INSTALLATION INSTRUCTIONS

COMPONENT: 96450 - REAR LINKS
1996-2002 TOYOTA 4RUNNER
1996-2002 TOYOTA PRADO 90

96450

PART #	DESCRIPTION	QUANTITY
96451	UPPER LINK	2
96452	LOWER LINK	2
96453	PANHARD	1
JMX14T770	Heim: RHT 7/8 x 7/8	4
11378	Jam Nut: 7/8" - 14 RHT (Zinc)	4
JMX12T	Heim: RHT 3/4 x 3/4	2
11373	Jam Nut: 3/4"- 16 RHT (Zinc)	2
99869	Heim Spacer: Upper Link	4
99870	Heim Spacer: Lower Link	4
99872	Heim Spacer: Panhard	4
10005	Zerk Fitting: 1/4" -28 90 degree	5
60684	Bushing Universal Half - Urethane	8
69140	Inner Sleeve: Upper Link	2
69120	Inner Sleeve: Upper A-Arm	2

REQUIRED TOOLS

- 19mm wrench or socket
- 19mm socket
- 17mm wrench or socket
- 17mm socket

- Ratchet strap
- Dead blow hammer

IMPORTANT

- Before starting install, make sure the vehicle is supported securely on jack stands.

- The factory manual is recommended for removal and re-installation of all factory components.

- Pay attention to the hardware during removal/installation. Certain OEM Toyota nuts are staked, meaning you will tighten the bolt instead of the nut.

- Be sure to grease the bushings via the zerk fittings before tightening down the bolts to their final torque spec.

STEP 1

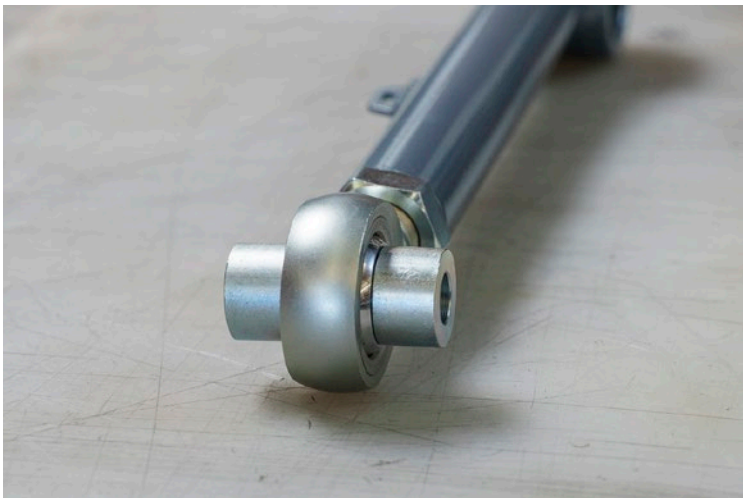
Begin with removing the rear link kit from the packaging, then using the provided Hush Butter install the bushings and inner sleeves into the rear links (the upper links get the inner sleeve with the smaller hole and the lower links get the inner sleeve with the larger hole).

STEP 2

When installing the zerk fittings, the upper links will have the fittings facing toward the front of the vehicle and the lower links will have the fittings facing the rear of the vehicle. Zerk fittings are a pipe thread so they do not need to be bottomed out, simply thread them in until snug, then tighten them until they are correctly oriented.

STEP 3

Insert the heim spacers into the heim joints on the upper and lower links (lower links get the large hole and upper links get the smaller hole) then insert the panhard heim spacers into the panhard heim joints.

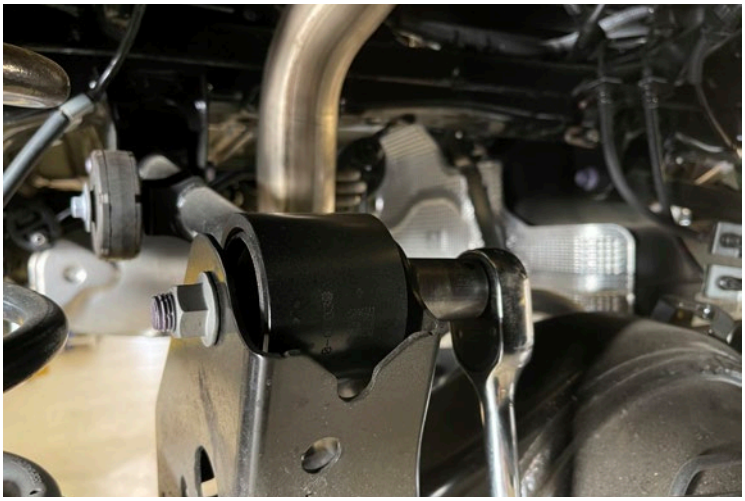


STEP 4

Use a 19mm to loosen and remove the two panhard bolts (when removing the first panhard bolt the axle may shift slightly to the side as the bolt is removed)

