

MADJAX[®]

Part # 16-054

MadJax King XD *Front Lift Kit

(*fits E-Z-GO RXV *Electric* 2013.5 - 2022 Models Front & Rear)
& (* 2008-2013 Electric Front only), 08-13 rear sold separately



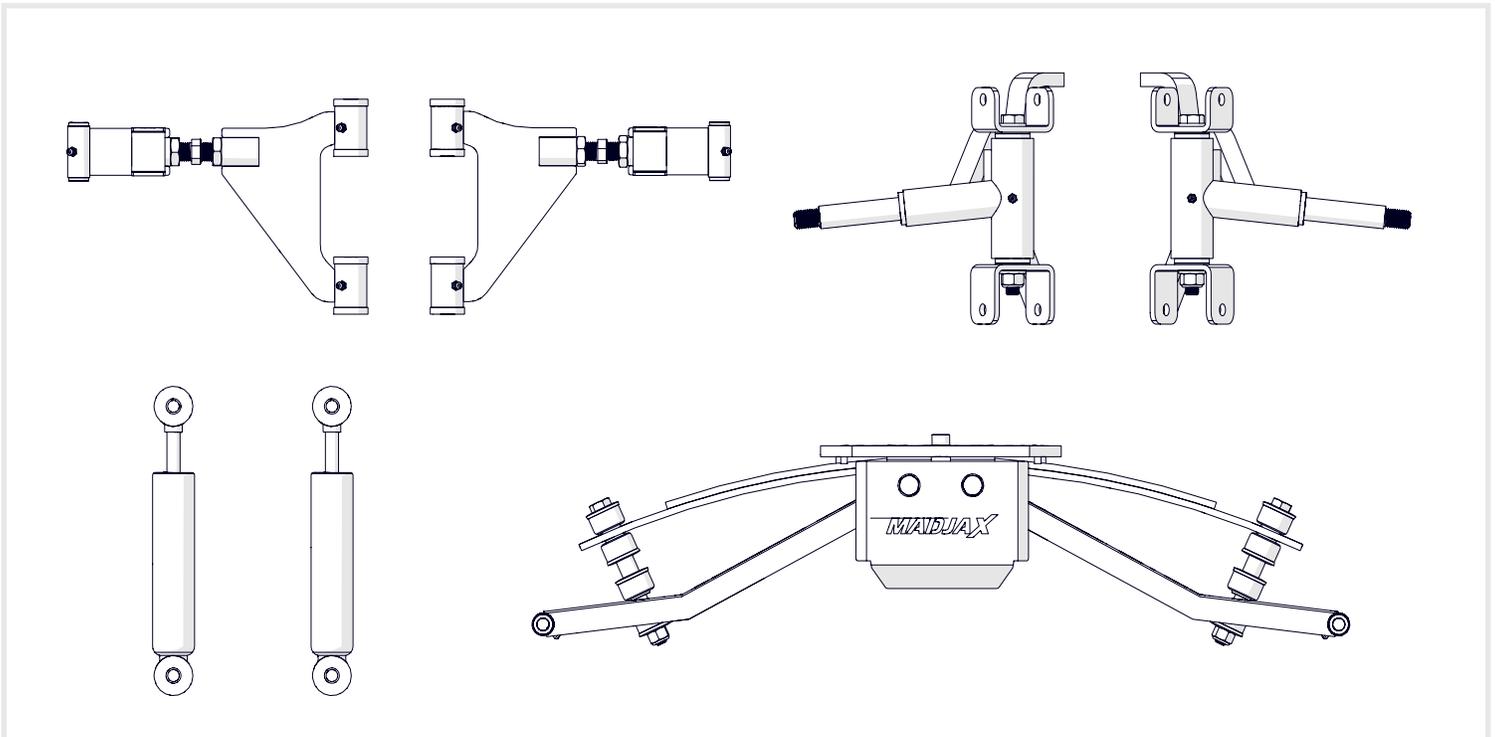
**SCAN CODE TO WATCH
INSTALLATION VIDEO**

ITEMS INCLUDED

- Main Suspension Assembly
- Driver Side Spindle Assembly
- Passenger Side Spindle Assembly
- Driver Side Upper A-arm Assembly
- Passenger Side Upper A-arm Assembly
- 2 Front Shocks
- Hardware Pack
- Thread Lock Adhesive

TOOLS NEEDED

- Ratchet
- Torque Wrench
- 15mm Socket
- 16mm Socket
- 17mm Socket
- 19mm Socket
- 24mm Socket
- 25mm Socket
- 12mm Wrench
- 15mm Wrench
- 17mm Wrench
- 25mm Wrench



WARNING:

Professional installation is recommended for this lift kit and must be performed while following these instructions.

- * After installing this lift kit, the front wheels must be properly aligned. Failure to properly align the front wheels may result in decreased ability to control the Golf Cart which may result in a rollover or crash.**
- * The yellow Warning Label included with these instructions must be placed in a visible location to the operator of this vehicle.**
- * This MadJax lift kit is not intended for use on carts other than the E-Z-GO RXV.**
- * Review installation instruction steps to ensure this MadJax lift kit was properly installed to the provided instructions.**
- * Increasing tire size larger than the stock 18" will increase the operating speed. Take care when maneuvering at all times.**
- * Do NOT use tire heights greater than 20" tires on this 4" Lift kit. Exceeding tire heights larger than recommended will cause unintended speeds and performance issues.**
- * Be aware that this vehicle now handles differently. It is less stable and more sensitive to speed changes and the nature of operation.**
- * Follow all operating instructions and warnings provided.**

For additional assistance, call our support line 1-800-959-0852 or visit our support page @ <https://www.nivelparts.com/madjax-support>

WARNING:

After installing this lift kit, the front wheels must be properly aligned. Failure to properly align the front wheels may result in decreased ability to control the Golf Cart which may result in a rollover or crash.



