

HDFFA-C10L

APPEX HEAVY DUTY FRONT FORWARD ARMS KIT



HIGHLIFTER

SEIZMIK™



sales@highlifter.com



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



7455 Atkinson Drive, Shreveport, LA 71129



www.highlifter.com

Parts Available For These Popular Brands and Others

POLARIS

can-am



HONDA

Kawasaki



YAMAHA

PRODUCT DISCLAIMER

The installation of products sold or manufactured by High Lifter Products 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 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 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 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 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).



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 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

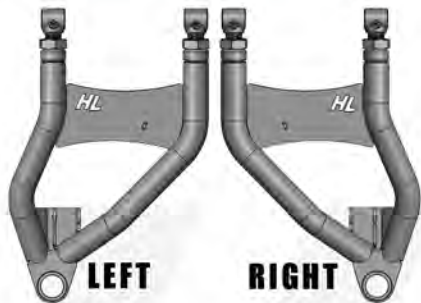
HIGHLIFTER

HDFFA-C10L

MAX CLEARANCE HEAVY DUTY FRONT FORWARD ARMS KIT **PARTS GUIDE**

79-16215
(UPPER/LOWER/L/R)

UPPER CONTROL ARM
79-15292 (R/L)
(1 EACH)



LOWER CONTROL ARM
79-15297 (R/L)
(1 EACH)



79-14813
BRAKE LINE SNAP CLAMP 1.5"
(KIT OF 6)



54-60793
STRAIGHT GREASE
FITTING
(4 EACH)



79-16133
STEERING STOP
(1 EACH)



54-60936
RED VIBRA-TITE
(1 EACH)



STEP 1

STOCK FACTORY PARTS REMOVAL



NOTE: YOU WILL REUSE ALL FACTORY HARDWARE TO CONNECT THE NEW ARMS.



PLACE JACK UNDER THE CENTER OF FRONT AND LIFT UNTIL THE WHEELS ARE OFF THE GROUND. BE CAREFUL TO SECURE PROPERLY SO IT IS STABLE ON THE JACK OR JACK STANDS. REMOVE TIRES.

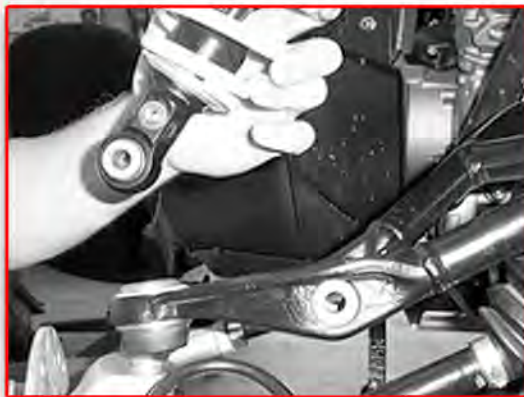


YOU MUST REMOVE THE FRONT FACTORY PLASTIC BASH PLATE AND BUMPER IN ORDER TO ACCESS THE HARDWARE THAT WILL ALLOW YOU TO DISCONNECT THE ARMS FROM THE FRAME.



STEP 2

ONCE YOU HAVE REMOVED THE BASH PLATE AND BUMPER DISCONNECT THE BRAKE CALIPER, THE SWAY BAR AND THE FRONT SHOCKS FROM THE SHOCK TABS ON THE STOCK CONTROL ARM.



NOW, REMOVE THE COTTER PIN FROM THE UNDERSIDE OF THE TIE ROD AT THE KNUCKLE AND THEN DISCONNECT THE TIE ROD(14MM SOCKET). NOW REMOVE THE UPPER CONTROL ARM FROM THE FRAME AND KNUCKLE USING A 15MM SOCKET.



NEXT, REMOVE THE LOWER INNER BOLTS FROM THE FRAME ON THE LOWER CONTROL ARM THEN REMOVE THE LOWER ARM FROM THE KNUCKLE ASSEMBLY USING A 15MM SOCKET.



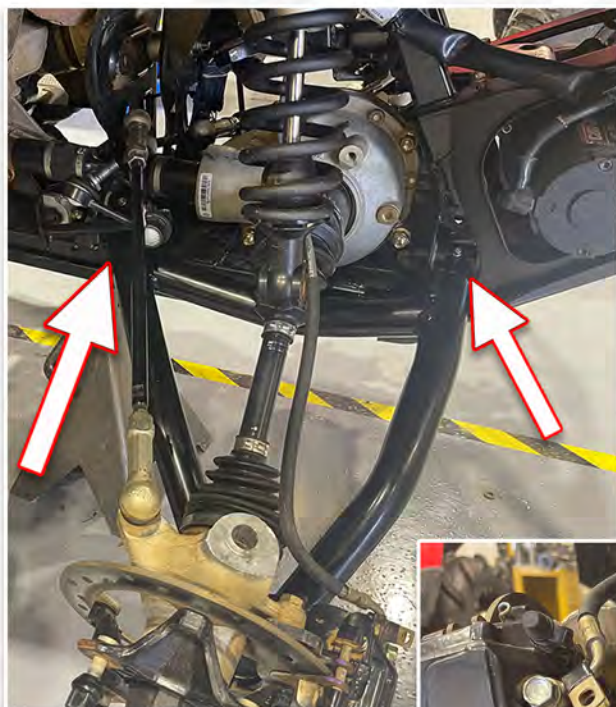
STEP 3

INSTALL THE GREASE FITTING INTO THE NEW ARMS BEFORE INSTALLATION. DO NOT OVER TORQUE THE FITTINGS. MAKE SURE TO FILL WITH FACTORY APPROVED GREASE.