STEP 5

Starting with the drivers side, use a 17mm wrench to loosen both front and rear upper link bolts (you must loosen the bolt head side because the back side of nut is staked and cannot spin without damaging the nut and or frame) then remove the bolts and stock link from the vehicle.



STEP 6

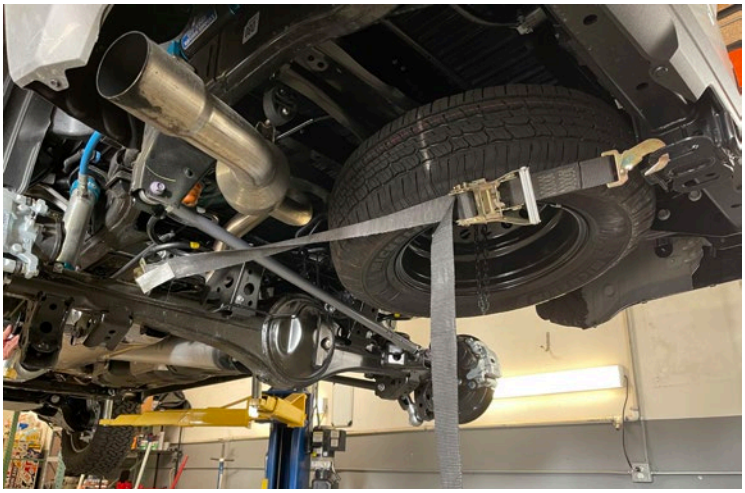
Install the new upper link with the zerk on the bottom and facing forward, repeat this process on the passenger side.head side because the back side of nut is staked and cannot spin without damaging the nut and or frame) then remove the bolts and stock link from the vehicle.

STEP 7

Use a 19mm to loosen the drivers side lower link bolts (you must loosen the bolt head side because the back side of nut is staked and cannot spin without damaging the nut and or frame). Use a 12mm to remove the emergency brake bracket from the lower link.

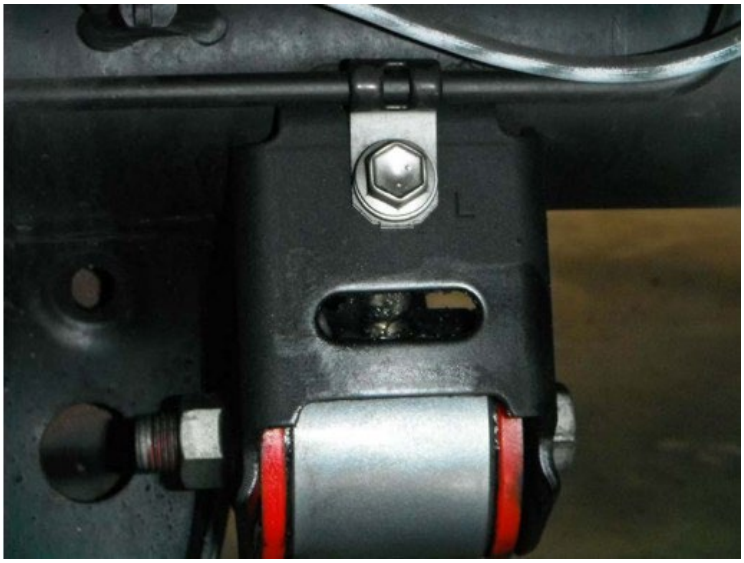
STEP 8

A ratchet strap will be needed to make this process much easier. Place the ratchet strap on the axle away from the lower link bar with the other end connected the frame or bracket close by. This is to ensure the axle from moving or rotating. With the ratchet strap in place make sure it is snug. You will be removing one side at a time. Loosen the front and rear link hardware on the side that the ratchet strap is on. Remove the hardware from the front and rear of the lower links then remove the lower link.



STEP 9

Install the new drivers side lower link with the zerk on top and facing the rear of the vehicle (On 2010+ models the lower link bracket on the axle will need to be modified to access the zerk fitting, see images).