WARNING



- To reduce risk of accidents and injury or death -

Be Prepared

- Wear seat belt, motorcycle helmet, eye protection and protective gear.

- Keep your body completely inside the vehicle at all times. Keep both hands on the steering wheel. Be sure passenger is seated, belted, and holding onto the handholds.

Be Qualified and Responsible

- This vehicle is intended for use only by an operator 16 or older with a valid motor vehicle license.

- Passenger and driver must be able to place both feet flat on the floorboard while seated upright with their backs against the seat backs.



Avoid Rollovers and Crushing Injuries

- Use care when turning:

- Turning the steering wheel too far or too fast can result in a rollover or loss of control.

- Slow down before entering a turn.

- When making tight turns from a stop, or at slow speeds, avoid sudden or hard acceleration.

- Avoid sideways sliding, skidding, or fishtailing, and never do donuts.

- Drive straight up and down inclines, not across them, if crossing a hill is unavoidable, drive slowly and turn downhill immediately if you feel the vehicle may tip.

Abrupt maneuvers or aggressive driving have caused rollovers- even on flat, open areas

**MUST BE
16 or Older**



DACROMET COATED	HARDWARE	QUANTITY
FRONT SUSPENSION ASSEMBLY	M16 X 50mm HEX BOLT	1
	M16 NYLOCK NUT	1
	M16 FLAT WASHER	2
	M10X408x105 SQUARE U-BOLT	2
	M10 FLAT WASHER	4
	M10 NYLOCK NUT	4
SPINDLES	M10 X 80mm HEX BOLT	4
	M10 FLAT WASHER	8
	M10 NYLOCK NUT	4
	COTTER PIN	2
FRONT SHOCKS	M8 X 60mm HEX BOLT	2
	M8 FLAT WASHER	4
	M8 NYLOCK NUT	2

NOTE: This kit is designed to fit the 2013.5-2022 RXV Electric models (front & rear) and the front lift of all 2008-2013 RXV models.

- For 2008-2013 Electric models you will need the 16-071 rear bracket kit.

- For 2008-2016 Gas models you will need the 16-072 rear bracket kit.

- For 2017+ Gas models you will need 16-060 rear bracket kit. (EXCLUDES EX1)

STEP 1

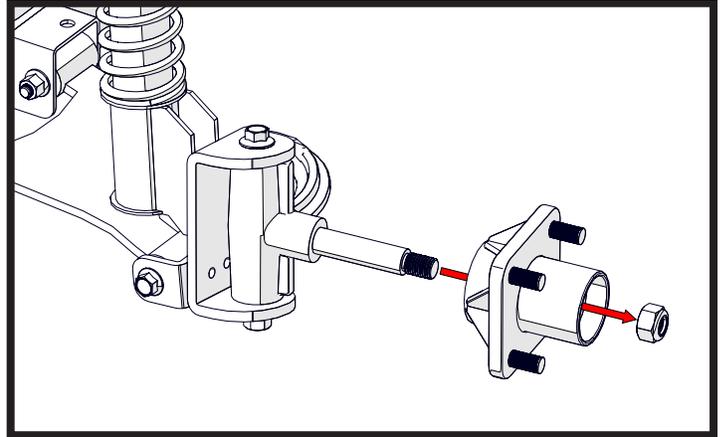


19mm & 24mm SOCKET

Engage the parking brake and place the front of the vehicle on jack stands under front frame. Ensure the front is raised high enough to accommodate the new lift and larger tires.

Uninstall the front wheels and remove the hubs from the spindles.

Keep the hubs and hub nut for reinstallation later.



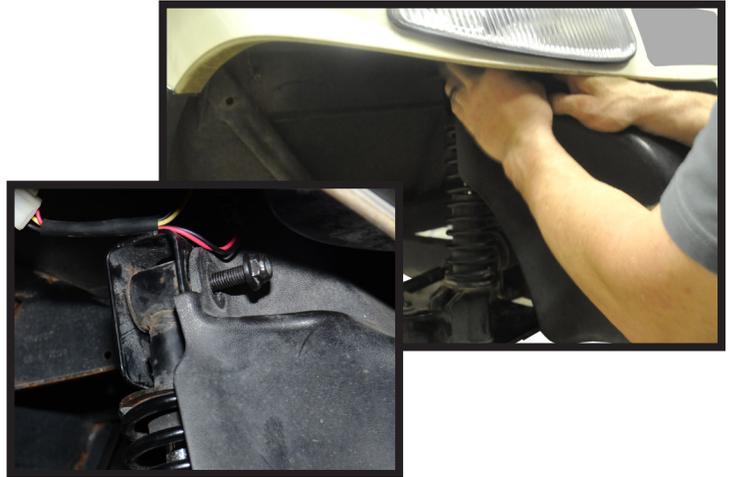
STEP 2



15mm SOCKET and WRENCH

Remove the nuts holding bumper in place. Leave shock bolt in place until step 5.

Retain bumper and hardware.

