

PGL-415DI-P1SCR - 15% | PGL-430DI-P1SCR - 30%

Polaris Sportsman/ Scrambler 850/1000 4" Dual Idler Portal Kit



Parts Available For These Popular Brands and Others

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7455 ATKINS DRIVE, SHREVEPORT, LA



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 INC. 7455 ATKINSON DRIVE, SHREVEPORT, LA 71129
PHONE: 1-800-699-0947

PRODUCT DISCLAIMER

THE PRODUCT IS/WILL:

- DESIGNED AND INTENDED FOR USE ON A UTV AT SLOW SPEEDS.
- INCREASE THE HEIGHT OF THE CENTER OF GRAVITY.
- INCREASE THE TURNING RADIUS.
- INCREASE THE STOPPING DISTANCE WHEN ADDING LARGER TIRES.
- INCREASE AND ACCELERATE WEAR OF FACTORY COMPONENTS INCLUDING BUSHINGS, BEARINGS, BALL JOINTS, AND TIE ROD ENDS.
- WE CANNOT GUARANTEE FITMENT WITH OTHER AFTERMARKET ACCESSORIES.

SAFETY GUIDELINES:

- INSPECT ALL MOVING FACTORY SUSPENSION COMPONENTS PARTICULARLY BALL JOINTS, TIE ROD ENDS, CONTROL ARM CONNECTIONS, AND BRAKES PRIOR TO EACH RIDE AND REPLACE IF WORN.
- INSPECT CLEARANCES WITH CONTROL ARMS AND BRAKE LINES PRIOR TO EACH RIDE.
- WHEEL SPACERS SHOULD NOT BE USED WITH A PORTAL GEAR KIT.
- 14" OR LARGER WHEELS MUST BE USED WITH THE PORTAL GEAR KIT. 12" WHEELS CANNOT BE USED.
- JUMPING, HIGH SPEEDS, AND QUICK MANEUVERING SHOULD BE AVOIDED.

MAINTENANCE INFORMATION:

- CHECK GEAR OIL IN PORTAL BOXES FOLLOWING 25 HOURS OF RIDING OR SOONER, DEPENDING ON HOW YOU RIDE.
- USE 4 OZ OF SAE 80W-90 GEAR LUBRICANT AS NEEDED IN EACH PORTAL BOX.
- REPLACE WORN FACTORY COMPONENTS INCLUDING BUSHINGS, BEARINGS, BALL JOINTS, BRAKES, AND TIE ROD ENDS WHEN THEY SHOW WEAR.

ANY VEHICLE EQUIPPED WITH A PORTAL GEAR KIT MUST HAVE THE ENCLOSED LARGE FORMAT "WARNING TO DRIVER" DECAL INSTALLED ON THE INSIDE OF THE WINDSHIELD OR ON THE VEHICLE'S DASH, WITHIN DRIVER'S VIEW. THE "WARNING TO DRIVER" DECAL IS TO ACT AS A CONSTANT SAFETY REMINDER FOR WHOEVER MAY BE OPERATING THE VEHICLE.

INSTALLING DEALER:

IT IS YOUR RESPONSIBILITY TO INSTALL THE "WARNING TO DRIVER" DECAL AND FORWARD THESE INSTALLATION INSTRUCTIONS TO THE VEHICLE OWNER FOR REVIEW OF WARNINGS, PRODUCT USE, AND MAINTENANCE INFORMATION. REPLACEMENT WARNING DECALS ARE AVAILABLE FREE ON REQUEST. THESE INSTRUCTIONS ARE TO BE KEPT WITH THE VEHICLE REGISTRATION PAPERS AND OWNER'S MANUAL FOR THE SERVICE LIFE OF THE VEHICLE.

REFUSED SHIPMENTS/ORDER CANCELLATION:

REFUSED SHIPMENTS ARE SUBJECT TO A 20% RESTOCKING FEE PLUS ALL ASSOCIATED FREIGHT COSTS. IT IS OUR GOAL TO SHIP ALL ORDERS IN A TIMELY MANNER. IF A CUSTOMER WISHES TO CANCEL AN ORDER (PROVIDED IT IS NOT A SPECIAL ORDER PRODUCT), IT IS THE RESPONSIBILITY OF THE CUSTOMER TO CANCEL THE ORDER PRIOR TO THE PRODUCT BEING SHIPPED. IF A CUSTOMER CANCELS AN ORDER AFTER PRODUCT HAS BEEN SHIPPED, REFUSED SHIPMENT, CANCELLATION, OR RETURN WILL BE SUBJECT TO A 20% RESTOCKING FEE AND ANY FREIGHT CHARGES INCURRED. FOR ORDERS OUTSIDE THE UNITED STATES, ANY FEES ASSOCIATED WITH CUSTOMS OR DUTIES ARE NON-REFUNDABLE.

DAMAGED SHIPMENTS:

ALL CLAIMS FOR DAMAGED SHIPMENTS MUST BE MADE WITHIN 72 HOURS OF DELIVERY TO THE POINT OF DESTINATION. ANY DAMAGE TO PACKAGE SHOULD BE NOTED WITH CARRIER AT THE TIME OF DELIVERY IF POSSIBLE. WE WILL NOT BE RESPONSIBLE FOR DAMAGE CLAIMS MADE OVER 72 HOURS AFTER DELIVERY TO THE POINT OF DESTINATION.

PORTAL INTRODUCTION

READ THESE INSTRUCTIONS CAREFULLY. IT IS RECOMMENDED THAT A PROFESSIONAL MECHANIC PERFORM THE INSTALLATION. CARE SHOULD BE TAKEN TO FOLLOW ALL STANDARD SAFETY PROCEDURES.

- **PRIOR** TO INSTALLATION, A THOROUGH INSPECTION OF THE SUSPENSION SHOULD BE MADE. INSPECT THE VEHICLE'S STEERING, DRIVELINE, AND BRAKE SYSTEMS, PAYING CLOSE ATTENTION TO THE SUSPENSION LINK ARMS AND BUSHINGS, ANTI-SWAY BARS AND BUSHINGS, TIE ROD ENDS, BALL JOINTS AND WHEEL BEARINGS.

- ALSO CHECK THE STEERING SECTOR-TO-FRAME AND ALL SUSPENSION-TO-FRAME ATTACHING POINTS FOR STRESS CRACKS. THE OVERALL VEHICLE MUST BE IN EXCELLENT WORKING CONDITION. ANY WORN, BENT OR BROKEN PARTS SHOULD BE REPAIRED AND/OR REPLACED.

NOTE: DO NOT ADD OR FABRICATE ANY COMPONENTS TO GAIN ADDITIONAL SUSPENSION HEIGHT.

NOTE: AFTER INSTALLATION, ANOTHER INSPECTION SHOULD TAKE PLACE, CHECKING FOR LOOSE COMPONENTS OR MISSING HARDWARE. INSPECT, AGAIN AFTER EIGHT (8) HOURS OF OPERATION. REMEMBER TO CHECK THE LUG NUTS AGAIN.

NOTE: A FACTORY SERVICE MANUAL SHOULD BE ON HAND FOR REFERENCE. THE MANUAL WILL CONTAIN FASTENER TORQUE SPECS, ASSEMBLY TECHNIQUES, AND SPECIAL TOOL REQUIREMENTS THAT ARE UNIQUE TO THIS PARTICULAR YEAR AND MODEL VEHICLE.