STEP 9 CONTINUED

On 2010+ models the lower link bracket on the axle will need to be modified to access the zerk fitting, see images

STEP 10 (ONLY 86400)

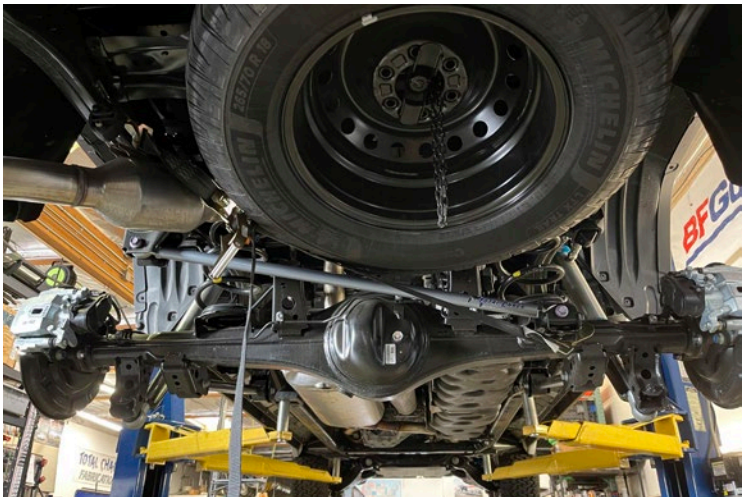
When re installing the emergency brake bracket, use the provided 8mm 1.25 flange nut to fasten the bracket to the lower link. Repeat this process on the passenger side.

STEP 11

With both upper and lower links installed its now time to install the panhard, using the existing hardware, insert one of the panhard bolts through the heim and mounting bracket, then hold the other side up to the mounting bracket and note that the axle will likely need to be “shifted” in order to insert the final bolt. DO NOT adjust the panhard heim joints to get the holes to line up. You will need to use the ratchet strap by attaching one end to the axle and the other end to the chassis, then tighten the strap until the final panhard bolt can be installed.

STEP 12

With all the hardware installed, torque the upper link hardware to 85 ft/lb. lower link hardware to 100 ft/lb and panhard hardware to 100 ft/lb.



Ratchet strap shown connected to lower panhard mount.

CONGRATS! YOUR LINKS ARE READY TO GO!

- Re-torque all hardware after the first 500 miles.
- Re-greasing is required every 3,000-5,000 miles to maximize bushing life and keep noise down.

FOR INSTALL QUESTIONS OR CUSTOMER SERVICE INQUIRIES:

Call 951.737.9682 or email info@chaosfab.com

WARNING

TOTAL CHAOS FABRICATION's aftermarket suspension products and accessories modify a vehicle for uses which exceed conditions anticipated by the vehicle manufacturer. The uses include the high-performance demands required during off-road. These conditions vary in the degree of severity and cannot be controlled by the vehicle or product manufacturer. If the components within the suspension system or accessories become worn due to frequent on-road and/or extreme off-road use, the safety and reliability of the vehicle is at risk. The maintenance of aftermarket equipment to ensure the vehicle occupants safety is entirely your responsibility. Do not purchase TOTAL CHAOS manufactured products or components unless you are willing to accept this responsibility. Do not install any TOTAL CHAOS suspension products or accessories unless you are certified and/or competent at installing the product without causing present or future injury to yourself or other vehicle occupants, other vehicles and their occupants, pedestrians and motorcyclists; seek an authorized installation center.

TOTAL CHAOS FABRICATION long travel suspension systems were designed for off-road use only. This suspension system is not to be modified from its original design in any way. TOTAL CHAOS is not liable nor held responsible for any injury's or death that can occur from off-road use or as the result of product failure. Customer/driver assumes all liability in assuring that the suspension system is properly installed, maintained, and operating in safe conditions. The following are guidelines for maintaining a safe operating vehicle. Safety and reliability are our number one concern.

Visually inspect all equipment for clearance and unusual wear.

Regularly clean and inspect equipment such as suspension components, heim joints, polyurethane bushings and all hardware. Replace items as necessary. All suspension components are available for individual replacement direct from TOTAL CHAOS. We strongly recommend the suspension system be installed by an authorized installation center. TOTAL CHAOS FABRICATION reserves the right to warranty any components that we have determined to be product or material defective. Off-road abuse can damage suspension components.

BREAK IN PERIOD. After every installation we recommend checking the torque of all nuts and bolts to assure that the torque has taken after driving 500 miles. Some minor adjustments may need to be made.

