

# LTK-RZR-1 | LTK-RZR-1-1

79-15176

79-15177

Polaris RZR 1000 XP & RZR TURBO Long Travel



Parts Available For These Popular Brands and Others

**POLARIS**

**can-am**



**Kawasaki**



## HIGHLIFTER



[sales@highlifter.com](mailto:sales@highlifter.com)



800-699-0947 | 8:00am - 5:00pm CST



7455 Atkinson Drive, Shreveport, LA 71129



[www.highlifter.com](http://www.highlifter.com)

## ***PRODUCT DISCLAIMER***

### **IMPORTANT PRODUCT USE AND SAFETY INFORMATION / WARNINGS**

This product is designed for use on ATVs and/or RUVs to lower the final drive gear ratio and increase ground clearance. Purchasers should be aware that use of this product may increase the frequency of required maintenance, part wear, and will raise the center of gravity on your ATV and/or RUV, increasing risk of roll-over, injury and death on all types of terrain. It is your responsibility to always inform other operators and passengers of this vehicle about the added risks with this product.

High Lifter's products are designed to best fit user's ATV/RUV under stock conditions. Adding, modifying, or fabricating any OEM or aftermarket parts will void warranty. High Lifter Products, products could interfere with other aftermarket accessories. If the user has aftermarket products on machine, contact High Lifter Products to verify that they will work together. Adding aftermarket suspension components and/or more aggressive tires can cause breakage of other OEM driveline components such as differentials, axles or drive shafts.

Riders should be advised that the handling characteristics of a taller ATV and/or RUV are different and require extra care when riding, particularly on the side of hills or off-camber situations. If you further raise the center of gravity by adding taller tires, heavy loads to racks or seats, or by any other means, the ATV and/or RUV must be operated with even more care, at slower speeds and on relatively flat ground. All turns should be done at a slow speed, even on level ground.

Operation of an ATV and/or RUV with or without modified suspension components, while or shortly after consuming alcohol or drugs, subjects the rider and passengers to the risk of serious bodily harm or possible death. This risk is compounded if the riders do not wear an approved helmets and other safety gear. High Lifter urges that all approved safety gear be worn when riding an ATV and/or RUV as a driver or passenger.

By purchasing and installing High Lifter Products, products, user agrees that should damages occur, High Lifter Products will not be held responsible for loss of time, use, labor fees, replacement parts, or freight charges. High Lifter Products will not be held responsible for any direct, indirect, incidental, special, or consequential damages that result from any product purchased from High Lifter Products. The total liability of seller to user for all damages, losses, and causes of action, shall not exceed the total purchase price paid for the product that gives rise to the claim.

### **Dealers and other Installers**

You are responsible for informing your customer and end user of the information contained above and the increased potential hazards of operating an ATV and/or RUV equipped with modified suspension components. If you install any suspension modifying components, it is your responsibility to also install the warning label prominently in view of the driver and in prominent view of the driver and passenger on RUVs and multi-passenger ATVs. They should also be instructed to notify anyone operating the vehicle, as well as any passengers, that said vehicle is modified.

As discussed above, it is critically important that they be instructed in the need for slower speed operation, regardless of terrain, after this lift kit is installed.

**High Lifter Products. 7455 Atkinson Drive, Shreveport, LA 71129 - Phone: 1-800-699-0947**

# HIGHLIFTER

## PARTS DIAGRAM

### LIFT BRACKETS & HARDWARE

(LT-P004-B1) 79-15170



**MCS10X70-10.9**  
**54-60979**  
10mmX70mm  
Hex Bolt  
(4ea)



**MCS516**  
**54-61002**  
M5X.80mmX  
16mm Bolt  
(2ea)



**T121**  
**54-61335**  
12x1 Tek Hex  
Head Screw  
(6ea)



**JJ**  
**73-13339**  
JJ Spacer  
(2ea)



**133B**  
**79-14813**  
Brake Line  
Clamp (1pk)



**147i**  
**79-14648**  
Rear Shock  
Bracket (1ea)



**MFW10**  
**54-61026**  
M10 Flat  
Washer  
(4ea)



**MFW5**  
**54-61030**  
M5 Flat  
Washer  
(4ea)



**45X**  
**73-11617**  
48\"/>



**O**  
**73-13372**  
O Spacer  
(2ea)



**LOCTITE-02-B**  
**54-60937**  
Blue Loctite  
(1ea)



**147H**  
**79-14647**  
Front Shock  
Bracket (1ea)



**MLN10**  
**54-61038**  
M10-1.5  
Lock Nut (4ea)



**MLN5-0.8**  
**54-61041**  
M5X.80mm  
Lock Nut (2ea)



**WL-CLAMP-12**  
**73-15076**  
P-Clamp  
(6ea)



**68Z**  
**73-12322**  
C-Clip  
(4ea)



**29N**  
**73-11045**  
Logo Plate  
(1ea)



**139Z**  
**73-10788**  
Upper Radius  
Spacer (1ea)



**140A**  
**73-10801**  
Lower Radius  
Spacer (1ea)



**10U**  
**79-10137**  
Steering  
Stop (2ea)



**T11RB**  
**54-61334**  
11\"/>



**SBSH5161**  
**54-61299**  
5/16\"/>



**FEN516114**  
**54-60708**  
5/16\"/>

### UPPER & LOWER RADIUS BAR HARDWARE



**MCS12X80-10.9**  
**54-61001**  
12mm x 80mm  
Hex Bolt (4ea)



**MFW12**  
**54-61027**  
12mm Washer  
(4ea)



**MLN12-1.5**  
**54-96044**  
12mm Lock  
Nut (4ea)



**65K**  
**73-12238**  
12mm Heim  
Bushing (8ea)



**127T**  
**73-10618**  
3/4-16 Heim  
Joint (4ea)



**JN34F**  
**54-60881**  
3/4-16 Jam  
Nut (4ea)



**82X**  
**73-12790**  
Inner Cone  
(8ea)



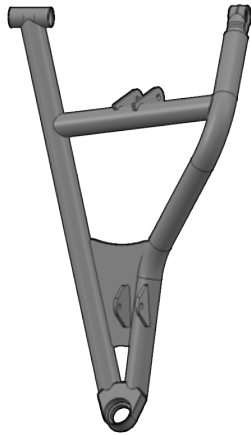
**92W**  
**73-12960**  
Tapered  
Bushing  
(8ea)



**SNLN516**  
**54-61326**  
5/16\"/>

### FRONT UPPER & LOWER ARMS

(LT-P004-B2) 79-15171



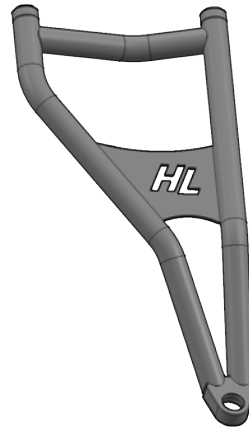
**145N-L**  
**79-14970-L**  
Front Upper Left  
Control Arm (1ea)



**112K**  
**79-10153**  
Adjustable  
Collar  
(4ea)



**145D-L**  
**79-14843-L**  
Front Lower Left Control  
Arm (1ea)



**145D-R**  
**79-14843-R**  
Front Lower Right  
Control Arm (1ea)



**145N-R**  
**79-14970-R**  
Front Upper Right  
Control Arm (1ea)

### UPPER & LOWER RADIUS BAR

(LT-P004-B3) 79-15172



**128W**  
**73-10634**  
Lower Radius  
Bar (2ea)



**144Y**  
**79-15113**  
Upper Radius  
Bar (2ea)



**96o**  
**73-13005**  
Spherical  
Bearing  
(4ea)



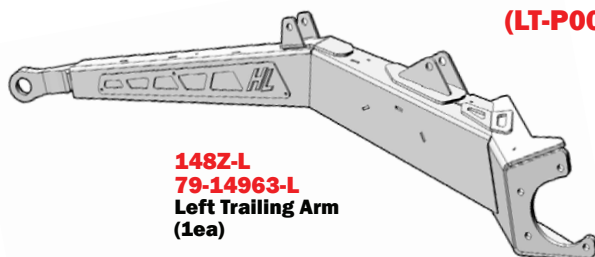
**103H**  
**73-10077**  
C-Clip  
(8ea)

# HIGHLIFTER

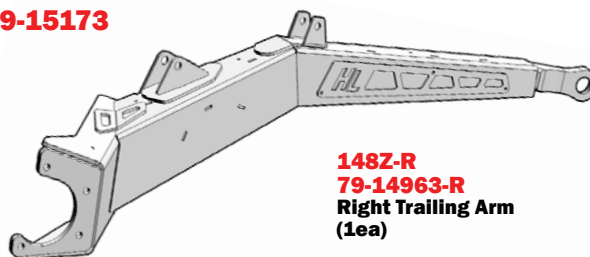
## PARTS DIAGRAM

### TRAILING ARMS

(LT-P004-B4) 79-15173



**148Z-L**  
**79-14963-L**  
Left Trailing Arm  
(1ea)



**148Z-R**  
**79-14963-R**  
Right Trailing Arm  
(1ea)



**31J**  
**79-10856**  
Spherical  
Bearing  
(2ea)



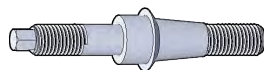
**100A**  
**79-10002**  
Internal  
Retaining Ring  
(2ea)