REQUIREMENTS



TOOLS

- Jack Stand
- Metric & standard socket assortments
- Metric & standard hex key/sockets
- Torque wrench
- Multi-purpose pliers
- Wire cutter/snips
- Mallet (Soft face hammer)
- Drift punch/pin
- Vice or Press



TIRE REQUIREMENTS

- Up to 30" Stock
- 31" with 3" Lift Kit
- 32" to 33" Forward Kit 1.5"
- 34" Forward Kit and Lift Kit
- 35" to 37" Big Lift Kit (45%)
- 38" to 39" Big Lift Kit (45% or 60%)
- 40" to 44" Big Lift (STRONGLY SUGGEST 60%)



SUPPLIES

- Water-resistant grease
- DOT 4 brake fluid
- 80w90 gear oil



WHEEL REQUIREMENTS

- 18" or larger wheel required
- 18" wheels cannot exceed 4-1/2" backspacing
- 20" and larger wheels cannot exceed 5" backspacing

HARDWARE (PGLBOX-P413-DI-B1)



HC812434Z
1/2" x 4-3/4"
Bolt (4ea)
54-60833



PGLC-SOCKET-46MM
46mm Socket
(1ea)
73-14784



PGLC-AXNUT-4
M18 x 1.5 Flange
Axe Nut
(4ea)
73-14664



CP5322Z
Cotter Pin (4ea)
73-13216



SK-VT-1
1/4 Clear Hose
(3ft)
71-10912



HC812412Z
1/2" x 4-1/2"
Bolt (12ea)
54-60832



FW12SAE
1/2 Flat
Washer (32ea)
54-60751



NLN812
1/2 Nylon Nut
(16ea)
54-61093



PGLC-ROTOR-SP
1/2 Rotor Spacer
(16ea)
73-14779



MCS520
M5 x .80mm x 20mm
Bolt (6ea)
54-61003



133C
1-1/4" CLAMP KIT
(6ea)
79-14812



MLN8-1.25
M8 x 1.25mm Lock
Nut (4ea)
54-61043



HTFS103212Z
10/32 x 1/2 Thread
Forming Screw (4ea)
73-15905



130K
Front & Rear
Caliper Bracket
(4ea)
73-16449



MFW5
5mm Flat
Washer (12ea)
54-61030



MLN5-0.8
M5 x .80mm Lock
Nut (6ea)
54-61041



BRAKE-CAP-1
Brake Line Cap
(1ea)
73-13116



PGLC-WSTUD-104
12MM - 1.5 TP
Stud (16ea)
73-14796



WL-CLAMP-12
1/2 Loom Camp
(6ea)
73-15076



54-60501
3.8X1 1.8 BUTTON HEAD BOLT
(16ea)

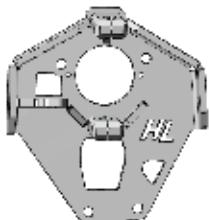


54-60937
VIBRATITE RED
(1ea)

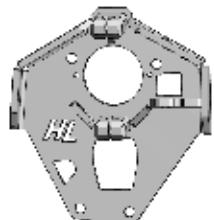


54-60936
VIBRATITE BLUE
(1ea)

FRONT BACKING PLATES (PGLBOX-P413-DI-B2B1)



139C-L-B1
Left Front Portal
Backing Plate (1ea)



139C-R-B1
Right Front Portal
Backing Plate (1ea)

73-15515-B1 L/R

PORTALS

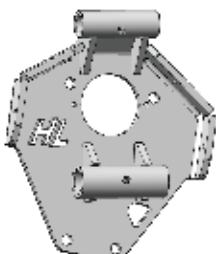
Portal Assembly (4ea)



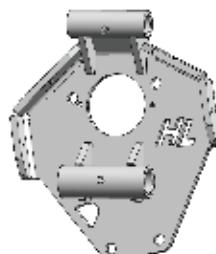
PGLAB-415-DI-P401-L-R
73-15947
PGLAB-430DI-P401-L-R
73-15948

Front Left & Right Portal
Assembly (15%) (30%) (4ea)

REAR BACKING PLATES (PGLBOX-P413-DI-B3B1)



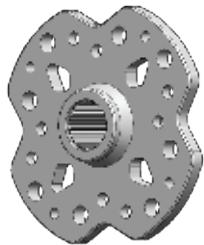
139D-L-B1
Left Rear Portal
Backing Plate (1ea)



139D-R-B1
Right Rear Portal
Backing Plate (1ea)

73-15516-B1 L/R

HUB & ROTOR (PLGBOX-HRB-401A)



30MM HUB
PGLC-HUB-203
2.0 HUB (30MM) (33 SPLINE)
73-15876



ROTOR
PGLC-ROTOR-4
4" ROTOR
73-15882

Front INSTALL

FRONT WHEELS

Removal

1



FRONT PASSENGER SIDE

KEEP ALL FACTORY HARDWARE.

Place jack under the FRONT center of the ATV and lift until the weight is off the suspension and the wheels are off the ground.

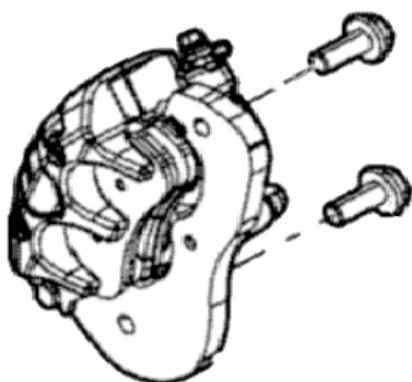
Raise unit an additional 6" to accommodate the portals.

Remove the front wheels.

BRAKE CALIPER

Removal

2



**Remove
Bolts**

**Remove
Bolts**

Remove the brake caliper mounting bolts (15mm)
Set caliper aside.

KEEP FACTORY HARDWARE.

HUB ASSEMBLY

Removal

3



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

REPEAT STEPS ON OPPOSITE SIDE

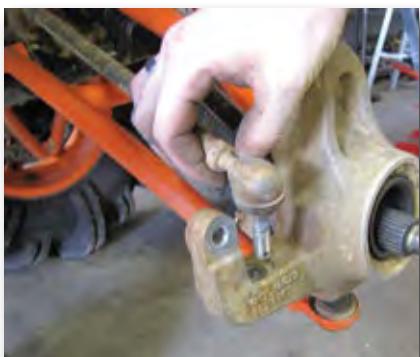
Front INSTALL

BALL JOINTS & TIE RODS

Removal

4

TIE ROD END



UPPER BALL JOINT



LOWER BALL JOINT



Disconnect the tie rod end by removing the cotter pin, nut and washer from the knuckle. (15mm)

Disconnect the Upper ball joint by removing the bolt at and nut at the knuckle. (13mm)

Disconnect the Lower ball joint by removing the bolt at the knuckle. (13mm)

KEEP ALL FACTORY HARDWARE.

FRONT BACKING PLATE

Install

5

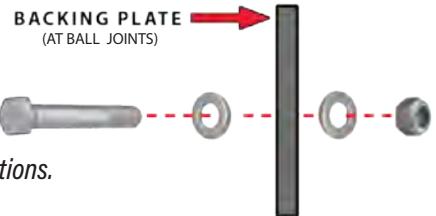


Insert the LOWER ball joint into the lower mount bracket on the backing plate.

Insert the axle into the backing plate.

Insert the UPPER ball joint into the upper mount bracket.

Fasten **BOTH UPPER AND LOWER BALL JOINTS** by using the included M8x1.25x55 bolts followed by a 8mm washer. Secure with a 8mm washer and M8x1.25 lock nut. (13mm)



**For torque specs, refer to the back of these instructions.*

Note: You may need to clean powder coating from the holes.

BOX CAP

Install

6



Remove the 1/4-20 x 3/4" screws & cap/gasket from the lid of the portal box.

NOTE: On the portal boxes, the drive gear splines should be recessed to accommodate the shorter drive shaft splines.

REPEAT STEPS ON OPPOSITE SIDE

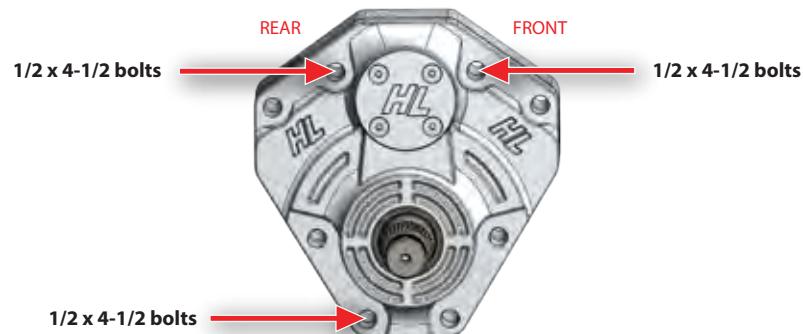
7

Apply water-resistant grease on the axle.

