



INSTALLATION MANUAL

FOR

ROCK KRAWLER SUSPENSION, INC.

JK X FACTOR SERIES/1 TON

MIDARM SYSTEMS

2021 1st EDITION

06/22/2021



Dear customer: Thank you for purchasing the best system on the market for your Jeep Vehicle. We are sure you will be happy with this system after your installation is complete. Please take your time during the installation and be sure to do it correctly. Completely read the directions before starting your installation so you know what to expect. Remember, your personal safety depends on it. Should you have any questions during this installation feel free to give our tech line a call (518-270-9822) and we will be happy to help you.

Note: BE SURE TO CHECK ALL FASTENERS FOR PROPER TORQUE BEFORE TEST DRIVE. RECHECK AFTER 500 MILES AND BE SURE TO CHECK PERIODICALLY.

WARNING

- Properly block and secure vehicle prior to installation.
- Always wear safety glasses when using power tools.
- Rock Krawler Suspension recommends the use of Loctite on all hardware, unless noted otherwise.
- The use of limiting straps is recommended to avoid possible damage from over extending the suspension of your vehicle.
- Read and understand all instructions, warnings and safety precautions in these instructions and your owner's manual before attempting to install these components.
- Proper installation of Rock Krawler Suspension products requires knowledge of recommended procedures for disassembly/assembly of OE vehicles and components. Access to OE shop manuals and special tools are required. Attempting to install this kit without knowledge of these procedures may affect the safety of your vehicle and or the performance of these components. Rock Krawler Suspension, Inc. strongly recommends that this system be installed by a certified mechanic with off road experience.
- Rock Krawler Suspension does not recommend combined use of suspension lifts, body lifts or other lift devices. Combined use of lifts may result in unsafe and unexpected handling characteristics. Also, many states now have laws restricting Vehicle lift, bumper heights and other alterations. Consult local laws to determine if your proposed alterations (including installation of this system) comply with your state laws.
- Rock Krawler Suspension does not condone or authorize the use of any other suspension components with its products. Should Rock Krawler Systems or components be installed in junction with other products or not per the provided instructions Rock Krawler Suspension warranty is void and is not to be held accountable for any resulting actions.



Driving and Handling Tips

- For Highway driving it is best to have the front sway bar connected. This will give you the on highway ride and handling characteristics you expect. **If you choose otherwise, you do so at your own risk.**
- The ride quality and handling that Rock Krawler is known for is based on using OEM sway bars front and rear with approved shocks. Using any components other than directed can result in adverse handling characteristics and poor ride quality.
- For Off-Road use it is best to have the front sway bar disconnected and the rear sway bar connected. This will allow your suspension to do its intended function. Our suspension will give your vehicle unmatched articulation which will provide traction and feedback to keep your vehicle moving in almost all conditions. Let the suspension do the work!

IMPORTANCE OF JAM NUTS

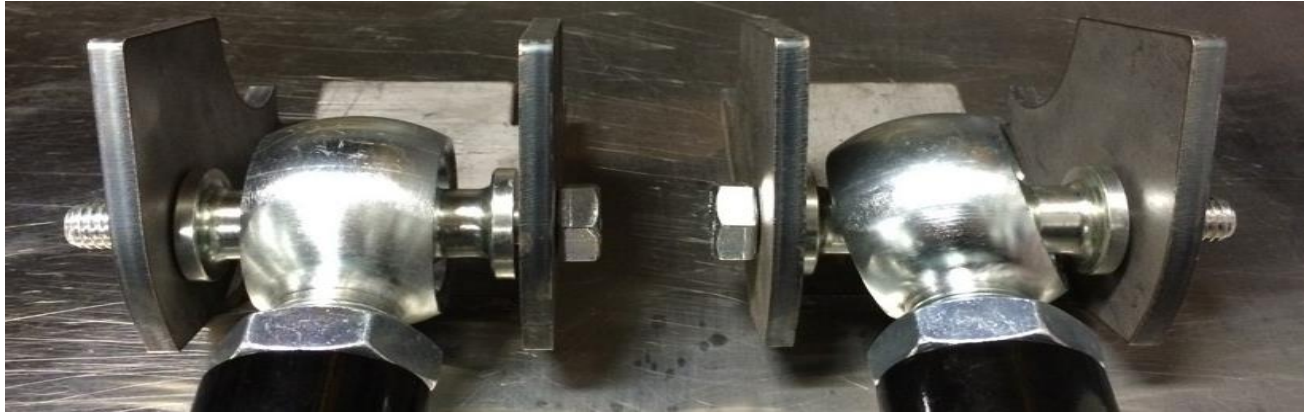
This is a note about jam nuts and the consumer's responsibility. The installer is the person or persons initially responsible for the proper setup of the suspension system and/or components and the initial tightening of the jam nuts. The jam nuts not only hold the orientation of the joint it is on but it is the single component that puts the necessary pre-load on the joints threads. The consumer or vehicle owner is the person or persons responsible for maintaining the jam nuts tightness. Failure to do so will result in the rapid deterioration of the threads in the control arm and will impose a "cause for concern" for the occupants of the vehicle. Failure to comply with the warnings heeded in the directions regarding the amount of threads showing past the jam nut will also result in the same "cause for concern" for the occupants of the vehicle. All of the above items are the responsibility of the vehicle owner and or installer. If a threaded section of a component is bad it will show itself defective immediately. Threads that fail over time are due to improper maintenance of jam nuts and can be proven very easily. Thread sections and jam nuts not properly maintained or setup, are not covered under warranty. This is the end user and installer's responsibility.

ORIENTATION OF JOINTS

Orient the Krawler Joint for maximum amount of movement with the head of joint perpendicular to bolt / head of the joint vertical in the mounting bracket. This same rule for orientation needs to be followed for all heim joints. The photo below shows the right way (LEFT SIDE) and the wrong way (RIGHT SIDE) to orient a joint.

