



RJ-256200-101 & RJ-256200-103 JT GLADIATOR REAR ANTIROCK® SWAY BAR KITS INSTALLATION INSTRUCTIONS & TECHNICAL MANUAL



Please note that modifying the suspension of your Jeep Gladiator will affect the vehicle handling and stability characteristics!

You have purchased a RockJock® AntiRock® Rear Sway Bar System for the 2020 and newer Jeep JT Wrangler; the finest off road sway bar system on the market. This sway bar system will allow for maximum articulation while still providing some resistance to the suspension, resulting in improved overall footing and traction under off-road conditions. This kit was designed around wheels with a 4½" back spacing. Other wheel & tire configurations can be used but interference may be an issue.

Lets Begin!

Start by opening all of the packages inside the kit box and take an inventory of all components and hardware per the Part List below. PLEASE read this entire instruction manual before beginning!

Parts List	Required Tools	Torque Specs.
1) CE-9900JR4-BAR.....50" x 1" Sway Bar	3/8" Ratchet	M6 Bolts.....8ft. lbs.
1) RJ-252200-101.....Steel Sway Bar Arms (pair)	1/2" Ratchet	M8 Bolts.....15ft. lbs.
1) RJ-251200-1.....Frame Bracket (LH)	3/8" Impact Wrench (optional)	1/4"-20 Bolts.....5ft. lbs.
1) RJ-251200-2.....Frame Bracket (RH)	1/2" Impact Wrench (optional)	5/16" Allen Bolts.....5ft. lbs.
4) RJ-524100-1.....Steel Bracket Spacer	Die Grinder	3/8" Course Bolts.....30ft. lbs.
2) RJ-151400-1.....Frame Bracket Wedge Nut	Metal Burr Bit or Sanding Drum	3/8" Fine Bolts.....37ft. lbs.
2) CE-9901D.....Sway Bar Bushing	3/16" Allen Wrench	1/2"-13 Bolt & Nut Plate.....30ft. lbs.
2) RJ-201000-1.....Arm Double Shear Bracket	3/8" Wrench or Socket	1/2"-20 Thin Nyloc Nuts.....20ft. lbs.
4) RJ-200000-1.....Arm Bracket Spacers	9/16" Wrench and Socket	1/2"-20 Thick Nyloc Nuts.....30ft. lbs.
1) RJ-251201-1.....Differential Bracket (RH)	3/4" Wrench	3/4" Wedge Nut Bolts.....10ft. lbs.
1) RJ-251201-2.....Differential Bracket (LH)	3/4" Socket (optional)	
2) RJ-253200-1.....15.5" x 5/8" Link Rods	10mm Wrench or Socket	
2) CE-99006B.....1/2" Heim Joint (RH)	13mm Wrench or Socket	
2) CE-99006BL.....1/2" Heim Joint (LH)	15mm Wrench or Socket	
8) RJ-524200-1.....High Misalignment Spacers	18mm Wrench or Socket	
2) RJ-501204-1.....1/4"-20 x 3/8" Bolt	19mm Wrench	
2) CE-99005B3.....5/16"-24 x 7/8" Flat Head Allen Bolt	22mm Socket (Lug Nuts)	
4) RJ-501108-1.....M8-1.25 x 40mm Flanged Head Bolt	Wheel Lock Key (if equipped)	
2) CE-92316A624.....3/8"-16 x 1" Bolt	Trim Removal Fork Tool	
2) CE-91257A661.....3/8"-24 x 2 1/2" Bolt	Mallet	
2) RJ-501203-1.....1/2"-13 x 1" Bolt	Hammer	
4) RJ-501200-1.....1/2"-20 x 1.5" Bolt	Transfer Punch	
2) RJ-501200-1.....1/2"-20 x 2" Bolt	Drill	
4) RJ-501202-1.....1/2"-20 x 2.25" Bolt	Pilot Drill bit	
2) CE-95615A150.....3/8"-24 Nyloc Nut	3/8" Drill Bit	
6) CE-90566A230.....1/2"-20 Thin Nyloc Nut	Anti-Seize	
2) CE-95615A220.....1/2"-20 Nylock Nut	Black Grease	
2) CE-95462A525.....1/2"-20 Jam Nut (RH)	Metal Ruler	
2) CE-H0020.....1/2"-20 Jam Nut (LH)	Paint Marker	
2) CE-99005WA.....5/16" x 3.150" o.d. Aluminum Washer	Scissors	
2) RJ-502201-1.....1/2"-13 Nut Plate	Scotch Tape	
4) H0014.....1/2" Grade 8 Flat Washer	Box Cutter	
	Jack & Jack Stands	



Installation Instructions (begin on the next page)



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Step 1

Start by getting your JT in the air and removing the rear wheels and tires. Factory lug nuts require a 22mm socket.



Step 2

Although not a mandatory step, we have removed the spare tire to allow some working room and to be able to get better installation illustration photos for you!

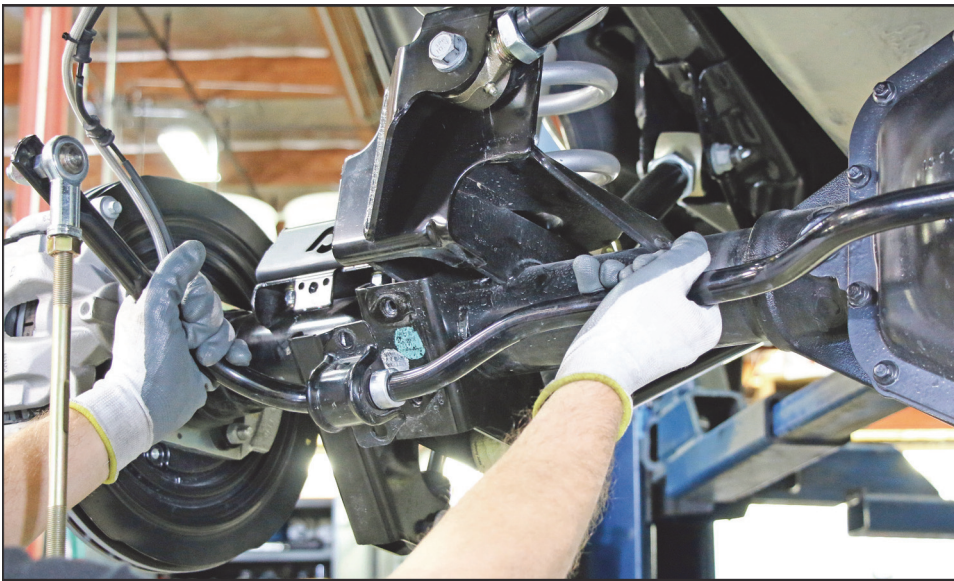
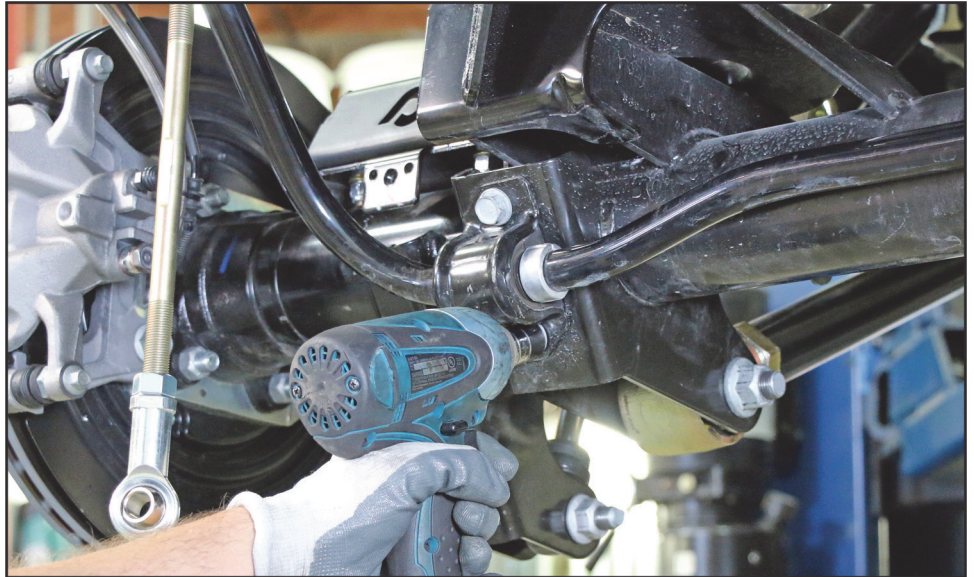
Step 3

Remove the tops of your rear sway bar links from the frame with an 18mm wrench or socket.