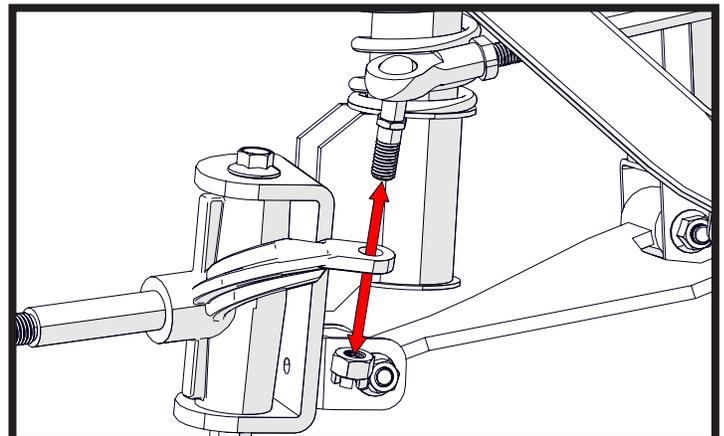


STEP 3



17mm SOCKET

Remove cotter pins and uninstall the steering arm from each spindle and hand thread the tie rod nut back on for safe keeping.



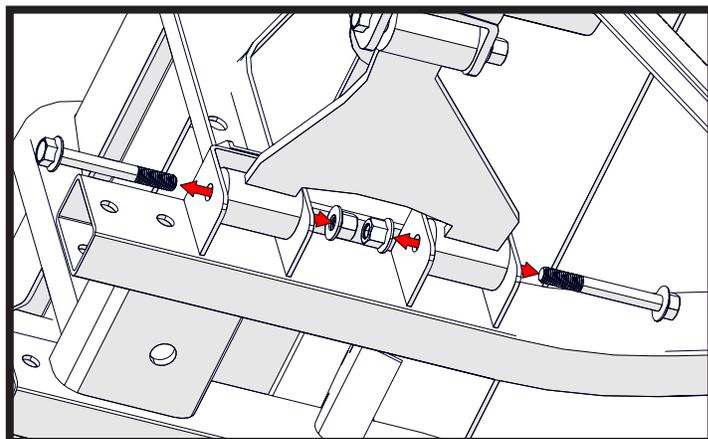
STEP 4



15mm SOCKET & WRENCH

Remove the bolts holding the A-Arms to the vehicle and let them hang, suspended by the upper shock mounting bolt.

Keep hardware for reinstallation.



STEP 5



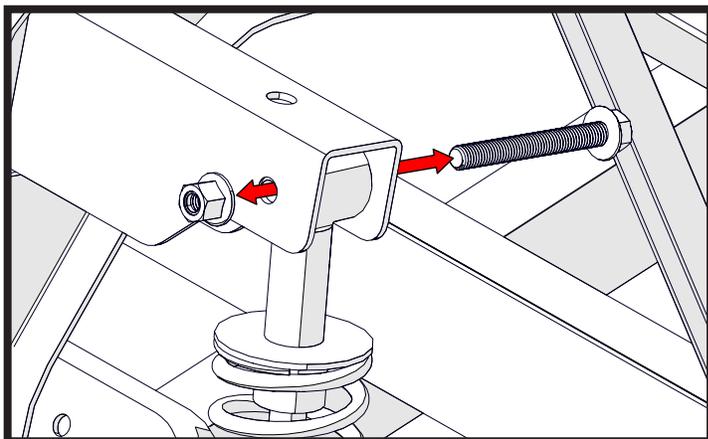
15mm SOCKET and WRENCH

Remove the remaining nut from the upper shock mounting bolt located behind the cowl.

Then uninstall the shock bolt to remove the shock, spindle, and control arm subassembly from the vehicle.

Retain all hardware and discard subassembly.

Caution: The subassembly weight will be free from cart when the upper bolt is removed.



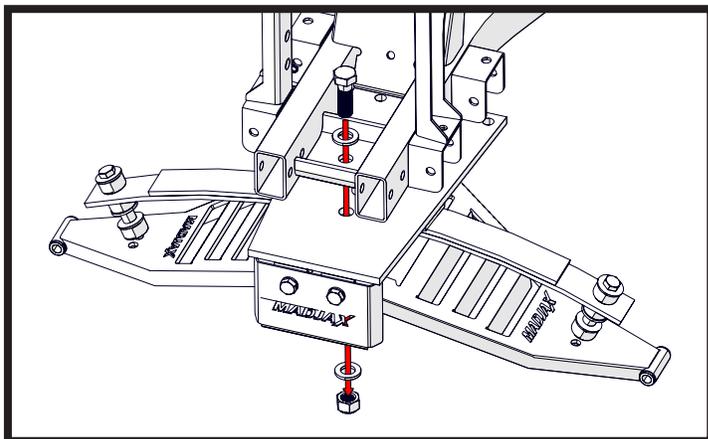
STEP 6



25mm SOCKET and WRENCH

Use one (1) M16x50mm hex bolt, two (2) M16 flat washers, and one (1) M16 nylock nut, to install the **Main Suspension Assembly** to the frame as shown.

Do NOT tighten the hardware until after next step.



STEP 7

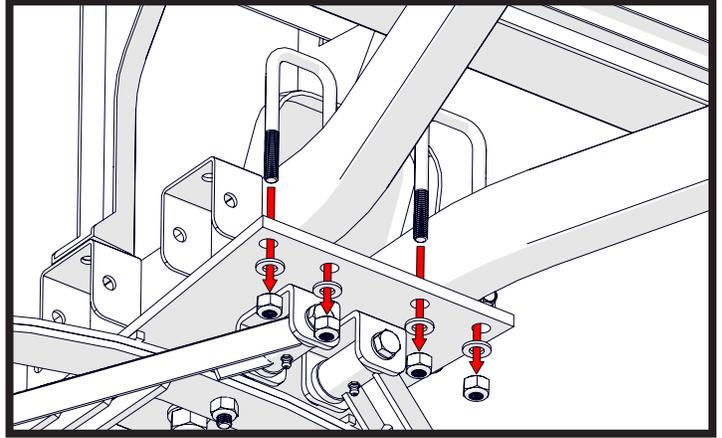


17mm SOCKET

Secure the rear of the **Main Suspension Assembly** to the vehicle frame using two (2) M10 u-bolts, four (4) M10 flat washers, and four (4) M10 nylock nuts.