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^RIGHT WAY^

^WRONG WAY^

MAINTAINING JOINTS

Krawler Joints/Pro Flex Joints, Anti-Wobble Joints and Pro Disconnect Joints

Before Jan 1 2020 The Pro Series Krawler Joints, Pro Flex Joints, Anti-Wobble Joints and Pro Disconnect Joints are greaseable. They come pre-greased from the factory. The grease valley is machined into the housings. We require Triple Zero (000) grade grease for lubrication of all our joints. They will not take a lot of grease nor do they need a lot of grease. Approximately every 4 to 6 months under normal operating conditions they should be greased. This is condition and use dependent so please use common sense. Over lubrication or using the incorrect grade of grease can do damage to the joints and hydraulically displace the race way material causing a sloppy joint condition. Never ever use red and tacky.

After Jan 1 2020 The Pro Series Krawler Joints, Pro Flex Joints, Anti-Wobble Joints and Pro Disconnect Joints are greaseable. They come pre-lubed from the factory. The grease valley is machined into the housings. Grade 1 grease can be used in all joints. They will not take a lot of grease nor do they need a lot of grease. Approximately every 4 to 6 months under normal operating conditions they should be greased. This is condition and use dependent so please use common sense. Over lubrication or using the incorrect grade of grease can do damage to the joints and hydraulically displace the race way material causing a sloppy joint condition. Never ever use red and tacky.

If the joint is not loose, it is not bad. Only if the ball is sloppy in the joint housing is it a bad joint and should be rebuilt. Krawler Joint Raceways, Pro Flex Joint Raceway, or Anti-Wobble Joint Raceways are available through Rock Krawler Suspension or an authorized dealer.

Please note: If you are not using the full range of motion of the Krawler Joint, Pro Flex Joint or Anti-Wobble Joint very often, the lubrication will not be moving inside the joint. In such cases we recommend spraying down the outside of the Joint with WD-40 or Liquid Fluid Film to ensure the race ways do not dry up. In highly corrosive environments it is also recommended to spray down the suspension components with WD-40 or Liquid Fluid Film. This will minimize corrosion of the components do to exposure to the elements.

HEIM JOINTS (Non- rebuildable spherical joints)

All Rock Krawler Heim Joints use Teflon Liners and thus are self lubricating. They too can also benefit from spraying down the outside of them liberally with WD-40 or Liquid Fluid Film. Grease should never be applied to them! Take caution when using cleaners and detergents on your vehicle as it can ruin the adhesives used on the Teflon liners yielding a bad heim joint!



SUGGESTED STARTING LENGTHS

Front Track Bar

2.5" lift – 32 9/16"
3.5" lift – 32 5/8"
4.5" lift – 32 7/16" (High Steer Bracket)

Front Lower Control Arms

2.5" lift heights – 23 "
3.5" lift heights – 23 1/8"
4.5" lift heights – 23 3/16"

Rear Upper Control Arms (Max. Travel)

2.5" lift heights – 17 9/16"
3.5" lift heights – 17 9/16"

Rear Track Bar

2.5" lift (w/ bracket) – 39 3/4"
3.5" lift (w/bracket) – 39 3/4"
4.5" lift (w/bracket) – 39 13/16"

Front Upper Control Arms

2.5" lift heights – 19 1/8"
3.5" lift heights – 19 1/4"
4.5" lift heights – 19 5/16"

X Factor Rear Arm Lengths for Stock Fenders

Rear Lower Control Arms

2.5" lift heights – 20 1/8"
3.5" lift heights – 20 1/8"
4.5" lift heights – 20 3/16"

Rear Upper Control Arms

2.5" lift heights – 17 3/4"
3.5" lift heights – 17 13/16"
4.5" lift heights – 17 7/8"

X Factor Rear Arm Lengths for Flat Fenders

Rear Lower Control Arms

2.5" lift heights – 20 11/16"
3.5" lift heights – 20 3/4"
4.5" lift heights – 20 13/16"

Rear Upper Control Arms

2.5" lift heights – 18 3/16"
3.5" lift heights – 18 3/8"
4.5" lift heights – 18 3/8"

****Please Note:*** All Control Arms, Track Bars, and Sway Bar Links come preassembled, but require adjustment to the above recommended starting dimensions. These measurements are taken from the center of one bolt hole to center of the other bolt hole.

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TORQUE VALUES FOR HARDWARE AND JAM NUTS

- All 10mm and 3/8 bolts are torqued to 30-35 ft-lbs.
- All 12mm and 1/2" bolts are torqued to 75-80 ft-lbs.
- All 14mm and 9/16" bolts are torqued to 90-100 ft-lbs.
- All 7/8" Jam Nuts are to be torqued 200-220 ft-lbs. Up to 5/8" of threads showing past the jam nut is safe for final adjustment. These specifications are critical for the overall longevity of the threaded section.
- All 1" Jam Nuts are to be torqued to 250-300 ft-lbs. **GET YOUR BIG BOY PANTS ON!** Up to 3/4" of threads showing past the jam nut is safe for final adjustment. These specifications are critical for the overall longevity of the threaded section.

FRONT OF VEHICLE (Perform all Steps for the System You Are Installing)

- 1) Make sure vehicle is on a level, hard working surface if you are using a floor jack and jack stands.
- 2) Block the rear wheels so the vehicle cannot move and make sure the emergency brake is applied.
- 3) Raise and support the front of vehicle with safety jack stands. Locate jack stands on the frame in front of the axle.
- 4) If you are using a vehicle lift, place the lift arms according to those specific vehicles lifting procedures. Ensure that the lift arms will not interfere with the components that are being replaced.
- 5) Remove the front rims and tires with axle supported by a floor jack.
- 6) Remove the front shocks. Save the OEM hardware to install the new shocks.
- 7) Remove the front sway bar links.
- 8) Remove the bolt holding the factory brake line to the frame to add slack in the line. Be sure to add slack to the breather tube as well.
- 9) Lower the front axle assembly onto jack stands.
- 10) Remove the front track bar from the vehicle and save the OEM hardware for reuse.
- 11) Remove the front springs.

***Please Note:** For all OEM components being reused, loosen the mounting hardware at all connections so you do not overstress the OEM vulcanized rubber bushings. Failure to do so can result in a rougher than expected ride, adverse handling and premature wear of the OEM components.