### TIE ROD & STEERING SET UP

(LT-P004-B5) 79-15174 & (LT-P004-B5-2) 79-15175



**MLN12-1.5**  
**54-96044**  
M12-1.5  
Lock Nut  
(4ea)



**146X**  
**79-15126**  
High Misalignment  
Stud (2ea)



**MFW12**  
**54-61027**  
12mm Flat Washer  
(2ea)



RZR 1000 XP

**HL-TRE-001**  
**78-10224**  
14mm Inner Tie  
Rod (2ea)



**145A**  
**79-15115**  
Tie Rod  
(2ea)



**20T**  
**79-10719**  
Right Handed  
Hlem Joint  
(2ea)



RZR TURBO

**HL-TRE-002**  
**78-10225**  
16mm Inner Tie  
Rod (2ea)



**LJN58F**  
**54-60930**  
5/8-18 Left  
Hand Jam  
Nut (2ea)



**146Y**  
**79-14420**  
High  
Misalignment  
Bushing (2ea)



**JN34F**  
**54-60881**  
3/4-16 Jam  
Nut (2ea)

### LONG TRAVEL AXLES RZR 1000 XP



**DHT-XL-RZR1-4-F**  
**64-10859**  
Front Axle (2ea)



**DHT-XL-RZR1-2-R**  
**64-10857**  
Rear Axle (2ea)

### LONG TRAVEL AXLES RZR TURBO



**DHT-XL-RZR1-5-F**  
**64-10861**  
Front Axle (2ea)



**DHT-XL-RZR1-2-R**  
**64-10857**  
Rear Axle (2ea)

# Front INSTALL

## REMOVING STOCK COMPONENTS

## Wheels

1



## FRONT PASSENGER

**KEEP ALL FACTORY HARDWARE.**

Place **jack** under the **FRONT center** of the UTV and lift until the weight is off the suspension. Ensure that the vehicle is properly secured, so that it is stable on the jack.

Make sure that the jack is tall enough to raise the UTV high enough to reinstall tires after installation is complete. **ONCE LIFTED, USE JACK STANDS TO PROPERLY SECURE THE UNIT.**

**Remove the front wheels.**

## REMOVING STOCK COMPONENTS

## Brake Lines & Caliper

2

### UPPER ARM



### FRAME



### CALIPER

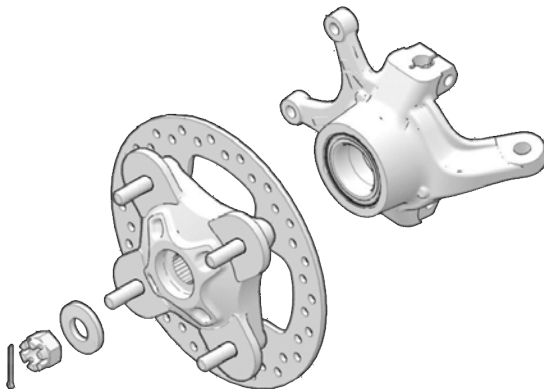


Remove the **brake lines** from arms and frame by drilling off the rivets. Remove the (2) **brake caliper mounting bolts (15mm)** **DO NOT** disconnect lines from caliper. Set brake caliper aside.

## REMOVING STOCK COMPONENTS

## Hub Assembly

3



Remove the **cotter pin**, **axle nut**, and **washers** from the hub assembly, then remove the hub. (27mm) **KEEP FACTORY HARDWARE.**

6

**REPEAT STEPS ON OPPOSITE SIDE**



## Front INSTALL

### REMOVING STOCK COMPONENTS

Front End Prep

- 4** Before removing the upper and lower arms from the front knuckle assembly, you will first need to disconnect:

- A. Tie rod
- B. Lower sway bar link end
- C. Lower shock end
- D. Upper & Lower Ball joint

**KEEP ALL FACTORY HARDWARE.**

#### LOWER SWAY BAR LINK END



#### LOWER SHOCK END



#### TIE ROD END



Disconnect the **tie rod** from the knuckle. (18mm)

#### UPPER BALL JOINT



Disconnect the **Upper ball joint** by removing the **bolt** at the knuckle. (15mm)

#### LOWER BALL JOINT



Disconnect the **Lower ball joint** by removing the **bolt** at the knuckle. (15mm)

### REMOVING STOCK COMPONENTS

Control Arms & Axle

**5**



Remove the **Upper and Lower arms** by removing the **bolts** from the **frame**. (15mm) Then remove the **stock axle**. **KEEP ALL FACTORY HARDWARE.**

**REPEAT STEPS ON OPPOSITE SIDE**

6

### MODIFICATIONS

INNER TIE ROD (HL-TRE-001)  
(LEFT HAND THREADED)

OUTER TIE ROD HEIM JOINT (20T)  
(RIGHT HAND THREADED)



Remove the clamp from the boot, then remove the stock tie rod.



Install the boot over the (HL-TRE-001 or 002) inner tie rod, then thread on the tie rod to the inner tie rod end. (scribe line)



Install the heim joint (20T) and to the opposite end. This will likely need to be adjusted later.



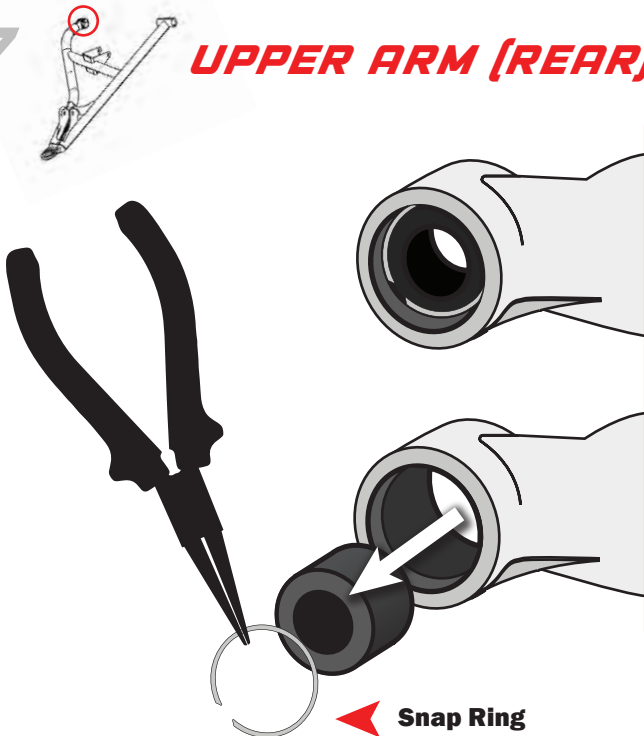
Re-secure the boot with an 11" zip tie.

## PIVOT CAPS, SLEEVE, BUSHINGS, & SNAP RING

## Removal

7

### UPPER ARM (REAR)



Remove the pivot caps, bushings, and snap ring from the factory arms.

**NOTE:** Use caution when removing the bushing from the collar. There is a stop built into the factory arm that prevents the bushing from pushing out when installed.

The bushing will only come out from the side with the snap ring.

USE A PRESS OR A VICE TO PRESS THE BUSHING OUT OF THE ARM. USE A SOCKET OR A SPACER ON THE BACKSIDE TO PRESS THE BUSHING INTO.

NEED REPLACEMENT BUSHINGS?



8

REPEAT STEPS ON OPPOSITE SIDE



# Front INSTALL

## PIVOT CAPS, SLEEVE, BUSHINGS, & SNAP RING

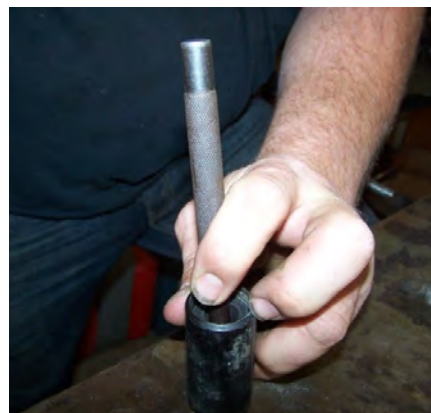
Removal

8



### UPPER ARM (FRONT)

**NOTE: IF YOU HAVE PRE-INSTALLED BUSHINGS SKIP THIS STEP.**



You will need to reuse your factory pivot caps, bushings, sleeves, and ball joints. Make sure that you inspect your bushings and ball joints for wear. Replace as needed.

IF YOU HAVE ACCESS TO A BLIND BEARING PULLER WE HIGHLY RECOMMEND USING THIS TOOL OVER THIS METHOD. USING A PUNCH MAY CAUSE DAMAGE TO THE BUSHINGS.



Remove **pivot caps** and **sleeves** from both arms.

Use a **blind bearing puller** or a **flat punch** to remove the **bushings**.