Ensure the Suspension is square and aligned with the vehicle frame. Then alternate tightening the M10 nuts until torqued to **35lb-ft (47Nm)**.

Tighten the front M16 hardware to **80 lb-ft (108 Nm)**.



STEP 8

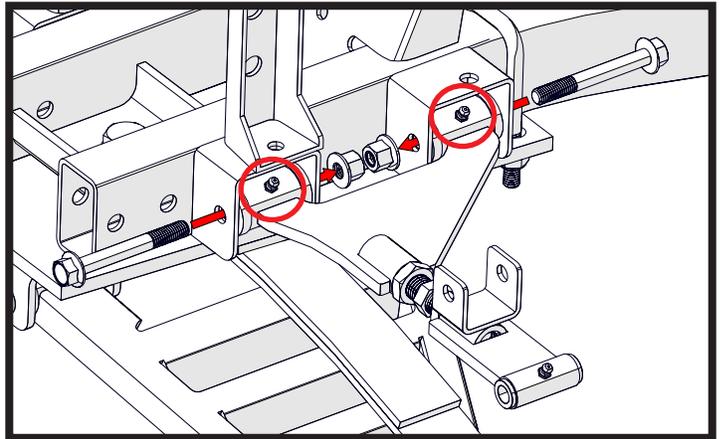


15mm SOCKET & WRENCH

Install the **Upper A-arms** as shown using the stock a-arm hardware as shown.

Torque the hardware to **20-25lb-ft (27-34Nm)**.

NOTE: Grease the two inside grease fittings of upper A-arms after installing and before the next step.



STEP 9



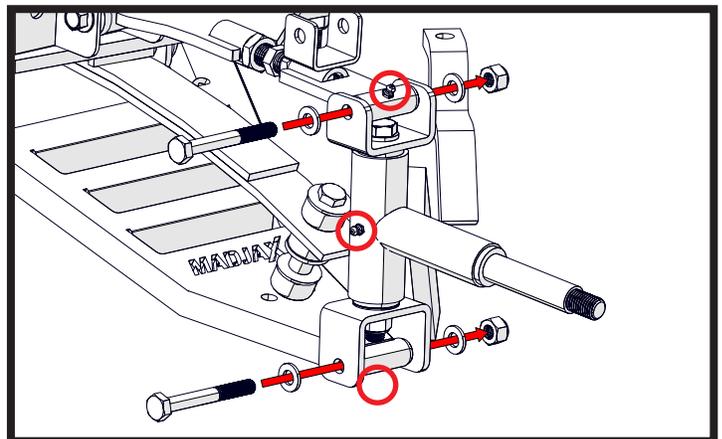
16mm SOCKET
17mm WRENCH

Using four (4) M10 x 80mm hex bolts, eight (8) M10 flat washers, and four (4) M10 nylock nuts, install new **Spindles** to the upper and lower a-arms.

Torque the hardware to **35lb-ft (47Nm)**.

The steering arm of each spindle will be oriented to the rear of the vehicle as shown.

NOTE: Grease fittings of spindles, upper, and lower a-arms.



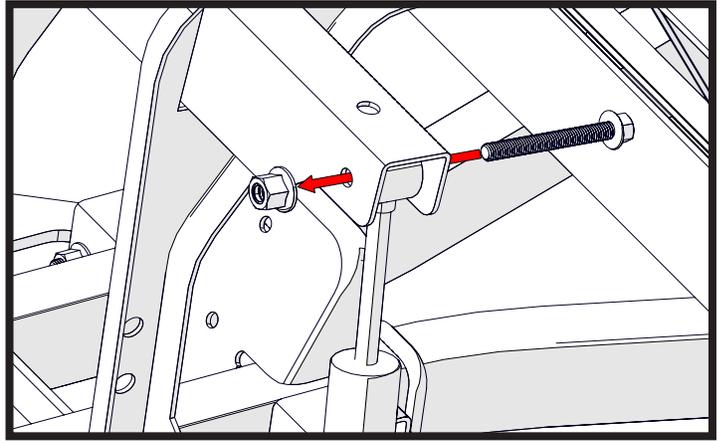
STEP 10



17mm SOCKET

Install the top of the new **Front Shocks** in the factory mounting locations using the stock hardware retained in Step 5 with the shock barrel down as shown.

Torque the hardware to **20-25lb-ft (27-34Nm)**.

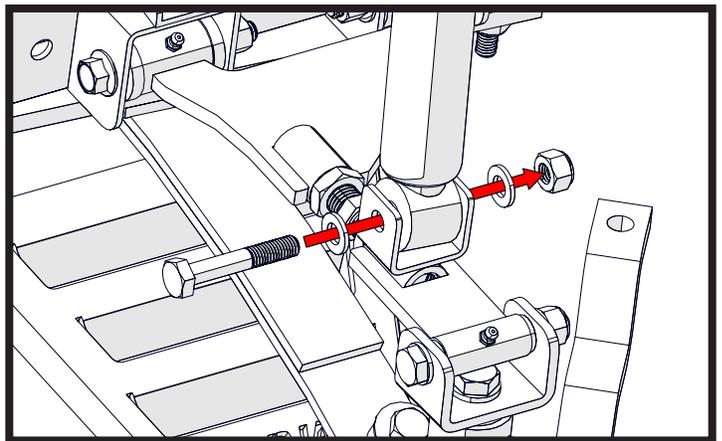


STEP 11



14mm SOCKET & WRENCH

Attach the bottom of the new **Shocks** to the new **Upper A-arms** using one (1) M8 x 60mm hex bolt, one (1) M8 nylock nut, and two (2) M8 flat washers on each.