- 12) **FLEX / MAX. TRAVEL / X-FACTOR** Remove the front lower control arms and save the OEM hardware for

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reuse.

- 13) **X-FACTOR** Remove the front upper control arms and save the OEM hardware for reuse.

**Please Note:* You may need to cut the passenger side front upper control arm bolt at the frame depending on the year of your JK. We have provided you with a new 12mm x 90mm bolt, washers, and nylok nut for this instance.

- 14) **X-FACTOR** Install the supplied front upper control arms set to the specified length for your kit according to our measurements. Secure using the OEM hardware or a combination of OEM and our supplied 12mm x 90mm bolt, washers, and 12mm nylok nut depending on the year of your vehicle. The front upper arms are in vehicle double adjustable so be sure to show a balanced amount of thread on each end prior to installation. Be sure to rewrap the OEM heat shielding products after installation is supplied on your vehicle.



**Please Note:* If you are installing this kit with an aftermarket axle housing you may have to clearance the clevis mount on the upper control arm slightly. Do not allow more than 5/8" of thread to show past any jam nut for proper thread engagement.

- 15) **FLEX / MAX. TRAVEL / X-FACTOR** Install the front lower control arms set to the specified length for your kit according to our measurements using the OEM hardware.

**Please Note:* The bend in the arm is for improved ground clearance and go up. The Krawler Joint (Zinc Plated Spherical Joint) goes to the axle and the Pro Flex Joint (Bushing Joint) goes to the frame. Do not allow more than 3/4" of thread to show past any jam nut for proper thread engagement.

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16) If you purchased a system with bump stops, install them now as directed below.

**Please Note:* To install mark the center of the spring pad and drill a 1/2" hole. Place the bump stop inside the coil spring and place the coil and bump stop onto the spring mount together. Tighten the hardware once the coil is placed on the spring pad. [2.5" Systems stack 2 pads, 3.5" Systems, stack 3 pads, 4.5" Systems stack 4 pads]

17) Install the supplied front coil springs. Make sure the end of the coil spring sits in the spring mount just as it did from the factory. If the coil is not seated properly it will bow more than it should and can damage your coil.

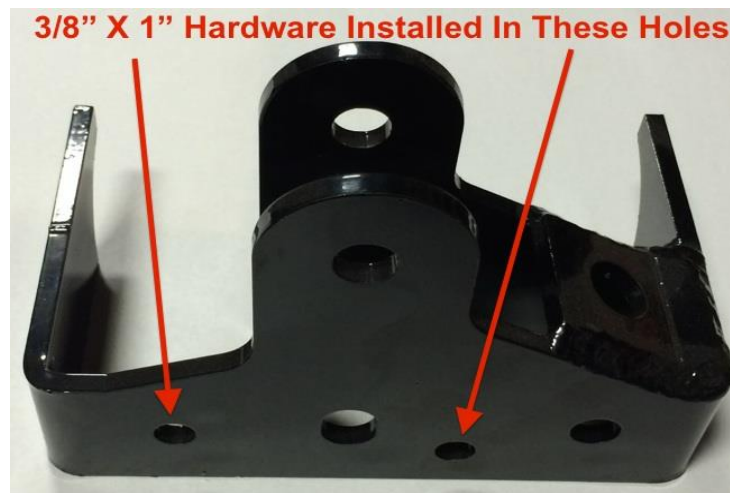
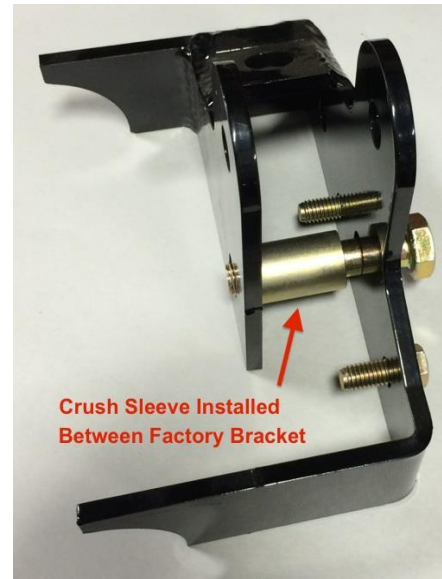
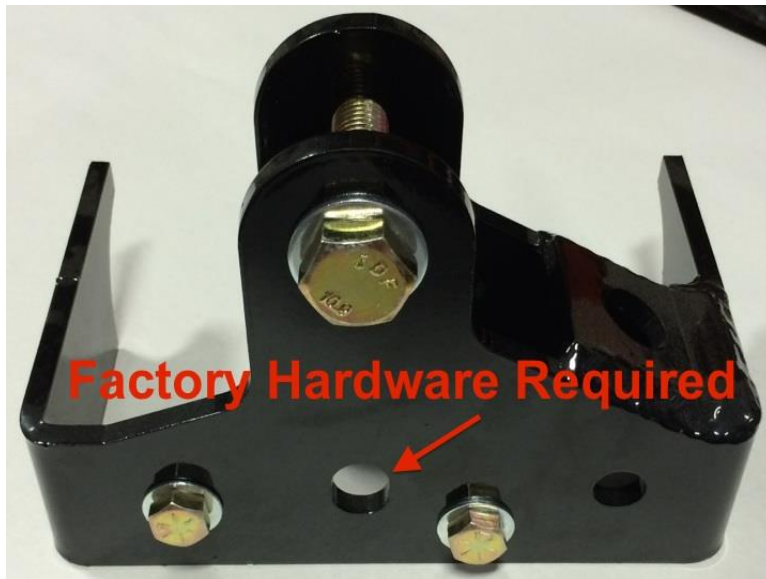
18) Install the front shocks using OEM hardware. For RRD Spec'd Prodigy 2.0 Remote Reservoir Shocks, here is the proper orientation of the reservoir.



19) **FOR 4.5" SYSTEMS ONLY OR IF YOU PURCHASED THE HIGH STEER UPGRADE:** Install the supplied front track bar bracket using the factory hardware in the hole marked below to secure the new bracket. Place the supplied crush sleeve between new relocation bracket and the factory bracket.