The customer assumes all responsibility for the use of all equipment and the proper maintenance of said equipment. This equipment will alter the center of gravity of your vehicle and also the handling characteristics that you may be accustomed to. Even though your vehicle may have a wider track width it is capable of rolling over. Please wear your seat belt and demand that all passengers do so as well.

Please remember that no matter how well your vehicle is built it is only as safe as you drive it. This equipment is designed to improve the performance of your vehicle. **INCREASING PERFORMANCE ALSO INCREASES YOUR RISK WHILE OPERATING THIS VEHICLE**. The operator must know and understand the vehicles handling characteristics. None of this equipment is guaranteed to be free of defect or to protect the driver or occupants from death or injury in the event of a collision. Please drive in a safe and sane manner.

Frequently Asked Questions & Important Things To Read About TC Equipment and Parts

UNIBALLS

TC uses a 100% stainless steel uniball and race for maximum corrosion resistance in all our equipment. The uniballs feature a military grade PTFE Liner that makes much less noise than the standard lined uniballs used in competing brands. This military grade PTFE liner is self-lubricating and does not require any additional lubrication or grease. If you have a ball that is making some noise apply either a layer of Tri-Flow Superior Dry Lubricant (No. TF21013) or CRC Dry PTFE Lube (No. 03044). Uniballs are a consumable item and will need to be replaced when the military grade PTFE Liner wears away. Grabbing your wheel and applying force to see if the ball is moving in the race will determine their maintenance schedule. Each uniball is retained in the uniball cup at the end of the arm with a large snap ring. . Wiping the uniballs down with a damp cloth to remove any built up dirt and debris will help extend the life of these parts Replacement parts are available directly from TOTAL CHAOS Fabrication Inc.

POLYURETHANE BUSHINGS

Poly bushings can and will make some noise. They offer many benefits vs. a factory style rubber bushing. To reduce as much noise as possible, TC uses a synthetic grease that contains PTFE called Hush Butter. If TC Hushbutter is not readily available use a good synthetic grease (Mobil 1, Valvoline, etc.).When greasing your pivot bushings on the vehicle it is very important not to force too much grease into the zerk fittings. This will cause excess pressure to become trapped in the pivot and will result in mushrooming the bushing shoulders out of the pivots. To prevent this, first loosen the factory bolt that holds the arms to the frame and separate the washers from the face of the bushings when applicable. This will allow any excess pressure and grease to escape. Don't forget to re-torque the factory bolt when you are finished to a factory torque specification!

ZERK FITTINGS

The grease nipples or zerk fittings that are supplied with our arms are ¼"-28 in size. Should you have a tapped hole that has an excess amount of powder coat in it, use a ¼"-28 tap to clean it up. When installing the zerk fittings take care not to over tighten them as they are hollow and can snap off. When fully installed they will not sit all of the way flush with the pivot, just insert them two or three rotations until they are snug. Don't forget to have them pointing in the right direction so you can get a grease gun onto them once the arms are installed onto the vehicle.

ANTI-SIEZE

To aid in future disassembly of components, we recommend that you liberally apply an anti-seize to all metal on metal contact surfaces such as the ID of the uniball, hi-mis spacers, and inner sleeves. Also, apply it to the threads on any C-lock or Stover nut. This will prevent the C-lock portion of the nut from galling onto the bolt.

BLACK OXIDE COATED PARTS

Some components (such as 4340 axle shafts and lower uniball conversion cups) are coated with Black Oxide. While this will help to prevent rust, depending on your climate you may want to further coat these parts. For axle shafts we wrap a layer of electrical tape the length of the shaft (excluding the splines). For lower uniball conversion cups you can use black spray paint, just be sure to mask of the uniball before painting.

HARDWARE TORQUE

All hardware should be re-torqued after an initial break in period of 50 miles and again at 500 miles. Periodically after that you should inspect your suspension to ensure that nothing is loose, worn, or damaged.

UNIBALL CAPS

We do not use any sort of cap or cover over our uniballs as these actually lead to premature wear and corrosion. With a cap installed moisture and containments work their way up through the underside of the uniball and then become trapped. With no cover this moisture can evaporate and you have easy access to wipe down the uniball periodically.