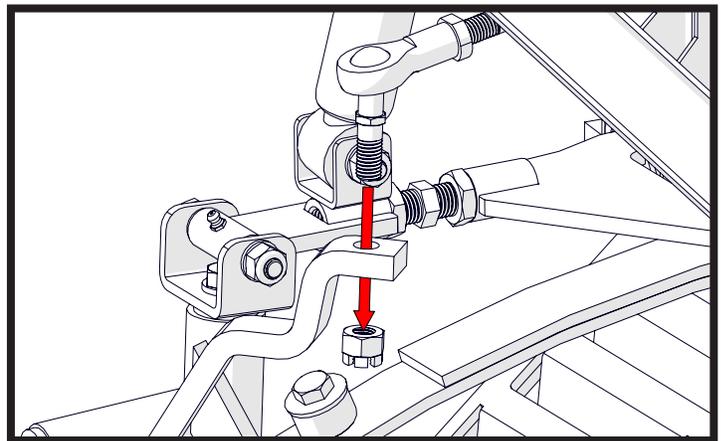


STEP 12



17mm SOCKET

Install the steering tie rod end into the new **Spindles** using the factory castle nut. Tighten the castle nut until snug and install new cotter pins.



STEP 13



19mm SOCKET

Using the stock hardware reinstall the hubs. Attach new wheels and tires to the vehicle using aftermarket 1/2" lug nuts.

*Torque the hub nuts to **90-96lb-ft (123-131Nm)***

*Torque the lug nuts to **50-85lb-ft (70-115Nm)***

Remove the jack stands and lower the vehicle to the ground. We recommend installing 20" tires with 3:4 wheel offset on this 4" Lift Kit.



NOTE: DO NOT attempt to align or adjust toe/camber until rear lift is installed and cart has been test driven.

*** Increasing tire size larger than the stock 18" will increase the operating speed. Take care when maneuvering at all times.**

*** Do NOT use tire heights greater than 20" tires on 4" Lift Kit. Exceeding tire heights larger than recommended will cause unintended speeds and performance issues.**

2013.5 - 2022 Rear Lift Install

STEP 14

19mm SOCKET

For 2013.5-2022 cart models all that is required for rear 4" lift is to swap the leaf springs above the rear axle.

First, lift the rear of the vehicle and support the frame on jackstands. Ensure the rear is raised high enough to accommodate the lift and larger tires.

Remove the wheels and tires.



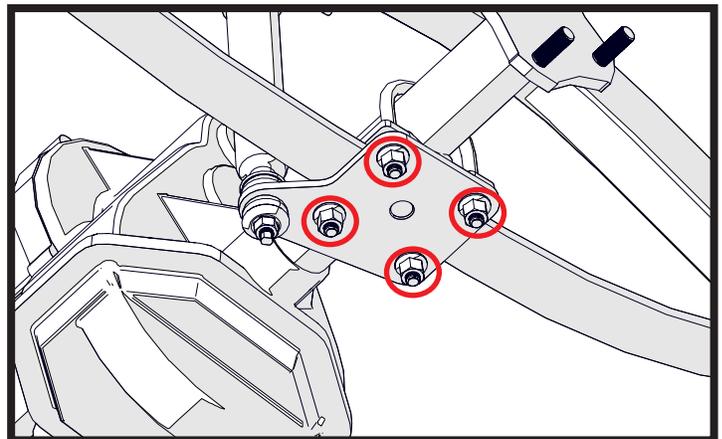
STEP 15



15mm SOCKET

Support the center of the rear axle using a floor jack and leave in place to support motor weight during this leaf spring swap.

Loosen the U-bolt hardware on the passenger's side of the axle but **DO NOT** fully remove yet. This will keep the motor in place while the other side is being swapped over.



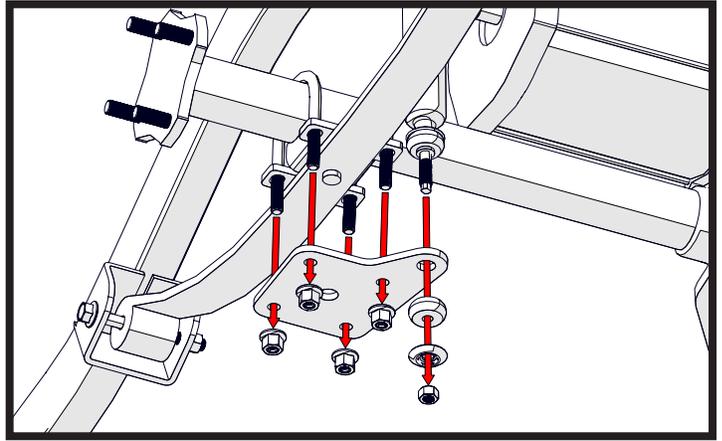
STEP 16



15mm SOCKET

On the driver's side of the axle, remove the nuts holding the U-bolts and the bottom of the shock.

Remove and save the shock bracket as well as all hardware.



