



RHOOX

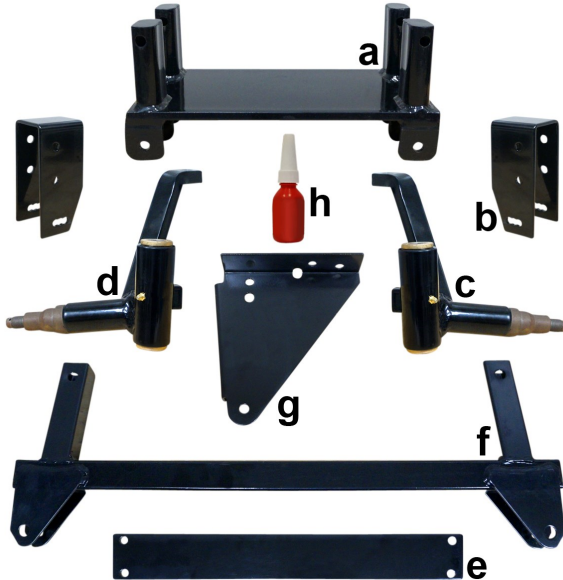
Rugged parts for your ride.

LIFT-545

4" Standard Duty Lift Kit

Yamaha Drive 07-16

Installation Instructions



Contents of LIFT-545 Lift Kit:

- a (1 ea.) Front Lift Block
- b (2 ea.) Shock Towers
- c (1 ea.) Driver Side Spindle
- d (1 ea.) Passenger Side Spindle
- e (1 ea.) Stabilizer Plate
- f (1 ea.) Rear U-Bracket
- g (2 ea.) Connecting Rod Bracket
- h (1 ea.) Thread Locking Compound
- i (1 ea.) Box of Hardware (Contents on Next Page)

Caution: Please read through the instructions carefully. Installer is responsible for damage if instructions are not followed properly. Extra installers may be helpful in some parts of the installation. Please refer to all torquing specifications on page 2 for installation.

Note: Larger tires and wheels must be installed once the cart is lifted. Stock wheels will not work. We recommend a 20" tire and a 10" or larger wheel with a minimum of a 1" offset for use on the RHOOX Lift Kit.



Contents of LIFT-545 Hardware Kit		Qty.	Torque Requirements
a	10mm-1.5 x 90 Shoulder Hex Head Bolts	8	38.25 ft. lbs.
b	10mm-1.5 x 80 Hex Head Bolts	4	38.25 ft. lbs.
c	10mm-1.5 x 60 Hex Head Bolts	2	38.25 ft. lbs.
d	10mm-1.5 Nylock Nuts	14	-
e	10mm Flat Washers	28	-
f	10mm Spacers (10mm Long)	2	-
g	12mm-1.75 x 25 Hex Head Bolts	1	69 ft. lbs.
h	12mm-1.75 Nylock Nut	1	-

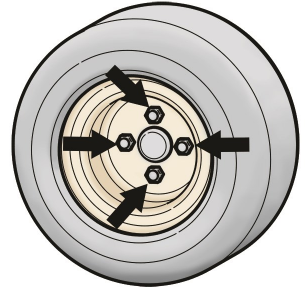
Tools Needed for Installation

- Sockets & Wrenches (10mm, 13mm, 14mm, 15mm, 17mm, 18mm, 19mm, 3/4", 13/16")
- Drill and Drill Bits (1/8" or 3/16", 13/32")
- Flat Head Screwdriver
- Needle Nose Pliers
- Rubber Mallet
- Grease Gun
- Tape Measure
- Safety Glasses

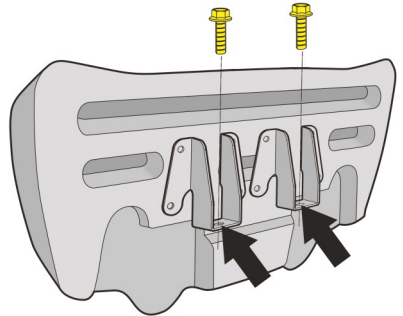
Installation Preparation (Front of the Cart)

1. Engage parking brake.
2. Turn key OFF.
3. Electric Carts Only: Place Tow/Run Switch in TOW.
4. Chock the back of the rear wheels.