Step 4

With a 15mm wrench or socket, remove the 2 bolts per side that attach the factory sway bar to the differential housing and discard them.



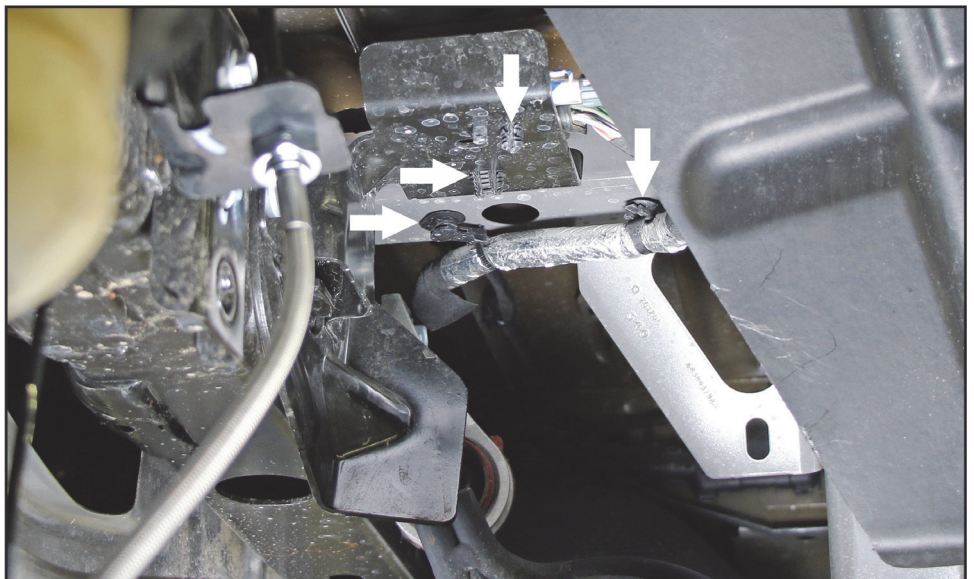
Step 5

Remove the sway bar and links as a unit and discard.

Step 6

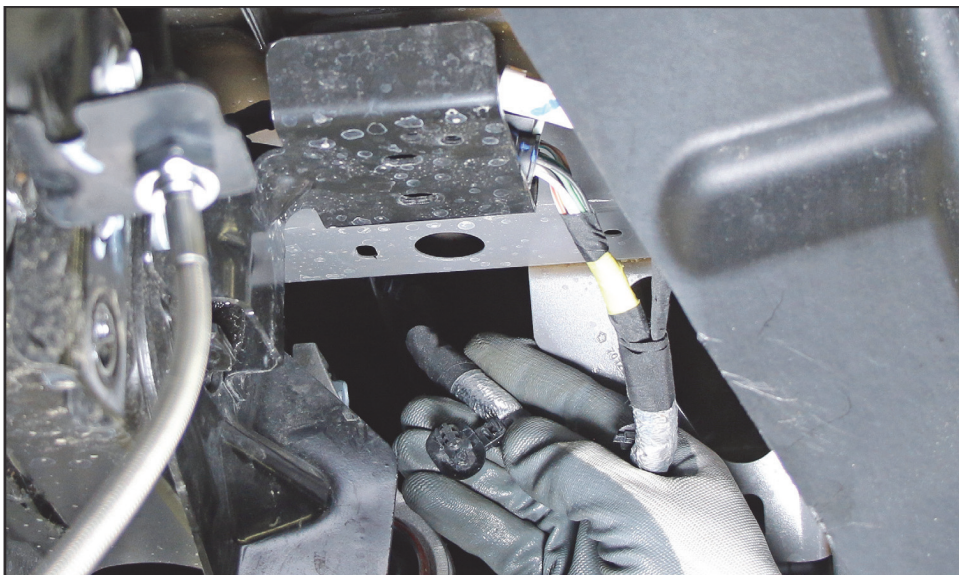
Inside the driver's side wheelwell, behind the brake line bracket on the frame, you will find a sheetmetal bracket with 2 plastic push-in clips attached to it. Remove these plastic clips with a trim fork.

There are 2 more plastic push-in clips on the sheetmetal body reinforcement. Remove these 2 with the trim fork also.



Step 7

With all of the plastic push-in clips released, a large and small wiring loom should now be free.



Step 8

Now, using a 13mm socket, remove the 2 bolts that hold the sheetmetal bracket to the frame. Discard the bracket, but retain the bolts for reuse.

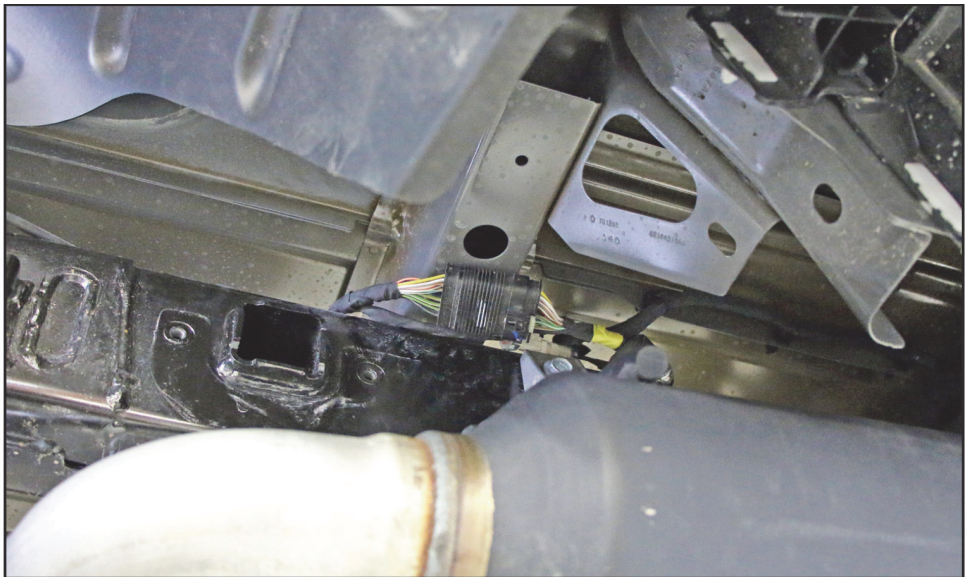
Step 9

You'll now want to relocate the large plug, that has the plastic push-in clip on top of it, into the oval hole in the sheetmetal body reinforcement. Tuck the smaller wire loom behind the large wire loom and push the excess loom backward and inboard of the framerail.



Step 10

Another view of the relocated plug.