HOW TO GREASE TOTAL CHAOS POLYURETHANE BUSHINGS

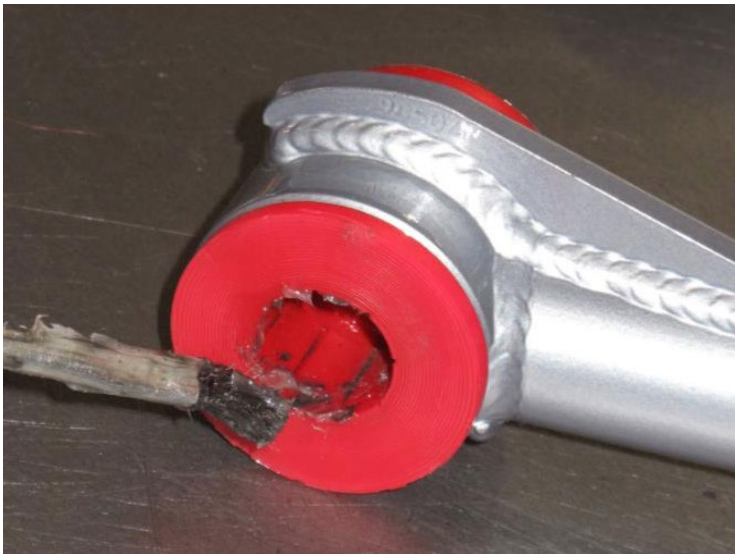
Polyurethane bushings are prone to squeaking and have the potential of making slight noise even if maintained properly. The reason TOTAL CHAOS uses polyurethane is that it is far stronger and has much less flex than stock rubber bushings. TOTAL CHAOS recommends using Hush Butter (or an equivalent PTFE marine grade water proof grease). Avoid using lubricants such as white lithium, any type of penetrant, or spray style lubricant.

STEP 1

Using a mallet, install the dry bushings into the control arm pivots.

STEP 2

With the bushings installed in the control arm, generously apply grease to the inner diameter of the bushings trying to fill the bushing grooves completely with grease.



STEP 3

Generously grease the outer diameter of the supplied TC metal inner sleeves.

STEP 4

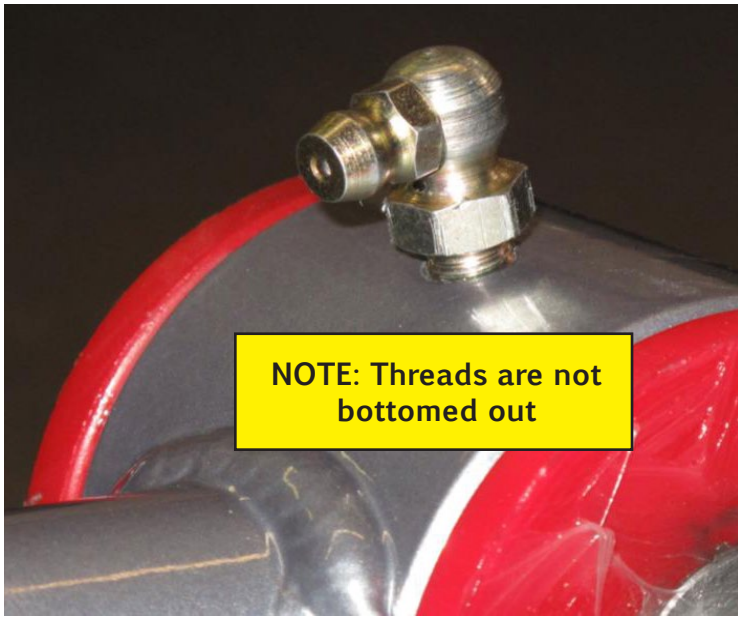
Using a mallet, arbor press, or smooth jawed vise, install the metal inner sleeve into the bushing.

STEP 5

Using the excess grease, use your finger or a small brush to lubricate the outsides or “hats” of the bushings where they make contact with the plated end washers or control arm pocket.

STEP 6

When installing the zerk fittings, it may be necessary to use a knife or sharp object to clean out the top of the threaded hole so the ¼”-28 NTP threads will catch. When tightening the zerk, DO NOT try and tighten the zerk to the bottom of the thread. It is only necessary to turn the zerk until it gets snug. Then rotate as far as necessary to make the fitting accessible for a grease gun.



To maximize performance and the lifespan of your polyurethane bushings, some maintenance is required. TOTAL CHAOS recommends greasing your bushings every 5,000 miles (similar to an oil change interval). Greasing more frequently may be required if the vehicle sees dirt and adverse conditions on a regular basis.