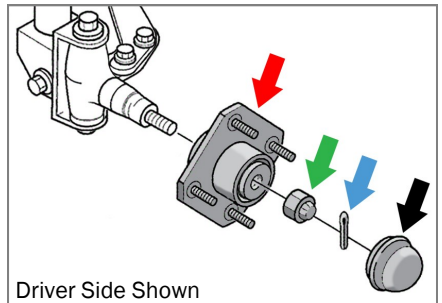
5. Remove the hub caps (if any). Loosen the lug nuts on both of the front wheels but do not remove them.
6. Use a jack to safely lift the front of the cart high enough to accommodate the new tires and wheels. Place (2) jack stands securely under the chassis and remove the jack.
7. Fully remove the (8) front lug nuts, tires and wheels. Discard.



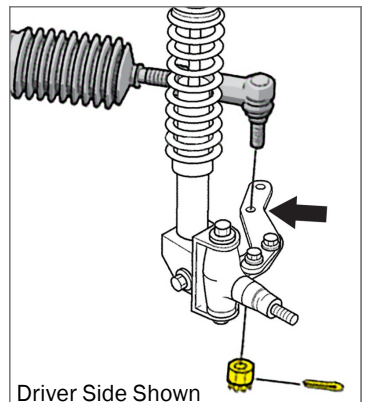
8. Remove the front bumper. Retain bumper and hardware.



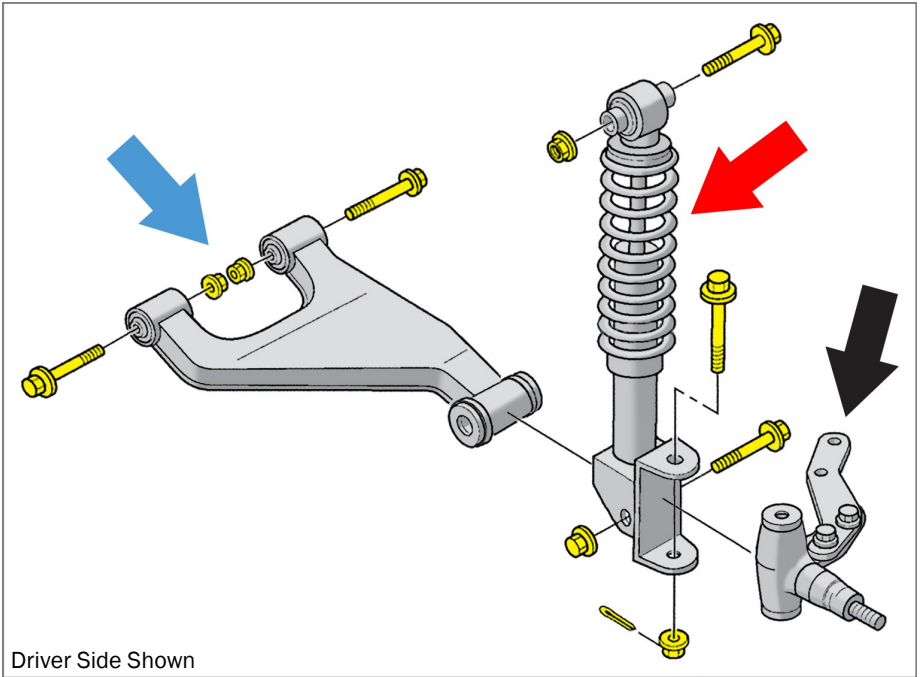
9. Remove dust covers (black arrow), safety pins (blue arrow), nuts (green arrow) and wheel hubs (red arrow) from both spindles. Retain all components.



