

# K30-KA1002-0 KRX 4 Seat Spring Kit



#### INTRODUCTION

# PLEASE RETAIN THIS DOCUMENT FOR FUTURE REFERENCE

IF your ZBROZ® product has a damaged or missing part, please contact customer service directly and a new replacement part will be sent to you immediately.

For warranty issues, please return to the place of installation and contact ZBROZ®.

Business hours are Monday through Friday 8AM-5PM MST.

PHONE: (435) 753-7774

EMAIL: customerservice@zbrozracing.com

WEBSITE: www.zbrozracing.com

#### **LIMITED LIFETIME WARRANTY**

ZBROZ® will warranty to the original purchaser any failed ZBROZ® suspension product in the event of failure due to construction or material failure of the product. You will be required to contact ZBROZ® customer service with descriptions and photos that resulted in failure.

ZBROZ® builds suspension products to meet and exceed your expectations in quality, performance and durability. All ZBROZ® suspension products are rigorously tested during development and prototype parts are pushed to the limit by professional industry athletes, backcountry athletes and race teams. ZBROZ® Limited Lifetime Warranty excludes the following wear parts as these parts are considered defective when worn: Ball Joints, Bushings, Bump Stops, Tie Rod Ends, Heim Joints, Shock Absorbers Product purchased directly from ZBROZ® has a 90 day return policy on uninstalled products from the date of purchase (may be subject to restocking fee). Uninstalled product returns must be in the original ZBROZ® packaging. Please call (435) 753-7774 to get an RMA# for any return. Customer is responsible for shipping costs back to Zbroz Racing. Returns without RMA# will be refused. Contact ZBROZ® directly about any potentially defective parts prior to removal from vehicle.

ZBROZ® is NOT responsible for any subsequent damages to any related vehicle parts due to misuse, abuse, improper installation, or lack of maintenance. Furthermore, ZBROZ® reserves the right to change, modify or cancel this warranty without prior notice.

#### FOLLOW INSTRUCTIONS TO ENSURE PROPER INSTALLATION

READ INSTRUCTIONS THOROUGHLY AND COMPLETELY BEFORE BEGINNING INSTALLATION. INSTALLATION BY A CERTIFIED PROFESSIONAL MECHANIC IS HIGHLY RECOMMENDED. ZBROZ® IS NOT RESPONSIBLE FOR ANY DAMAGE OR FAILURE RESULTING FROM IMPROPER INSTALLATION.



### **TOOLS:**

- Floor Jack or Lift (1)
- Hammer or Mallet (1)
- 1/4" Punch (1)
- 17mm Socket (1)
- 17mm End Wrench (1)
- Ratchet (1)



#### **PARTS:**

- Front Tender Springs (2)
- Front Main Springs (2)
- Rear Tender Springs (2)
- Rear Main Springs (2)
- Reservoir Decals (4)
- Rear reducing rings (8)

#### Step 1 — Safety Warning



- MISUSE OF THIS PRODUCT COULD LEAD TO INJURY OR
- **DEATH.** You should never operate your vehicle under the influence of alcohol or drugs. All raised vehicles have increased risk including blind spots; damage, injury and/or death can occur if these instructions are not followed.
- Suspension systems or components that enhance the on and off-road performance of your vehicle may cause it to handle differently than it did from the factory. Extreme care must be used to prevent loss of control or vehicle rollover during abrupt maneuvers.
- Always operate your vehicle at reduced speeds to ensure your ability to control your vehicle under all driving conditions. Failure to drive safely may result in serious injury or death to driver and passengers. You should never operate your vehicle under the influence of alcohol or drugs.
- Driver and passengers must ALWAYS wear your seat belts, avoid quick sharp turns and other sudden maneuvers. ZBROZ® does not recommend the combined use of suspension lifts, body lifts, or other lifting devices.

- Constant maintenance is required to keep your vehicle safe. Thoroughly inspect your vehicle before and after every off-road use.
- It is the responsibility of the retailer and/or the installer to review all state and local laws, with the end user of this product, related to bumper height laws and the lifting of their vehicle before the purchase and installation of any ZBROZ® products.
- It is the responsibility of the driver to check their surrounding area for obstructions, people, and animals before moving the vehicle.
- All raised vehicles have increased blind spots; damage, injury and/or death can occur if these instructions are not followed.

# Step 2 — Installation Warning



- All steps and procedures described in these instructions were performed while the vehicle was properly supported on a two post vehicle lift with safety jacks.
- Use caution during all disassembly and assembly steps to insure suspension components are not over extended causing damage to any vehicle components and parts included in this kit.