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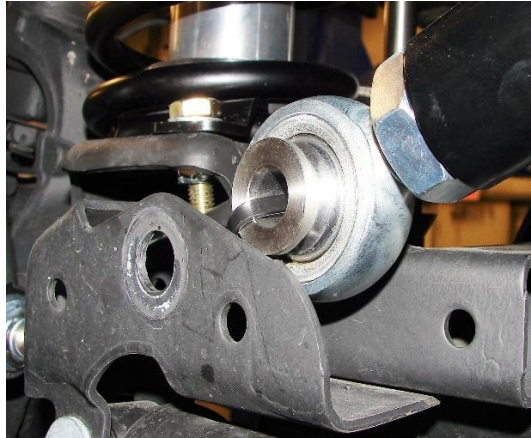
19a) Install the supplied 3/8" x 1" hardware with washers and nyloc nuts through the holes in the front of the new relocation bracket that line up with the OEM holes in the factory track bar bracket.

19b) Weld the new bracket to the axle tube using a 1/4" fillet weld around the radii of the bracket that contact the axle tube. Apply a durable finish of your choice.

20) As you are compressing the suspension, install the front track bar reusing the OEM hardware. Be sure to set it to the starting dimensions for your system as specified above. The rebuildable Anti-Wobble Joint (Welded End) goes to the frame connection and the heim joint with high misalignment spacers go to the axle connection as shown below (or in the relocation bracket). Helpful hint. Be sure to have the steering column unlocked so the axle will swing side to side freely. Make sure to have one o-ring on each side of the anti-wobble joint to help hold the orientation of the track bar.

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***Please Note:** For Right Hand Drive Vehicles, the anti-wobble joint goes at the axle connection and the heim joint goes to the frame connection – the exact opposite of Left Hand Drive.

21) **FOR 4.5" SYSTEMS ONLY OR IF YOU PURCHASED THE HIGH STEER UPGRADE:** Install the Off-Road Pro HD Drag Link

21a) Disconnect and remove the drag link from the vehicle using a ball joint separator or dead blow technique. Note the OEM drag link length. Save the Tie Rod End at the pitman arm for reuse if it is in good condition

21b) Drill out the passenger side knuckle mounting position for the drag link to 11/16" as shown below.

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Please Note: It may take a slight ream to get the hardware to pass through. The tighter the hardware to the hole the better.

21c) Assemble your new HD Drag Link like shown below with the supplied jam nut installed on the factory Tie Rod End and the Tie Rod End threaded into the HD Drag Link.



21d) Set your new HD Drag Link to the length of the factory assembly you noted.

21e) Install the new HD Drag Link using the supplied hardware to the top of your passenger side knuckle and the factory Tie Rod End hardware at the pitman arm connection.

Please Note: You can go back to the OEM geometry if the need ever arises. Simply purchase our flip spacer and follow the directions included.

21f) Center your steering wheel by adjusting the new HD Drag Link.

21g) Ensure that both joints are in phase with each other (misaligned in the same direction) as shown in the images below before you tighten the jam nuts on the joints.

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Passenger side knuckle connection



Pitman arm connection

- 22) **X-FACTOR** Install the newly supplied Pro Disconnects/Extended Links. Set the center to center length of the assemblies as noted below.



Recommended Starting Lengths

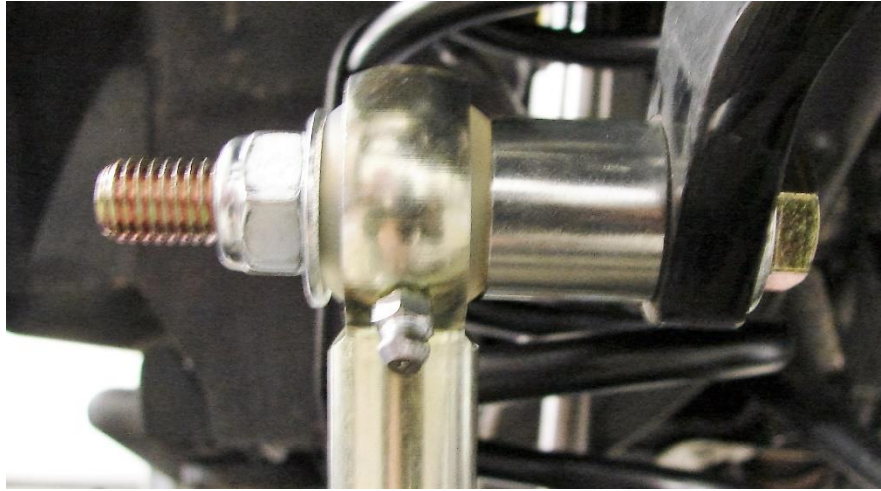
2.5" Systems 11" / 3.5" Systems – 12" / 4.5" Systems 13"

***Please Note:** These are recommended starting lengths. Fully cycle the suspension for clearance/interference checks once your installation is complete to ensure proper operation.

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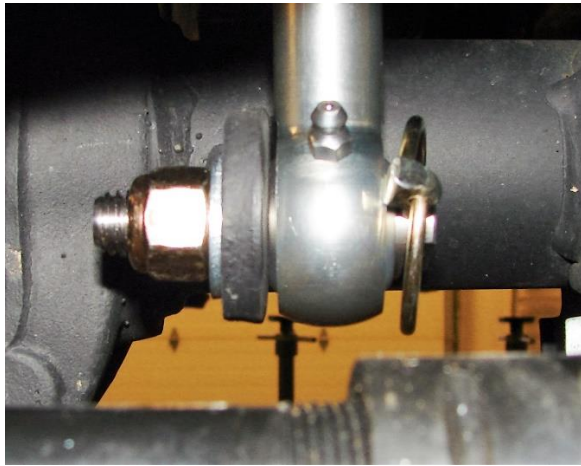
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Top Connection

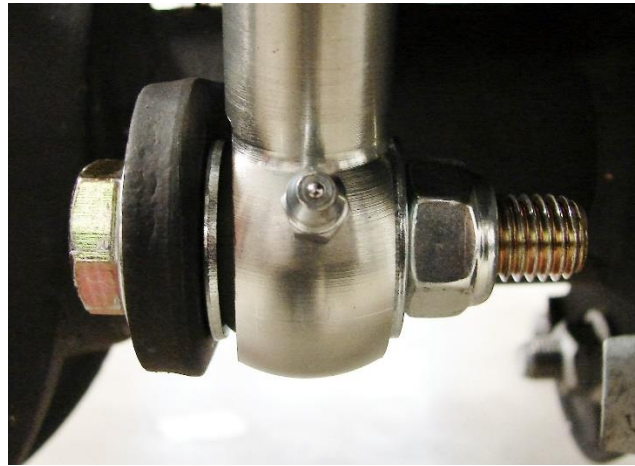


Top Connection: Working from the inside out, you have the head of the supplied 12mm x 80mm bolt, 12 mm washer, sway bar, shoulder of the billet spacer/sleeve, top joint of the sway bar link, 12mm washer then the supplied nylok nut as shown above.