Rotate the portal box 'Up & In' as you guide the drive shaft splines into the back of the portal box.



Install the three $1/2 \times 4-1/2$ bolts with a washer into the three holes like in this diagram and secure to the backing plate with the $1/2"$ lock nuts and washers.

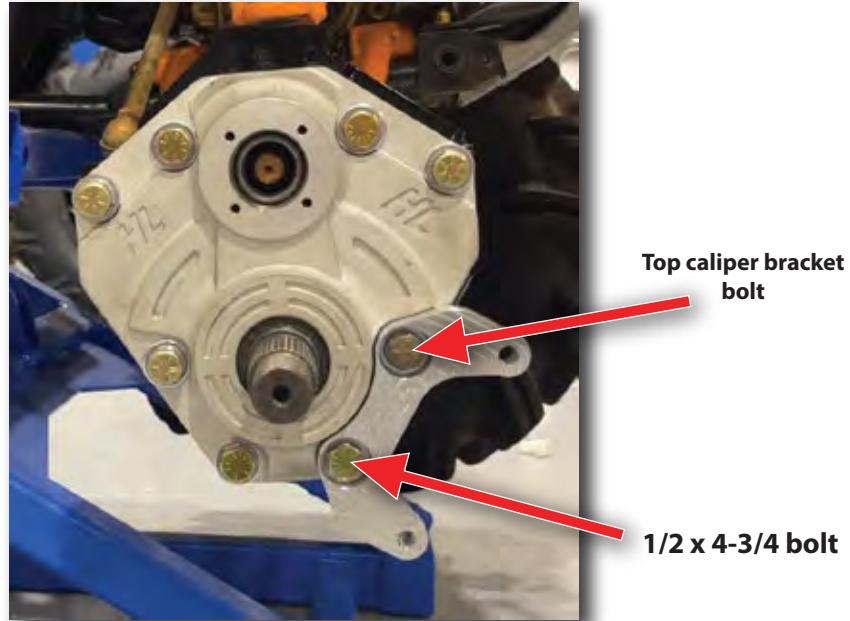


8

Remove the top caliper bracket bolt first. Now align the bracket in place and reinstall the top bolt then install the one $1/2 \times 4-3/4$ bolt into the lower caliper bracket hole.

The Bracket should face the **Front** of the vehicle.

The installment should look like the featured diagram, when complete.



Front INSTALL

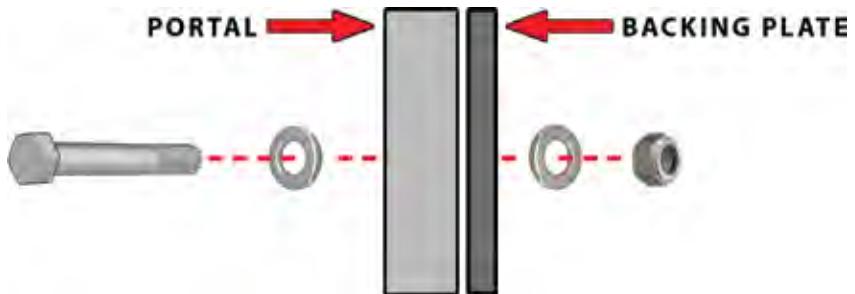
FRONT PORTAL

Install

9



Loosely fasten all (5) bolts with 1/2" flat washers and 1/2" lock nuts. **Ensure parts fit correctly then torque.**



**For torque specs, refer to the back of these instructions.*

TIE ROD

Install

10



TIE ROD END

Install the tie rod end into the portal backing plate mount bracket.

Fasten with the factory bolt, washer and nut then install the cotter pin. Torque to factory specs.

FRONT PORTAL

Install

11



Apply VIBRA-TITE (BLUE) to the supplied M18x 1.5 axle nut PGLC-AXNUT-4 and torque onto the drive shaft axle. (30mm)



Align the portal box lid cap & gasket. Use the 1/4-20 x 3/4" screws and install the cap to the portal box.

**For torque specs, refer to the back of these instructions.*

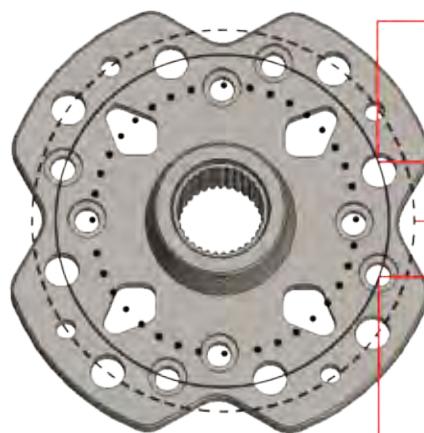
REPEAT STEPS ON OPPOSITE SIDE

12

Locate all (4) multi pattern hubs, so they can all be assembled at the same time. They are designed to work with different bolt patterns.

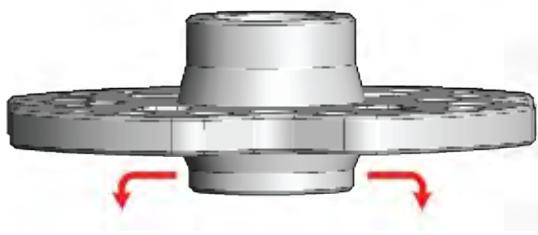
NOTE: They may have oil on them to prevent corrosion. If so, you will need to use a cleaner and remove most of the oil.

With the shorter lip side faced down, find the bolt pattern that corresponds to your make and model. Use the provided studs (12mm-1.5 stud) (4/156mm bolt pattern)

156mm**137mm****110mm**

13

For the following steps, place this side (**the shorter lip**) face down on your working surface.

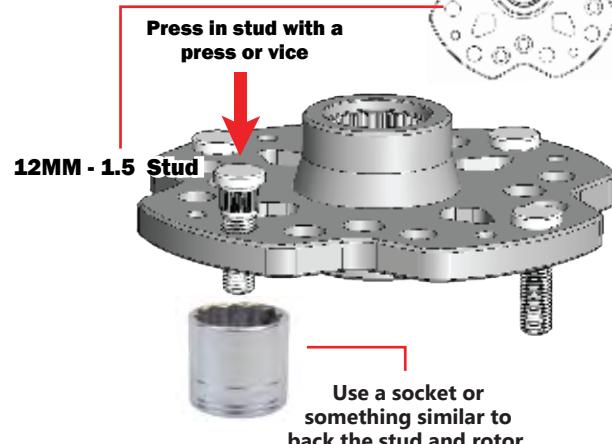


This side will face away from the UTV when installed.

14



DO NOT PRESS THE STUDS INTO THE TAPPED HOLES THAT ARE FOR THE ROTOR.



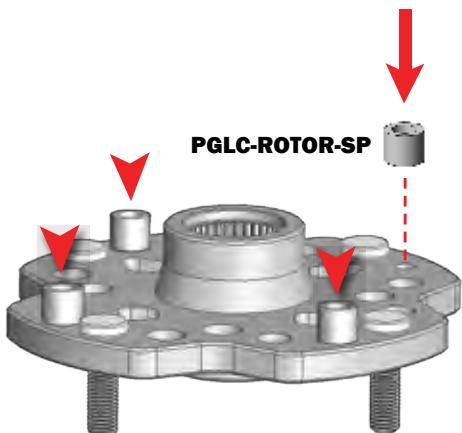
Front INSTALL

ROTOR ASSEMBLY

Install

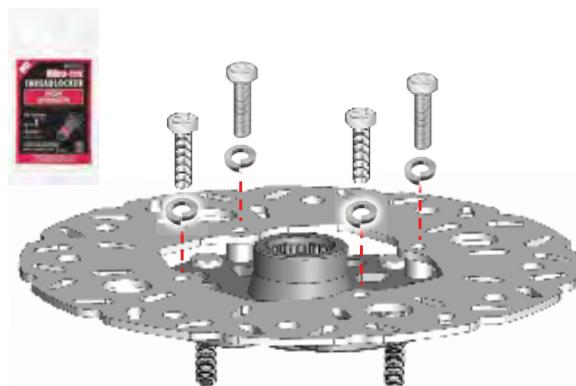
15

Place the 1/2" spacers over the tapped holes. These spacers go **BETWEEN** the hub and rotor.