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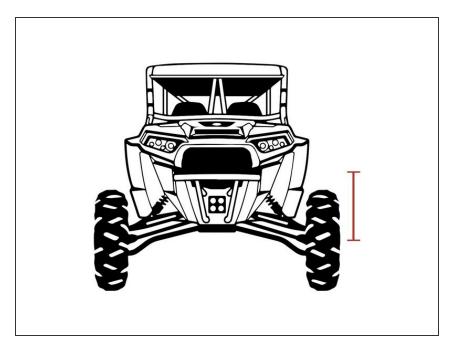
- Included instructions are guidelines only for recommended procedures and are not meant to be definitive.
   Installer is responsible to insure a safe and controllable vehicle after performing modifications.
- ZBROZ® recommends the use of an OE Service Manual for model/year of vehicle when disassembly and assembly of factory and related components.
- Unless otherwise specified, tighten all bolts and fasteners to standard torque specifications listed within the OE Service Manual.
- Suspension components that use rubber or urethane bushings should be tightened with the vehicle at normal ride height. This will prevent premature wear or failure of the bushing and maintain ride comfort.
- Larger tire and wheel combinations may increase leverage on suspension, steering, and related components.
- Due to payload options and initial ride height variances, the amount of lift is a base figure. Final ride height dimensions may vary in accordance to original vehicle ride height. Always measure the vehicle ride height prior to beginning installation.

#### **Step 3** — **Installation Warning Cont.**



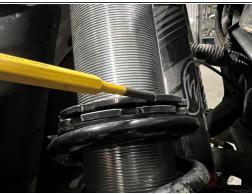
- This spring kit can be installed with shocks on your vehicle by using a floor jack or lift. Select a flat install location. If using floor jack, always make sure to block tires - work safely! If removing shocks for installation. Back OEM Preload rings on all shocks before removing. Use a solid mounted vice for installation.
- FOLLOW THESE STEPS FIRST
- 1. Measure current ride height at front center frame point and rear center frame point.
- 2. Write down these measurements for before and after installation notes.
- 3. If removing shocks, label each shock to eliminate installation problems with the piggyback reservoirs positioning/clocking when reinstalling.
- 4. Clean shocks! Remove all dirt and mud.
- 5. Lift vehicle using a floor jack or lift and remove tires.

### Step 4 — Ride Height Warning



 Due to payload options and initial ride height variances, the amount of preload is a base figure. Final ride height dimensions may vary in accordance to original vehicle ride height. Always measure the vehicle ride height prior to beginning installation.







- IMAGE 1 Starting at the front, use a flathead screwdriver to raise the bump stop up above the retainer.
- IMAGE 2 Next, loosen your preload until you can remove the lower spring retainer. You need to
  use a hammer and flathead screwdriver to loosen the nut.
- IMAGE 3 Once you have the preload removed completely, remove the lower spring retainer and set aside. This will be used in reassembly.
  - NOTE: To remove the spring retainer leave the lower shock mount bolt in place. Push down on the hub assembly allowing the shock to extend all the way. This will help to release spring tension so that you can remove the spring retainer. Having an additional set of hands will help in this process.
- Using and 17mm end wrench and socket. remove the lower shock mount bolt.
  - (i) NOTE: You do not need to remove the top shock mount bolt. just the lower.
- With the spring retainer out of the way, remove the stock spring stack. Keep the stock spring divider as this will be used in reassembly.







- **IMAGE** With the springs off the shock, now is the best time to place your new reservoir decals on the shock. On the front reservoir stickers cut 1/4" off the top or bottom of the sticker.
- IMAGE 2 Take the new ZBROZ tender spring and place it back on top of the spring divider the same direction it came off and slide them back up to the top of the shock body.
  - NOTE: The spring divider will be installed with the long side down.
- IMAGE 2 Now slide the NEW ZBROZ main spring onto the shock body all the way up to the spring divider.
- Next Place the lower spring retainer back on the same way it came off and IMAGE 3 then mount your shock back to the A-Arm with the lower shock bolt. Tighten the nut and bolt to factory torque specs.
- Repeat the above steps on the other side.





- ⚠ Due to an internal spring in the shock itself, preload must be set while putting downward pressure on the hub. If you do not keep constant downward pressure on the hub your preload and crossover settings will be incorrect resulting in poor ride height and ride quality.
- To set the preload, tighten the preload ring down until it is touching the springs. Once the preload ring is touching the springs, add 6-8 full rotations of preload to the spring stack. keep in mind this is a basic starting point, you may need to add more preload depending on the weight of your vehicle. Tighten the preload nuts
- **IMAGE 1** Once your preload is set then the crossover can be set. Crossover settings should be 3" This measurement should be taken from the bottom of the crossover ring to the top of the spring divider. Remember this is a starting point and more adjustment may be needed later.
  - (i) NOTE: the Crossover nut is a double nut system like the preload nut and will need to be tightened and loosened in the same manner.
  - (i) NOTE: Rotate the spring tail ends until they are somewhat aligned as shown in IMAGE 2
- Repeat the above steps on the other side.