Bottom Connections



Disconnect Connection



Fixed Bottom Connection (E-Disconnects)

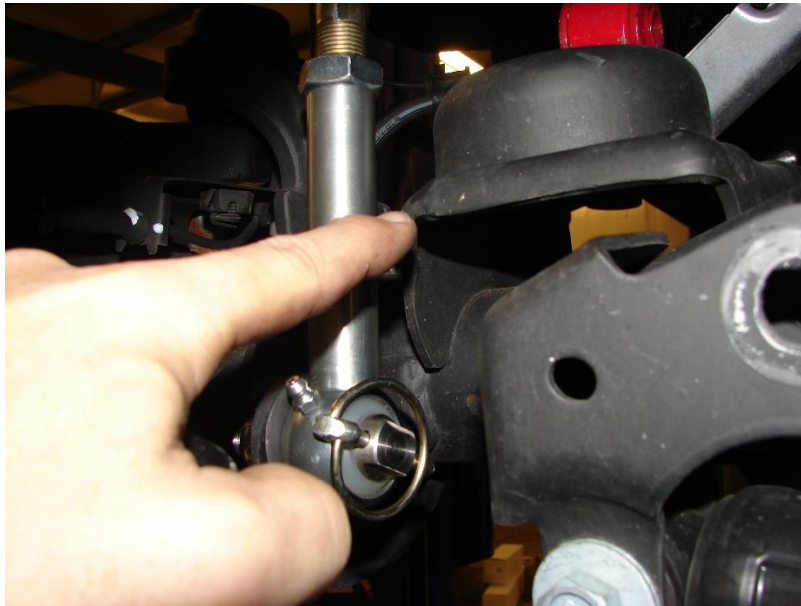
Disconnect Connection: Secure the supplied stainless steel disconnect bar pin to the OEM mounting tab with the supplied 1/2" washer under the supplied 1/2" nylok nut. Orient the lynch pin hole in an orientation most convenient for you to get at and make it as easy as possible to remove and disconnect the sway bar.

Fixed Bottom Connection: In the hardware package you will find a supplied 12mm x 50 mm bolt, straight sleeve (3/4" O.D. x 1/2" I.D.), washers and nylok nut. Remove the standard disconnect pin and insert the straight sleeve into the ball of the link. Secure as shown above with the head of the bolt, washer under the head of the bolt, washer on each side of the ball and the nylok nut.

***Please Note:** There are instances when clearance is tight between the link and the corner of the stock spring mounting pad. It may be required for you to clearance the corner of the spring pad as shown below. Use your discretion to ensure this is done if required.

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***Please Note:** For those of you using the conventional disconnect feature we have supplied sway bar retainer straps for your convenience.

To install your sway bar link straps:

Drill a 5/16" hole in the sheet metal as shown in the picture below to the left and secure the fixed end of the sway bar link strap with the supplied 5/16" x 1" bolt, washers and nylok nut as shown below to the right.



When disconnecting, wrap the sway bar link strap around the sway bar and link. Then secure them up and out of the way. When not using the sway bar straps it is recommended the bottom end of the straps be removed and stored in a safe storage place.

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Another simple option is to drill a 3/8 hole in the front of the spring bucket as shown below. Both options work well to secure the sway bar up and out of the way.



23) **FLEX / MAX. TRAVEL / X-FACTOR** Remove the factory front rubber brake lines and install the supplied extended stainless steel brake lines (Part Number RK02038). Be sure to add slack to your ABS lines and route them with your new stainless steel lines. Use the supplied zip ties to secure them to each other.

**Please Note:* The factory front brake lines on a 07'-10' are routed different then the front brake lines on a 11'+. We use the same brake line for all of our JK products thus we require you to route the line on the 11'+ just as if you were routing a line on the prior year JK's. The 15 degree angle built in the fitting is designed so the line is pushed away from the tire and wheel assembly. See the photos below to reference your new front brake line and ABS line routing.

Front Stainless Steel Brake Lines



- 24) Put the tires and wheels back on the front end and carefully lower the vehicle to the ground. Get ready to work on the back end.

REAR OF VEHICLE (Perform all Steps for the System You Are Installing)

- 1) Make sure vehicle is on a level, hard, working surface if you are using a floor jack and jack stands
- 2) Block the front wheels so the vehicle cannot move.
- 3) Raise and support the rear of vehicle with safety jack stands. Locate jack stands on the frame behind the rear axle.
- 4) If you are using a vehicle lift, place the lift arms according to those specific vehicles lifting procedures. Ensure that the lift arms will not interfere with the components that are being replaced.
- 5) Remove the rear rims and tires with axle supported by a floorjack.
- 6) Remove the rear shocks. Save the OEM hardware for reuse.
- 7) Unbolt the bottom end of the rear sway bar links and save for reuse if your kit requires it.
- 8) Remove the bolt holding the factory brake line to the frame to add slack in the line. Be sure to add slack to the breather tube as well.
- 9) Remove the wire hanger for the rear emergency brake cable and route them to have as much slack as possible.
- 10) Lower the rear axle assembly onto jack stands.
- 11) Remove the rear coil springs.
- 12) Unbolt the axle end of the rear track bar, save it and the OEM hardware for reuse.

