

LIFT-103 6" Drop Spindle Lift Kit Club Car Precedent Installation Instructions



Contents of LIFT-103 Club Car Precedent Drop Spindle Lift Kit:

- a (1 ea.) Passenger Side Spindle
- b (1 ea.) Driver Side Spindle
- c (2 ea.) Riser Blocks
- d (2 ea.) Shock Mounting Plates
- e (2 ea.) Centering Plates
 - (1 ea.) Box of Hardware (Contents on Next Page)
- g (1 ea.) Instructions

f

Caution: Please read through the instructions carefully. Installer is responsible for damage if instructions are not followed properly. Please refer to all torqueing specifications on page 2 for installation.

Note: You must install larger tires and wheels once the cart is lifted. Stock wheels will not work. We recommend a 22" tire with a minimum of a 10" offset wheel for use on the RHOX Lift Kit.



Contents of LIFT-103 Hardware Kit:

ITEM	<u>QTY</u> .	DESCRIPTION	TORQUE REQUIREMENTS
a.	4 ea.	7/16" x 7.25" Hex Head Bolts	54 ft. lbs.
b.	8 ea.	7/16" Flat Washers	-
с.	2 ea.	6mm x 10 Hex Head Bolts	6 ft. lbs.
d.	2 ea.	6mm Lock Nuts	-

Tools Needed for Installation

- Sockets and Open Ended Wrenches

- 1/2", 9/16", 5/8", 3/4", 13/16", 10mm, 12mm, 16mm, 17mm
- Pliers
- Jack and Jack Stands
- Chock for Wheels
- Rubber Mallet

Installation Preparation (Front of the Cart)

- 1. Engage the parking brake and turn the key to the Off position.
- Electric Carts Only: If your cart has a Tow/Run Switch, place switch in the Tow position.
- 3. Chock the back of the rear wheels to prevent the cart from moving.
- 4. Remove the hub caps (if any). Loosen the lug nuts on both front wheels. Do not remove the lug nuts.
- 5. Using a jack, safely lift the front end of the cart enough to accommodate the additional height of the larger tires and wheels.
- 6. Place jack stands securely under the chassis and remove jack.





- 7. Fully remove the (8) front lug nuts, tires and wheels. Discard the tires and wheels as they will not be reused.
- 8. Remove and retain the dust covers (yellow) from the front of the hubs.
- Remove the front hubs by removing the flange nut in the center of the hub. Retain hubs and hardware.





10. Disconnect the tie rod ends from the spindles by removing the safety pin from the tie rod end. Then remove the nut on the tie rod end. Use a wrench to keep the tie rod end in place as the nut is removed. Retain hardware.





11. Disconnect the upper clevis assembly from kingpin (at the top of the spindle). Remove and discard spindle. Retain hardware.

Front Suspension Installation

NOTE: Please refer to vehicle's maintenance manual for torqueing specifications on reused hardware.

1. Slide the new spindles onto the kingpins. Fasten the upper clevises to the kingpins using the <u>Original Hardware</u>.



- 2. Fasten the tie rod ends onto the new spindles using the <u>Original Hardware</u> and <u>Safety Pins</u>.
- 3. Reinstall the front hubs removed earlier using the <u>Original Hardware</u>. For added safety, insert a safety pin (not included) in the hole of the new spindle.
- 4. Reinstall the dust covers.





5. Install the (2) front tires. The stock tires and wheels will not work on the newly lifted cart. Fully tighten the lug nuts on both wheels.

NOTE: It is recommended to use at least 22" tires on a 10" wheel with an offset. The wheel shown is a *RHOX* Vegas TIR-RX160 with a *RHOX* Mojave tire, TIR-265.



6. Once the tire and wheels are fully secure, place the jack under the cart. Remove any jack stands and lower the cart safely to the ground. Remove the chocks behind the rear wheels.

NOTE: Any toe adjustments will be made at the end of the installation.

Installation Preparation (Rear of the Cart)

- 1. Engage the parking brake and turn the key to the Off position.
- 2. Electric Carts Only: If your cart has a Tow/Run Switch, place switch in the Tow position.
- 3. Chock the front of the front wheels to prevent the cart from moving.
- 4. Remove the hub caps (if any) on the rear wheels. Loosen the lug nuts on both rear wheels. Do not remove the lug nuts.
- 5. Place a jack securely under the rear axle. Safely lift the rear end of the cart enough to accommo-



Page 4

date the additional height of the larger tires and wheels.