10. Disconnect the tie rod ends from the knuckle arms. Retain hardware.



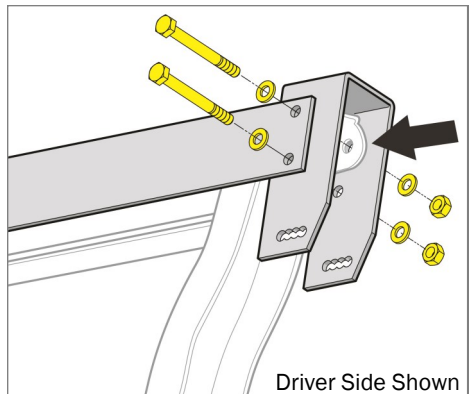
11. Disconnect the spindle and knuckle arm assemblies from the shocks and discard (black arrow). Retain hardware.
12. Remove the shocks from the A-Arms and chassis (red arrow). Retain shocks and hardware.
13. Remove the A-Arms from the chassis (blue arrow). Retain A-Arms and hardware.



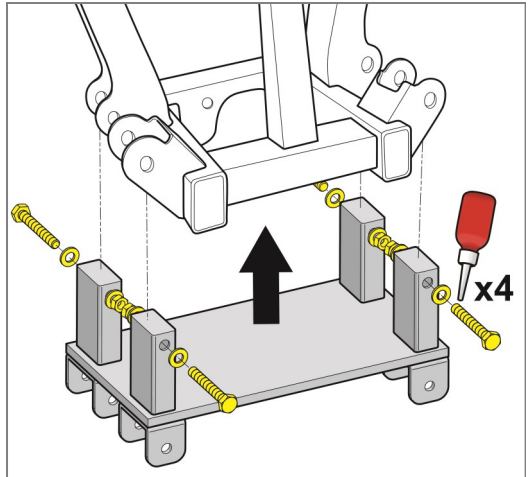
Front Suspension Installation

NOTE: Refer to page 2 for torquing specifications on included hardware. Refer to vehicle's maintenance manual for torquing specifications on reused hardware.

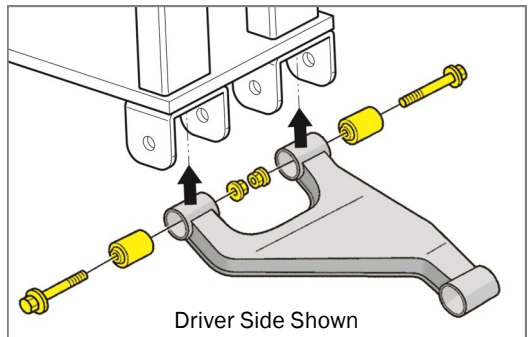
1. Place a shock tower over the driver side chassis where the shock was removed.
2. Loosely fasten the stabilizer plate to the front of the shock tower and chassis using (2) 10mm x 90 Hex Head Bolts, (4) Flat Washers and (2) Nylock Nuts. Do not tighten.



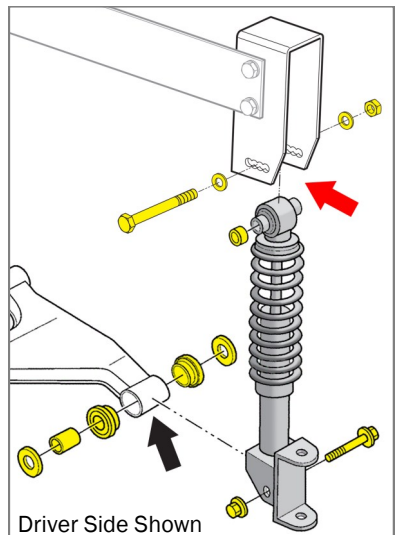
3. Repeat Steps 1-2 for the passenger side shock tower.
4. Put a drop of Thread Locking Compound on the threads of (4) 10mm x 80 Hex Head Bolts.
5. Fasten the front lift block to the chassis where the original A-Arms were installed using the (4) 10mm x 80 Hex Head Bolts with Thread Locking Compound, (8) Flat Washers and (4) Nylock Nuts.



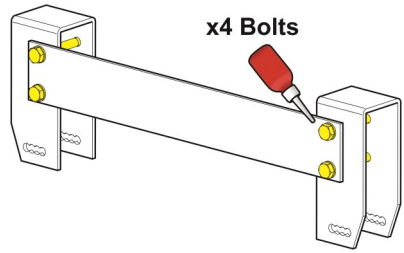
6. Fasten the original A-Arms to the lift block using the Original Hardware removed in Step 13 on Page 4.