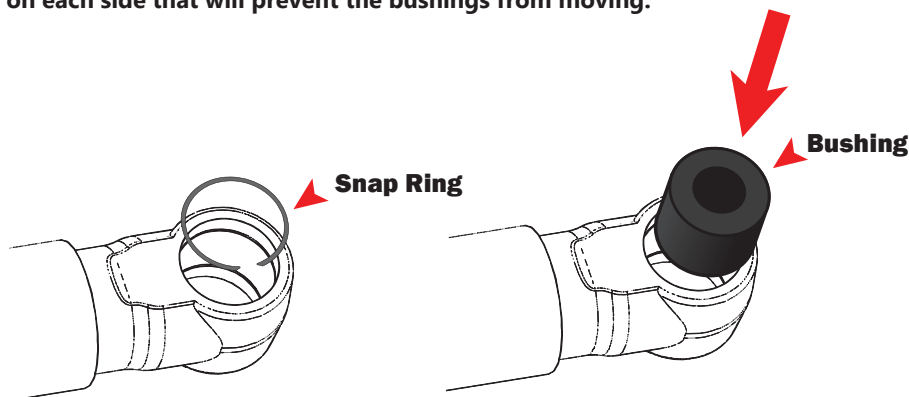
Use caution when removing the bushing from the collar, there is a stop built into the factory arm that prevents the bushing from pushing out when installed. Because of this, the bushing must be pushed out from the opposite side.

## UPPER ARM BUSHINGS

Install

9

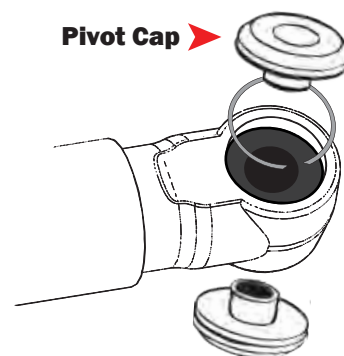
On the new upper arms there is **NOT** a stop built into the collar on one side. Instead there will be new snap rings on each side that will prevent the bushings from moving.



Insert the (68Z) snap ring into one side, then insert the **bushing**. Press the bushing into place.

Once the bushing is inserted you will need to use a socket of the same diameter as the bushing to help press it in all the way.

**TIP:** If you apply some grease to the bushings, it makes the installation easier.



Once the bushing is seated place the other snap ring into place and place the pivot caps on the ends.

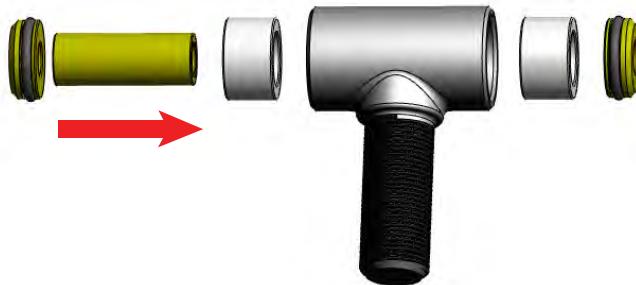
**NOTE:** You may need to free the snap ring groove of debris with a pick. Debris will prevent the snap ring from seating.

**REPEAT STEPS ON OPPOSITE SIDE**

10



**NOTE: THE LOWER ARMS AND THE FRONT PORTION OF THE UPPER ARM USE THE SAME BUSHING INSTALL PROCESS.**



Once the bushing is inserted, use a socket, of the same diameter as the bushing to press it in all the way.

Applying grease to the bushings and sleeves will make the installation easier.

Use a press or vice to secure the bushings.

## BALL JOINTS

## Removal

11

**IF YOU HAVE PRE-INSTALLED BALL JOINTS SKIP THIS STEP.**

**NOTE: A press or a vise is suggested for removing and replacing the ball joints.**



Remove Retaining Clip

Back the ball joint with a large 36mm socket or something sturdy of similar diameter, then using a press or vice, press the ball joint out of the arm.

THERES AN EASIER WAY!



12

Flip the control arm over, and using the same process, press the ball joint in using a vice or press. If you press in the ball joint crooked, **DO NOT TRY TO FORCE IT IN!** If you try to force it straight you can "egg" the opening. Press the ball joint out and reinsert it into the opening, pressing it in with a vise. Verify that the clip snaps into place after installing the ball joints into the new Control Arm. You should always double check the ball joint snap ring for proper fit. Even if you use snap ring pliers, it may not seat. You can use a flathead screwdriver and a hammer to tap the snap ring to ensure that it is seated into the groove.

**BALL JOINT ORIENTATION****REPEAT STEPS ON OPPOSITE SIDE**

### 13 PASSENGER SIDE



Disconnect the brake line from the caliper and upper control arm. Have a container ready to collect brake fluid.

### DRIVER SIDE

(PA) = Passenger Side

(DR) = Driver Side

Disconnect the factory brake lines from any retaining clips or ties that are still holding them in place.



Locate the master cylinder on the (DR) side.



Unplug the connector.



Disconnect the banjo bolt and brake lines from the master cylinder.

Have a container ready to collect brake fluid.



Save the factory washers that separate the two front lines. Remove the line from the UTV.



### 14 PASSENGER SIDE



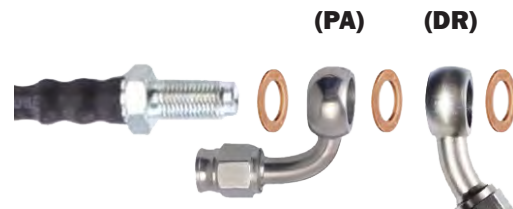
Disconnect the factory brake lines from the passenger side. (it will be reinstalled to the Driver's side) Install the new (45X) 48" FRONT (DR) brake line to the banjo bolt.



### DRIVER SIDE



Use the factory brake line originally from the PASSENGER side and install it on the LEFT (DR) side.



The banjo bolts should be in this sequence: bolt, washer (PA) brake line, washer (DR) brake line, and washer.

Run the brake lines back through the frame to their corresponding hubs.



Fasten banjo bolt to master cylinder. Torque (12mm) [50 ft lbs]

Re-secure the connector.



# Front INSTALL

## FRONT LIFT BRACKETS

Install

### 15 BACK LIFT BRACKET

REMOVE THE SHOCKS IF YOU HAVE NOT DONE SO ALREADY.

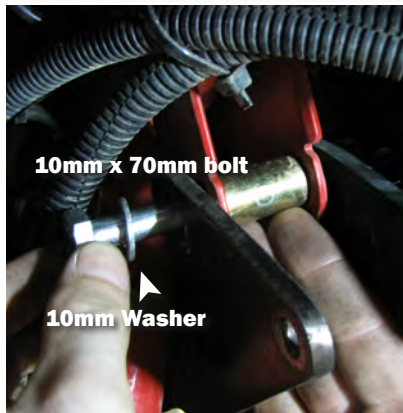


**147i**  
Rear Bracket



**147i**  
Rear Bracket

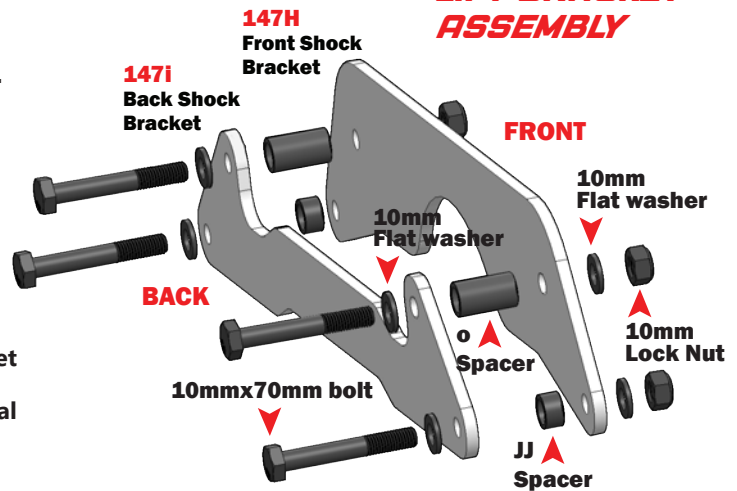
Install the (147i) bracket to the **REAR** of the original shock tab.



10mm x 70mm bolt

10mm Washer

Insert the M10x70mm bolt followed by a 10mm washer through the bracket and tab followed by the **O** Spacer.



### LIFT BRACKET ASSEMBLY

**147H**  
Front Shock Bracket

**147i**  
Back Shock Bracket

**FRONT**

10mm Flat washer

10mm Flat washer

**BACK**

10mmx70mm bolt

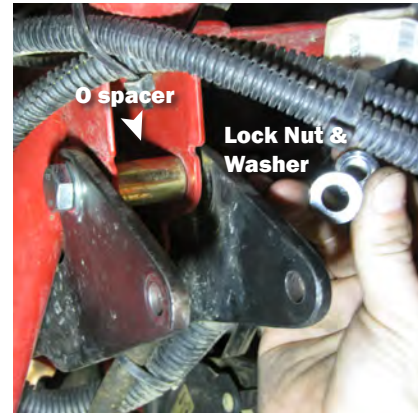
O Spacer

JJ Spacer

10mm Lock Nut

10mm Lock Nut

Insert the (**O**) spacer between the original shock tabs. Run the bolt all the way through **LOOSELY** secure hardware.