16

Install the rotor and secure it to the hub by applying VIBRA-TITE (RED) to the (4) 3/8 x 1-1/4" hex head bolts & (4) 3/8 lock washer.



**For torque specs, refer to the back of these instructions.*

ROTOR ASSEMBLY

Install

17



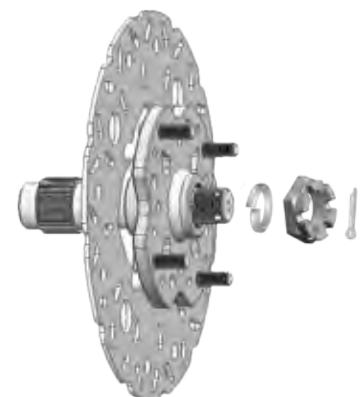
Apply waterproof grease to the spindle splines and slide the brake rotor onto the spindle shaft.

18

Slide on the 30mm lock washer, 30mm castle nut. (46mm)

Tighten the castle nut further if needed to align grooves with hole in the spindle for the cotter pin.

Install the cotter pin, then bend it to secure it.



**For torque specs, refer to the back of these instructions.*

FRONT BRAKE LINES

Removal

19

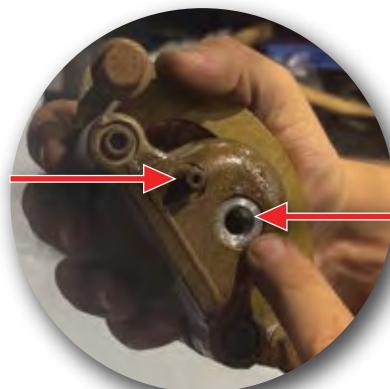


Disconnect the stock brake line from the caliper, if you have not done so already. **HAVE A CONTAINER READY TO COLLECT FLUID.**

REPEAT STEP ON OPPOSITE SIDE

20

FRONT BRAKE LINES

Bleeder
Screw

Inlet



ENSURE THE BLEEDER SCREW IS ORIENTED ABOVE THE INLET.

Will need to SWAP THE FRONT CALIPERS to the opposite side.

Install the caliper onto the front of the portal box, then secure it using the stock mounting bolts (15mm) Torque to factory specs.

FRONT BRAKE LINE EXTENSION

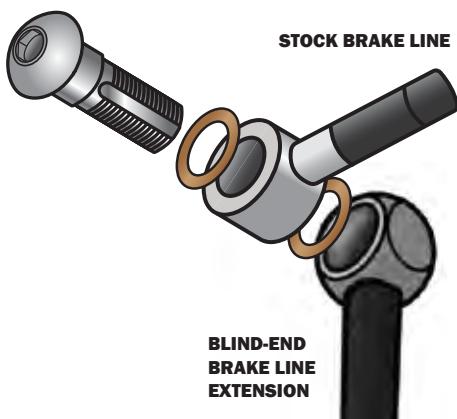
Install

21

STOCK BRAKE LINE TO EXTENSION INSTALL

Each unit has a specific brake line length and fitting to the caliper. The following charts display the correct line and torque specs for this application.

ALL BRAKE LINE EXTENSIONS HAVE A BLIND HOLE THAT CONNECTS TO THE STOCK LINE.



Locate the proper BRAKE LINE EXTENSION. Using the supplied button head hex drive banjo bolt, connect the STOCK BRAKE LINE to the BLIND-END BRAKE LINE EXTENSION. Ensure the copper washers are on each side of the banjo fitting.

NOTE: Verify that the back of the blind hole fitting (rounded portion) is facing INWARD towards the center of the unit.

STRAIGHT
BANJO FITTING90° BANJO
FITTING

BANJO BOLT TORQUE Specs			
DASH SIZE	INCH THREAD SIZE -TPI	WITH COPPER WASHERS	WITH SOFT SEALS
LIGHT SERIES (L)			
02	1/8-28	18	18
04	1/4-19	45	40
06	3/8-19	70	65
08	1/2-14	120	90
12	3/4-14	230	125
16	1-11.5	320	
20	1-1/4-11.5	540	
24	1-1/2-11.5	700	
HEAVY SERIES (S)			
04	1/4-19	45	40
06	3/8-19	70	65
08	1/2-14	120	90
12	3/4-14	230	125

FRONT INSTALL

FRONT BRAKE LINE EXTENSION

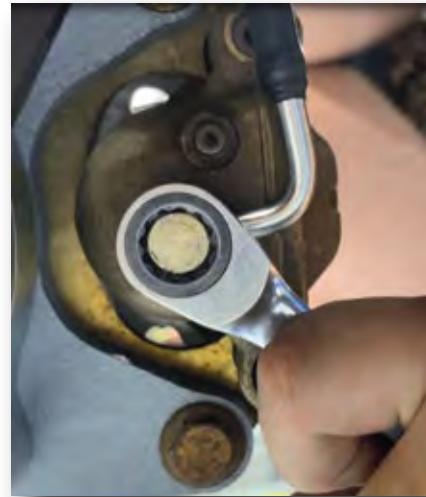
Install

22

EXTENSION TO CALIPER INSTALL

On the opposite end connect the required brake line extension to the stock brake caliper. Verify there is a copper washer on each side of the banjo bolt. Position the fitting like in the photo.

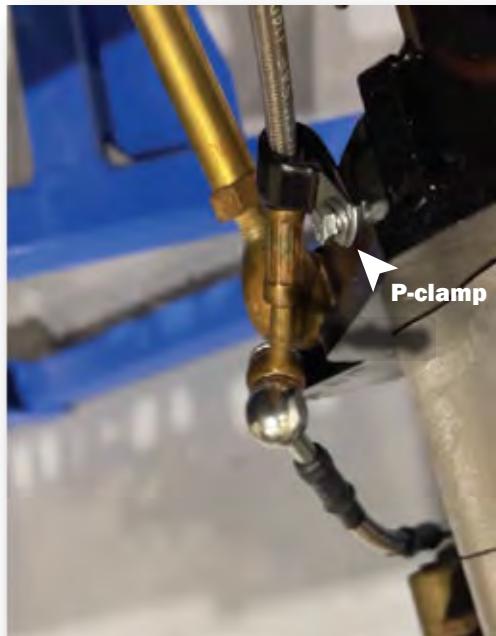
NOTE: The fitting & length will vary depending on the make, model, and brake caliper (front vs. rear)



FRONT BRAKE LINES

Install

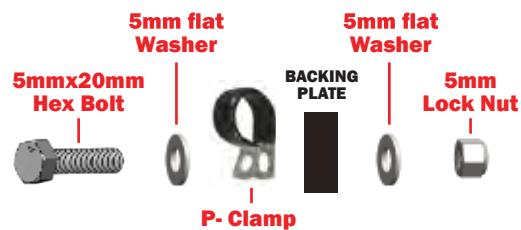
23



BACKING PLATE

Secure the brake line to the portal backing plate by using a p-clamp **FACING INWARD TOWARD THE CENTER OF THE UNIT**.

Insert a 5mm x 20mm bolt through the clamp and backing plate, followed by a 5mm washer on each side and 5mm lock nut.