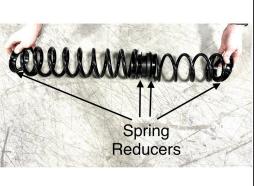






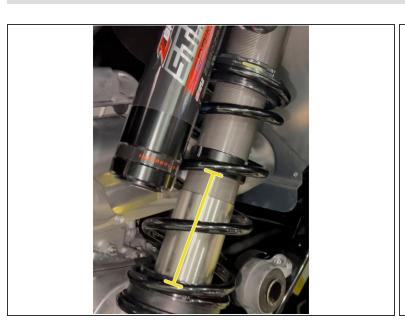
- IMAGE 1 Now in the rear of the vehicle, use a flathead screwdriver raise the bump stop up above the retainer.
- **IMAGE 2** Next, loosen your preload until you have enough space to remove the lower spring retainer. You need to use a hammer and flathead screwdriver or a punch to loosen the lock nut.
- **IMAGE 3** Remove the lower spring retainer then using a 17mm socket and end wrench, loosen the lower shock bolt on the trailing arm.

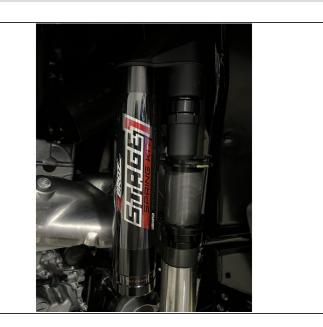






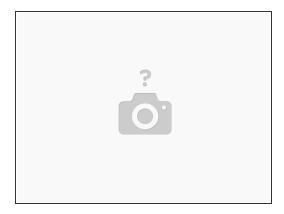
- IMAGE 1 With the lower spring retainer removed, remove the spring stack from the rear shock.
- IMAGE 2 Set the stock springs aside but hang on to the stock spring divider. Locate your new springs and spring reducers and assemble your new spring stack as shown in the image with a spring reducer on the top and bottom of every spring.
- **IMAGE 3** Place your new spring stack on the shock with starting with the tender spring. The spring divider long side down, then the main spring. Make sure spring reducers are in place. Replace the lower spring retainer and the lower shock mount bolt. Torque to spec.





- ⚠ Due to an internal spring in the shock itself, preload must be set while putting downward pressure on the hub. If you do not keep constant downward pressure on the hub your preload and crossover settings will be incorrect resulting in poor ride height and ride quality.
  - To set the preload, tighten the preload ring down until it is touching the springs. Once the preload ring is touching the springs, add 4-6 full rotations of preload to the spring stack. keep in mind this is a basic starting point, you may need to add more preload depending on the weight of your vehicle.
    - (i) NOTE: Depending on the weight of the vehicle, more preload may be necessary
- **IMAGE 1** Once your preload is set then the crossover can be set. Crossover settings should be 4.75". This measurement should be taken from the bottom of the crossover ring to the top of the spring divider. Remember this is a starting point and more adjustment may be needed later.
  - (i) NOTE: Make sure you are getting your measurement from the spring divider inside the reducing ring and not from the reducing ring itself
- IMAGE 2 Finally, Install the "STAGE 1" Reservoir Decal Sticker. Removing the old sticker and cleaning the shock reservoir prior to installing the new sticker will help adhesion.
- Repeat the above steps on the opposite side and replace your wheels and tires.

#### Step 11 — Check Ride Height Setup



- Drive your vehicle around at slow speed, turning left and right to settle the spring kit. Coast to stop, do not apply brakes to ensure spring kit is naturally settled. Measure and compare ride height measurements with pre-install measurements. Adjust by adding or removing Preload.
- How to Adjust: With tires on, use a floor jack or lift so that shocks are fully extended and adjust as follows:
- If Ride Height is too TALL: Rotate OEM Preload ring 2 full counterclockwise rotations, settle spring kit and check.
- If Ride Height is too LOW: Rotate OEM Preload ring 2 full clockwise rotations, settle spring kit and check.
- Increasing the height of your vehicle raises the center of gravity and can affect stability and control.
   Use caution on turns and when making steering corrections.
- Vehicles with larger tires and wheels will handle differently than stock vehicles. Take time to familiarize yourself with the handling of your vehicle.

By installing this product, you acknowledge that the suspension of this vehicle has been modified. As a result, this vehicle may handle differently than that of factory-equipped vehicles. As with any vehicle, extreme care must be used to prevent loss of control or roll-over during sharp turns or abrupt maneuvers. Always wear seat belts, and drive safely, recognizing that reduced speeds and specialized driving techniques may be required. Failure to drive this vehicle safely may result in serious injury or death. Do not drive this vehicle unless you are familiar with its unique handling characteristics and are confident of your ability to maintain control under all driving conditions. Some modifications (and combinations of modifications) are not recommended and may not be permitted in your state. Consult your owner's manual, the instructions accompanying this product, and state laws before undertaking these modifications. You are responsible for the legality and safety of the vehicle you modify using these components.