

**HDIFFA-RZRTS**

**79-15135**

**HDIFFA-RZRTS-BJI**

**79-15072**

**Polaris RZR 1000 Turbo S Front Forward Arms**

**HL**

Parts Available For These Popular Brands and Others

**POLARIS**

**can-am**



**Kawasaki**



**HIGHLIFTER**



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



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7455 Atkinson Drive, Shreveport, LA 71129



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

## **PRODUCT DISCLAIMER**

The installation of products sold or manufactured by High Lifter Products, Inc. including, but not limited to suspension components such as lift kits, gear reduction lifts, frame stiffener kits, snorkels, and tires that exceed the original specifications for the vehicle, may change the vehicle's center of gravity and handling characteristics both on- and off-road. You are aware that the installation of tires that are larger than original vehicle specifications may reduce the effectiveness of the braking system. Use of these products may place added stress to the original factory vehicle components which could cause them to weaken or possibly fail.

Products sold or manufactured by High Lifter Products, Inc. are intended for off-road use only. Operation of a vehicle modified with these products on a road could result in serious bodily injury or death, and such operation may violate the laws of your state or municipality. You agree to operate your vehicle exclusively in the manner intended by the vehicle manufacturer. You agree that failure to safely and reasonably operate your vehicle could result in serious bodily injury or death, and that, as a result of installation of this product(s) to your vehicle, extreme care must be taken to prevent vehicle rollover or loss of control, which may be more likely to occur as a result of said modifications. You will avoid unsafe maneuvers, including sudden sharp turns or other abrupt maneuvers, which could make a vehicular accident more likely. You understand that High Lifter Products, Inc. is not responsible or liable for any damages or any injuries to yourself or your passengers that could occur upon possible accidents due to driver error, incorrect installations, bad judgment, incompatibility with other aftermarket accessories or natural disasters to the fullest extent allowable by law.

You will have all vehicle occupants fasten seatbelts, if equipped, and wear proper safety equipment, such as DOT approved helmet and eye protection prior to operating the vehicle. You understand and acknowledge that failure to wear proper safety equipment may increase the risk of serious bodily injury or death to yourself and any passengers.

Proper installation of products sold or manufactured by High Lifter Products, Inc. requires knowledge of the factory recommended procedures for removal and installation of original equipment components. Installation of these products without proper knowledge and experience may affect the performance of these components and the safety of the vehicle and cause serious bodily injury or death. It is strongly recommended that a certified mechanic familiar with the installation of similar components perform the product(s) installation.

Prior to installing any products sold or manufactured by High Lifter Products, Inc., you will perform or cause to be performed an inspection of their vehicle to confirm its condition is suitable for the installation of these products. A proper inspection of the vehicle includes confirmation that the vehicle has not been in a collision and is free of corrosion. If the vehicle is suspected to have been in a collision or misused, or is otherwise unsuitable for modification, you will not install the product(s). You will continue to inspect the vehicle prior to each use to confirm its condition is suitable for its intended use, and you acknowledge that the failure to do so may result in serious bodily injury or death, as well as damage to the vehicle itself.

You will install any warning labels provided with the product so it may be prominently seen by yourself and all passengers. You will notify all passengers of the modifications performed to your vehicle prior to operation.

Insurance companies may handle coverage of a modified vehicle differently. Please check with your insurance carrier prior to modifying the vehicle to ensure your coverage remains sufficient.

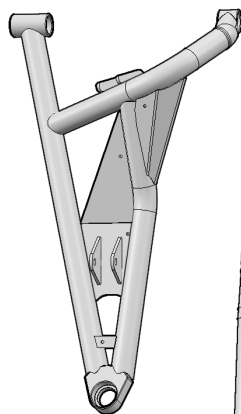
Installation of this product(s) may void your vehicle warranty. If this is a concern, please check with the manufacturer or dealer before purchase or installation of this product(s).