***Please Note:** For all OEM components being reused; loosen the mounting hardware at all connections so you do not

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overstress the OEM vulcanized rubber bushings. Failure to do so can result in a rougher than expected ride, adverse handling and premature wear of the OEM components.

13) IF YOU OPTED FOR THE OPTIONAL WELD ON OFFSET SPRING MOUNTS

13a) Note the positioning of the factory spring mounts on the axle. You will want a reference to where on the axle tube they are positioned side to side as well as the orientation by the angle they are at.



13b) Remove the factory spring mounts from the axle by cutting, grinding, or plasma cutting them off.

13c) Position the new supplied offset spring mounts on the axle back to the same angle and position that the old mounts had been previously and weld them on using a 1/4" fillet weld.



***Please Note:** You may want to "heavy" tack the new mounts onto the axle tube and finish installing the control arms. Doing so allows you to mock up the coil springs in the vehicle ensuring proper position before finish welding them.

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14) **MAX. TRAVEL / X-FACTOR** Remove the rear upper control arms and save the OEM hardware for reuse.

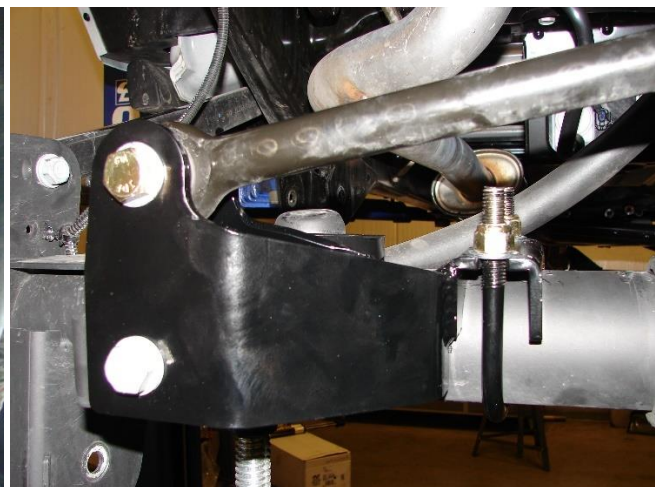
15) **X-FACTOR** Remove the rear lower control arms and discard them, save the OEM hardware for reuse.

**Please Note:* Cutting the OEM lower control arm nut anti-rotation tab in half is recommended so the tab does not rub on the rear lower control arm. Please see image below.



16) **FLEX / MAX. TRAVEL / X-FACTOR** Install the rear track bar relocation bracket using the OEM bolt and the supplied 7/8" O.D. x 9/16 I.D. x 1.625" long crush sleeve on the inside of the OEM lower track bar mount, and supplied 1/2" u-bolt, washers, and nylok nuts as shown below.

Tightening sequence is as follows; with all the hardware in place, tighten the 1/2" nylok nuts on the u-bolt to 50-55 ft-lbs. Then tighten the OEM mounting bolt at the OEM location.



17) **MAX. TRAVEL / EXPEDITION / X-FACTOR KITS** Install the rear upper control arms set to the specified length for your kit according to our measurements on page 5 and secure using the OEM hardware.

**Please Note:* When setting length, balance the amount of thread showing past the jam nuts. Do not allow more

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than 3/4" of thread to show past any jam nut for proper thread engagement.



- 18) **X-FACTOR** Install the rear lower control arms set to the specified length for your kit according to our measurements using OEM hardware.

**Please Note:* The bend in the arms is for improved ground clearance and goes up. The Krawler Joint (Zinc Plated Spherical Joint) goes to the axle and the Pro Flex Joint (Bushing Joint) goes to the frame. Do not allow more than 3/4" of thread to show past any jam nut for proper thread engagement.

- 19) **X-FACTOR** Install the spring correction wedges under the rear coils on the axle. The thick part of the shim goes towards the rear of the vehicle as shown below.



- 20) Install the Rock Krawler rear coil springs. Make sure to put the end of the coil winding all the way to the rear of the lower coil pad.

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- 21) Slowly start to compress the suspension.
- 22) **FLEX / MAX. TRAVEL** As the suspension is compressing, attach the OEM track bar to either the OEM track bar position on the axle using the OEM hardware or attach the OEM track bar to the raised track bar bracket with the supplied 14mm x 80mm bolt, washers and nylok nut.
- 23) **X-FACTOR** Install the supplied rear track bar set to the specified length for your kit according to our measurements. Secure the frame connection with the OEM hardware and the axle connection with the supplied 14mm x 80mm bolt, 14mm washers, and 14mm nylok nut.

**Please Note:* Just like the front track bar, the Anti-Wobble Joint goes to the frame and the heim joint end goes to axle. The bend in the track bar is for clearance of the differential and the orientation of the track bar is controlled by locking the jam nut of the Anti-Wobble Joint at the frame. Once the vehicle is on the ground, you will need to check that the axle is centered under the vehicle. If not centered, adjust the track bar so the axle is centered. Do not allow more than 3/4" of thread to show past any jam nut for proper thread engagement.
- 24) **X-FACTOR** Relocate the rear sway bar mounting brackets back one inch. Unbolt the rear sway bar mounting brackets from the frame, measure one inch back from each mounting hole, mark and drill 4 new holes with a 5/16" drill bit. Using the (4) supplied 3/8 thread forming screws, remount the rear sway bar.

**Please Note:* Use WD-40 or lubricant on the supplied thread former screws to start them. This will make the process easier. Torque them down to 25 to 30 ft-lbs.



- 25) Install the rear shocks using the OEM hardware. If you purchased our RRD Spec'd Prodigy Remote Reservoir Shocks please note: there is a specific driver side and passenger side shock. They must be installed accordingly or there might be reservoir interference.
- 26) If purchased, install the RK fabbed rear bump stops. Our rear fabricated bump stops mount to the factory bump stop pad using the supplied hardware. Make sure the bumps stop angles to the front of the vehicle as shown in the photo below *and follow these recommendations for stacking the rubber pads on top of the base.* [2.5" Systems stack 1 pad, 3.5" Systems, stack 2 pads, 4.5" Systems stack 3 pads]. You can slide the pads forward and aft to ensure they make proper contact with the top bump stop mount as well.