STEP 4

INSTALL INSTRUCTIONS



NOTE: LOWER CONTROL ARMS ARE SET TO FACTORY SPECIFICATIONS. YOU MAY NEED TO ADJUST THE CAMBER DEPENDING ON WHAT YOUR RIDING PREFERENCE IS.

YOU CAN FIND THE STEPS FOR ADJUSTING THE CAMBER AT THE END OF THESE INSTRUCTIONS.



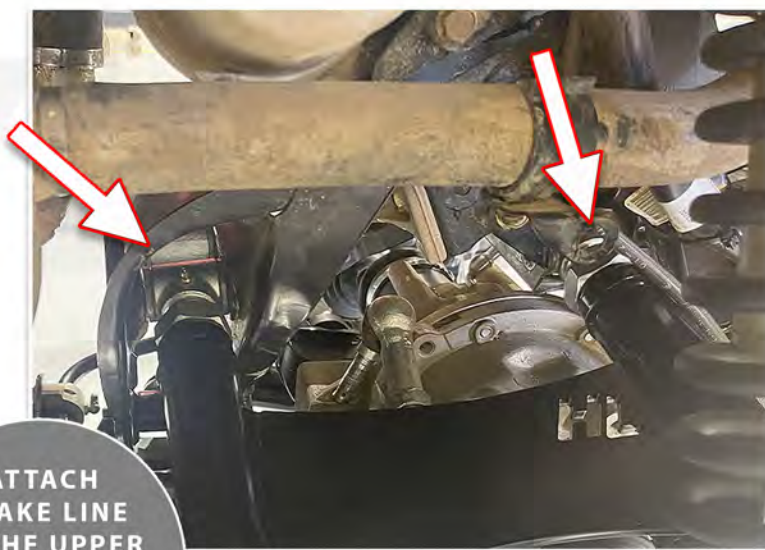
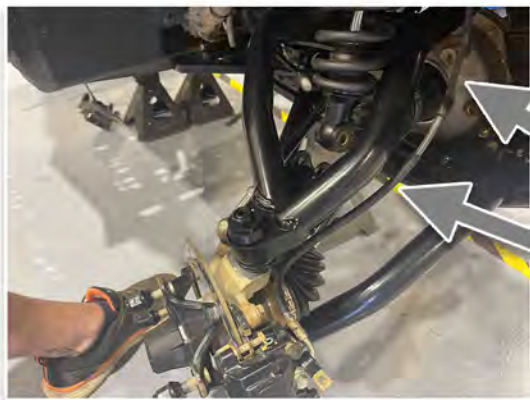
CONNECT THE NEW LOWER ARM AT THE FRAME USING THE FACTORY BOLT AND NUT.

CONNECT THE BALL JOINT TO THE KNUCKLE THEN SLIDE THE AXLE THROUGH AFTER.

TORQUE TO FACTORY SPECS.

STEP 5

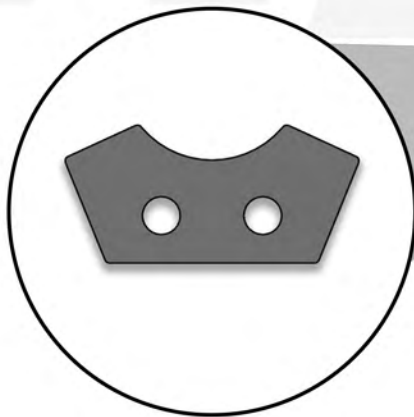
ATTACH THE NEW UPPER ARM TO THE FRAME USING FACTORY BOLT AND NUT. (15MM SOCKET) SECURE THE UPPER ARM AT THE KNUCKLE USING THE FACTORY WASHER AND NUT. INSTALL THE COTTER PIN. TORQUE TO FACTORY SPECS.



ATTACH BRAKE LINE TO THE UPPER ARM WITH ZIP TIES OR CLAMPS.

STEP 6

UNBOLT THE TIE RODS FROM THE STEERING KNUCKLE WITH A 17MM AND 19MM WRENCH. TURN THE STEERING WHEEL SLIGHTLY TO THE LEFT. PLACE THE STEERING STOP BETWEEN THE INNER TIE ROD JOINT AND THE RACK AND PINION ON THE TOP SIDE OF THE STEERING KNUCKLE. NOW TIGHTEN USING THE FACTORY WASHER AND NUT AND REINSTALL COTTER PIN.



STEP 7

CONNECT UPPER ARM TO THE KNUCKLE ASSEMBLY THEN THE SWAY BAR USING THE FACTORY HARDWARE.



