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# INSTALLATION INSTRUCTIONS FOR: JT7098

2020 3.5" JEEP GLADIATOR JT SPORT COIL SPRING LIFT KIT 2020 3.5" JEEP GLADIATOR JT OVERLAND COIL SPRING LIFT KIT 2020 2.5" JEEP GLADIATOR JT RUBICON COIL SPRING LIFT KIT

## **Safety Warning:**

Suspension systems or components that enhance the off-road performance of your vehicle may cause it to handle differently, on and off-road, than it did from the factory. Care must be taken to prevent loss of control or vehicle rollover during sudden maneuvers. Failure to drive the vehicle safely may result in serious injury or death to driver and passengers. We recommend you always wear your seatbelt, drive safely and avoid quick turns and other sudden maneuvers. Constant maintenance is required to keep your vehicle safe. Thoroughly inspect your vehicle before and after every off-road use.

## **Installation Warning:**

We recommend that certified technicians perform the installations of our products. Attempts to install these products without knowledge or experience may jeopardize the safety of the vehicle. These instructions only cover the installation of our products and may not include factory procedures for disassembly and reassembly of factory components. Read instructions from start to finish and be sure all parts are present before disassembling the vehicle. Included instructions are guidelines only for recommended procedures and in no way are meant to be definitive. Installer is responsible to insure a safe and controllable vehicle after performing modifications. Do not perform test drives on public roads with partially completed installations. Always double and triple check your work before use.

<u>ESP WARNING NOTE</u>: The 2020+ Jeep Gladiator JT is equipped with an Electric Stability Program (ESP). This system is designed to help control the vehicle in times of uncertain traction conditions and roll stability. Due to the complex nature of this program Rubicon Express strongly suggest that after lifting the vehicle it is returned to the dealer for a computer "flash" to re address tire size and proper ESP control settings. Rubicon Express also recommends that you become familiar with the ESP controls and how the different level of settings can help you to keep better control of your vehicle.

NOTE: Net lift varies with use additional accessories.

### **REQUIRED TOOLS:**

Basic mechanics' hand tools Vehicle Hoist Jack Stands Floor Jacks

#### JT7098 Jeep JT 2.5" 4 Door Universal Kit (w/o Shock): RE1146 Rear Sway Bar End Link Kit 1 2 35-RM11065 Sway bar End Link 4 RM40010 Urethane Bushing 4 60859H Sleeve 1 90-6803 Hardware Pack, 1 12mm-1.75 X 65mm Hex bolt Gr. 10.9 1 12mm-1.75 Stover nut 2 12mm Flat washer 1 RE1152 Front Sway Bar End Link Kit 2 35-RM31147 Sway bar End Link 4 RM40010 Urethane Bushing 4 51792 Sleeve: 5/8" X 1/2" X 1.37" HWC15025 Hardware Pack, Front Sway Bar 1 2 1/2"-13 X 2 1/2" Hex bolt Gr. 8 2 1/2"-13 Nylock nut 2 1/2" Hardened flat washer 2 RE1301 2" Front lower bump stop kit 2 90-RM42520 2" Front bump stop spacer 31-RM24428 Washer: 3.0" X .43" X .375" 2 HWC15057 Hardware pack, Front bump stops 1 2 3/8"-16 X 2 3/4" hex bolt gr. 8 2 3/8"-16 Nylon flange nut 3/8" Hardened flat washer 4 HWC15067 Hardware pack, Front bump stops 1 3/8"-16 X 4 3/4" hex bolt gr. 8 2 1 RE1305 2" Rear bump stop pad 2 90-6513 Hardware Pack, Bump pad 5/16"-18 X 1" Hex bolt Gr. 8 4 5/16"-18 Stover nut 4 5/16" Hardened flat washer 8 90-RM24437 2" Rear bump stop extension 2 1 RE1479 JL Front alignment washers 1 HWC15060 Hardware Pack, Alignment cam 2 16mm-2.0 X 110mm Hex bolt Gr. 10.9 2 16mm-2.0 Prevailing torque nut 4 16mm Hardened flat washer 35-RM24348 Alignment cam plate 4 RE1614 Rear track bar bracket 1 90-2049 Spacer 1 1 HWC15066 Hardware pack, 3 1/2"-13 X 1 1/4" Hex bolt Gr. 8 3 1/2"-13 Stover nut 6 1/2" Hardened flat washer 2 9/16"-12 X 3 1/2" Hex bolt Gr. 8 2 9/16"-12 Stover nut 4 9/16" Hardened flat washer 86-RM24433 Rear track bar bracket 1 RE1306 Bump stop extension 1 2 90-RM42505 1.25" Bump stop extension HWC15065 Hardware pack, Bump stop extension 1 2 3/8"-16 X 1 1/2" hex bolt gr. 8 3/8"-16 Nylock nut 2 3/8" Hardened flat washer 4 Parts used in Conjunction With This Kit (Sold Separately) RE1319 2.5"/3.5" Front coil springs 1 2 RM60165 2.5"/3.5" Front coil spring 2 RM43013 Coil Shim 1 RE1323 1.5"/2.5" Rear coil springs 2 RM60167 1.5"/2.5" Rear coil spring 1 RE1689 HD Track bar