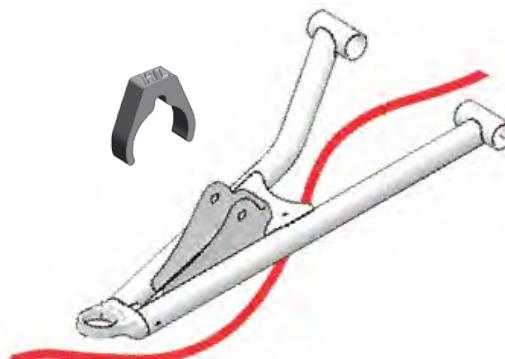


ENSURE ALL LINES ARE SECURE AND FREE OF PINCHING OR BINDING FROM MOVING PARTS.

UPPER CONTROL ARM

Route the brake line along the FRONT UPPER ARM. Secure it using the factory hardware.

If you have aftermarket arms secure it with the supplied brake line clamps.



REPEAT STEPS ON OPPOSITE SIDE

24



REAR PASSENGER SIDE

KEEP ALL FACTORY HARDWARE.

Place jack under the REAR center of the ATV and lift until the weight is off the suspension and the wheels are off the ground.

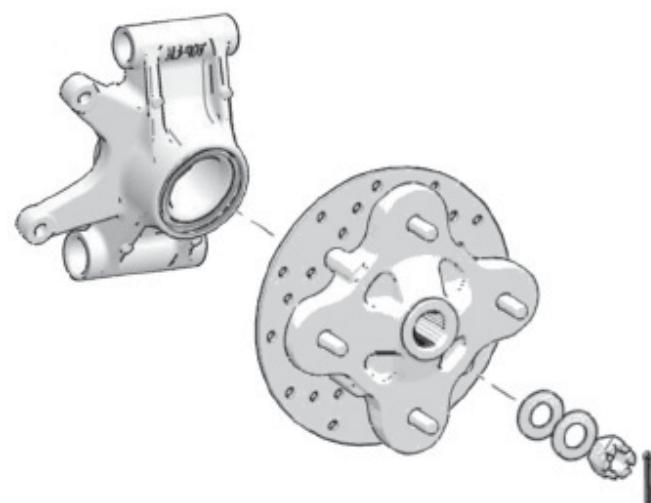
Raise unit an additional 6" to accommodate the portals.

Remove the front wheels.

25



Remove the brake caliper mounting bolts from the hub assembly. (15mm) KEEP FACTORY HARDWARE.



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



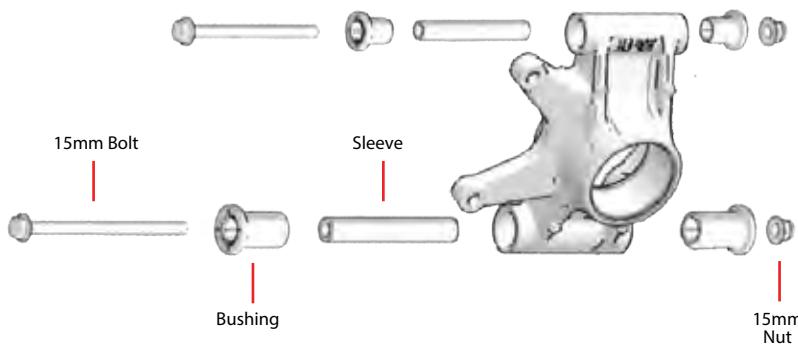
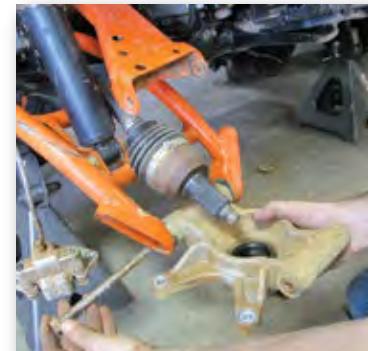
Drill off the factory p-clamp rivet until it snaps off.

REPEAT STEPS ON OPPOSITE SIDE

26 REAR KNUCKLE ASSEMBLY

Remove the bolts and nuts (15mm) that attach the rear knuckle to the upper & lower A-arms. Retain factory hardware.

Reuse your factory bushings and sleeves (if in good condition). Inspect components for wear. Replace as needed.



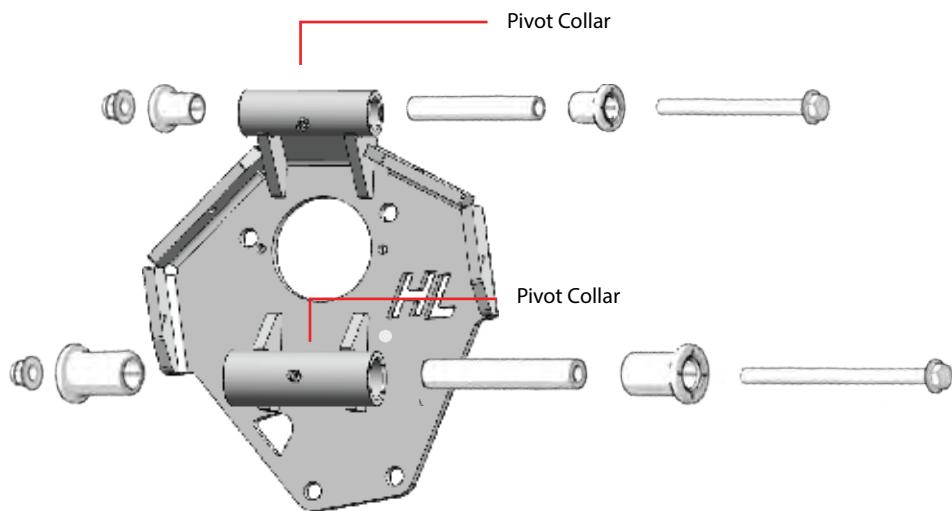
- Remove the bolts, bushings and sleeves from both arms.
- **NOTE: Use caution when removing the bushings from the knuckle, as they are plastic.**

27 REAR BACKING PLATE

Insert the bushings and sleeves into the collars of the rear backing plate

NOTE: We recommend applying quality water-resistant grease to the bushings, especially inside the pivot collar and along the sleeve.

Insert the grease fittings into the upper and lower pivot collar.



REPEAT STEPS ON OPPOSITE SIDE

Rear INSTALL

28



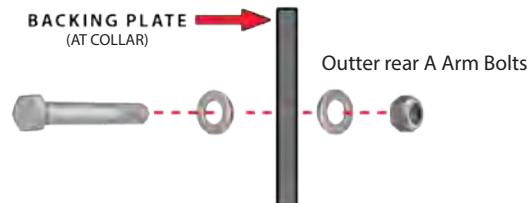
BOX CAP

INSTALL

Place the backing plate into position on the control arms and guide the drive shaft through.

Use the factory hardware to fasten the plate to the lower control arm. (15mm)

Fasten to the upper control arm. (15mm). Torque to factory specs.



29



Remove the 1/4-20 x 3/4" screws & cap/gasket from the lid of the portal box.

NOTE: On the portal boxes, the drive gear splines should be recessed to accommodate the shorter drive shaft splines.

REAR PORTAL

INSTALL

30

Apply water-resistant grease on the axle.