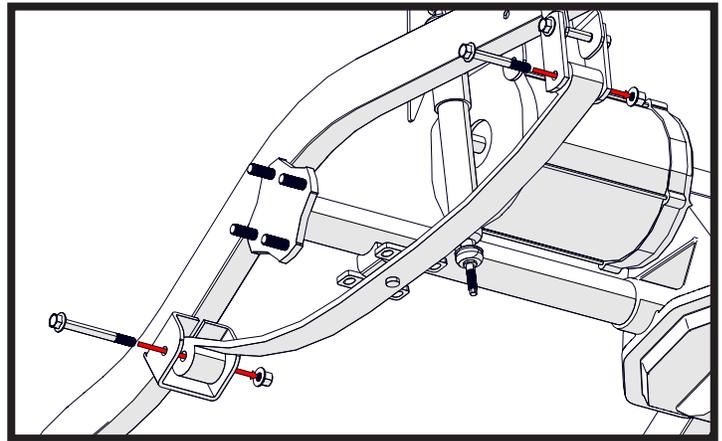
STEP 17



15mm SOCKET and WRENCH

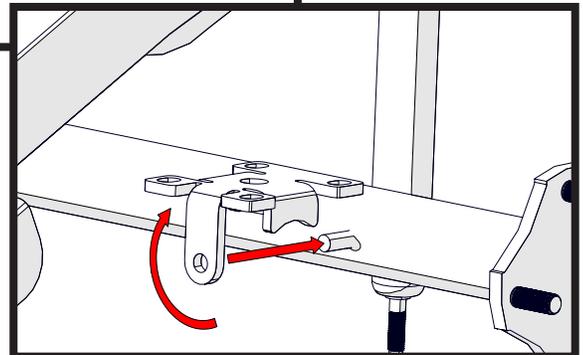
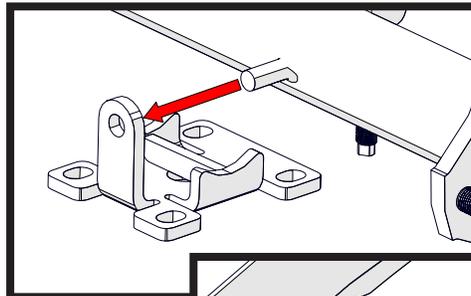
Keeping the axle supported with the floor jack, remove the driver's side leaf spring mounting bolts.

Completely remove the leaf spring from the vehicle.



STEP 18

Remove the factory axle support bracket, flip it over, and reinstall it on the top of the axle as shown.



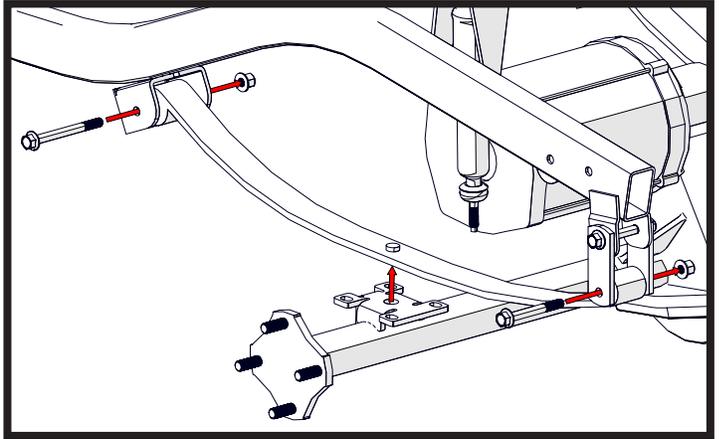
STEP 19



15mm SOCKET and WRENCH

Using the floor jack, lower the axle down enough to allow enough room to attach the leaf spring.

Reinstall the leaf spring over the top of the axle.



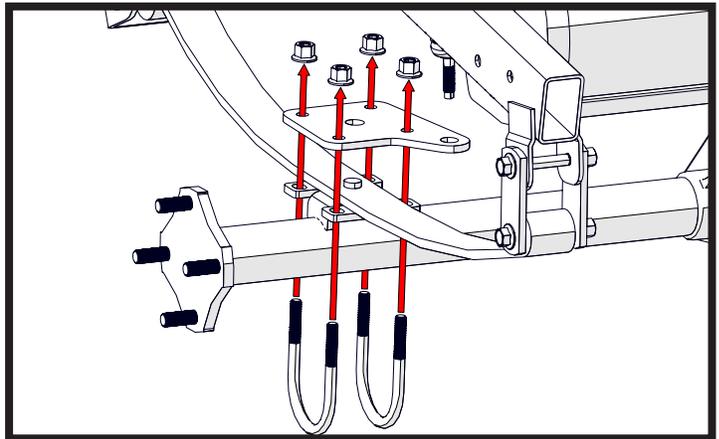
STEP 20



15mm SOCKET

Secure the axle to the leaf spring using the stock U-bolts (**from underneath the axle**) through the axle support bracket, and into the factory shock bracket as shown.

Do NOT fully tighten the hardware until the passenger side leaf spring is swapped over.



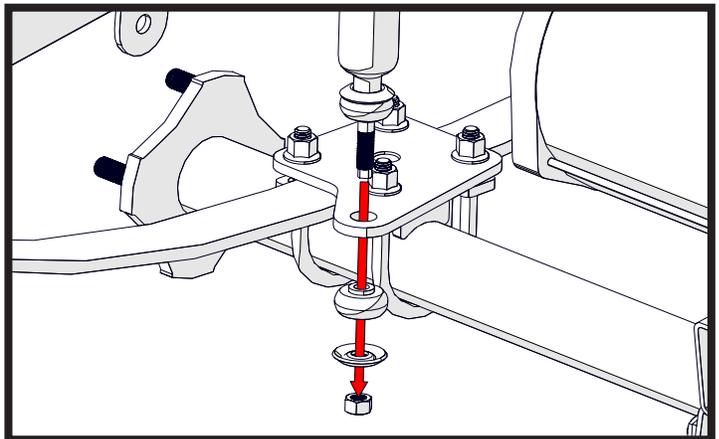
STEP 21



15mm SOCKET

Using the stock hardware, install the bottom of the shock to the hole in the shock bracket as shown.