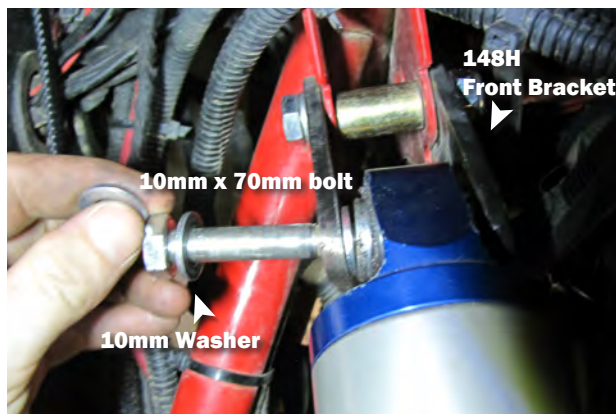
O spacer

Lock Nut & Washer

### 16 FRONT LIFT BRACKET



**147H**  
Front Bracket

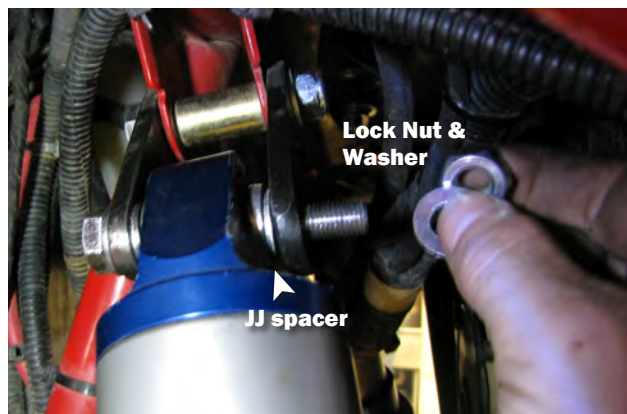


**148H**  
Front Bracket

10mm x 70mm bolt

10mm Washer

Install the (147H) bracket to the **FRONT** of the unit. (closest to the radiator) Insert a 10mmx70mm bolt followed by a 10mm washer through the bracket and shock.



Lock Nut & Washer

JJ spacer

Secure the bracket in place with the 10mm flat washer and 10mm lock nut. Secure remaining hardware.

## Front INSTALL

### FRONT LOWER CONTROL ARM

Install

17

#### LOWER ARM



Connect the lower arm at the frame. **USE FACTORY HARDWARE.**

#### AXLE



Next, install the new axle into the front differential.

### FRONT UPPER CONTROL ARM

Install

18

#### UPPER ARM



Using factory hardware, connect the new upper arm at the frame.

#### HUB ASSEMBLY



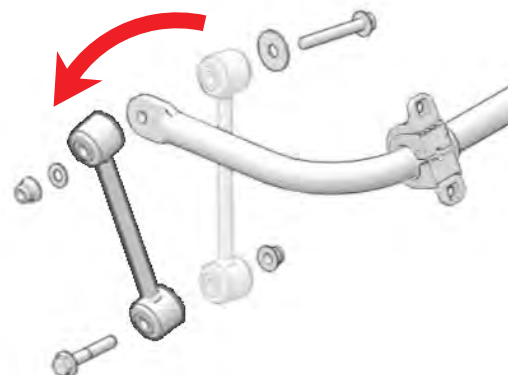
Slide the axle through the hub assembly. Using factory hardware, connect the lower arm at the knuckle, then the upper arm.

#### SHOCK



Once the arms are mounted, install the shock. Secure shock with factory hardware.

#### SWAY BAR



Switch the sway bar link from the inside of the tab to the outside. (closest to the wheel) Secure with factory hardware.

**REPEAT STEPS ON OPPOSITE SIDE**

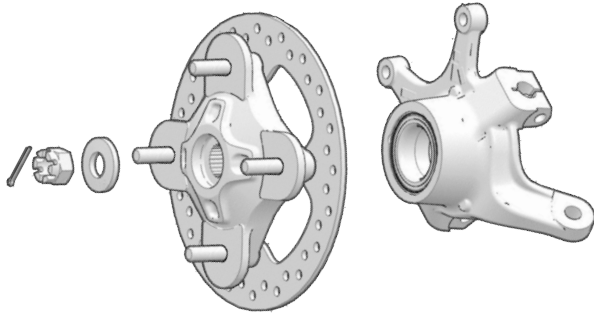


## Front INSTALL

### FRONT BRAKE & HUB ASSEMBLY

Install

19



Reattach the rotor to the knuckle assembly. Fasten using washers, castle nut, and cotter pin. (27mm)

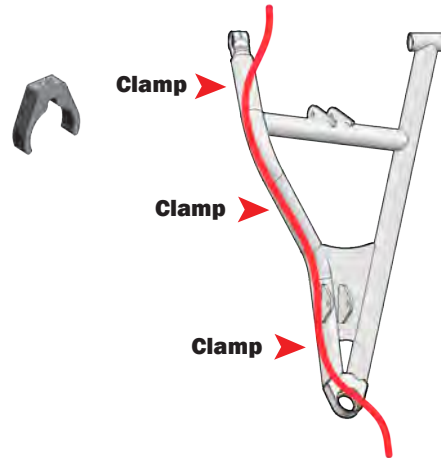


Re-secure fitting to caliper if you have not done so already. Connect the caliper to the hub assembly. (15mm)

### FRONT BRAKE LINES

Install

## 20 UPPER CONTROL ARM

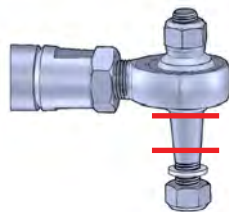
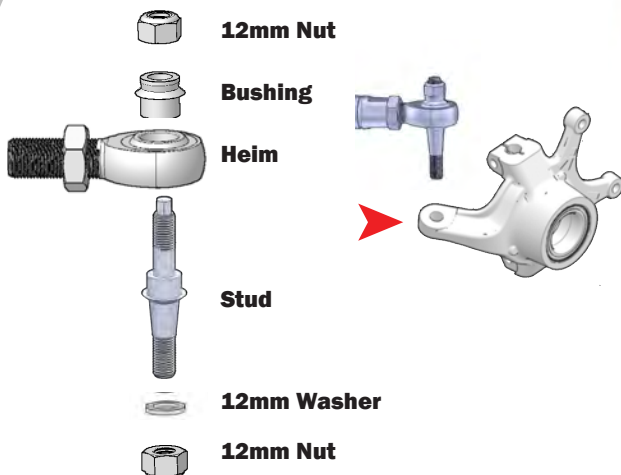


Secure the 48" front brake line to the FRONT UPPER arm by using the supplied 133B brake line clamps. Route the line along the back of the UPPER ARM. You do not have to route the lines exactly as shown, as long as they do not become pinched or bound.

### TIE ROD END

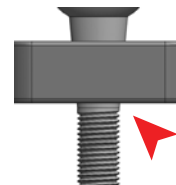
Install

21



Tie Rod Tab placement

Slide the stud through bottom of the heim joint (20T), place the 3/4" bushing (146Y) on the top side of the heim. Insert the stud through the top of the tie rod tab on the knuckle. Slide a 12mm washer on the bottom end of the stud. Fasten with a 12mm lock nut on each end.



This is a universal tapered stud. On some applications it may require the use of additional washers, so that the nut can properly secure the stud. If your application allows any of the tapered portion of the part to extend past the bracket on the nut side, use additional washers.

## Rear INSTALL

### REAR LIFT

Install

22

**BEFORE LIFTING THE UTV MAKE SURE TO DISCONNECT THE STABILITY BARS FROM THE TRAILING ARMS, THIS WILL MAKE INSTALLATION EASIER.**



### REAR PASSENGER SIDE

**KEEP ALL FACTORY HARDWARE.**

Place **jack** under the **REAR center** of the UTV and lift until the weight is off the suspension. Ensure that the vehicle is properly secured, so that it is stable on the jack.