Step 11

On the passenger's side, you will find a very similar sheetmetal bracket as you were just dealing with on the driver's side, and only 3 plastic push-in clips.

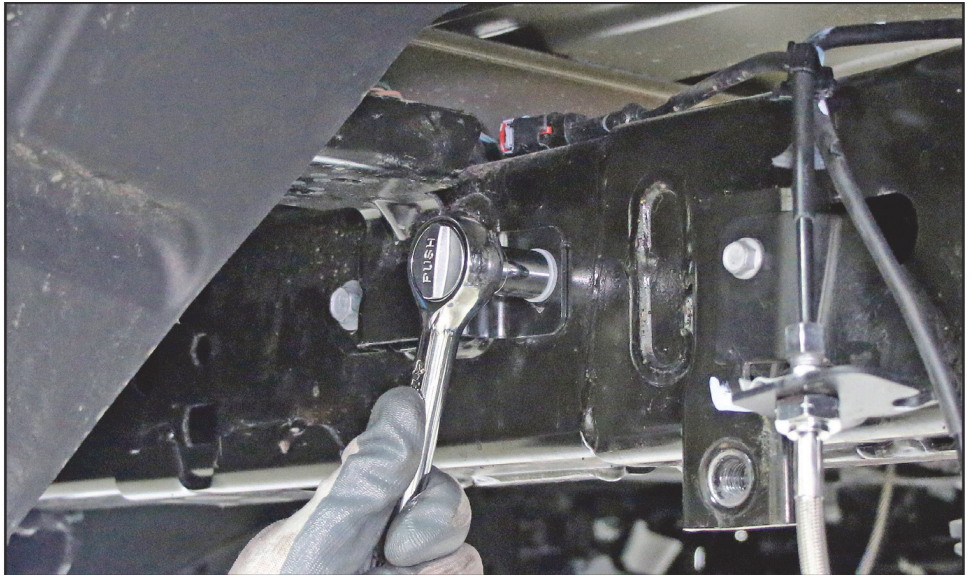
Step 12

Remove all 3 of the plastic push-in clips with the proper tool.



Step 13

Again with a 13mm wrench or socket, remove the sheetmetal bracket and discard it, but retain the bolts for reuse.



Step 14

Just like on the other side, relocate the plug on the large wire loom to the hole in the sheetmetal body reinforcement.

Step 15

Next, find the new Antirock frame brackets. **You will notice the brackets in your kit have been upgraded from what you will see in these photos.**

Brackets are RH/LH specific. When orientating the brackets, hold the brackets with the RJ logo facing you. The large bushing hole goes to the top. The bushing holes should lean toward the rear of the vehicle.

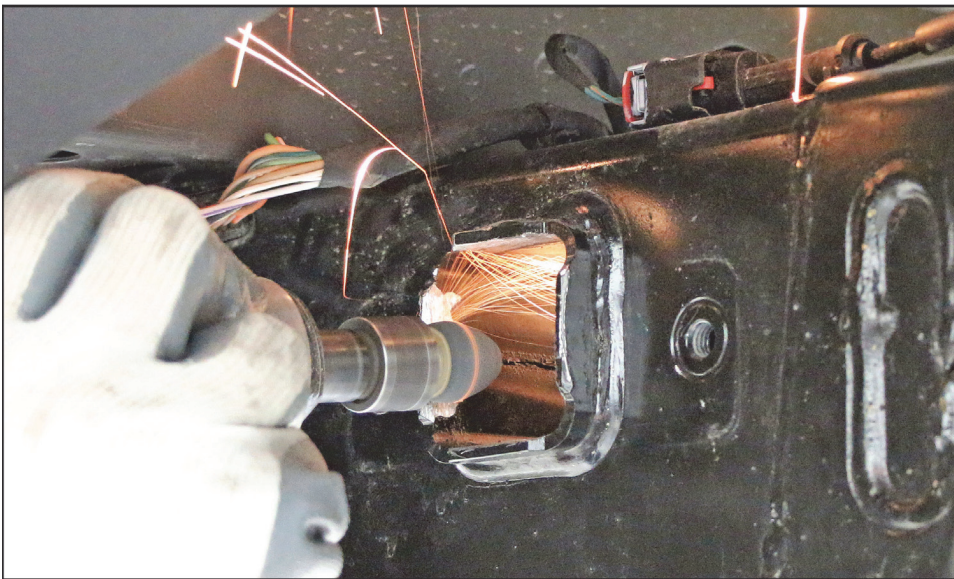
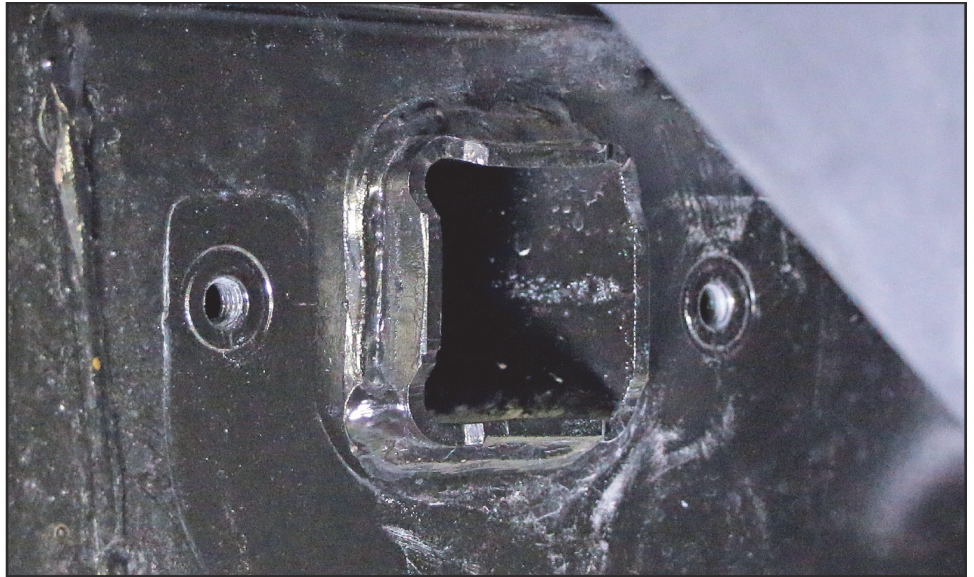
These brackets install into the square holes in the frame that you uncovered in Step 13.

Test the bracket fitment into the holes on both sides.



Step 16

In most cases, you will not be able to get the brackets into the square holes because the ends of the hole taper in, like the example in this picture.



Step 17

You will have to grind the hole as necessary, with a die grinder and a metal burr bit or a sanding drum, until the bracket will fit. Do not grind out too much, as you still want the bracket to be a snug fit!

Step 18

Once the brackets fit in the square holes in the frame, you'll want to pre-assemble them in preparation for installation. The black UHMW bushings included in the kit install into the brackets, like so, with the assistance of a mallet.



Step 19

In the kit you will find two black powder coated wedge nuts, two 1/2"-20 x 2.25" long grade 8 bolts and two 1/2" grade 8 flat washers. Insert the bolts and washers from the outside of the brackets and then start them into the threads of the wedge nuts. Note the rotational clocking of the wedge nuts! They must enter the back of the brackets as shown. Do not tighten the bolt!