# HIGHLIFTER

## PARTS DIAGRAM

### CONTROL ARMS & HARDWARE

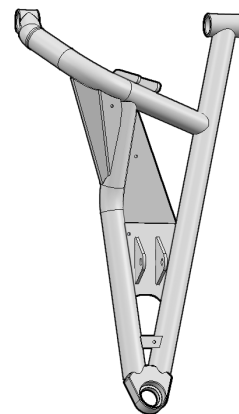
HDFFA-RZRTS (79-15135) & HDFFA-RZRTS-BJI (79-15072)



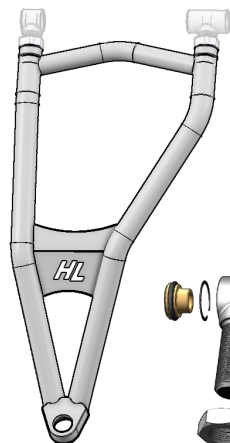
**146C-L**  
**79-14770**  
Front Upper  
Left Control  
Arm (1ea)



**107Z**  
**79-10099**  
Adjustable  
Collar  
(2ea)



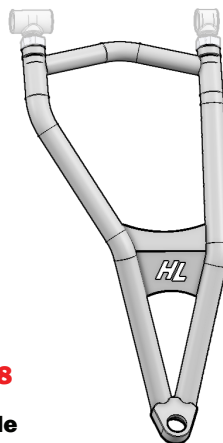
**146C-R**  
**79-14771**  
Front Upper  
Right Control  
Arm (1ea)



**146o-L**  
**79-14624**  
Front Lower Left  
Control Arm (1ea)



**107Y**  
**79-10098**  
Narrow  
Adjustable  
Collar  
(2ea)



**146o-R**  
**79-14625**  
Front Lower Right  
Control Arm (1ea)



**104A**  
**79-10051**  
Retaining Ring  
(4ea)



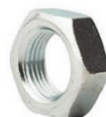
**MLN5-0.8**  
**54-61041**  
M5 Nylon  
Lock Nut  
(6ea)



**MFW5**  
**54-61030**  
M5 Flat  
Washer  
(12ea)



**MCS516**  
**54-61002**  
M5x16mm Hex  
Cap Screw  
(6ea)



**JN1F**  
**54-60880**  
Jam Nut  
(4ea)



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



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

# 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 the tires after the lift is installed. **ONCE LIFTED, USE JACK STANDS TO PROPERLY SECURE THE UNIT.**

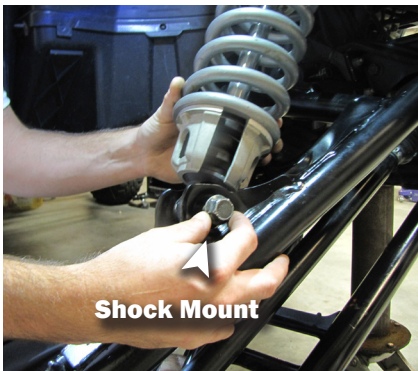
**Remove the front wheels.**

## REMOVING STOCK COMPONENTS

Brake Lines & Caliper

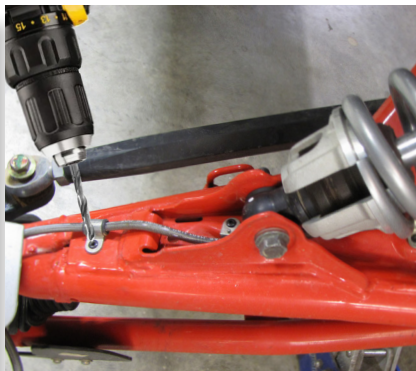
2

### LOWER SHOCK END



Shock Mount

### UPPER ARM



### CALIPER

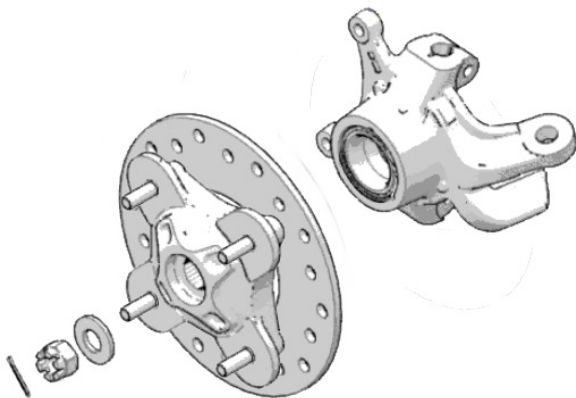


**DISCONNECT SHOCK FIRST TO ACCESS THE BRAKE LINES.** Remove the brake lines from arms by drilling off the rivets. Remove the (2) brake caliper mounting bolts (15mm) **DO NOT** disconnect lines from caliper. Set brake caliper aside. **KEEP FACTORY HARDWARE.**