Tighten the nut until the rubber bushings expands to the diameter of the cup washer.



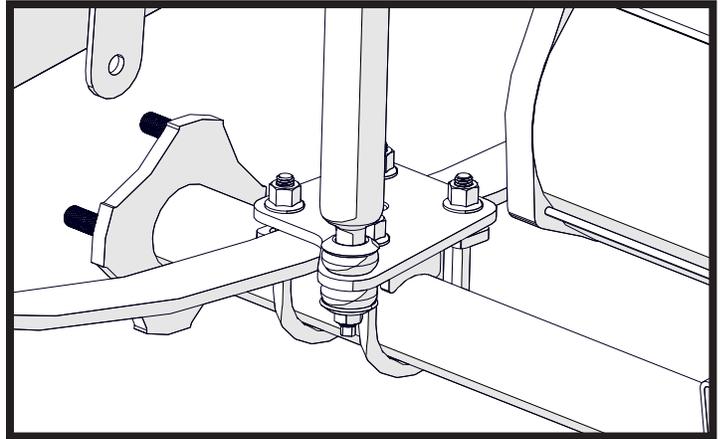
STEP 22

Repeat Steps 13-18 on the passenger's side of the rear axle

Once complete on both sides, tighten all U-bolt nuts to **35lb-ft (47Nm)**.

Attach new wheels and tires to the vehicle using aftermarket 1/2" lug nuts.

*Torque the lug nuts to **50-85lb-ft (70-115Nm)***
Remove the jack stands and lower the vehicle to the ground. We recommend installing 20" tires with 3:4 wheel offset on this 4" Lift Kit.



*** Increasing tire size larger than the stock 18" will increase the operating speed. Take care when maneuvering at all times.**

*** Do NOT use tire heights greater than 20" tires on 4" Lift Kit. Exceeding tire heights larger than recommended will cause unintended speeds and performance issues.**

ALIGNMENT & CAMBER ADJUSTMENT

STEP 1



19mm & 21mm WRENCH

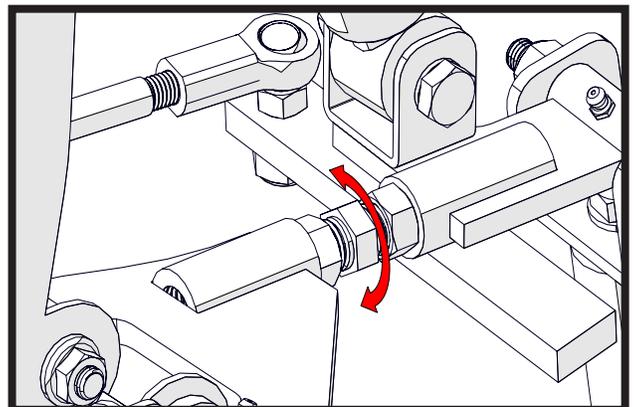
Once the rear lift is installed, set the alignment of the vehicle.

On flat, level ground, use a large framing square to check and adjust the camber of each front wheel until the tire is perpendicular to the ground.

To adjust, loosen the jam nuts (21mm wrench) on each side of upper a-arm turnbuckle. Use a (19mm wrench) to turn the center of the turnbuckle in or out as needed. Continually check the camber with the framing square as you turn the turnbuckle.

Once properly adjusted, tighten each jam nut out against the upper a-arm with a 21mm wrench (**not against the center of the turnbuckle**).

Repeat on the opposite side of the vehicle.



STEP 2



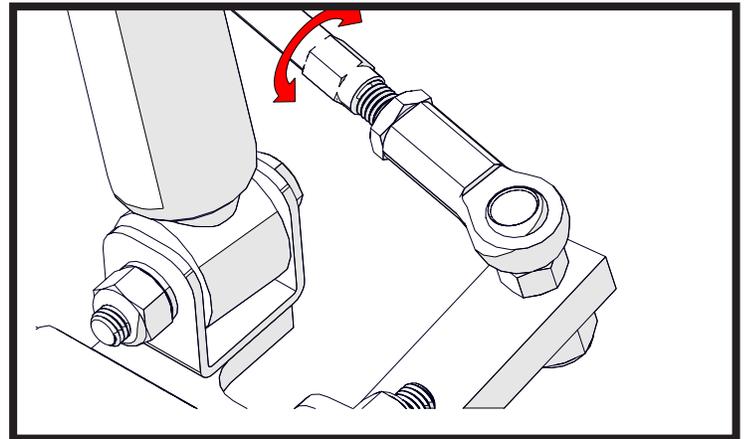
19mm and 12mm WRENCH

Ensure the steering wheel is straight to begin adjusting the toe of the front tires. The measurement between the center of the tread of the two front tires at the front side of the tire should be $1/8$ "- $1/4$ " **shorter** than the same measurement at the back side of the tires.

To adjust, loosen the jam nut on either side of each steering rack. Turn the extension to adjust in or out as needed and recheck the measurement front and back. Also, ensure that the measurement from the front of each tire to the center of the vehicle is the same on both sides and adjust accordingly.

Once the toe is corrected, tighten the jam nuts on both steering arms.