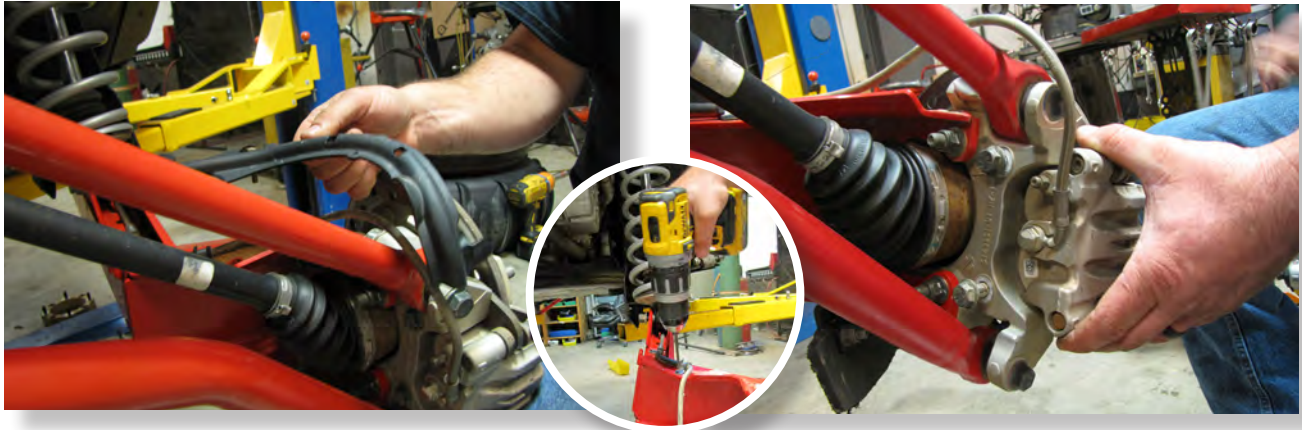
Make sure that the jack is tall enough to raise the UTV high enough to reinstall tires after installation is complete. **ONCE LIFTED, USE JACK STANDS TO PROPERLY SECURE THE UNIT.**

**Remove the rear wheels.**

### REAR BRAKE LINES

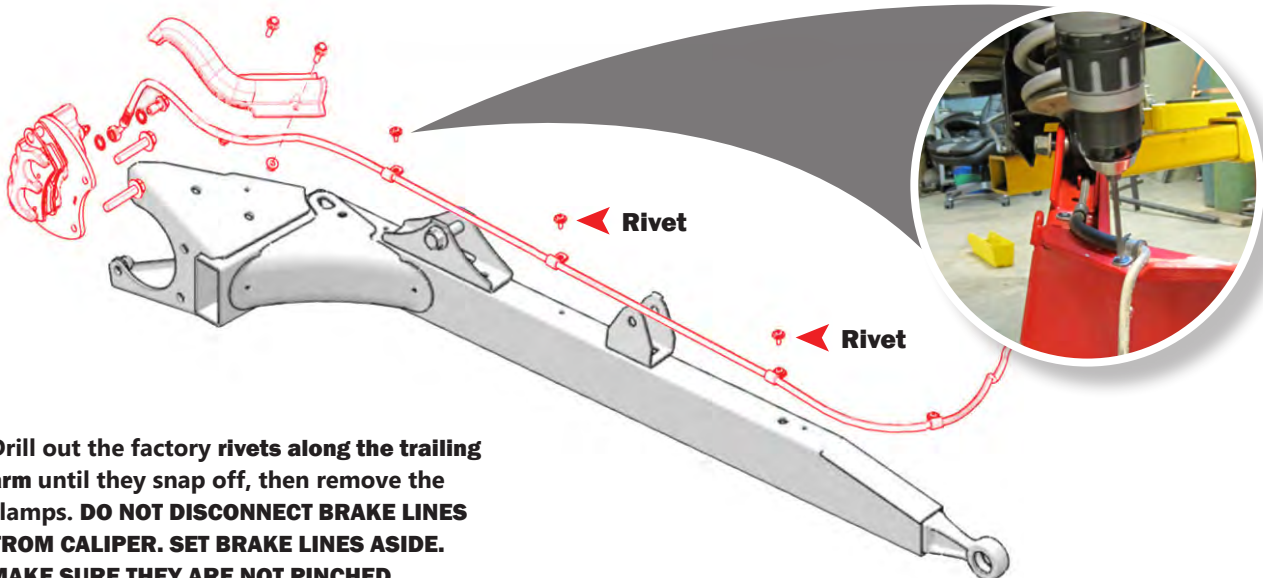
Removal

23



Remove the brake line guard by removing the bolts securing it.

**Disconnect the caliper bolts from the hub assembly, leave the brake line attached to the caliper (15mm). Set brake caliper aside. KEEP FACTORY HARDWARE.**



Drill out the factory rivets along the trailing arm until they snap off, then remove the clamps. **DO NOT DISCONNECT BRAKE LINES FROM CALIPER. SET BRAKE LINES ASIDE. MAKE SURE THEY ARE NOT PINCHED.**

**REPEAT STEPS ON OPPOSITE SIDE**

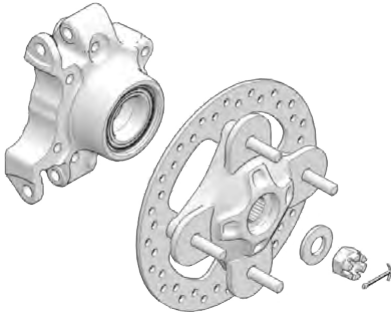


## Rear INSTALL

### TRAILING ARMS, AXLES, & KNUCKLES

Removal

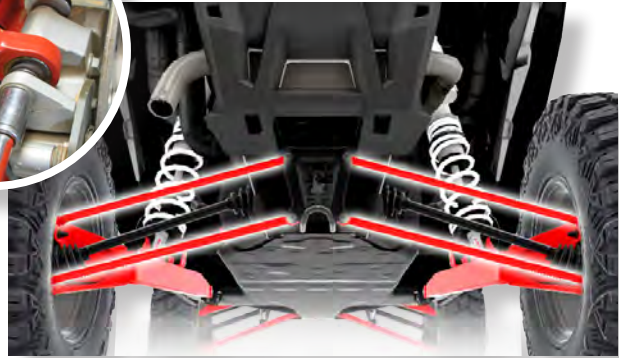
## 24 HUB ASSEMBLY



Remove the factory cotter pin and castle nut (27mm) on the rear axles, then remove the brake rotor assembly.



## RADIUS BARS



If you cannot access the radius bar mounting bolts due to the plastic bumper, remove it. Remove the nuts and bolts securing the UPPER & LOWER radius bars at the frame and hub.

## 25

## AXLE



Completely remove the axle by removing it from the knuckle and the differential.



## KNUCKLE



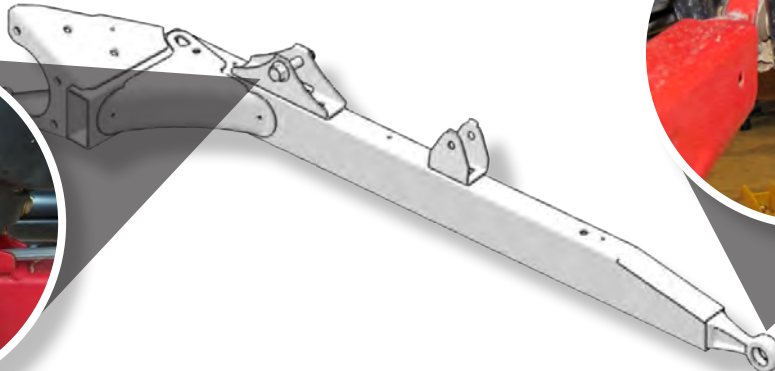
Remove the (4) nuts & washers that secure rear knuckle to the TRAILING ARM (17mm) Remove the rear knuckle. SET KNUCKLE ASIDE. KEEP FACTORY HARDWARE.

## 26 TRAILING ARM

Disconnect the shock and pivot bolt to completely remove the trailing arm.



1) Disconnect the shock



2) Disconnect the pivot bolt.



## Rear INSTALL

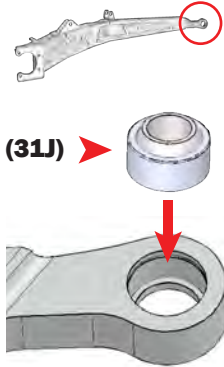
### TRAILING ARMS, AXLES, & KNUCKLES

Install

27



**THERE IS A STOP BUILT INTO THE TRAILING ARM. THE BEARING MUST BE PRESSED IN FROM THE OPPOSITE SIDE.**



Once the bearing (31J) is in place, use a socket of the same diameter as the outer race to press it in all the way. Apply grease to outer race to ease install.

Place the (2) misalignment bushings (100F) on each side of the trailing arm. Secure bearing with snap ring (100A)

### TRAILING ARM

28



Install the new trailing arm to the frame, use factory hardware to secure.

### KNUCKLE



Secure the knuckle to the trailing arm by using the (4) factory nuts & (4) washers (17mm) USE TOE SHIMS HERE TO MAKE CAMBER CORRECTIONS.

### AXLE

29



Install the new axle into the rear differential, then slide it into the knuckle.

### SHOCK



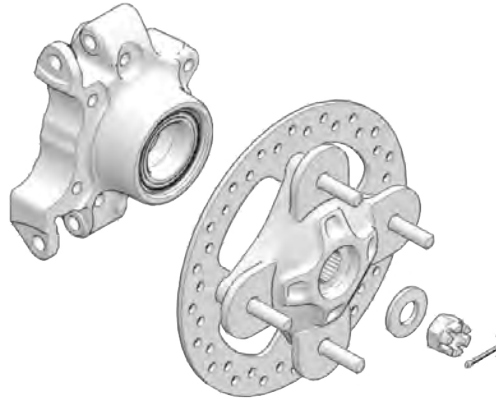
Secure the shock to the trailing arm using factory hardware.