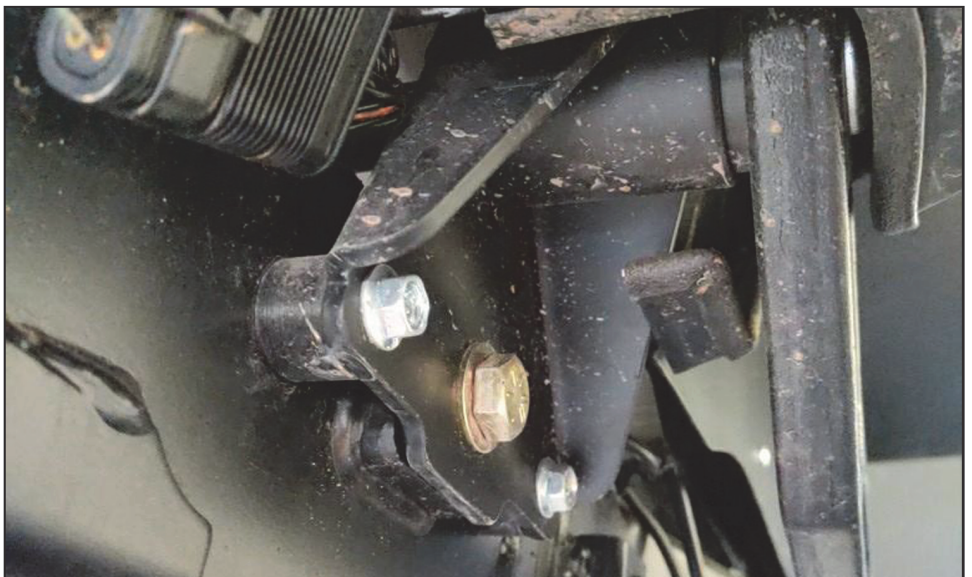
Step 20

The preassembled brackets should look like this.

NOTE: Before proceeding, apply some all purpose (non-synthetic) black grease to the inside bores of the bushings.

Step 21

Install the driver's side bracket first by sliding the bracket into the square hole and then, using the new steel spacers and 8mm bolts, tighten the bracket up to the frame with a 13mm wrench or socket. Due to variances in frames, you may find the need to get the bolts started before the bracket is completely seated against the side of the frame rail.



Step 22

Now you may go back and tighten the wedge nut bolt with a 3/4" wrench or socket.



Step 23

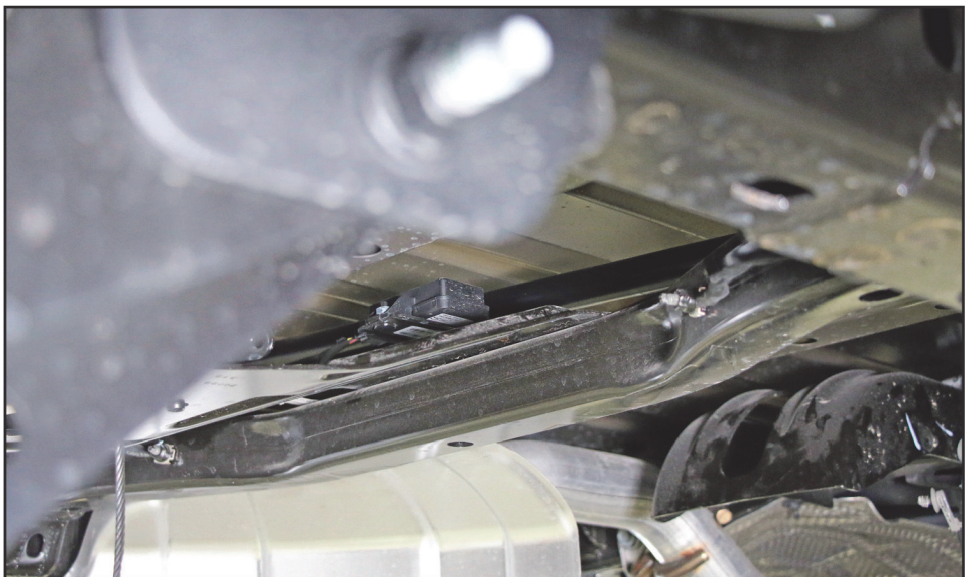
Next we will install the sway bar. You will install the bar from the passenger's side, on an angle. The end of the bar that is in your hand should be further to the front of the vehicle.

Step 24

The reason for the angle is to avoid hitting the yaw sensor that is mounted on top of the frame crossmember.

You do not want to plow into this sensor with the bar as the sensor is very delicate. Angle the bar past the sensor, toward the hole in the back of the sway bar bracket that you've already installed on the driver's side of the frame.

You may find it easiest to push the bar on past the bracket, lift the bar gently over the sensor, pull the bar back toward you, and then insert the end of it into the back of the bracket on the driver's side.



Step 25

Drive the bar thru the bushing in the driver's side bracket with a mallet until 1" of spline is protruding from the driver's side bushing.

It's not a bad idea to put some black grease on the bar and the inside of the bushing to aid in this process.



Step 26

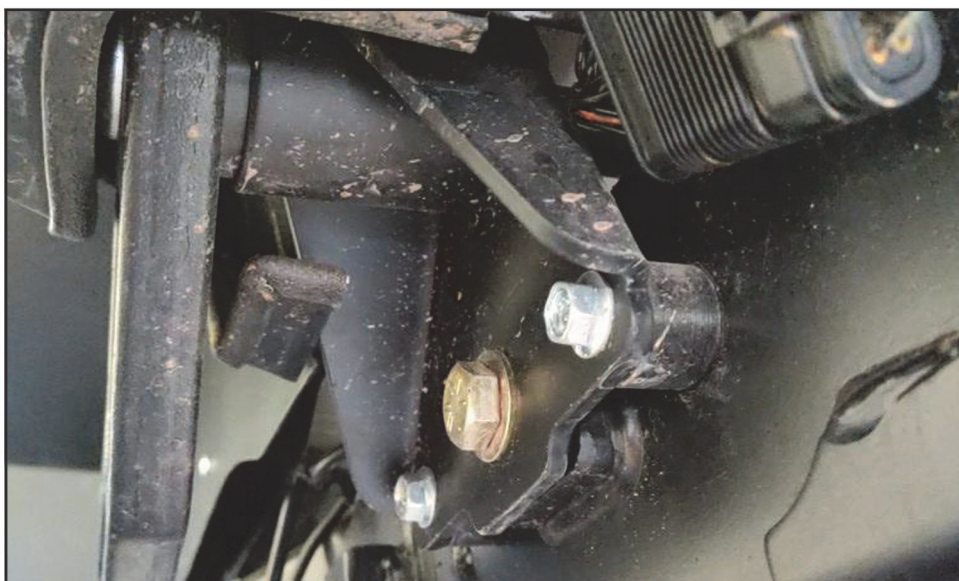
Now you'll install the passenger's side bracket. You'll have to drive the bracket onto the bar first, and as it gets closer to the frame, you'll have to make sure to align the bracket with the square hole in the frame. When hitting the bracket with a mallet, avoid hitting the outboard bolt hole tabs as they will bend.

Again, some black grease on the bar and the inside of the bushing will aid in this process.