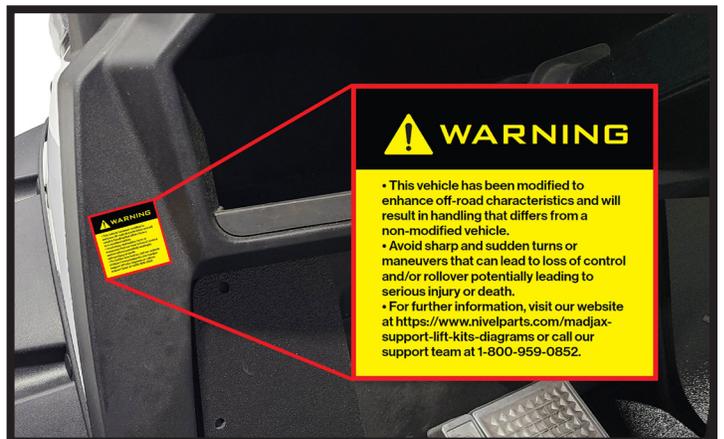
Test drive vehicle and check camber and toe measurements again. If needed, adjust accordingly and retighten all hardware. Loosen and adjust steering wheel to be straight if needed and re-tighten.



STEP 3

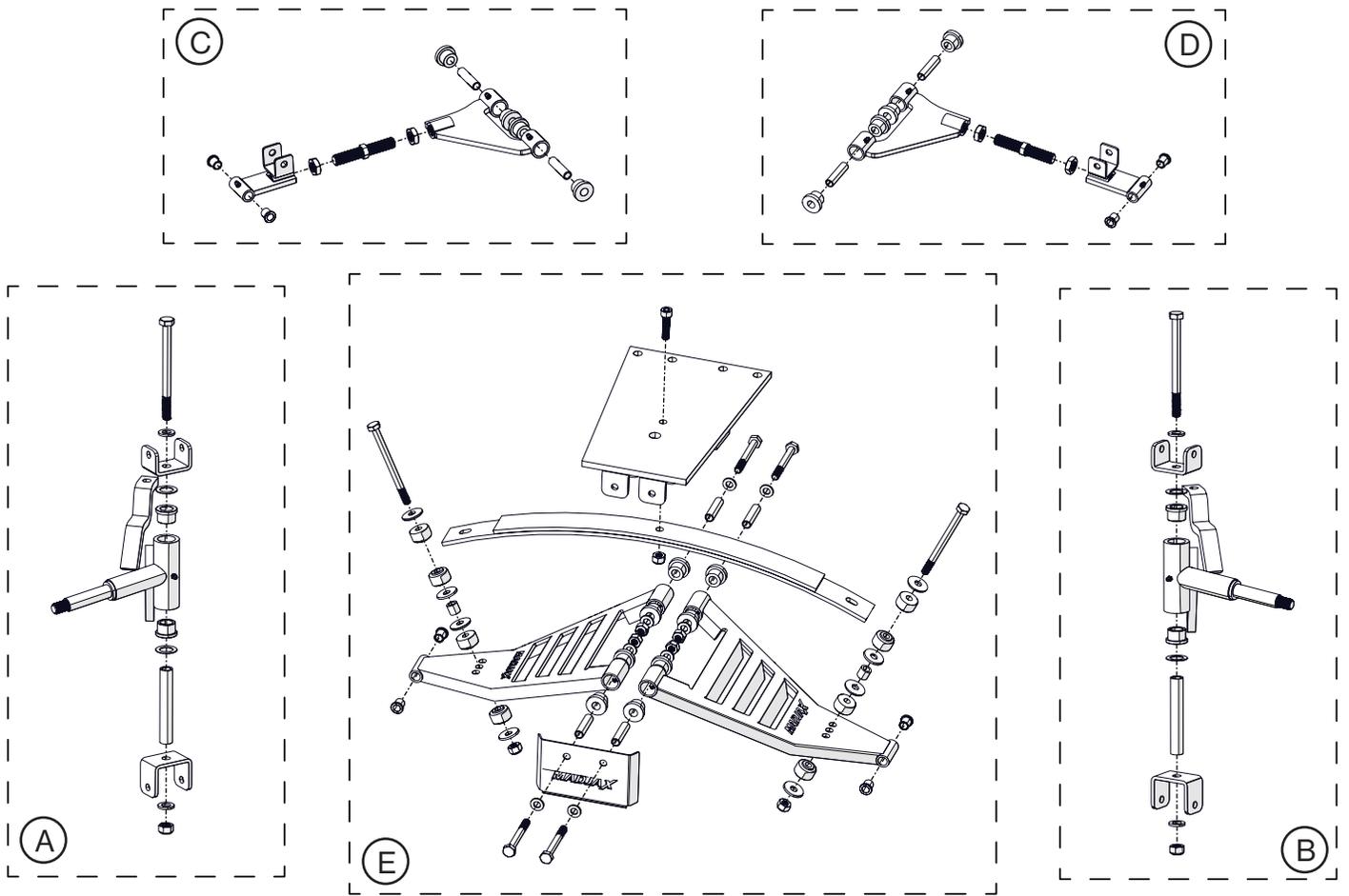
Place the included warning label in a highly visible area on the vehicle for all users to read before operating the vehicle (recommend foot board as shown or steering wheel).

Use the additional Warning Label provided to place in view of a well protected area such as in the battery/motor compartment.



IMPORTANT: These instructions should be kept and stored in this cart for future reference on how to adjust toe/camber, brakes, and re-grease of front lift components. Review installation instruction steps to ensure this MadJax lift kit was properly installed to the provided instructions.

INSTALLATION COMPLETE



ITEM	PART NUMBER	DESCRIPTION
-	16-054-64	16-054 HARDWARE KIT (not shown)
-	16-055-44	SINGLE FRONT SHOCK (not shown)
A	16-054-31	PASSENGER SIDE SPINDLE ASSEMBLY
B	16-054-57	DRIVER SIDE SPINDLE ASSEMBLY
C	16-054-49	PASSENGER SIDE UPPER A-ARM ASSEMBLY
D	16-054-47	DRIVER SIDE UPPER A-ARM ASSEMBLY
E	16-054-32	MAIN FRONT SUSPENSION ASSEMBLY