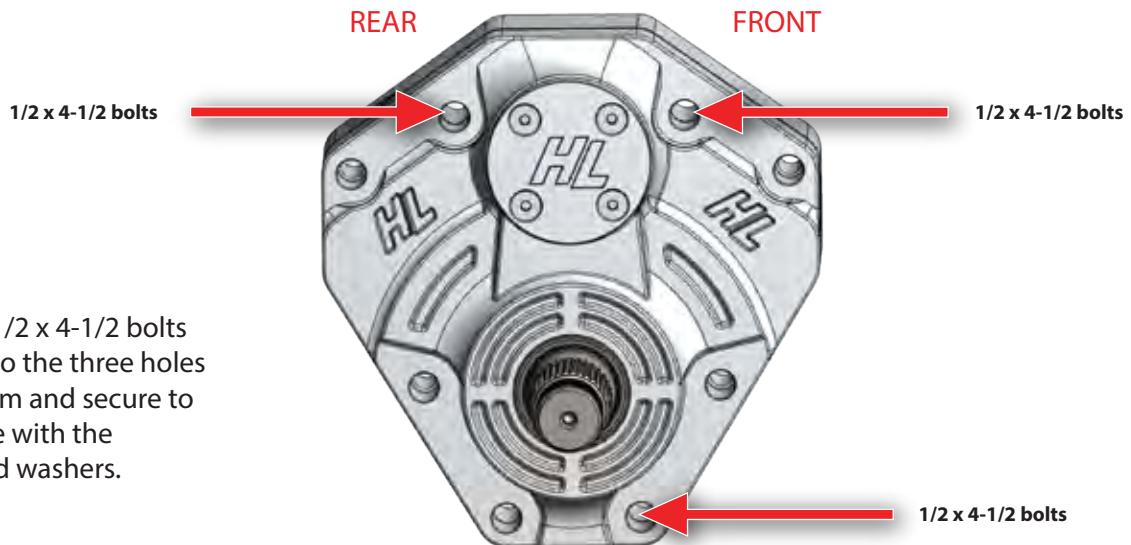
Rotate the portal box 'Up & In' as you guide the drive shaft splines into the back of the portal box.

Insert the bolts through the corresponding holes in the backing plate.



REPEAT STEPS ON OPPOSITE SIDE

31



Install the three $1/2 \times 4-1/2$ bolts with a washer into the three holes like in this diagram and secure to the backing plate with the $1/2$ " lock nuts and washers.

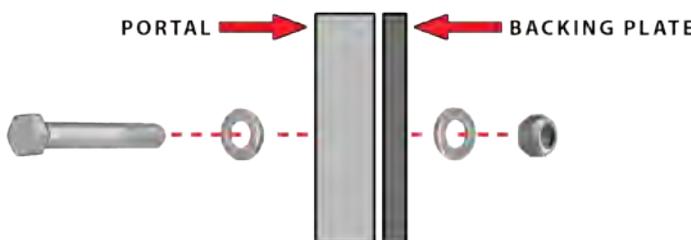
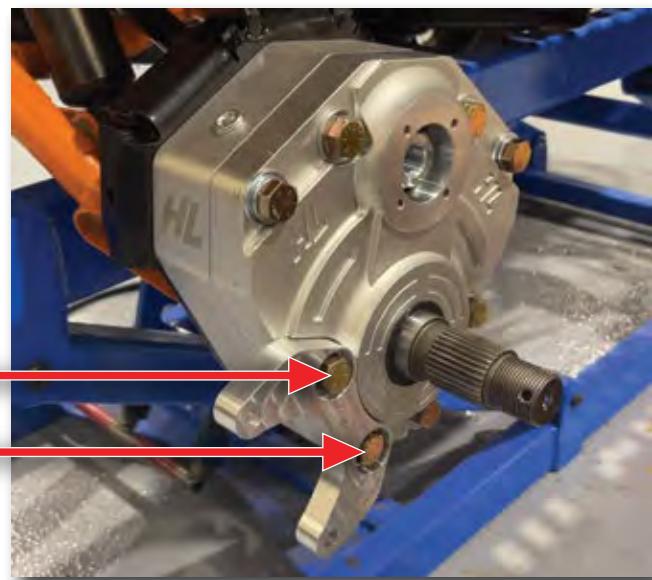
32

The Bracket should face the **REAR** of the vehicle.

Remove the top caliper bracket bolt first. Now align the bracket in place and reinstall the top bolt then install the one $1/2 \times 4-3/4$ bolt into the lower caliper bracket hole.

Loosely fasten all (5) bolts with $1/2$ " flat washers followed by $1/2$ " flat washers and $1/2$ " lock nuts. **Ensure parts fit correctly then torque.**

Top caliper bracket bolt
 $1/2 \times 4-3/4$ bolt



The installment should look like the featured diagram, when complete.

**For torque specs, refer to the back of these instructions.*

REPEAT STEPS ON OPPOSITE SIDE

Rear INSTALL

REAR AXLE NUT

Install

33



With the portal box installed, apply VIBRA-TITE (BLUE) to the supplied M18 x 1.5 axle nut PGLC-AXNUT-4 and torque onto the drive shaft axle. (30mm)

Align the portal box lid cap & gasket. Use the 1/4-20 x 3/4" screws and install the cap to the portal box.

**For torque specs, refer to the back of these instructions.*

ROTOR ASSEMBLY

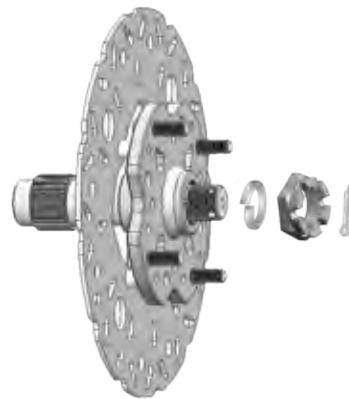
Install

34



Slide on the 30mm lock washer, 30mm castle nut. (46mm)

Tighten the castle nut further if needed to align grooves with hole in the spindle for the cotter pin. Install the cotter pin, then bend it to secure it.



Apply waterproof grease to the spindle splines and slide the brake rotor assembly onto the spindle shaft.

**For torque specs, refer to the back of these instructions.*

BRAKE CALIPER

Install

35



Disconnect the stock brake line from the caliper, if you have not done so already.

HAVE A CONTAINER READY TO COLLECT FLUID.

Install the caliper onto the portal box. Secure using the factory mounting bolts. (15mm) Torque to factory specs.

Bleeder Screw  Inlet 

ENSURE THE BLEEDER SCREW IS ORIENTED ABOVE THE INLET.

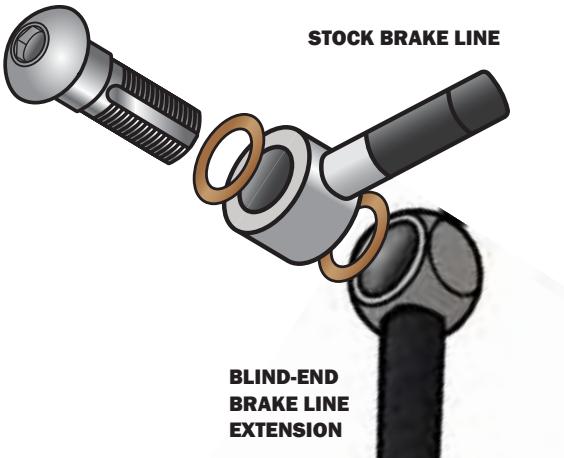
REPEAT STEPS ON OPPOSITE SIDE

36

STOCK BRAKE LINE TO EXTENSION INSTALL

Each unit has a specific brake line length and fitting to the caliper. The following charts display the correct line and torque specs for this application.

ALL BRAKE LINE EXTENSIONS HAVE A BLIND HOLE THAT CONNECTS TO THE STOCK LINE.



EXTENSION TO CALIPER INSTALL

On the opposite end, connect the REQUIRED BRAKE LINE EXTENSION to the stock brake caliper. Verify there is a copper washer on each side of the banjo fitting. Position the fitting like the photo previewed.

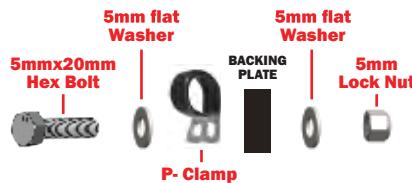
NOTE: The fitting & length will vary depending on the make, model, and brake caliper (front vs. rear)



BACKING PLATE

Secure the brake line to the portal backing plate by using a p-clamp **FACING INWARD TOWARD THE CENTER OF THE UNIT**.