## **Rear Installation:**

- 1. Prepare for the rear installation by removing the following items from the rear of the vehicle: tires/wheels, shocks, sway bar end links, emergency brake cable clamp (on top of differential), frame mount brake line bracket, and the track bar.
- 2. With the items removed, carefully lower the rear axle assembly and remove the coil springs from the vehicle. Note the position and orientation of the upper coil spring isolators, they will be reinstalled with the new coil springs.

## NOTE: Be careful not to overextend the rear brake lines.

- 3. Remove the **OE** rubber coil divider and install onto the second coil down from the top, on the replacement rear coil springs, **RM60167**.
- 4. Slide rear track bar bracket, 86-RM24433, over the rear axle track bar mount. Using the 9/16" X 3 1/2" bolt and hardware, sleeve, 90-2049, bolt the track bar bracket to the axle. Be sure the head of the lower 9/16" bolt is facing toward the front of the vehicle for optimal coil clearance.
- 5. Using the rear track bar bracket, 86-RM24433, as a template, drill 1/2" holes on the front and rear of the OE track bar bracket. Install the supplied 1/2" X 1 1/4" bolts and hardware from pack HWC15066. Loosely install the track bar into the rear track bar bracket using the supplied 9/16" hardware and the head of the bolt facing the rear of the vehicle. At certain pinion angles the coil spring clearance to the bottom 9/16" bolt can be tight. Flip the 9/16" bolt if necessary. PHOTO #1
- 6. Install the replacement rear coil springs, in place of the previously removed stock coil springs. **PHOTO #2**
- 7. Raise the axle into place and install the new rear shocks or shock extensions.

NOTE: If the suspension kit was purchased with Rubicon Twin Tube shocks, you will need to install shocks on the vehicle with the body down.

NOTE: If the suspension kit was purchased with Rubicon 2 1/2" shocks, be sure the Schrader valve is oriented toward the rear of the vehicle.

- 8. Install the replacement rear anti-sway bar end links, **RE1146**, in place of the previously removed factory anti-sway bar end links as follows:
  - A. Secure to the frame using the previously removed **OE** hardware. Torque **OE** bolt to manufacturer's specifications. Secure the sway bar to the end link using the supplied **12mm X 65mm** bolts and hardware. Be sure the head of the bolt is facing toward the outside of the vehicle. Torque the **12mm** bolts to 60 ft.-lbs. **PHOTO #3**

NOTE: It may be necessary to drill sway bar mounting holes out to 1/2".



(Photo #1)



(Photo #2)





(Photo #3)

(Photo #4)

- 8. Install the 2" rear bump stop pads, RE1305 to the rear axle, with the "F" arrow pointing towards the front of the vehicle, using the supplied 5/16" X 1" bolt and hardware. If 37" tires are being installed on any edition other than a Rubicon, bump stop extensions, RE1306, will need to be bolted to the 2" rear bump stop pads center hole using the supplied 3/8" X 1 1/2" bolt and hardware. PHOTO #4.
- 9. Reinstall the emergency brake cable clamp and frame mount brake line into the original position.
- 10. Reinstall the rear wheels and check the torque on all nuts and bolts.
- 11. Re-connect the frame end of the track bar with vehicle on the ground and at ride height. Tighten the **9/16**" hardware.
- 12. Adjust the position of the brake lines, breather hoses, and ABS lines as required.