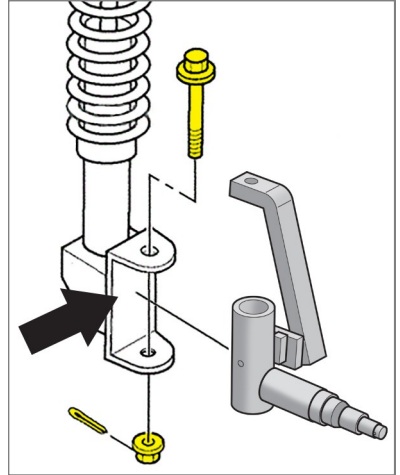
7. Fasten the shocks to the A-Arms (black arrow) using the Original Hardware removed in Step 12, Page 4.
8. Fasten the upper shocks to the shock towers using (2) 10mm x 90 Hex Head Bolts, (4) Flat Washers, (2) Nylock Nuts and (2) Spacers (red arrow)



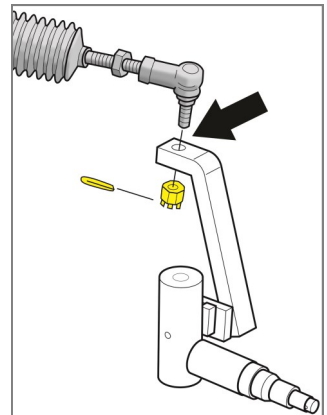
9. Put a drop of Thread Locking Compound on the threads of the (4) bolts going through the stabilizer plate. Fully tighten hardware.



10. Install the new spindles to the shocks using the Original Hardware.
11. Grease the fittings on the spindles using a general purpose automotive grease.



12. Fasten the tie rod ends to the new spindles using the Original Hardware and Safety Pins.
13. Tighten any hardware left loose in this section.
14. Reinstall the hubs and dust covers that were removed on Page 3 using the Original Hardware. Hand tighten.
15. Install the (2) new front tires and wheels. 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 a 10" wheel with a 1" offset.

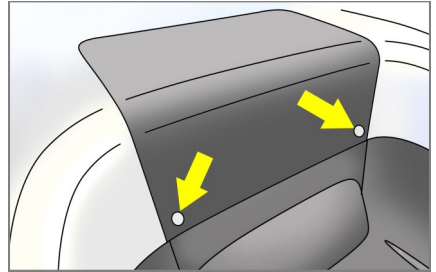
16. Once the tires and wheels are fully secure, place the jack under the cart. Remove the jack stands and lower the cart. Remove the chocks behind the rear wheels.

NOTE: The front bumper can remain off until the camber and toe adjustments are made at the end of the installation.

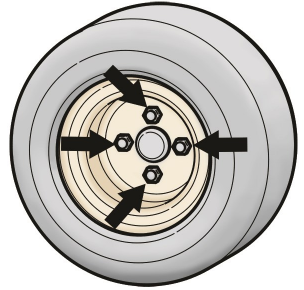
Installation Preparation (Rear of the Cart)

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.

1. Engage parking brake.
2. Turn key OFF.
3. Electric Carts Only: Place Tow/Run Switch in TOW.
4. Chock the front of the front wheels.
5. Remove the rear access panel. Retain panel and rivets.