## 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.**

4

**REPEAT STEPS ON OPPOSITE SIDE**

# Front INSTALL

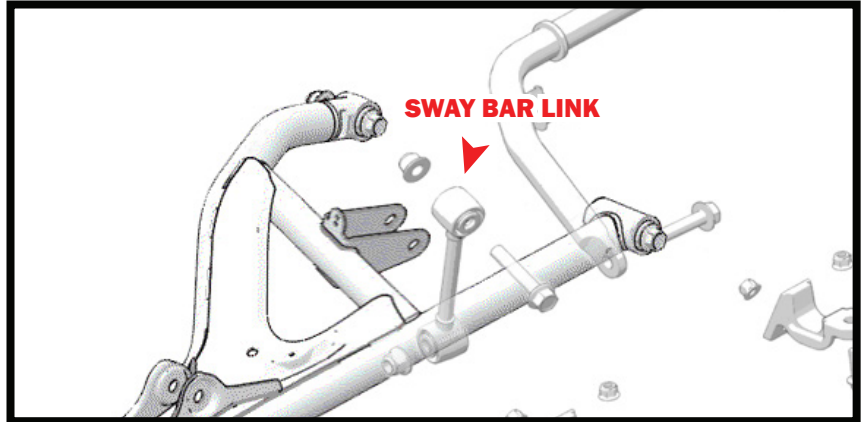
## REMOVING STOCK COMPONENTS

Front End Prep

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

- A. Sway bar link
- B. Tie rod
- C. Upper & Lower Ball joint

**KEEP ALL FACTORY HARDWARE.**



### TIE ROD END



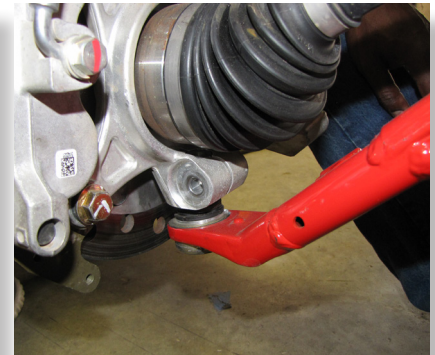
Disconnect the **tie rod** from the knuckle. (18mm)

### 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)

## CONTROL ARMS

Removal

### 5 LOWER ARM

REMOVE ONE ARM AT A TIME



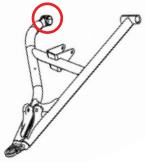
### UPPER ARM



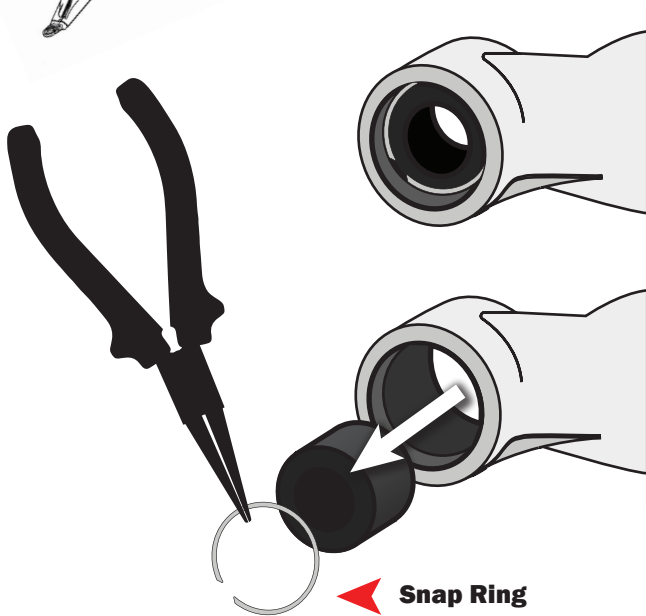
Remove **Lower arm FIRST** by removing the bolts at the frame, then remove the upper arm using the same process. (18mm) **KEEP ALL FACTORY HARDWARE.**

**REPEAT STEPS ON OPPOSITE SIDE**

6



## UPPER ARM (REAR)



← Snap Ring

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.