Insert a 5mm x 20mm bolt through the clamp and backing plate, followed by a 5mm washer on each side and 5mm lock nut.



ENSURE ALL LINES ARE SECURE AND FREE OF PINCHING OR BINDING FROM MOVING PARTS.

REPEAT STEPS ON OPPOSITE SIDE

STRAIGHT BANJO FITTING



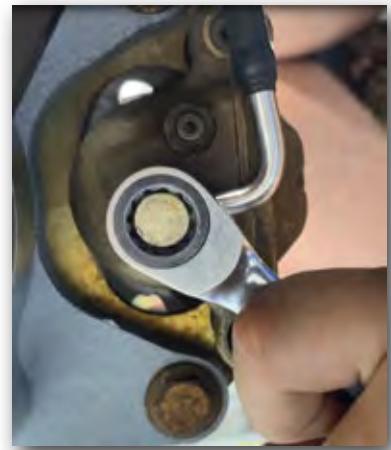
90° BANJO FITTING



BANJO BOLT TORQUE Specs			
DASH SIZE	INCH THREAD SIZE -TPI	WITH COPPER WASHERS	WITH SOFT SEALS
LIGHT SERIES (L)			
02	1/8-28	18	18
04	1/4-19	45	40
06	3/8-19	70	65
08	1/2-14	120	90
12	3/4-14	230	125
16	1-11.5	320	
20	1-1/4-11.5	540	
24	1-1/2-11.5	700	
HEAVY SERIES (S)			
04	1/4-19	45	40
06	3/8-19	70	65
08	1/2-14	120	90
12	3/4-14	230	125

Locate the proper BRAKE LINE EXTENSION. Using the supplied button head hex drive banjo bolt, connect the STOCK BRAKE LINE to the BLIND-END BRAKE LINE EXTENSION. Ensure the copper washers are on each side of the banjo fitting.

NOTE: Verify that the back of the blind hole fitting (rounded portion) is facing INWARD towards the center of the unit.



37



DO NOT USE AN IMPACT TOOL ON ANY PLUGS.



Use SAE 80W-90 oil. This gear lubricant is designed for gears operating under severe temperature and load conditions. SAE 80W-90 viscosity grade offers extended performance.

38

WHEEL INSTALL



TIRE REQUIREMENTS

- Up to 30" Stock
- 31" with 3" Lift Kit
- 32" to 33" Forward Kit 1.5"
- 34" Forward Kit and Lift Kit
- 35" to 37" Big Lift Kit (45%)
- 38" to 39" Big Lift Kit (45% or 60%)
- 40" to 44" Big Lift Kit (STRONGLY SUGGEST 60%)



WHEEL REQUIREMENTS

- 18" or larger wheel required
- 18" wheels cannot exceed 4-1/2" backspacing
- 20" and larger wheels cannot exceed 5" backspacing

- Install wheel lug nuts and securely tighten.
- Remove all jacks, jack stands, and other devices used to lift and hold the vehicle.
- With the suspension supporting vehicle weight, torque the wheel lug nuts using an "X"tightening pattern.

Aluminum wheels = [90 ft lbs]

Steel wheels = [50 ft lbs]

WARNING: Re-tighten lug nuts at eight (8) hours after any wheel change or anytime wheel nuts are loosened. Failure to do so could cause wheels to come off while the vehicle is in motion. This is a warning and reminder.

REMEMBER: You just bled the brakes, unbolted and bolted steering and drive train components, added more take-off torque and made many changes by adding the portal boxes. FIELD TEST this machine at LOW speed before putting into full time Play or Work Mode. Check the brakes for proper braking action & pedal reserve.

**For torque specs, refer to the back of these instructions.*



THE BOTTOM PLUGS MUST BE LUBRICATED OR WRAPPED IN TEFLON TAPE. PLUGS MAY NOT SIT FLUSH. DO NOT TIGHTEN TO MORE THAN 10FT LBS OF TORQUE.

1. Ensure the vehicle is positioned securely and 'Level'.
2. On the bottom of the box is the drain hole and plug. **Make sure the plug is wrapped in Teflon tape or lubricated with oil or grease.** (8mm)
3. On the lower backside of the backing plate is an opening for the portal box fill hole and plug. **Remove the fill plug. (8mm)**
4. Place the gear oil bottle spout into the fill hole. You can gently 'Squeeze' the bottle to help the process.
5. **Fill the portal box until the fluid starts draining back out of the fill hole. Then reinstall the fill plug, wrap the threads with Teflon tape or lubricate threads with oil or grease.** (8mm)
6. **On the top of the box is the vent hole and plug. Using an Allen wrench, make sure the plug is tightened.** (8mm)



An optional vent line kit will be available in the future.

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]

TORQUE-TENSION RELATIONSHIP FOR A307A, GRADE 5 & 8

THE TORQUE VALUES CAN ONLY BE ACHIEVED IF THE NUT (OR TAPPED HOLE) HAS A PROOF LOAD GREATER THAN OR EQUAL TO THE BOLTS MINIMUM ULTIMATE TENSILE STRENGTH. CLAMP LOAD IS CALCULATED AS 75% OF THE PROOF LOAD WHEN SPECIFIED BY THE STANDARD. ASTM A307 UTILIZED 75% OF 36,000 PSI.

TORQUE VALUES FOR 1/4 AND 5/16 IN SERIES ARE IN INCH POUNDS.

ALL OTHERS ARE IN FOOT-POUNDS.

NOMINAL DIA. (in.)	THREADS PER INCH	TENSILE STRESS AREA (Sq. in.)		SAE J429 - GRADE 5					SAE J429 - GRADE 8			
				CLAMP LOAD (lbs.)	TIGHTENING TORQUE				CLAMP LOAD (lbs.)	TIGHTENING TORQUE		
UNIFIED COARSE THREAD SERIES												
1/4	20	0.0318	2029	76 in-lbs	86 in-lbs	101 in-lbs	2864	107 in-lbs	122 in-lbs	143 in-lbs		
5/16	18	0.0524	3342	157	178	209	4719	221	251	295		
3/8	16	0.0775	4940	23 ft-lbs	26 ft-lbs	31 ft-lbs	6974	33 ft-lbs	37 ft-lbs	44 ft-lbs		
7/16	14	0.1063	6777	37	42	49	9568	52	59	70		
1/2	13	0.1419	9046	57	64	75	12771	80	90	106		
9/16	12	0.1819	11599	82	92	109	16375	115	130	154		
5/8	11	0.2260	14408	113	128	150	20340	159	180	212		
3/4	10	0.3345	21322	200	227	267	30101	282	320	376		
7/8	9	0.4617	29436	322	365	429	41556	455	515	606		
1	8	0.6057	38616	483	547	644	54517	681	772	909		
1-1/4	7	0.9691	53786	840	952	1121	87220	1363	1545	1817		
1-1/2	6	14053	77991	1462	1657	1950	126473	2371	2688	3162		
FINE THREAD SERIES												
1/4	28	0.0364	2319	87 in-lbs	99 in-lbs	116 in-lbs	3274	123 in-lbs	139 in-lbs	164 in-lbs		
5/16	24	0.0581	3702	174	197	231	5226	245	278	327		
3/8	24	0.0878	5599	26 ft-lbs	30 ft-lbs	35 ft-lbs	7905	37 ft-lbs	42 ft-lbs	49 ft-lbs		
7/16	20	0.1187	7568	41	47	55	10684	58	66	78		
1/2	20	0.1600	10197	64	72	85	14396	90	102	120		
9/16	18	0.2030	12940	91	103	121	18268	128	146	171		
5/8	18	0.2560	16317	127	144	170	23036	180	204	240		
3/4	16	0.3730	23776	223	253	297	33566	315	357	420		
7/8	14	0.5095	32479	355	403	474	45853	502	568	669		
1	14	0.6799	43343	542	614	722	61190	765	867	1020		
1-1/4	12	1.0729	59548	930	1055	1241	96565	1509	1710	2012		
1-1/2	12	1.5810	87747	1645	1865	2194	142292	2668	3024	3557		