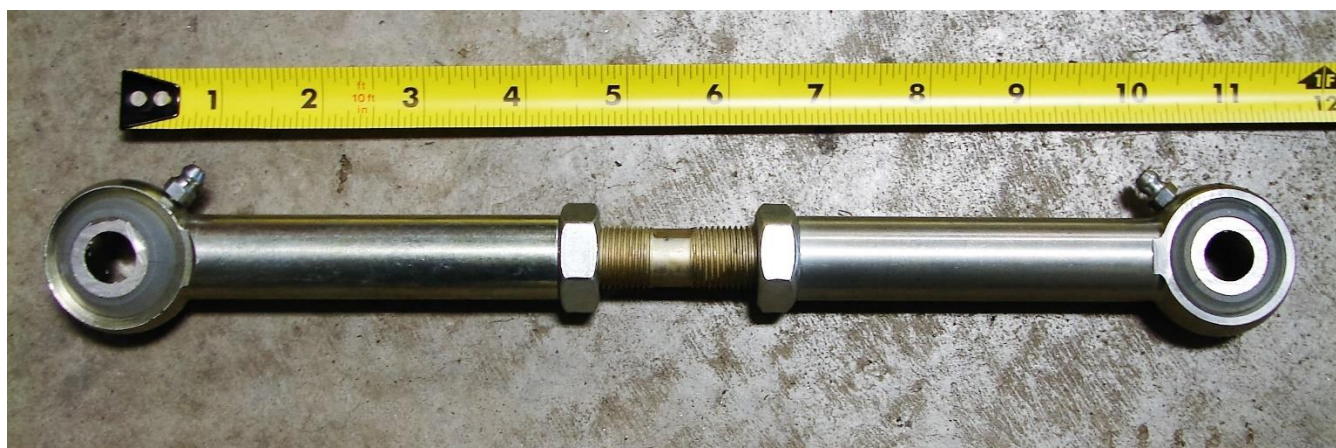
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27) Finish removing the OEM rear sway bar links. Set the rear Pro Sway Bar Link assembled length as shown below.

Recommended Starting Lengths 2.5" Systems 11" / 3.5" Systems – 12" / 4.5" Systems – 13"



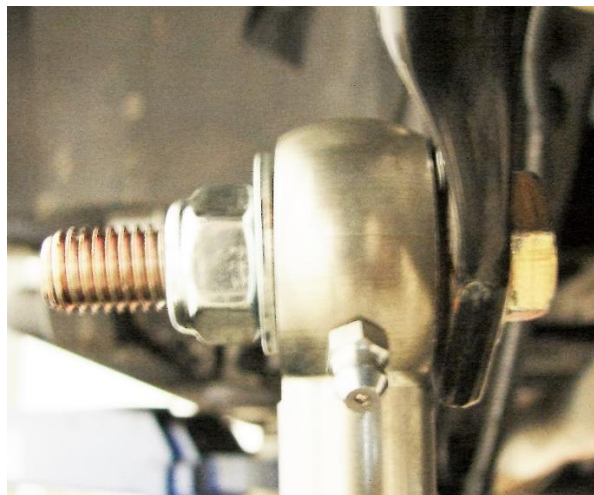
The *pro link* top connection uses the supplied 12mm x 50 mm bolt, washers and nylok nut as shown below. Under the head of the bolt, there is a washer and on each side of the sway bar link ball joint there is a washer and finally they are secured with the nylok nut.

The *pro link* bottom connection uses the supplied 12mm x 50 mm bolt, washers and nylok nut as shown below. Under the head of the bolt, there is a washer. Between the sway bar link ball joint and the OEM mounting bracket, there are two washers to provide extra clearance between the housing and the billet link end, then there is one more washer on the other side of the joint, then finally secured by the nylok nut.

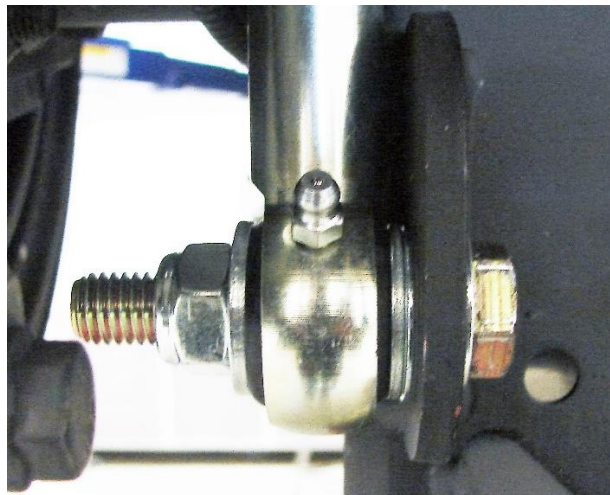
ROCK KRAWLER

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Pro Rear Link Top Connection



Pro Rear Link Bottom Connection



- 28) **If your system included new rear stainless-steel brake lines or you purchased them as an option;** Remove the factory front rubber brake lines and install the supplied extended stainless steel brake lines. Be sure to add slack to the ABS line, then secure the ABS and stainless steel brake lines together with zip ties and route them carefully. Now you can go ahead and bleed the brake system per the JK service manual.
- 29) Install the rear wheels and tires and lower the vehicle to the ground.
- 30) Tighten all mounting bolts at this time!

Recommended Alignment Specs are as follows:

1.5" Lift Height: 5.0 to 6.5 degrees of Caster with a .2 to .4 Cross Caster Split (.2 to .4 degrees more caster on the pass. side than the driver's side.)

2.5" Lift Height: 4.5 to 6.0 degrees of Caster with a .2 to .4 Cross Caster Split (.2 to .4 degrees more caster on the pass. side than the driver's side.)