**REPEAT STEPS ON OPPOSITE SIDE**

30

### HUB ASSEMBLY



Slide the rotor on to the axle (make sure splines are lubricated with water resistant grease) Fasten using washers, castle nut, and cotter pin provided in the kit. (27mm)

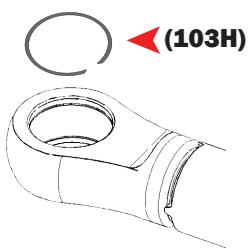
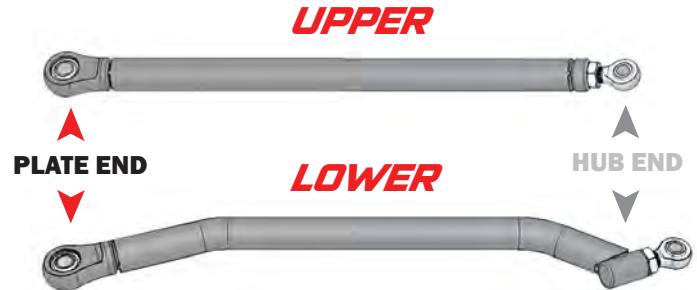
## RADIUS BARS

## Bearing install

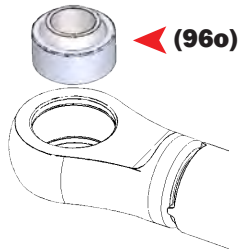
31

### RADIUS BARS

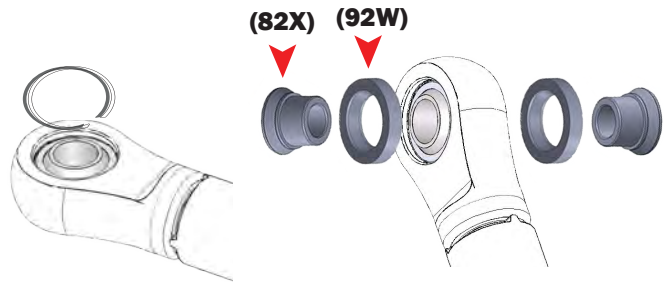
IF YOU HAVE A PRE-INSTALLED BEARINGS SKIP THIS STEP.



Insert a c-clip (103H) into one side, then place a spherical bearing (96o) into the other side.



Once the bearing (96o) is in place, use a socket of the same diameter as the outer race to press it in all the way. Apply grease to outer race to ease install.



**NOTE:** You may need to clean out the snap ring groove with a fine point or pick. make sure there is no debris preventing the remaining c-clip (103H) from seating.

Insert the alignment cone (82X) into the bushing (92W), Then insert it through the spherical bearing. These will go on both sides of the spherical bearing.

## Rear INSTALL

### RADIUS BARS

Install at Frame

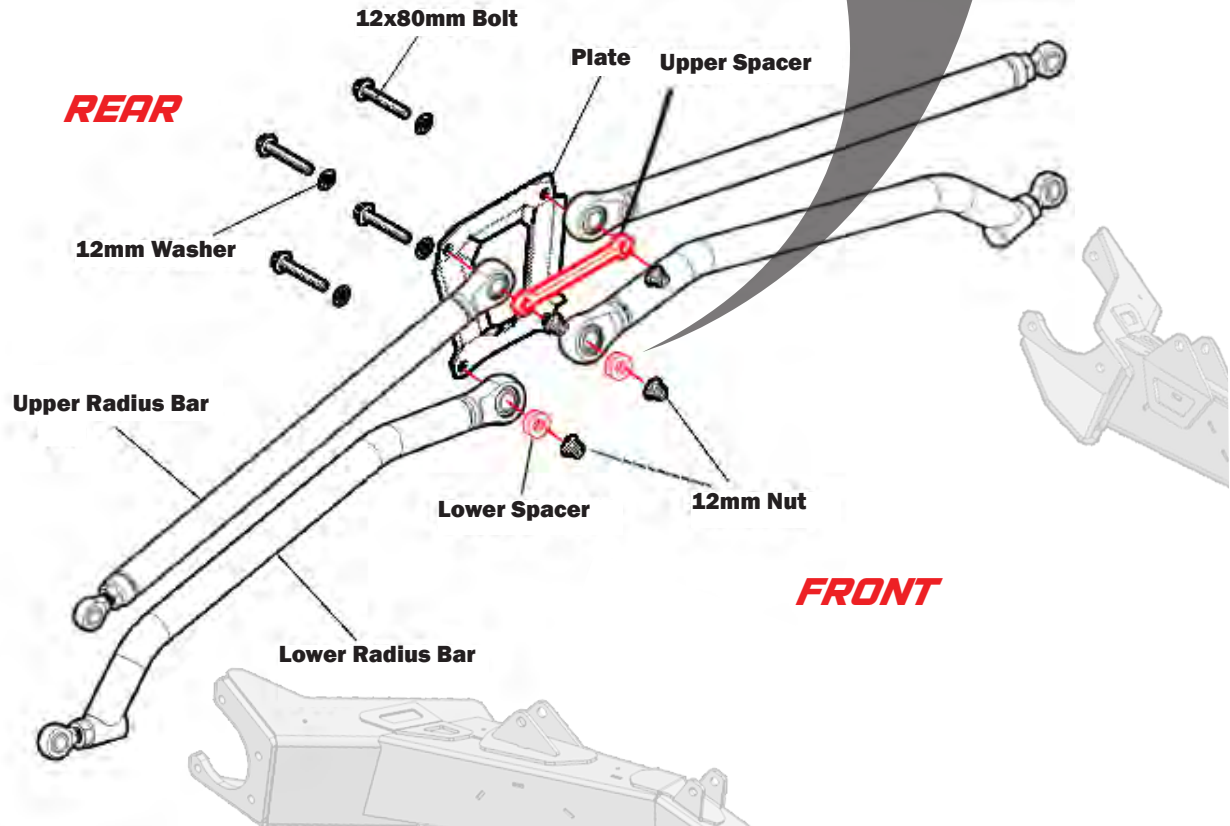
32

Attach the upper radius bars to the frame using the radius bar spacers (139Z) & (140A). Fasten them with the 12x80mm Hex Bolts, 12mm Flat Washers, and 12mm Lock Nuts provided in the kit. Torque to 90ft lbs.

Upper (139Z)



Lower (140A)



### RADIUS BARS

Install

33

### RADIUS BARS



#### UPPER



Insert the (2) heim adapters (92V) into the eyelet of the heim joint (96N).



#### LOWER



Install the new upper and lower radius bars to the frame, then connect them at the knuckle. Use factory hardware. **CONNECT LOWER RADIUS BAR AFTER CALIPER IS SECURED.**

**REPEAT STEPS ON OPPOSITE SIDE**



34

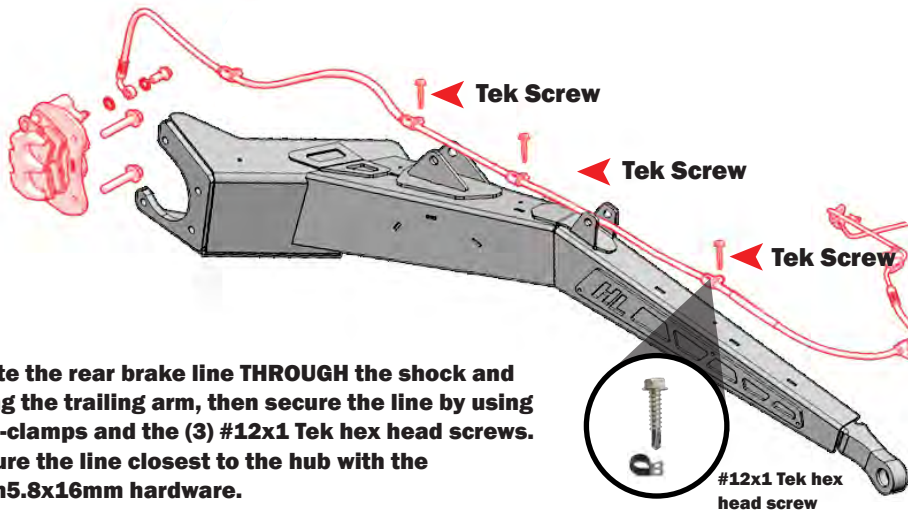


### ***BRAKE CALIPER***

Fasten the caliper to the hub. (15mm) Ensure the brake line is routed through the shock tab.

35

### ***TRAILING ARM***



Route the rear brake line **THROUGH** the shock and along the trailing arm, then secure the line by using (4) p-clamps and the (3) #12x1 Tek hex head screws. Secure the line closest to the hub with the (1) m5.8x16mm hardware.

36

### ***STABILITY BAR***

Connect the stability bar to the trailing arm, use factory hardware.