TORQUE-TENSION RELATIONSHIP FOR METRIC FASTENERS

NOMINAL DIA. (in.)	PITCH		CLASS 8.8				CLASS 10.9				CLASS 12.9		
			CLAMP LOAD (lbs.)	TIGHTENING TORQUE			CLAMP LOAD (lbs.)	TIGHTENING TORQUE			CLAMP LOAD (lbs.)	TIGHTENING TORQUE	
				LUBRICATED (ft-lbs)	ZINC PLATED (ft-lbs)	PLAIN&DRY (ft-lbs)		LUBRICATED (ft-lbs)	ZINC PLATED (ft-lbs)	PLAIN&DRY (ft-lbs)		LUBRICATED (ft-lbs)	AS RECEIVED (ft-lbs)
4	0.7	858	1.7	1.9	2.3	1228	2.4	2.7	3.2	1436	2.8	3.2	3.8
5	0.8	1387	3.4	3.9	4.5	1985	4.9	5.5	6.5	2319	5.7	6.5	7.5
6	1	1968	5.8	6.6	7.7	2816	8.3	9.4	11.1	3291	9.7	11.0	13.0
7	1	2822	9.7	11.0	13.0	4039	13.9	15.8	18.5	4720	16.3	18.4	21.7
8	1.25	3580	14.1	16.0	18.8	5123	20.2	22.9	26.9	5987	23.6	26.7	31.4
10	1.5	5671	27.9	31.6	37.2	8115	39.9	45.2	53.2	9484	46.7	52.9	62.2
12	1.75	8240	48.7	55.1	64.9	11792	69.6	78.9	92.8	13781	81.4	92.2	108.5
14	2	11289	77.8	88.1	103.7	16154	111.3	126.1	148.4	18879	130.0	147.4	173.4
16	2	15320	121	137	161	21924	173	196	230	25622	202	229	269
18	2.5	18822	167	189	222	26934	239	270	318	31477	279	316	372
20	2.5	23938	236	267	314	34256	337	382	449	40034	394	446	525
22	2.5	29669	321	364	428	42457	460	521	613	49619	537	609	716
24	3	34471	407	461	543	49329	582	660	777	57649	681	771	908
27	3	44924	597	676	796	64288	854	968	1139	75132	998	1131	1331
30	3.5	54819	809	917	1079	78448	1158	1312	1544	91680	1353	1534	1804
33	3.5	67821	1101	1248	1468	97055	1576	1786	2101	113425	1842	2087	2455
36	4	79866	1415	1603	1886	114291	2024	2294	2699	133569	2366	2681	3154

TORQUE VALUES CALCULATED FROM FORMULA T=KDF:

K=0.15 FOR "LUBRICATED" CONDITIONS

K= 0.17 FOR ZINC PLATED AND DRY CONDITIONS, ALSO THE USE OF VARIOUS FORMS OF THREAD LOCKERS HAVE A SIMILAR K VALUE

K=0.20 FOR PLAIN DRY CONDITIONS

D= NOMINAL DIAMETER

F=CLAMP LOAD

NOTE: WHEN USING ZINC PLATED (LUBRICATED WITH WAX) TOP LOCK NUTS, THE K VALUE CAN VARY FROM 0.12 TO 0.16.

CAUTION: ALL MATERIAL INCLUDED IN THESE CHARTS IS ADVISORY ONLY. EXTREME CAUTION SHOULD BE USED WHEN USING A FORMULA FOR TORQUE/TENSION REALATIONSHIPS. TORQUE IS ONLY AN INDIRECT INDICATION OF TENSION. UNDER/OVER TIGHTENING OF FASTENERS CAN RESULT IN COSTLY EQUIPMENT FAILURE OR PERSONAL INJURY.

HIGH LIFTER PORTAL GEAR WARRANTY PROGRAM

Thank you for purchasing a High Lifter Products Portal Gear Lift. Our Portal Gear Lifts have been engineered to provide superior performance on your ATV/UTV.

LIMITED LIFETIME WARRANTY:

HIGH LIFTER PRODUCTS warrants to the **ORIGINAL** purchaser of any Portal Gear Kit for a lifetime of protection from the date of purchase against defects in materials or workmanship, subject to the following conditions:

- a) The product must be properly installed according to all installation instructions.
- b) **HIGH LIFTER** is not liable for any incidental or consequential damages to anything other than the Portal Gear Kit covered by this warranty. **HIGH LIFTER** is not liable for any incurred expenses, labor costs to install/remove/reinstall Portal Gear Kit or any OEM or aftermarket components, loss of use of machine, damage to housings or damage to any aftermarket accessory or OEM components.
- c) If the Portal Gear Kit has been disassembled or modified by a third party, the warranty is null and void.
- d) Any Portal Gear Kit damaged in a collision with any object is excluded from this warranty. However, the Portal Gear Kit may be refurbished for a fee upon repair authorization by the owner. Costs will vary depending on the condition of each Portal Gear Kit assembly.
- e) Warranty is non-transferable from the **ORIGINAL** purchaser.
- f) **HIGH LIFTER** reserves the right to inspect the Portal Gear Kit for determining if there were any defects in the installation and to determine the validity of any warranty claim. The warranty process may require the **ORIGINAL** purchaser to provide photographs of the ATV/UTV and its installed Portal Gear Kit.
- g) Items that will not be covered under the warranty are but not limited to: Bearings, Seals, Gaskets, and Wheel Studs. All other components in kit are subject to review by **HIGH LIFTER** to determine reason for failure and if they meet requirements for warranty coverage.
- h) Warranty will be void on products that show; misapplication, improper installation, abuse, lack of proper maintenance, negligence, or alteration from original design.
- i) Any parts used to repair a portal kit must be purchased from **HIGH LIFTER** or warranty will be voided. For safety reasons it is important that the proper fastener grade, thread engagement, and torque specification be followed to prevent parts from failing. See instructions for torque data/specifications.

REFUSED SHIPMENTS/ORDER CANCELLATION:

Refused shipments are subject to a 20% restocking fee plus all associated freight costs. It is our goal to ship all orders in a timely manner. If a customer wishes to cancel an order (provided it is not a special-order product), it is the responsibility of the customer to cancel the order prior to the product being shipped. If a customer cancels an order after product has been shipped, they refused shipment, cancellation, or return will be subject to a 20% restocking fee and any freight charges incurred. For orders outside the United States, any fees associated with customs or duties are non-refundable.

DAMAGED SHIPMENTS:

All claims for damaged shipments must be made within 72 hours of delivery to the point of destination. Any damage to package should be noted with carrier at the time of delivery if possible. We will not be responsible for damage claims made over 72 hours after delivery to the point of destination.

OBTAINING A WARRANTY CLAIM:

All returns for warranty must be pre-approved by calling 1.800.699.0947. After warranty approval has been granted and a Return Merchandise Approval (RMA) number issued, the Portal Gear Kit must be received by **HIGH LIFTER PRODUCTS** within 15 calendar days. The RMA number must be clearly displayed on the return box or the return will be refused. An RMA number does not imply that a replacement or refund will be issued on any product, but only that we will inspect the Portal Gear Kit for warranty claims. For orders outside the United States, any freight or fees associated with customs and duties are the responsibility of the purchaser and are non-refundable. All claims must be accompanied by the sales receipt detailing date and place of purchase, a written explanation of the problem, a phone number, and e-mail address. A copy of this receipt must be included with the Portal Gear Kit submitted for warranty repair or replacement. The purchaser is responsible for any freight charges on all warranty claims, including incoming freight to High Lifter and return freight to the purchaser.



RMA Number #

HIGH LIFTER PRODUCTS WARRANTY CLAIM

Name: _____

Product Number: _____

Address: _____

Place of Purchase: _____

Phone Number: _____

Date of Purchase: _____

E-Mail Address: _____

Reason for Return: _____





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**