Step 27

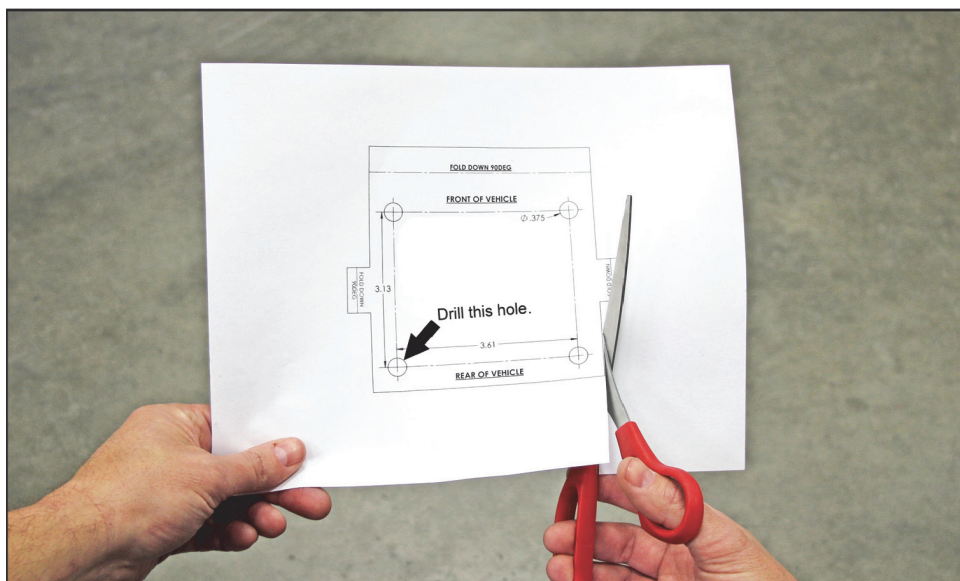
Once you have the bracket seated against the frame, bolt it up tight using a 13mm wrench or socket and the new steel spacers and 8mm bolts that come in this kit.

Again, due to variances in frames, you may find the need to get the bolts started before the bracket is completely seated against the side of the frame rail.



Step 28

Now you may go back and tighten the wedge nut bolt with a 3/4" wrench or socket.



Step 29

At the back of this instruction sheet, you will find this template. You will need to cut this template out with scissors and follow the instructions on the template as far as folding it's tabs and it's proper orientation.

Step 30

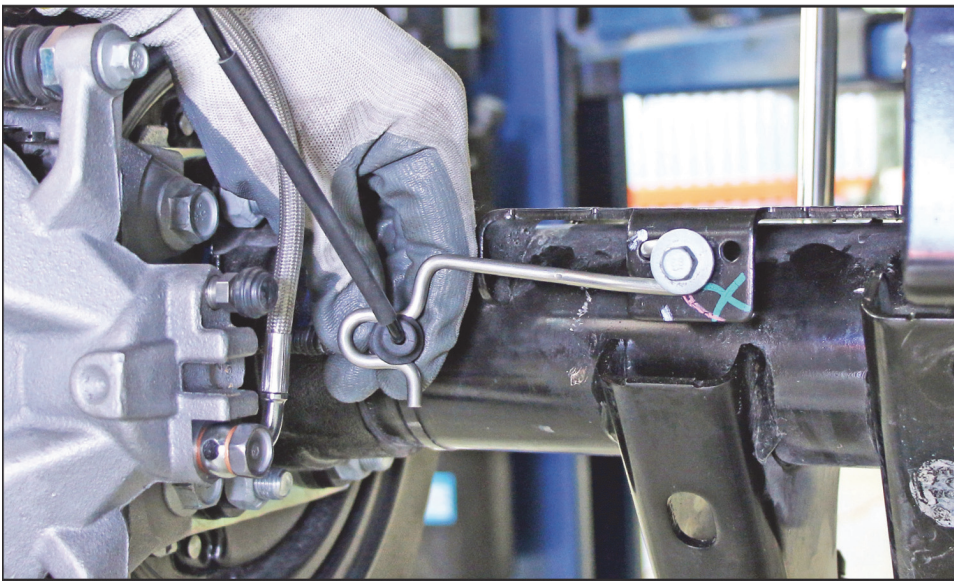
Install the template onto the driver's side bump stop pad and anchor it with a piece of Scotch tape. Center punch the hole that the template specifies.



Step 31

Drill a pilot hole and then finish drill the new hole to 3/8".

NOTE: additionally, on the passenger's side bump stop pad, you will see an existing hole. You will need to drill this hole out to 3/8" with your drill bit.

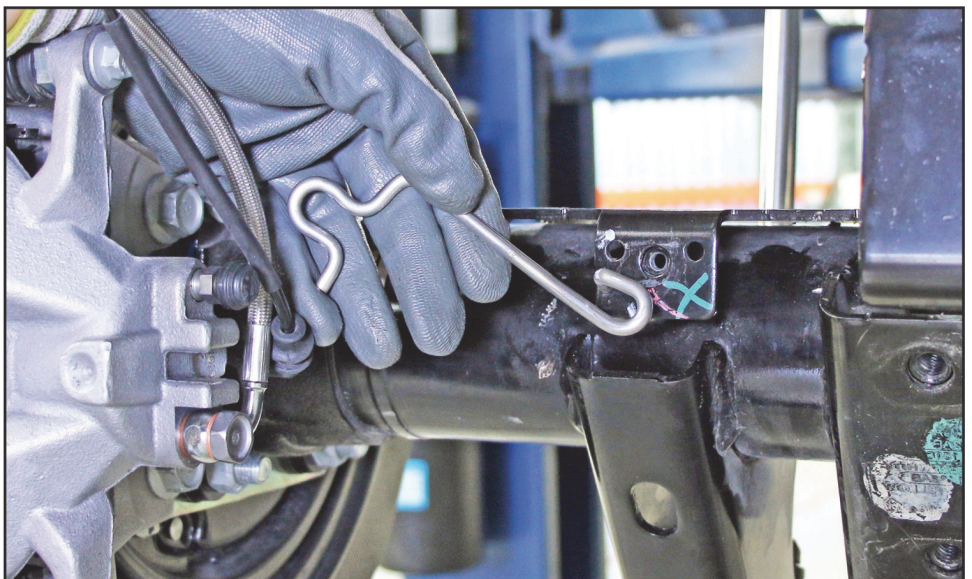


Step 32

On the back side of the bump stop pads, you will find these wire bails holding the ABS wires. You'll need to pop the ABS wires out of the wire bails.

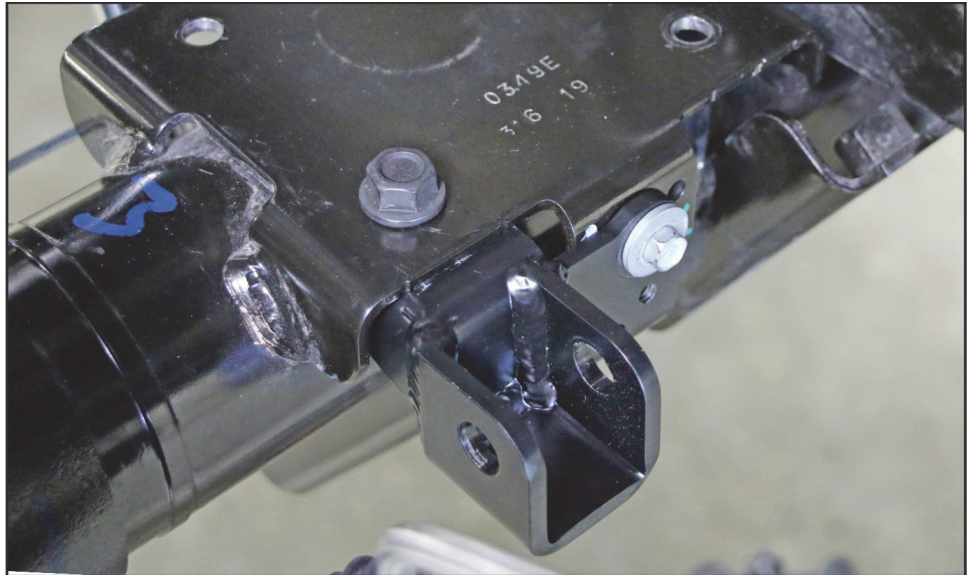
Step 33

Now, using a 10mm wrench or socket, remove the bolts that retain the wire bails. Retain the wire bails and the bolts for reuse. Keep track of which bail is right and left side!