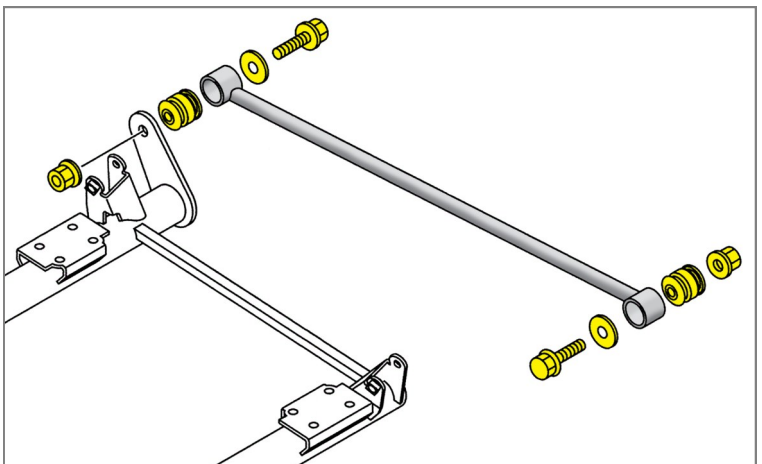


6. Remove the hub caps (if any). Loosen the lug nuts on both rear wheels but do not remove them.
7. Place a jack securely under the rear axle. Safely lift the rear end of the cart enough to accommodate the additional height of the larger tires and wheels.
8. Place jack stands under the chassis on both sides of the cart to stabilize it. DO NOT remove the jack.
9. Fully remove the (8) rear lug nuts, tires and wheels. Discard.

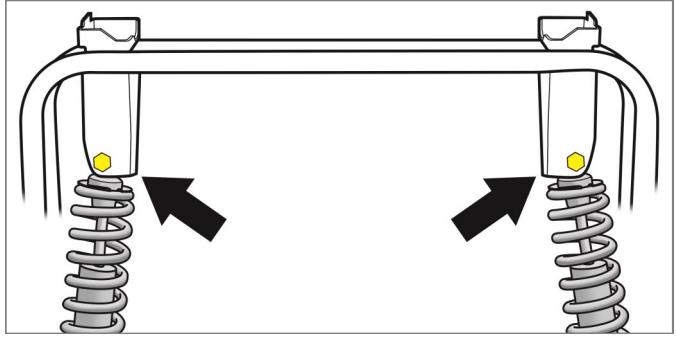


Rear Suspension Installation

1. Disconnect the rear connecting rod. Retain rod and hardware.

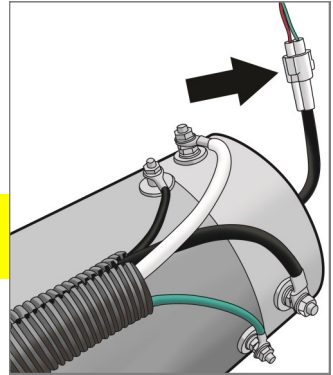


2. Disconnect the top of the rear shocks from the shock mounts. Retain hardware.

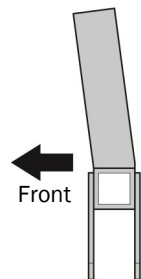
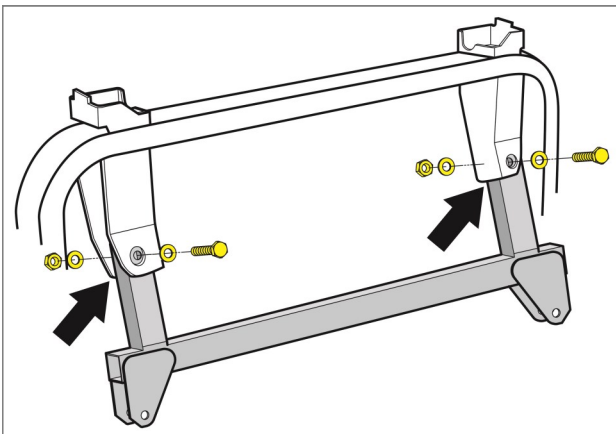


3. Disconnect any wires or cables attached to the motor that could be damaged when lowering the rear suspension.
4. With the cart in TOW, slowly and carefully lower the rear axle.

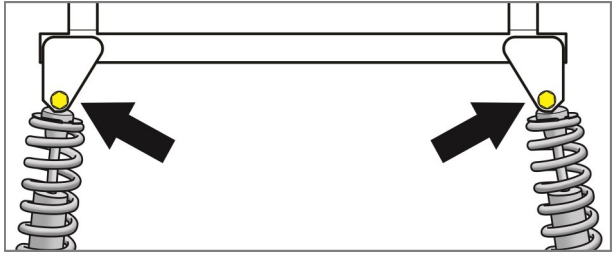
NOTE: The electrical system could be damaged if the cart is NOT in the Tow position and a shock contacts the motor.



5. Identify the rear U-bracket. When oriented correctly, the bracket will be angled towards the front of the cart.
6. Slide the U-bracket into the original shock mounts. Secure the bracket with (2) 10mm x 60 Hex Head Bolts, (4) 10mm Flat Washers and (2) 10mm Nylock Nuts.