## FRONT WHEEL ALIGNMENT

37

**IF YOU HAVE ADJUSTABLE CONTROL ARMS, YOU MUST ADJUST THE CAMBER FIRST BEFORE PROCEEDING. DO NOT INSTALL WHEELS ONTO UTV UNTIL PROPER ALIGNMENT HAS BEEN ACHIEVED.**

- Straighten steering wheel
- Make sure that the brake rotors are straight to sight or level.
- Using a tape measure, measure from inside to inside on the front and back ends of the rotors.



### INCORRECT TOE

If the toe alignment is incorrect, measure the distance between vehicle center and the back of the rotors. This will indicate which tie rod needs adjustment.

### ADJUSTING TOE

- Adjust tie rods until **BOTH** measurements are the **SAME**, then adjust toe tolerance.

The recommended vehicle toe tolerance is  $\frac{1}{8}$ " to  $\frac{1}{4}$ " (3.175-6.35mm) toe out. This means the **FRONT MEASUREMENT IS WIDER THAN THE REAR MEASUREMENT.**

### TOE ADJUSTMENT CHART

TOE (Inches)	1/16	1/8	3/16	1/4	5/16	3/8
TOE (Degrees)	0.12°	0.25°	0.38°	0.51°	0.64°	0.76°

**Recommended Settings**



If the **FRONT OF THE WHEELS** are facing **OUT**, adjust the tie rods **OUT** or **INCREASE the length of the tie rod.**

Measurement at the front of the tires will be **GREATER** than the rear, if the **TOE IS OUT.**



If the **FRONT OF THE WHEELS** are facing **IN**, adjust the tie rods **IN** or **REDUCE the length of the tie rod.**

Measurement at the front of the tires will be **LESS** than the rear, if the **TOE IS IN.**



**IMPORTANT NOTE:** When tightening the tie rod jam nuts, the tie rod ends must be held parallel to prevent rod end damage and premature wear. Damage may not be immediately apparent if done incorrectly.

After alignment is complete, tighten & torque tie rod end jam nuts to specifications. [12-14 ft lbs]



### 38 ADJUSTING TOE

Toe is determined by how much the tire is angled **IN** or **OUT**. Adjust toe to preference, based off of riding style and your specific goals. **USE THESE INSTRUCTIONS AS A GENERAL GUIDE.**

Visually inspect your vehicle from the **REAR**. If the tire appears to be in line with the vehicle, you **DO NOT** need to adjust toe.

If the tire appears to veer **IN OR OUT**, you will need to adjust your toe by using the shims provided **OR** adjust the radius bars slightly.

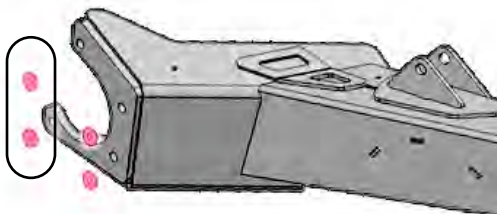


**TOE OUT +**



If the **FRONT OF THE WHEELS** are facing **OUT**, add shims to the **BACK** of the trailing arm. you can also adjust the radius bars **OUT** slightly or **INCREASE the length of the radius bars**. **DO NOT GO TOO FAR OUT.**

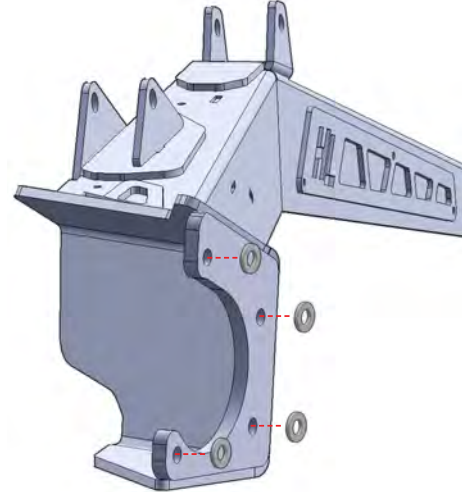
Measurement at the front of the tires will be **GREATER** than the rear, if the **TOE IS OUT**.



### TOE SHIMS

Once toe is determined, use the shims provided to correct toe. **USE DIAGRAM BELOW AND PREVIOUS FRONT TOE ADJUSTMENT PAGE AS A GUIDE.**

**NOTE: SUSPENSION MUST BE SETTLED WHEN CHECKING TOE. ROLL UNIT SEVERAL TIMES BACK AND FORTH TO ACCOMPLISH THIS.**

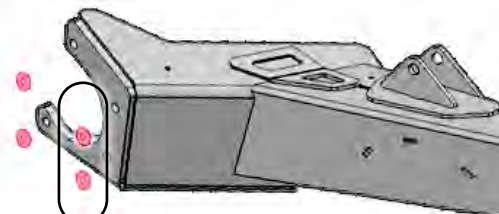


**TOE IN -**



If the **FRONT OF THE WHEELS** are facing **IN**, add shims to the **FRONT** of the trailing arm. you can also adjust the radius bars **IN** slightly or **REDUCE the length of the radius bars**.

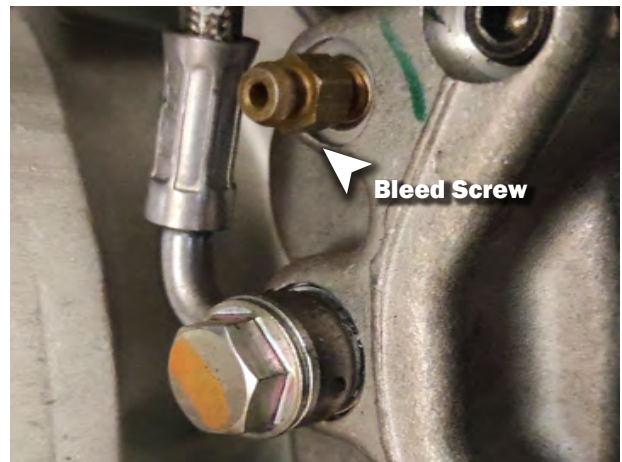
Measurement at the front of the tires will be **LESS** than the rear, if the **TOE IS IN**.



**NOTE: USE DOT 4 BRAKE FLUID**

**CAUTION: ALWAYS** wear eye protection like safety glasses. Brake fluid will damage finished surfaces. Do not allow brake fluid to come in contact with finished surfaces.

1. Bleeding the brakes is a two person job; you will need someone at the brake caliper and someone to pump the brake foot pedal. Take precautions due to the vehicle being on jacks and/or jack stands.
2. Clean the master cylinder cover thoroughly and remove the cover.
3. With all bleeder screws open, a gravity bleed is recommended to start with. This will push all the air out at once and eliminate most of the air bubbles. (Have area prepared for spills and cleaning)
4. Add brake fluid to the indicated MAX level of the reservoir. (Any DOT 4 Brake Fluid)
5. Close off each line once you steadily see fluid coming out.
6. Begin final bleeding procedure with the caliper that is the farthest from the master cylinder. It should be this sequence - (PA) REAR, (DR) REAR, (PA) FRONT, and then (DR) FRONT.
7. You can use the supplied clear hose to attach to the caliper bleeder screw. Be sure the hose fits tightly on fitting. Now place the other end of the hose into a clean container.
8. Install a box end wrench on the caliper bleeder screw. Have your brake buddy slowly pump the foot pedal until pressure builds and holds. Have your buddy hold brake pedal down to maintain pedal pressure. Now slowly open the caliper bleeder screw 1/4" turn so the air and fluid will displace into the container.
9. Close bleeder screw, and then have your buddy release the foot pedal.
10. Repeat steps until clean fluid appears in the bleeder hose & all the air has been purged... Close bleeder screw, pump brakes, hold pressure, open bleeder, close bleeder, release foot pedal, check master cylinder.
11. Check the master cylinder fluid level.  
**NOTE:** You must maintain at least 1/2" (1.27cm) of brake fluid in the reservoir to prevent air from entering the master cylinder.
12. Tighten bleeder screw securely and remove bleeder hose. Torque the bleeder screw. [4 ft lbs]
13. REPEAT procedure steps for the other three (3) brake calipers in the sequence listed above.
14. Add brake fluid to MAX level inside master cylinder reservoir after the last caliper is completed. Install master cylinder reservoir cover. Check brake system for leaks.
15. Once completed, dispose of used fluid properly.