Step 34

Fit the new lower sway bar mounts into the bump stop pads as shown. The black coarse thread bolts install from the top, thru the holes you've drilled and thread into the new bracket. Use the bolts from the wire bails thru the other hole in the brackets and bolt these bolts back into their original threaded holes that the wire bails were bolted to.

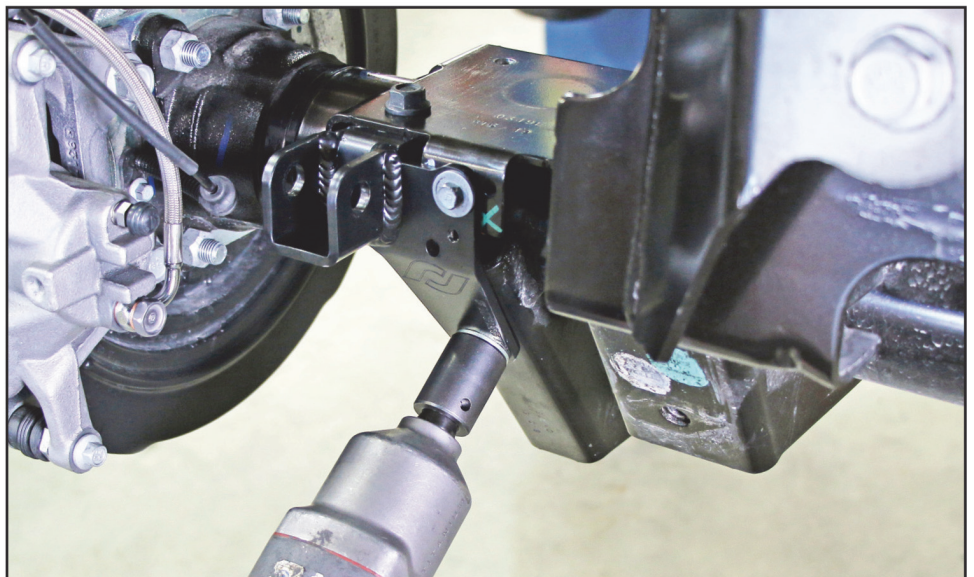


Step 35

Locate the two 1/2\"-13 thread nut plates in the kit. These will be inserted into the back of the shock mounts on the differential housing, with the smooth side facing up. So the side of the nut plate shown in the photo here, goes against the shock mount.

Step 36

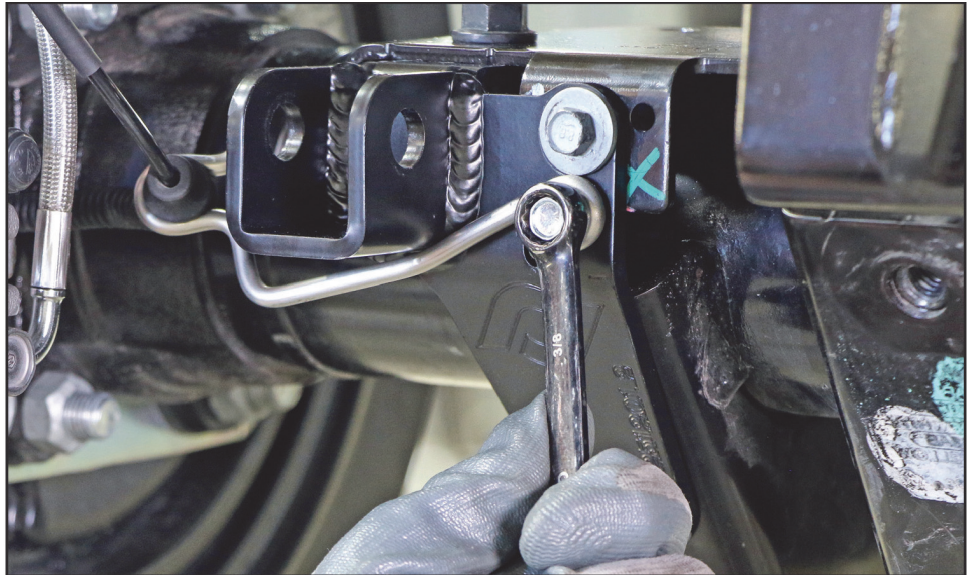
Insert the 1/2\"-13 x 1\" bolts with a flat washer on each, through the outside of the new sway bar mounts and the shock mounts and tighten them to the nut plates that you put inside the shock mounts.



Step 37

The wire bails for the ABS wires that you took off earlier - swap them from side to side (right bail now goes to the left side, left bail now goes to the right side).

Bolt the wire bails onto the new sway bar brackets with the supplied 1/4" flange head bolts and a 3/8" wrench.



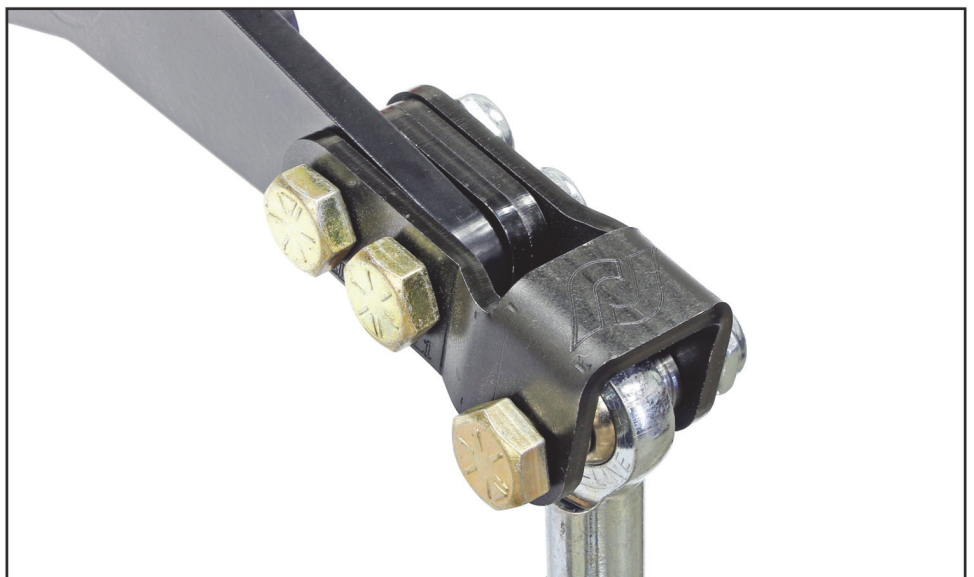
Step 38

Once you've installed the wire bails, you'll most likely need to adjust their angles a bit with a mallet to give the ABS wires some slack, so that they are not pulled tight.

Step 39

Onto the ends of your new Antirock sway bar arms, you will need to assemble the double shear end link brackets. Shown in the picture is how you will want to assemble the brackets for this application.

The photo illustrates the passenger's side arm. The bolt heads go towards the tire, and the 2 spacers stack on top of one another on the frame rail side of the arm. You do not need to install the heim joint at this time - it is just shown for illustration purposes.



Step 40

Install the sway bar arms onto the sway bar splines. The face of the arms should be flush with the ends of the splines of the sway bar. The kick up in the arm goes upward.