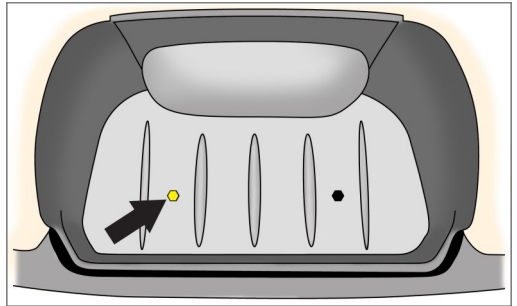
7. Slowly raise the rear axle until the top of the shocks reach the new shock mounts. Install the top of the shocks to the U-bracket using the Original Hardware.



8. Reroute and reconnect any wires or cables removed from the motor. Use wire ties to secure them if needed.

9. Locate the (2) bolts in the bagwell area. Remove the bolt on the driver side.

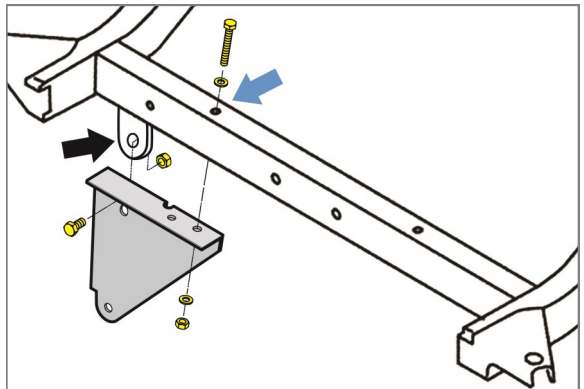
10. Using the empty bolt hole as a guide, drill a 1/8"-3/16" pilot hole completely through the chassis. Then drill a 13/32" hole through the pilot hole.



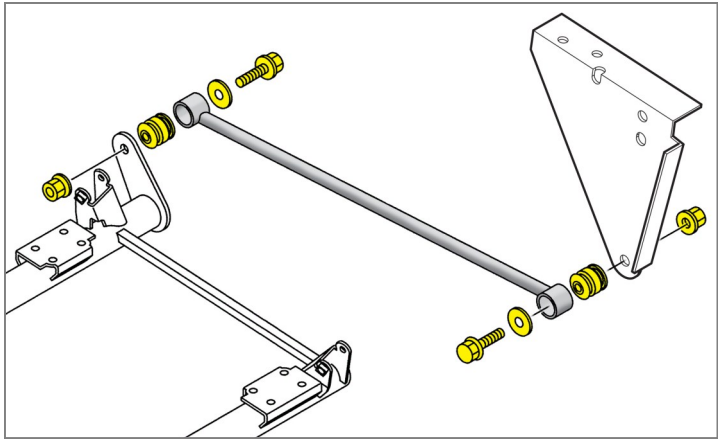
11. Place the connecting rod bracket on the underside of the chassis and behind the connecting rod mounting tab.
12. Fasten the bracket to the mounting tab using (1) 12mm x 25 Hex Head Bolt and (1) Nylock Nut (black arrow). Do not tighten.
13. Fasten the bracket to the chassis using (1) 10mm x 90 Hex Head Bolt, (2) Flat Washers and (1) Nylock Nut (blue arrow).

14. Tighten hardware from Step 12 and 13.

NOTE: For matching bolt heads in the bagwell area, a second set of 10mm hardware is included in the kit. Repeat Steps 9-14 for the passenger side if desired. This will not affect the lift kit.