STEP 8

ATTACH THE SHOCK TO THE SHOCK MOUNT ON THE UPPER CONTROL ARM USING THE FACTORY HARDWARE. NEXT, TIGHTEN ALL BOLTS AND NUTS TO FACTORY SPECIFICATIONS.

REPEAT ALL STEPS ON OPPOSITE SIDE. REINSTALL BASH PLATE, PLASTICS, AND BUMPER. REINSTALL TIRES AND LOWER THE JACK.



Thank You For Choosing
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ADJUSTING WHEEL CAMBER

BEFORE STARTING

- TIRES MUST BE OFF THE GROUND
- TIRES MUST HAVE EQUAL AIR PRESSURE
- SUSPENSION COMPONENTS MUST BE COMPLETELY ASSEMBLED

THE NEW HIGH LIFTER UPPER 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 THE MACHINE, 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 MACHINE OFF THE JACK AND ROLL IT BACK AND FORTH SEVERAL TIMES TO CHECK 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 INWARD OR SHORTEN THE CONTROL ARM. THE MAXIMUM AMOUNT INWARD IS "1.250" WHICH COULD GIVE UP TO 3° OF POSITIVE 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 OUTWARD OR LENGTHEN THE CONTROL ARM. THE MAXIMUM AMOUNT OUTWARD IS ZERO THREADS EXPOSED AND COULD GIVE OVER 3° OF NEGATIVE CAMBER



FRONT WHEEL ALIGNMENT

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
- WHILE KEEPING THE STEERING WHEEL STRAIGHT AND CENTERED ADJUST EACH TIE ROD INDIVIDUALLY TO ENSURE WHEELS ARE STRAIGHT. MEASURE FROM THE FRONT EDGE OF THE RIGHT RIM TO THE LEFT RIM WITH A TAPE MEASURE. REPEAT FOR THE REAR OF THE RIMS. ADJUST THE TOE BY ADJUSTING THE TIE ROD SO THAT YOU ACHIEVE TOE-IN OR TOE-OUT DEPENDING ON THE RIDER'S PREFERENCE.
- TAKE A TAPE MEASURE AND 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 EACH WHEEL. 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.



IF THE FRONT OF THE WHEELS ARE POINTING 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.

TOE-OUT ALLOWS FOR QUICKER AND MORE EFFORTLESS TURNING AND ALLOWS FOR BETTER GRIP HOWEVER, IT DECREASES THE LIFE SPAN OF THE TIRE. TOE-OUT IS BETTER SUITED FOR UTILITY ATV'S AND SIDE BY SIDES.

IF THE FRONT OF THE WHEELS ARE POINTING 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.

TOE-IN ALLOWS FOR BETTER STRAIGHT-LINE STABILITY BUT AT THE COST OF A MORE SLUGGISH TURNING RESPONSE. TOE IN IS BETTER SUITED FOR SPORT ATV'S AND SIDE BY SIDES.



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]

BALL JOINT INSTALLATION TIPS AND CHECKS

3. WHEN PRESSING IN THE BALL JOINT, SUPPORT THE BALL JOINT END OF THE ARM IN A PRESS WITH SOMETHING SOLID BELOW THE ARM AND WILL ALLOW THE END OF THE BALL JOINT TO PASS THROUGH COMPLETELY. BE SURE THE SUPPORT ARM PROPERLY TO ALLOW THE BALL JOINT TO PASS THROUGH THE HOLE STRAIGHT AND WITHOUT INTERFERENCE. AGAIN, BE SURE THE BOOT WILL CLEAR THE FIXTURE YOU ARE PRESSING INTO AND THE HOLE IS DEEP ENOUGH FOR THE FULL LENGTH OF THE BALL JOINT TO PRESS INTO THE ARM.



4. WHEN PRESSING THE BALL JOINT, BE SURE TO FULLY SEAT THE BALL JOINT SO THE SNAP RING CAN BE FULLY SEATED. MAKE SURE TO CLEAN THE SNAP RING GROOVE OF ANY PAINT OR MATERIAL THAT MAY HAVE BECOME LODGED IN THE GROOVE DURING THE PRESS OPERATION. WE RECOMMEND YOU USE A PICK OR FINE POINT TO CLEAR THE SNAP RING GROOVE. USE A SNAP RING TOOL TO SECURE THE SNAP RING INTO PLACE.



NOTE: IF THE BALL JOINT IS PRESSED IN TOO HARD IT WILL CRACK THE PAINT. IF THIS HAPPENS THEN TOUCH UP PAINT CAN BE APPLIED.

BALL JOINT INSTALLATION TIPS AND CHECKS

5. AFTER THE SNAP RING IS INSTALLED, VERIFY IT IS FULLY SEATED. A SCREW DRIVER AND A HAMMER CAN BE USED TO TAP THE RING INTO THE GROOVE TO FULLY SEAT IT IF NECESSARY. THE SNAP RING CAN LOOK FULLY SEATED BUT ACTUALLY STILL HAVE ROOM TO CLOSE. IF THIS HAPPENS, THE BALL JOINT MAY COME OUT WHILE RIDING, MAKING THIS FINAL STEP EXTREMELY IMPORTANT.