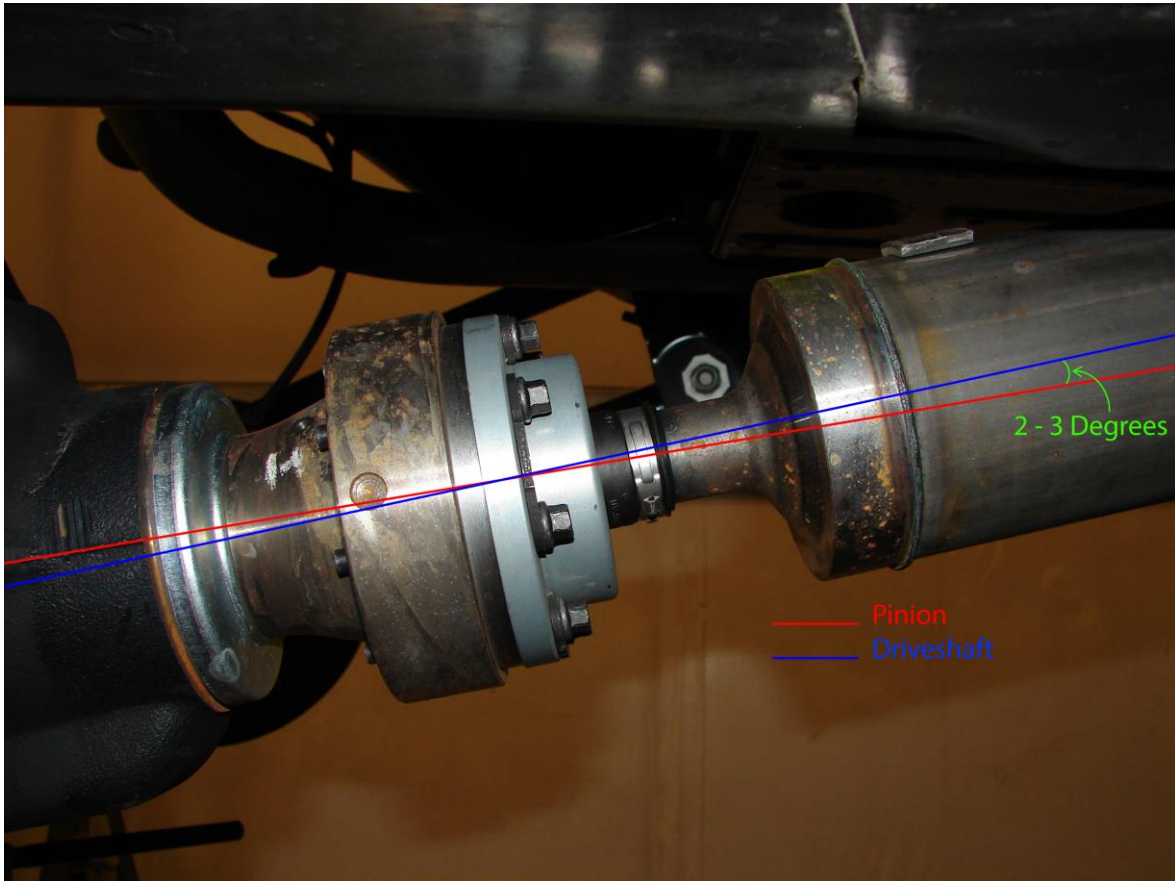
3.5"/4.5" Lift Height: 4.2 to 5.5 degrees of Caster with a .2 to .4 Cross Caster Split (.2 to .4 degrees more caster on the pass. side than the driver's side.)

Tow: 0 to slightly towed in but within factory specifications

The rear pinion angle should be down 2 – 3 degrees from the driveshaft as shown below.

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***Please Note:** If you do not have adjustable components you will not be able to dial in the alignment or pinion angle settings so what you get is what you get...

Before hitting the pavement or the trails be sure to make sure the control arms are oriented properly, all spherical joints (heim joints and Krawler Joints) are oriented correctly to allow for maximum movement without bind, and all jam nuts have Loctite on them and are tight. Make sure the axles are properly centered, pinion angles are correct, there is proper slack in ABS lines, and all lines are properly routed. Go back over all your hardware and make sure each connection is tightened to its proper torque spec. Check your vehicles articulation and ensure that no moving parts contact or interfere with any other components throughout the travel (brake lines, shocks, coils, sway bar links). Also check to see if at full flex your coil spring losses tension, if so you may want to look into a limit straps. You may need to look at bump stops depending on what shocks you choose to run.

Congratulations, you have just finished installing your Rock Krawler Suspension System! Your Jeep is now free to roam about the country.



Common Service Parts Listings:

Rock Krawler 000 Grade Grease – 3 oz tube – RK05494 For Systems Before Jan 1 2020

Grade 1 Grease such as Mobil Grease – Mobilux EP1 [NLGI 1] or equivalent can be used for Systems After Jan 1 2020.

Front and Rear Lower Control Arms Prior to 3/1/2021

Please contact the office for proper service parts. There were two product updates over the 14 year run.

Front and Rear Lower Control Arms After to 3/1/2021 Part Numbers RK02015B and RK02022B

Rear Control Arm Adventure Series Joint (Frame End) – RK07403K

Rear Lower Control Arm Full Replacement Krawler Joint (Axle End) – RK02219

Lower Control Arm Krawler Joint Rebuild Bushings – RK04034K – Requires Large Joint Tool – RK04484

Front and Rear Track Bars Prior to 1/1/2021

Please contact the office for proper service parts. There were two product updates over the 14 year run.

Front and Rear Track Bars After to 1/1/2021 (RK02024HD and RK02026B)

Anti-Wobble Joint Bushings (Frame End) – RK07836K – Requires Small Joint Tool – RK04487

Front Track Bar Replacement Heim Joint (Axle End) – RK07535 (1” Shank) – Optional New Misalignment Spacers – RK03428

Rear Track Bar Replacement Heim Joint (Axle End) – RK03426 (7/8” Shank) – Optional New Misalignment Spacers – RK03428

Front Upper Control Arms:

Replacement Krawler Joint – RK03524

Replacement Krawler Joint Bushings – RK00221K – Requires Small Joint Tool – RK04487

Rear Upper Control Arms:

Replacement Krawler Joints – RK03499 (Right Hand Thread) RK03499L (Left Hand Thread)

Replacement Krawler Joint Bushings – RK00221K – Requires Small Joint Tool – RK04487

Sway Bar End Links: Ball Center – RK04573