Make sure to clock the arms on the sway bar splines so that both arms are on the same spline. Install the 3/8"-24 x 2 1/2" pinch bolts from the bottom and use the 3/8"-24 nylock nuts on top and tighten with a 9/16" wrench and socket.



Step 41

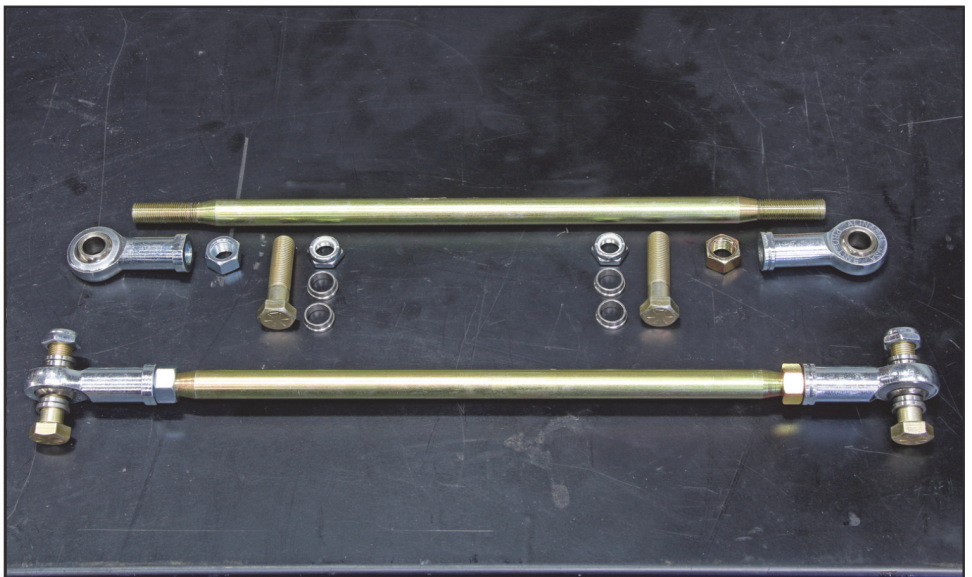
Now you will install the aluminum tapered washers and flat head allen bolts with a 3/16" allen wrench.

Apply some anti-seize between the head of the allen bolt and the counter sunk hole in the washer.

Step 42

Gather all of the sway bar link components as shown in the photo. Assemble the links to look like the assembled sample.

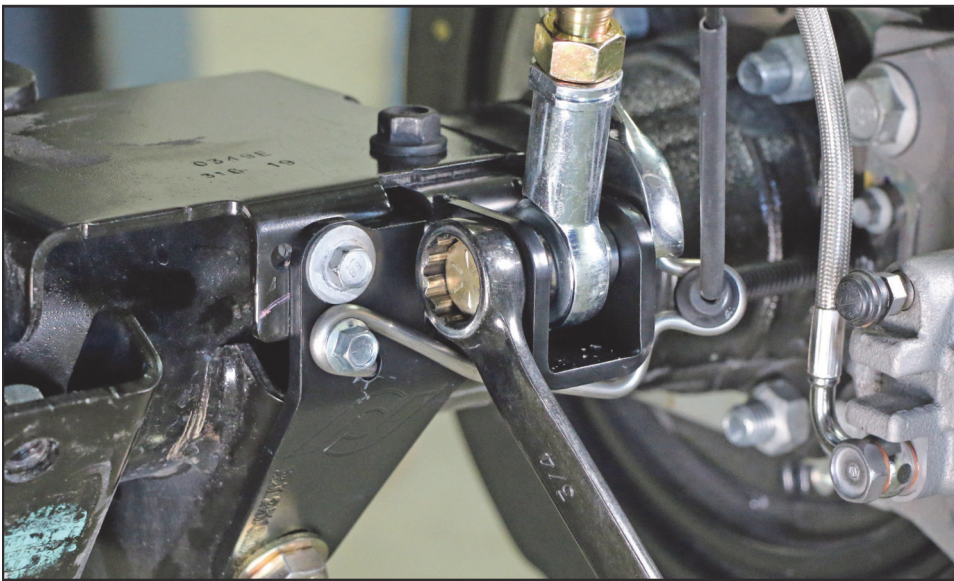
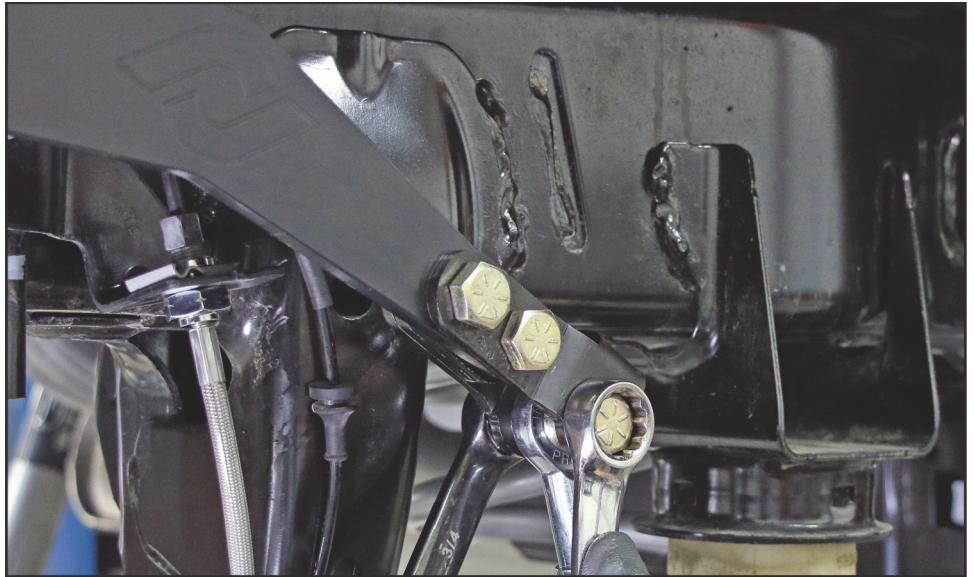
The thru bolts at the tops of the links use 2" bolts and thin nylocks. The thru bolts at the bottoms of the links use 2.25" bolts and standard (thick) nylock nuts.



Step 43

Install your assembled sway bar links into the double shear brackets on the ends of the sway bar arms, with a high misalignment spacer on both sides of the heim joints. Ensure that the small diameter sides of the spacers are touching the heim joints.

Using the 1/2"-20 x 2" bolts and thin nylock nuts tighten them up with a 3/4" wrench and socket.



Step 44

Install the bottoms of the links into the differential brackets using the 1/2"-20 x 2.25" bolts, 1/2"-20 standard (thick) nyloc nuts and a misalignment spacer on each side of the heim joints. Again, the small diameter of the misalignment spacers goes against the heim joints.

You will notice that these bolts go in from the inboard side, pointing outward.

Step 45

Now that the sway bar installation is finished, you'll need to go back and trim the plastic inner fender liners for sway bar arm travel clearance. We recommend holding a steel ruler flat against the backs of the arms and then marking the fender liners on the back side of the ruler with a marker, up to the rib illustrated in the photo.



Step 46

Repeat the same process on the front side of the sway bar arms as shown.



Step 47

We've found that the easiest way to trim the fender liners is to CAREFULLY use a SHARP box cutter. Just take your time so you don't ruin your fender liners!

Step 48

After both of your long cuts are made, go back and connect them at the top. You should now be holding pieces that looks similar to this. You may go back and do some detail clean-up as you see fit on the new holes in the fender liners.



Step 49

Your finished install should look like this.