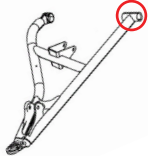
**USE A PRESS OR A VICE TO PRESS THE BUSHING OUT OF THE ARM. USE A SOCKET OR A SPACER ON THE BACKSIDE TO PRESS THE BUSHING INTO.**



NEED REPLACEMENT BUSHINGS?

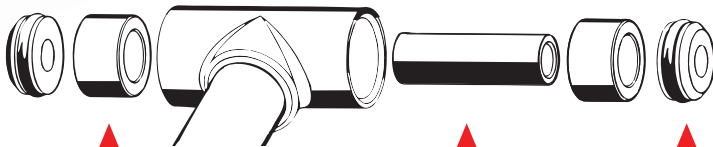


7



## UPPER ARM (FRONT)

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



▲ Bushing

▲ Sleeve

▲ Pivot Cap

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.



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.

6

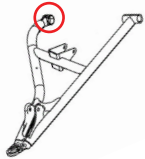
**REPEAT STEPS ON OPPOSITE SIDE**

# Front INSTALL

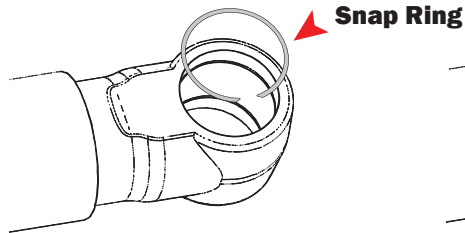
## UPPER ARM BUSHINGS

Install

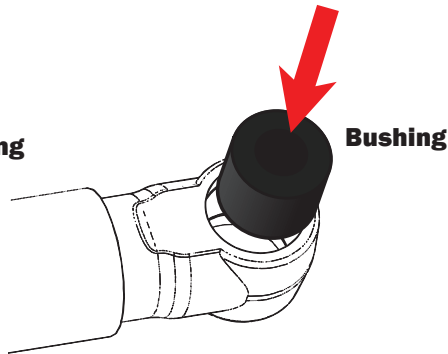
8



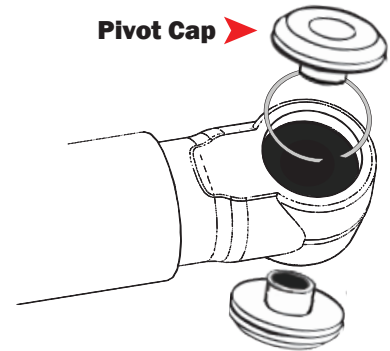
On the new upper arms there is **NOT** a stop built into the collar on one side. Instead there will be new snap rings on each side that will prevent the bushings from moving.



Snap Ring



Bushing



Pivot Cap

Insert the **104A 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.

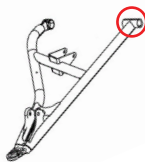
Once the bushing is seated place the other snap ring into place and place the pivot caps on the ends.

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

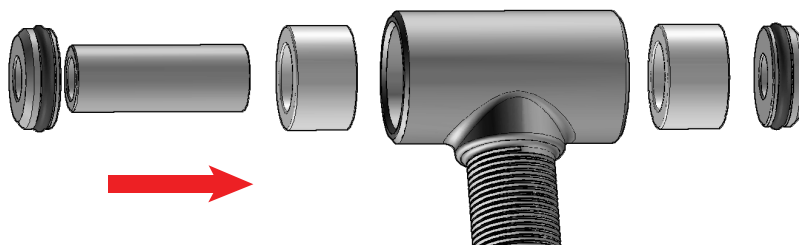
## BUSHINGS

Install

9



**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.

**REPEAT STEPS ON OPPOSITE SIDE**

# Front INSTALL

## BALL JOINTS

Removal

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

**NOTE: FOR DEMONSTRATIVE PURPOSES WE USED THE LOWER CONTROL ARM, BUT THE PROCESS IS SIMILAR FOR BOTH. A press or a vise is suggested for removing and replacing the ball joints.**



THERES AN EASIER WAY!



