arm bolts. You only need to use washers on the backside of the frame, as the holes in the brackets are precision cut with a hole cutter. The hole in the brackets is smaller than the hole in a washer, so there is no need to use washers on the outside unless you just want the brackets to look a certain way.

All bolts should be tightened to 100 ft.lbs initially, and then re-tightened after 500 miles.

INSTALLING THE BRACKETS

Installation of the long arm frame brackets can be done prior to removing the factory control arms. If you need to break the install up into two days or two weekends, do this step first and then you can install the arms later.

Locate the stock transmission cross member bracket on your frame. This is directly below the front doors on your truck. Our brackets mount behind (to the rear) of that cross member. There are two holes in the frame; our bracket does not use these holes for mounting, but they are a good visual for where the brackets will go. There are notches in our brackets, and those notches will be centered in between the two holes in the frame. The location for the center bolt hole in the bracket is 16 ½" behind the back edge of the body mount. This may vary on different models, so check the bracket location and arm length before you drill any holes. As long as the brackets are bolted up in the same spot on both sides, the location can be moved as needed.

Once you have place the bracket in position, you need to mark the holes and center punch them. Then you can set the bracket aside and begin drilling the holes. All of the holes will be drilled to 9/16" through both sides of the frame, except the middle bolt hole for the upper arm. That hole needs to be drilled to 9/16" on the outside of the frame, and between 1.25" and 1.5" on the inside of the frame. This is to allow the 9/16" nut to be tightened inside the frame with a socket. Make sure the socket you use has a smaller OD than the hole saw size you use. The best way to drill the

hole for the hole saw is to run a small pilot bit all the way through both ends of the frame, from the outside.

Once the holes are drilled, you can attach the brackets to the frame with the perimeter bolts snugged up (not tightened all the way). Do not tighten the center bolt yet, you still need to install the upper arm.

INSTALLING THE ARMS

This is a fairly straight-forward part of the installation; however there are a few things that need to be noted.

There are two types of arms we build, depending on which kit you purchase. Both are installed very similarly, and the only difference between the two kits is how the arms clear the frame and/or tires.

There is a difference between the upper and lower arms on all kits. The lower arms are slightly longer than the upper arms, and at the axle end, they use wider joints than the upper arms. Make sure you put them on the correct side of the truck. This will allow the arms to easily slide into the axle and also give you easy access to the grease fittings.

03-08 Models: Your lower arm bolt holes at the axle are 16mm and the uppers are 14mm.

09-12 Models: Your lower arm bolt holes at the axle are 18mm and the uppers are 14mm. We include a cam bolt delete kit for these models so that you can run a 16mm joint. You will have all of your caster adjustment with the lower arms only, not with cam bolts.

Before removing the lower control arms, mark the cam bolts so you can set them back to their original position. On the cam bolts, there is a small arrow that points to a mark on the axle bracket. Just use a piece of chalk or a marker to draw a line to where the arrow currently points.

To install the arms, you will first need to remove your stock control arms. This may be the hardest part of the installation. The truck will need to be raised in the air with all of the weight off of the front suspension so that the coil springs are loose inside their buckets. The springs do not need to be removed, however you need to make sure they are not supporting any weight. To achieve this, some trucks may require the shocks to be unbolted. The easiest way to do this is to remove the single lower shock bolt, which can be accessed using a socket and a long extension through the front of the axle, under the coil buckets. There may be other parts that limit the suspension's ability to extend all the way, such as the track bar or drag link. Unbolt anything needed to get the weight of the truck off of the coils and the axle. It is also easier to work on the suspension with the front wheels/tires removed, but not necessary.

After letting the bolts soak in PB Blaster, you should be able to loosen the nuts just to the point that they sit at the end of the bolt, and then smack the bolts with a mini sledge to loosen them up. Don't hit the bolts themselves or you can damage them where they can't be reused. If that doesn't work, you might have to cut the bolts out with a Sawzall or another method. Keep in mind that if

you destroy the cam bolts, you'll need to source new ones to complete the installation. We make cam bolts as a special order item, however the fastest resource is to go to your local Dodge dealer.

When removing the existing control arms, it is important to not only have all of the weight off of the front axle, but to also support the axle's pinion so the axle does not rotate when you remove the existing arms. You can put a jack stand under the pinion of the axle (where the driveshaft bolts up), and then put another one under the tie rod in front of the axle (the long bar that goes from knuckle to knuckle), and this will keep the axle from rotating. If the axle does rotate and you can't get it to line back up by hand, you can use ratchet straps to reposition the axle. Ensure that you still have two jack stands under the axle itself, and two more holding up the weight of the truck. Always exercise extreme caution when working under a truck that is supported by jack stands. Always position yourself so that if the truck does fall, you will not be hurt. Extra safety supports backing up the jack stands are a good idea.

Once the factory arms are removed, you can install the long arms. Start with the upper arms first. You will find it easier to first put the arm in the axle bracket as far forward as you can go (the arm will touch the coil spring), then slide the arm back into the frame bracket and bolt up, and then bolt up the axle end. This will allow you to tap the axle end with a hammer to put the frame end in place if needed. You should spray the bushings with any kind of lubricant or even soapy water to help the bushing get into place.

If you find that your joint doesn't seem to go into the upper axle bracket, your axle brackets have collapsed due to being over-tightened and the stock arms not being a snug fit in the first place. The upper arm opening should be 2 3/8" wide. If yours is not that wide, you will need to get a piece of all-thread and two nuts and make a spreader to push the bracket back out. You can also try to use a small scissor-jack or sometimes you can even make a Hi-lift jack fit in there. However you do it, the upper arm mounts on the axle will need to be widened to the factory specs in order for the new long arms to slide into place.

Once both of the upper arms are in place, you can move to the lower arms. With the factory lower arms already removed, you should be able to slide the new lower long arms into place pretty easily. It's best to install the end in the frame bracket first, then slide the arm up into the axle bracket. If the arms don't line up with the bracket, you'll need to maneuver the axle until they do line up. The lower arms are 2 5/8" wide, so if the joint does not slide into the axle bracket, the axle brackets will need to be widened. These can just be hit with a hammer since they are open on the bottom and easy to get to. When the arm is attached at both ends, you can set the cam bolts back to the same setting they had prior to installation. If you aren't sure where to set them, make the arrows point straight up at 12 o'clock and then your alignment technician will change them as needed later.

Once the lower long arms are installed, you can cut off the factory lower control arm bracket. This is easy to do with a plasma cutter or a torch, but be careful of the fuel lines and brake lines in the area. A small die grinder also works really well, although it does take a little more time. If you cut these off without damaging them, you can always weld them back on the frame if you decide to lower the truck or sell it without the long arms.

Once all of the long arms are in place, go back and double check all bolts are tightened to at least 100 ft.lbs. Grease the bushings and test the suspension for any contact. If you find contact anywhere, you will need to clearance the frame to make room for the arms.

If you find that you do need to notch the body mounts, you will want to cut out the flat plate from the bottom first, and then you can use a hole saw to cut holes in the side of the body mount. It is a good idea to brace this mount back up if you are able to.

If you have any questions, please do not hesitate to email us at sales@dodgeoffroad.com or give us a call at 855-9009-DOR. Thanks again for your purchase. Please consider our other suspension and steering upgrades as part of your truck's build process.

Made in the U.S.A.