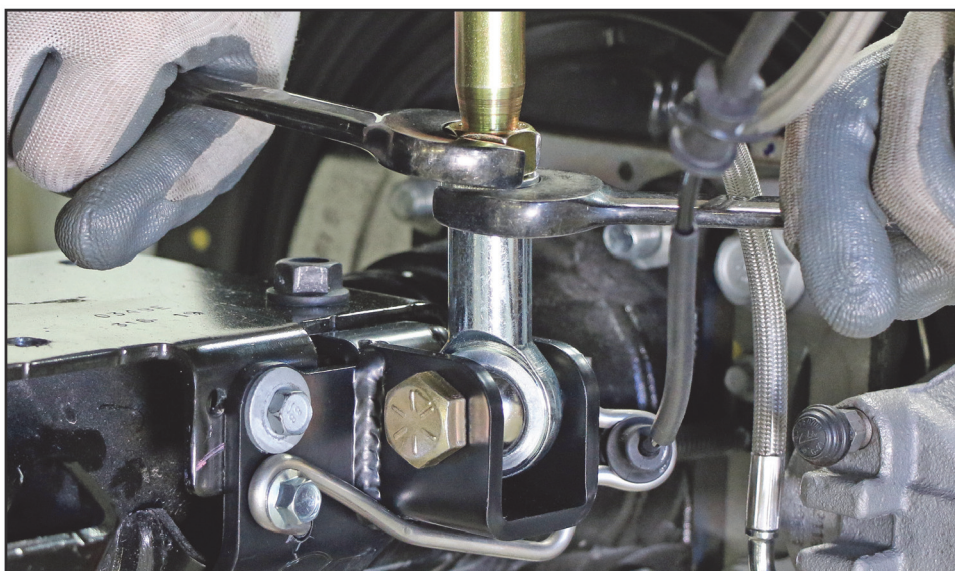


Step 50

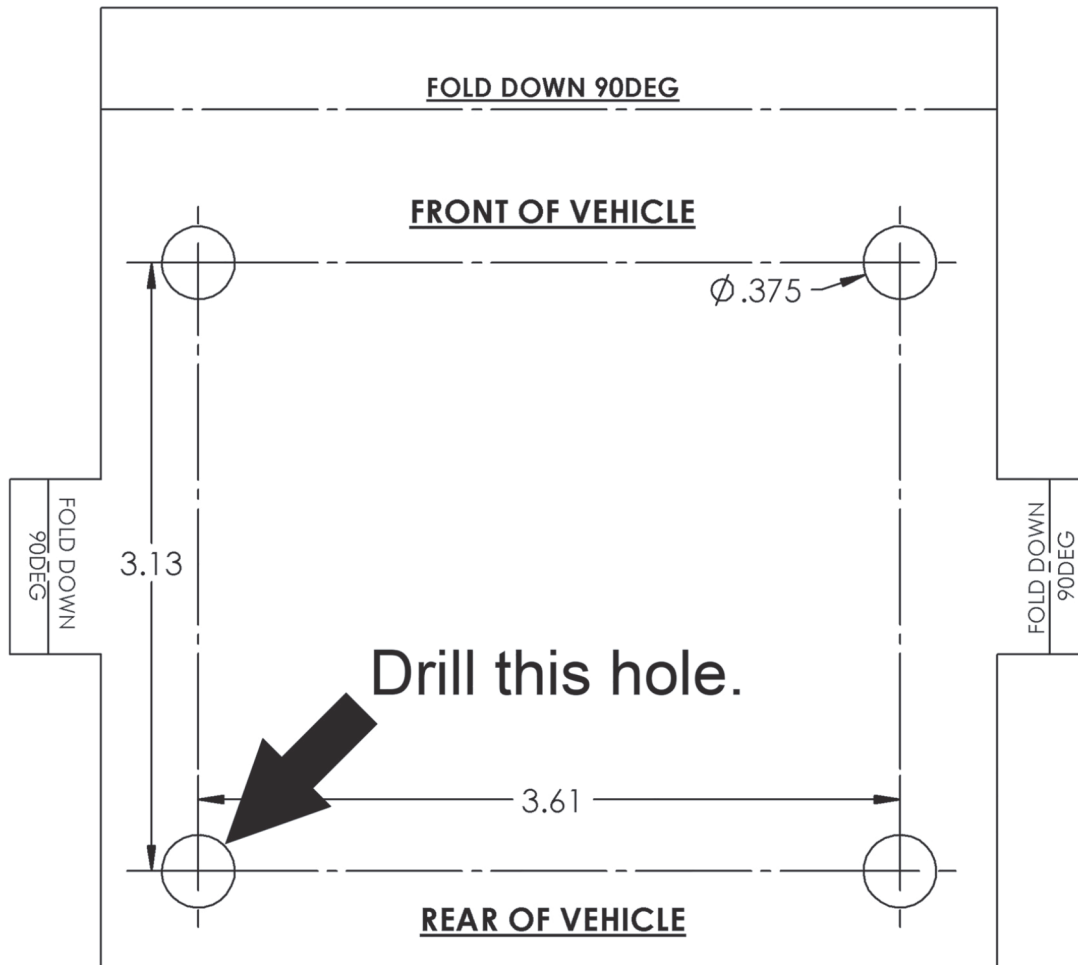
Your last step will be to go back and center your heim joints and tighten your jam nuts with a 19mm on the heim joints and a 3/4" wrench on the nuts.

Step 51

Repeat this tightening process for the jam nuts at the differential housing ends of the links. This will complete your installation! The next page shows what your finished install should look like.



Congratulations! You have just installed the finest anti-sway bar system available on the market! Enjoy and we hope to see you on the trail!



Proper Antirock® Adjustment

To correctly adjust a **front** or **rear** Antirock sway bar and determine how long the end links should be, we recommend the following process. You will need to determine how much suspension up travel and down travel that your vehicle has. Once you have those numbers, you will add them together to determine total overall travel. For example, if your vehicle has 4" of up travel and 8" of down travel, adding those number together, you get 12" of overall travel. Next, you'll need to find the midway point of your suspension travel, so, 12 divided by 2 is 6. So, the 6" point is the midway point of your vehicle's travel. You'll then need to set the axle at the 6" point – so the midway point of it's travel. When the axle is at the midway point of it's travel – this is the **ONLY** time the Antirock arms should ever be level. So, now that your axle is set to the midway point, go ahead and level the Antirock arms. Next, measure center to center from the link mounting hole in the end of the Antirock arm, to the link mounting hole on your differential housing. This dimension is your mandatory link length for your specific vehicle build.

It is very important that, upon down travel, the link rod and the arm never become a straight line (see diagram to the right of a safe angle). If they do, you are in danger of them flipping upside down toward, the bumper, and not returning upward to their original location. If this situation does occur, the link rods and or the Antirock arms may be destroyed. RockJock **does not** warranty these parts due to damage caused by improper set up! If you foresee this being an issue, you'll need to either get longer arms or continue to adjust the link length (or both), until this situation can never occur. Other options are axle limits straps or shorter shocks that limit the axle's down travel.

Available Link Rods: feature long, trimmable RH & LH threads allowing them to be cut down if necessary for an exact fit in your application. See our website for exact specs.

CE-9901RD3	6.5" long Antirock sway bar link rod
CE-9901RD4	8.5" long Antirock sway bar link rod
CE-9901RD5	10.5" long Antirock sway bar link rod
RJ- 517200-1	12.5" long Antirock sway bar link rod
CE-9901RD2	14" long Antirock sway bar link rod
RJ- 253200-1	15.5" long Antirock sway bar link rod