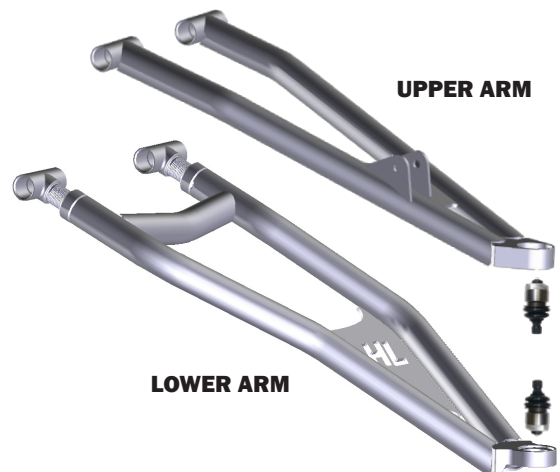
## BALL JOINTS

Install

**11 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 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



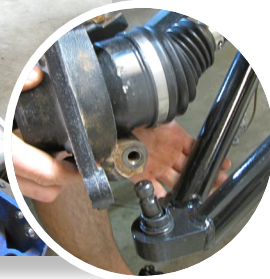


### 12 LOWER ARM INSTALL ONE ARM AT A TIME



#### FRAME

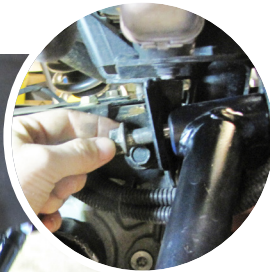
Secure the LOWER ARM at the FRAME using the factory hardware.



#### KNUCKLE

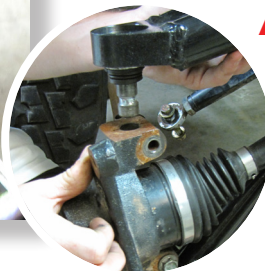
Secure the LOWER ARM at the KNUCKLE using the factory hardware.

### 13 UPPER ARM



#### FRAME

Secure the UPPER ARM at the FRAME using the factory hardware.



#### KNUCKLE

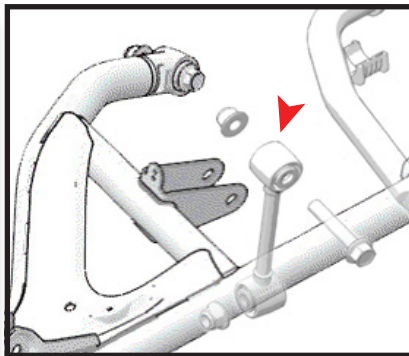
Secure the UPPER ARM at the KNUCKLE using the factory hardware.

### 14 SECURE COMPONENTS

#### SHOCK



#### SWAY BAR



#### TIE ROD



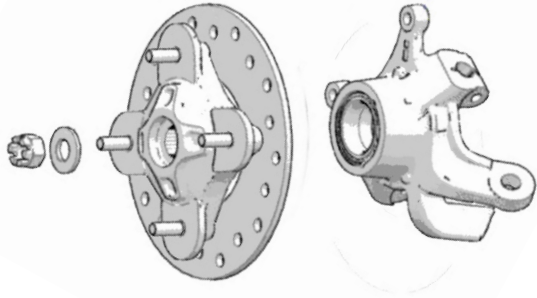
Once the arms are mounted, secure the shock, sway bar, and tie rod with the factory hardware. IF YOU CHOOSE TO ROUTE THE BRAKE LINE THROUGH THE SHOCK TAB DO NOT CONNECT YET.

**REPEAT STEPS ON OPPOSITE SIDE**

## FRONT BRAKE & HUB ASSEMBLY

Install

15



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



Connect the caliper to the hub assembly. (15mm)

## FRONT BRAKE LINES

Install

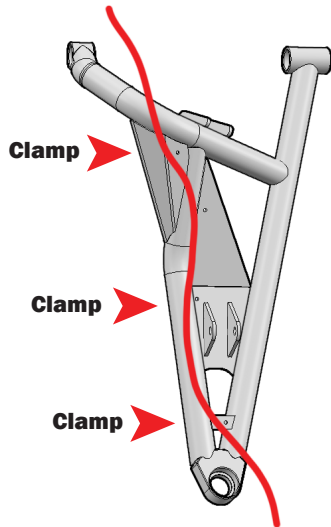
### 16 UPPER CONTROL ARM

THIS BRAKE LINE ROUTING CAN BE USED AS AN EXAMPLE. It is also possible to route the brake lines along the upper arm THROUGH the shock tab.