- Place jack stands under the chassis on both sides of the cart to stabilize it. DO NOT remove the jack.
- 7. Fully remove the (8) rear lug nuts, tires and wheels. Discard the tires and wheels as they will not be reused.



Rear Suspension Installation

Safety Note:

Proper eye and mouth protection should be worn during this section to protect the installer from falling debris when working under the cart.

The rear axle is only held up by the (2) leaf springs and the jack. For safety reasons, complete one side of the suspension at a time. The photos below show the driver side.

1. Unbolt the bottom portion of the driver side shock from the shock mounting plate. Push the shock upward and out of the way.





 With the axle supported by the jack, remove the (2) nuts holding the driver side U-bolt around the rear axle, leaf spring and shock mounting plate. Remove and discard the U-bolt but retain the (2) nuts.



- 3. Remove the driver side leaf spring from the rear shackle by removing the shackle bolt on the rear portion of the leaf spring. Retain hardware.
- 4. Remove the front portion of the leaf spring by removing front pivot bolt. This bolt is also connected to the clamp that holds the brake cable. Retain hardware.
- 5. Remove the leaf spring.
- 6. Carefully lower the rear axle away from the chassis with the jack. The jack stands will remain in place to support the chassis.
- 7. Place the leaf spring on top of the axle.
- 8. Reattach the front portion of the leaf spring and the brake cable removed in step 4 using the original pivot bolt. If you find your brake cable is too short, you may need to leave the brake cable loose and support it with a heavy duty wire tie versus the factory brake cable clamp.
- 9. Place a riser block on top of the axle and under the leaf spring. When oriented correctly, the riser block will lean to the front of the cart. The captured nut on the leaf spring will seat in the hole on top of the riser block.

Front of Cart

10. Once the spring is seated, identify the shock mounting plate included in the kit. Place it on top of the leaf spring. The captured nut on the leaf spring will seat in the small hole. The larger, shock mounting hole will face towards the center rear of the cart as shown.











11. Install (1) <u>6mm x 10 Hex Head Bolt</u> and (1) <u>6mm Nylock Nut</u> onto the centering plate. Place the centering plate between the original shock mounting plate and the leaf spring mounting perch on the bottom of the axle. The 6mm bolt head and nut will fit into the center hole of the spring perch and original shock mounting plate to aid in alignment of the riser block and mounting plates.



- Secure the centering plate assembly to the rear axle, riser block, leaf spring and new shock mounting bracket using (2) <u>7/16" x</u> <u>7.25" Hex Head Bolts</u>, (4) <u>7/16" Flat Washers</u> and the (2) <u>7/16" Nuts</u> retained from the Ubolt in step 2. Hand tighten.
- 13. Fully tighten both bolts. Adjustments may be needed to keep all plates and brackets aligned.
- 14. Repeat steps 1-13 for the passenger side rear leaf spring.





- 15. Using the jack, safely lift the rear axle and guide the rear portion of the leaf springs to their original positions.
- 16. Reinstall the rear portion of the leaf springs to the shackles using the <u>Original Hardware</u> removed in step 3.
- 17. Reinstall the shocks onto the new shock mounting plates using the <u>Original</u> <u>Hardware</u>.
- 18. If the cart is not high enough to accommodate the larger tires and wheels, raise the cart to the right height with the jack.
- 19. Install the (2) rear tires/wheels on the rear hubs.
- 20. Remove the jack stands and lower the cart.
- 21. Remove the jack.



Adjust the Toe and Camber

1. Drive forward and back 20-40 feet to check the toe and camber before making adjustments. Only make adjustments if needed.

NOTE: For stability, an 1/8" toe-in with a positive camber is recommended. This will level out when the cart is loaded.



Toe-In Adjustment

Camber Adjustment

 Adjust the toe by loosening the jam nut. Lengthen or shorten the tie rod by turning the hex shaped rod adjustment. Shortening the tie rod increases the toe, lengthening decreases it.



- 3. Some Precedents will require camber adjustment. The King Pin Camber Correction Kit, LIFT-191 (sold separately), provides additional camber positions. Please contact your Rhox dealer for pricing and availability.
- 4. Once adjustments are finalized and set, tighten all hardware and jam nuts.

This completes the installation of your Precedent Lift Kit. Please enjoy safely!

Watch this installation and others on YouTube: <u>www.youtube.com/user/GolfCartInstructions</u>