15. Fasten the connecting rod to the new bracket and the original mounting tab using the Original Hardware.

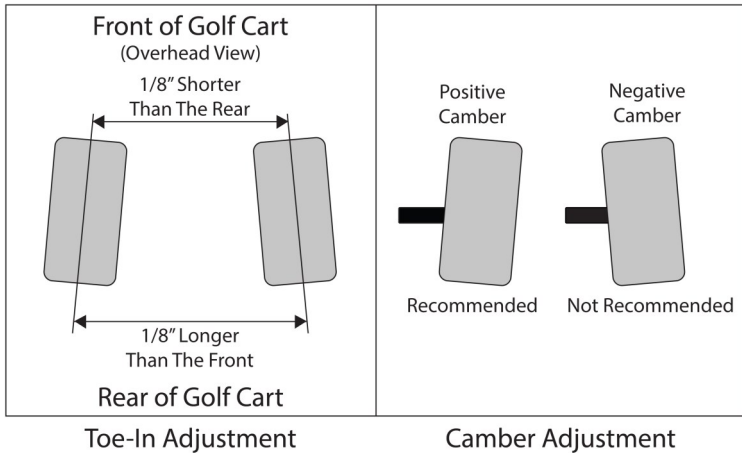


16. Tighten any hardware left loose in this section.
17. If the cart is not high enough to accommodate the larger tires and wheels, raise the cart to the correct height with the jack.
18. Install the (2) new rear tires/wheels on the rear hubs.
19. Remove the jack stands and lower the cart.
20. Remove the jack.

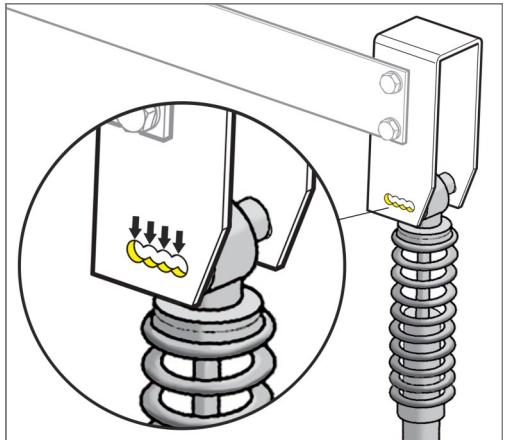
Adjust the Toe and Camber

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.



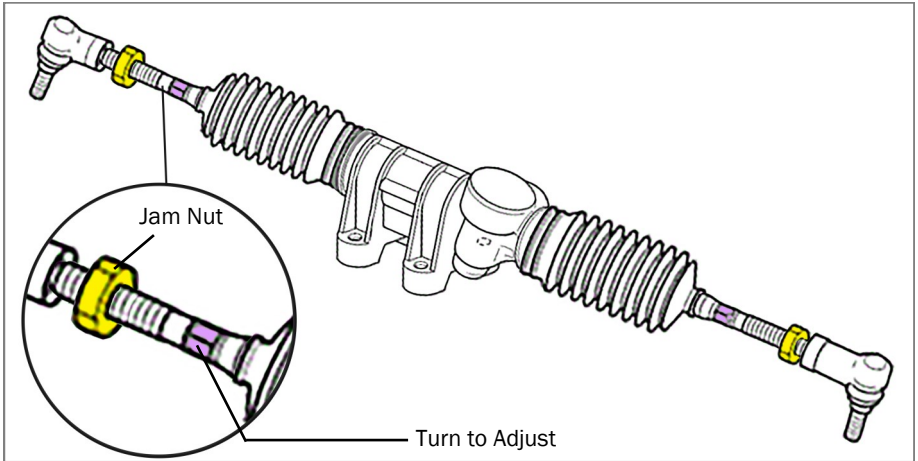
2. Adjust the camber by changing the mounting position of the shocks in the shock tower. Mounting the shock to the outside of the cart will make the camber more positive. Mounting it to the inside of the cart will make the camber more negative.



3. Calculate the toe of the front tires by measuring the center-to-center distance of the front of the front tires versus the center-to-center distance of the back of the front tires. The front measurement should be $1/8$ " shorter than the rear.

- Adjust the toe by loosening the jam nut on the tie rod. Lengthen or shorten the tie rod by turning the hex shaped rod adjustment. Adjustments should be made evenly on both sides.

NOTE: Shortening the tie rods increases the toe, lengthening decreases it.



- Once the desired toe is reached, tighten the jam nuts on the tie rods.
- Reinstall the front bumper with the original hardware.

This completes the installation of your RHOX Standard Duty Lift Kit. Please enjoy safely!

Scan QR code or use the link below to view the installation video.

<https://vimeo.com/user39935056>



**RUGGED
STARTS
HERE**