Ensure lines do not come in contact with moving parts or become pinched. Fasten lines to the UPPER ARM using the provided hardware.

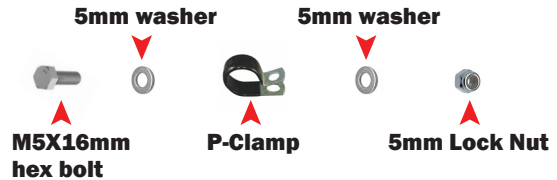


Using vice grips remove the clamps along the brake lines if you have not done so already.



### HARDWARE

Secure the brake line to the upper arm with a p-clamp and a M5X16mm hex bolt followed by a 5mm washer, 5mm washer and 5mm lock nut.

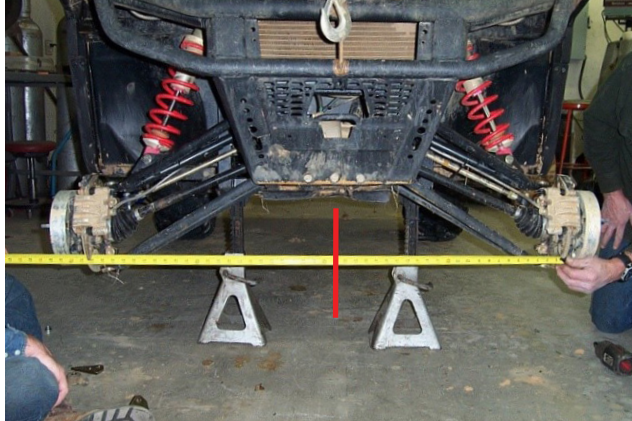


## FRONT WHEEL ALIGNMENT

17

**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 1/8" to 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]

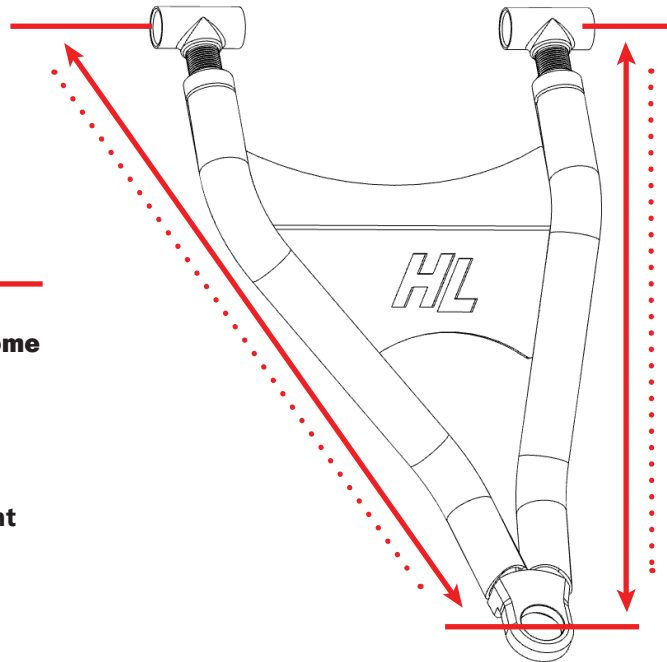
# 18 BEFORE STARTING

- 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.

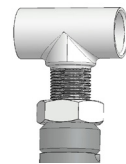


Make all adjustments in small increments.

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.

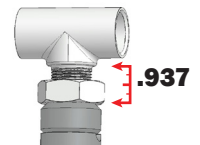
## Positive Camber

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.



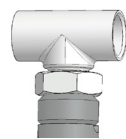
## Correct Camber

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.



# HIGHLIFTER



## 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 [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 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, Inc.**

**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**