**NOTE: Do not release foot pedal before the bleeder screw is tight or air may be drawn into the master cylinder... and you have to start all over again!**

40

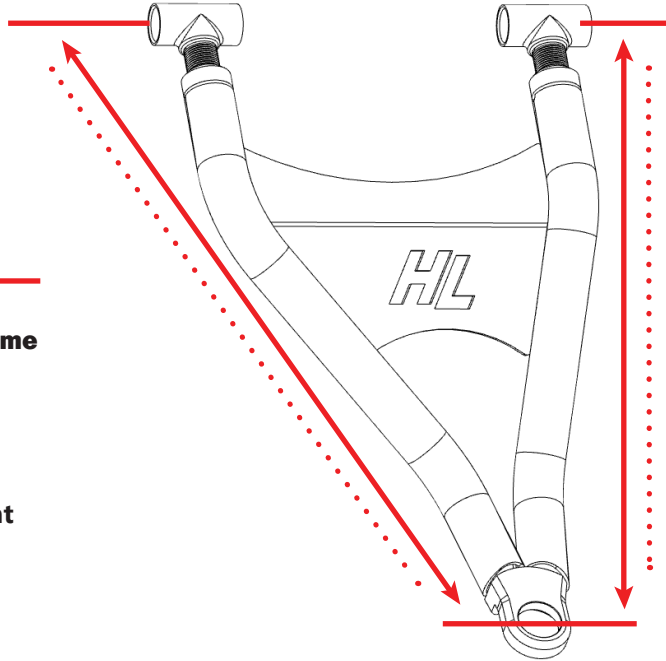
**BEFORE STARTING**

- Tires must be off the ground
- Tires must have equal air pressure
- Suspension components must be completely assembled

The new High Lifter lower control arms will come pre-adjusted to factory length, which is .937"

If you need to re-adjust the collars, place the factory arm and new control arm on a flat surface. Measure from eyelet to center mount on the factory arm, and then adjust the new arms to those lengths.

**NOTE:** When re-adjusting, leave the jam nuts loose. Do not fasten tight until installed on UTV, after all final adjustments have been made.



Make all adjustments in small increments.

Do this by disconnecting control arms at the frame and adjusting collars. Once small adjustments have been made. Take the UTV off the jack and roll it back and forth several times before checking the camber. Repeat steps as needed. After alignment is complete, tighten jam nuts to 80 ft-lbs and secure it with blue loctite.

**Positive Camber**

If you have a positive camber you will need to adjust the collar **OUTWARD** or lengthen the control arm. The maximum amount outward is "1.250" which could give up to 3° of negative camber.

**Correct Camber**

For this application, we recommend a camber setting of 0°. Collars are preset to .937"

**Negative Camber**

If you have a negative camber you will need to adjust the collar **INWARD** or shorten the control arm. The maximum amount inward is zero threads exposed and could give over 3° of positive camber.







## HIGH LIFTER LIMITED LIFETIME WARRANTY

High Lifter offers a Limited Lifetime Warranty to the original purchaser that our product shall be free from defects in material and workmanship for the life of the product if utilized in accordance with the manufacturer's instructions for installation and operation of said products.

### LIMITED LIFETIME WARRANTY EXTENDS TO THE FOLLOWING PRODUCT LINES:

- Lift Kits (Signature, Standard and Big Lifts)
- Control Arms
- Trailing Arms
- Radiator Relocation Kits
- Portal Gear Lifts
- Wheel Spacers
- Tow Hooks
- Control Arm Link Kits

Damages to vehicle or any other object during the installation, use, or removal of High Lifter products are not covered under this warranty. Normal wear items included with any of the products covered under this Limited Lifetime Warranty are excluded from coverage. These items include, but are not limited to heim joints, tie rods, bearings, bushings, seals, gaskets, zinc plating, painted and powder coated finishes. Other exclusions of coverage under this warranty include, but are not limited to: damage or product failure due to improper installation, lack of maintenance, product modification, abuse, collision or use on vehicles for which product was not designed, repairs performed by anyone other than approved High Lifter personnel or made using non-High Lifter components. This warranty is valid for the original purchaser only and is non-transferable. High Lifter reserves the right to inspect any product before determining if the claim is valid and covered under this warranty. Claims determined to be caused by reasons other than a manufacturer defect will be rejected and an estimate for repair or cost of a replacement product if a repair is not possible, will be provided.

This warranty is exclusive and is in lieu of any implied warranty of merchantability, fitness for a particular purpose or other warranty of quality, whether express or implied, except the warranty of title.

### WARRANTY PROCESSING

If you suspect your product is defective, **DO NOT** disassemble the product to determine the cause without prior approval as it may void your warranty status. This is especially true with our Portal Gear Lift. To begin the claim process, please e-mail our warranty team at [warrantycare@highlifter.com](mailto:warrantycare@highlifter.com) and include the following in the e-mail:

- ☐ Your full name, address and contact phone number.
- ☐ The year, make and model of your vehicle
- ☐ The part number of the product
- ☐ Photos of the product installed, and vehicle product is installed on
- ☐ Proof of Purchase (Required for all warranty claims and you must be the original purchaser)

Once a claim is created, you will receive a return authorization number (RMA). Write this number on the outside of the box containing your defective product and include it along with your name and contact information inside the box. Product must be returned in the original box or a box of equal strength and packaging. Product sent without an RMA number visible on the outside of the box or sent COD will be refused. Ship your product to the following address:

#### High Lifter Products.

**Attn: Returns 7455 Atkinson Drive, Shreveport, LA 71129**

Once your product is received, we often have your replacement or repaired product shipped back to you within 3-business days of receiving it. Please note that High Lifter is not responsible for shipping charges on product returned for warranty or repair, including duties and fees required by those residing outside the United States.

# THANK YOU FOR CHOOSING HIGHLIFTER

## DHT-XL LONG TRAVEL AXLE WARRANTY PROGRAM

Thank you for purchasing a High Lifter Products Big Lift equipped with a set of DHT-XL Big Lift Axles. Our axles have been engineered to provide superior performance for use on your ATV/UTV.

### HIGH LIFTER DHT X & DHT XL AXLE 18-MONTH LIMITED WARRANTY

High Lifter offers an 18-Month Limited Warranty to the original purchaser that our DHT X and DHT XL line of axles shall be free from defects in material and workmanship for 18-months following the original purchase date if utilized in accordance with the manufacturer's instructions for installation and operation of said products. In the event of a failure during this 18-month period, High Lifter will replace the axle one time free of charge. Subsequent replacements during this 18-month period will be charged a \$50.00 replacement fee.

### HIGH LIFTER CV AXLE 12-MONTH LIMITED WARRANTY

High Lifter offers an 12-Month Limited Warranty to the original purchaser that our CV line of axles shall be free from defects in material and workmanship for 12-months following the original purchase date if utilized in accordance with the manufacturer's instructions for installation and operation of said products. In the event of a failure during this 12-month period, High Lifter will replace the axle one time free of charge. Subsequent replacements during this 12-month period will be charged a \$50.00 replacement fee.

### HIGH LIFTER STOCK SERIES AXLE 90-DAY LIMITED WARRANTY

High Lifter offers an 90-Day Limited Warranty to the original purchaser that our Stock Series line of axles shall be free from defects in material and workmanship for 90 days following the original purchase date if utilized in accordance with the manufacturer's instructions for installation and operation of said products. In the event of a non-defect related failure during this 90-day period, High Lifter will offer to replace axle for a \$40 replacement fee.

Damages to vehicle or any other object during the installation, use, or removal of High Lifter products are not covered under this warranty. Damage or product failure due to improper installation, lack of maintenance, product modification, abuse, collision or use on vehicles for which product was not designed are also excluded from coverage. Other exclusions of coverage under this warranty include, but are not limited to: damage or product failure due to improper installation, lack of maintenance, product modification, abuse, collision or use on vehicles for which product was not designed, repairs performed by anyone other than approved High Lifter personnel or made using non-High Lifter components. This warranty is valid for the original purchaser only and is non-transferable. High Lifter reserves the right to inspect any product before determining if the claim is valid and covered under this warranty. Claims determined to be caused by reasons other than a manufacturer defect will be rejected and an estimate for repair or cost of a replacement product if a repair is not possible, will be provided.

This warranty is exclusive and is in lieu of any implied warranty of merchantability, fitness for a particular purpose or other warranty of quality, whether express or implied, except the warranty of title.

### WARRANTY PROCESSING

If you suspect your product is defective, **DO NOT** disassemble the product to determine the cause without prior approval as it may void your warranty status. To begin the claim process, please e-mail our warranty team at [warranty@highlifter.com](mailto:warranty@highlifter.com) and include the following in the e-mail:

- Your full name, address and contact phone number.
- The year, make and model of your vehicle
- The part number of the axle
- Photos of the axle installed, and vehicle axle is installed on
- Proof of Purchase (Required for all warranty claims and you must be the original purchaser)
- Once a claim is created, you will receive a return authorization number (RMA). Write this number on the outside of the box containing your defective product and include it along with your name and contact information inside the box. Product must be returned in the original box or a box of equal strength and packaging. Product sent without an RMA number visible on the outside of the box or sent COD will be refused. Ship your product to the following address: **High Lifter Products, Attn: Returns 7455 Atkinson Drive, Shreveport, LA 71129**. Once your product is received, we often have your replacement or repaired product shipped back to you within 3-business days of receiving it. **Please note that High Lifter is not responsible for shipping charges on product returned for warranty or repair, including duties and fees required by those residing outside the United States.**



### HIGH LIFTER PRODUCTS DHT-XL AXLE WARRANTY

Name: \_\_\_\_\_

Axle Product Number: \_\_\_\_\_

Address: \_\_\_\_\_

Place of Purchase: \_\_\_\_\_

\_\_\_\_\_

Date of Purchase: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Reason for Return: \_\_\_\_\_

E-Mail Address: \_\_\_\_\_

\_\_\_\_\_