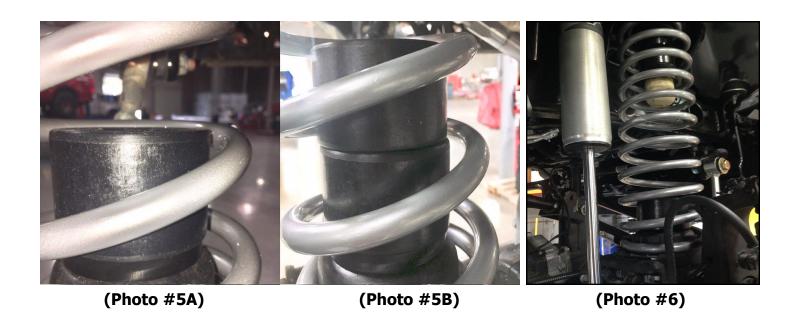
## **Front Installation:**

1. Prepare for the front installation by removing the following items from the front of the vehicle: tires/wheels, shocks, and sway bar end links. If necessary, support front axle with jack. Disconnect the front driveshaft U-joint from the axle to prevent damaging the CV when installing the springs.

NOTE: Disconnecting the front track bar may assist in front coil removal/installation.

2. With the items removed, carefully lower the front axle assembly and remove the front coil springs.

NOTE: It may be necessary to disconnect brake line brackets from front control arms to prevent over extending the front brake lines.



3. For proper bump stop height, install front bump stops as follows:

A. Rubicon Edition with **37**" tires or all other editions with **35**" tires: Install all of the components from one box only of front lower bump stop kit, **RE1301**. Stack one of the **2**" poly bump stop spacer, **90-RM42520**, on top of the **3/8**" steel spacer inside the coil per side. This configuration will be secured with the **3/8**" **X 2 3/4**" bolt and hardware. **PHOTO #5A**.

B. All other editions installing **37**" tires: Install both front lower bump stop kit, **RE1301**, box components, (except only install one of the **3/8**" steel spacers per side). Stack two of the **2**" poly bump stop spacer, **90-RM42520**, stacked on top of a **3/8**" steel spacer inside the coil per side. This configuration will be secured with the **3/8**" **X 4 3/4**" bolt and hardware. **PHOTO #5B**.

NOTE: The 3/8" X 2 3/4" bolts can be discarded if installing this configuration.

- 4. Install the coil shim, 90-RM43013, on the passenger side, on top of the OE coil isolator. With the correct amount of lower bump stops and spacers (Refer to Step 3), placed inside the new front coil springs, RM60165 (Sold Separately), raise the small diameter end of the coil springs into the upper spring buckets and over the lower spring cups and bump stop pads. Rotate the coil springs so the end of the coil properly sits in the factory isolators. Secure lower bump stops using the supplied 3/8" bolts and hardware depending on the bump stop height (Refer to Step 3). PHOTOS #5A, 5B, 6
- 5. If installing front arm kit, **RE3721**, do so at this time.

NOTE: Do not install cam washers with front arm kit, RE3721, unless more caster angle is needed.

6. Install the replacement front shocks or shock extensions in place of the previously removed stock shocks.

7. Raise the axle into place and install the front sway bar end links, **RE1152**, in place of the previously removed factory anti-sway bar end links and secure to the sway bar and front axle using the supplied **1/2" X 2 1/2"** hex bolts and hardware. **PHOTO #7** 

NOTE: It may be necessary to drill sway bar mounting holes out to 1/2".

- 8. Re-connect track bar if disconnection was required.
- 9. Reinstall the front wheels and check the torque on all nuts and bolts.



(Photo #7)

## **Installation review:**

- 1. Torque all the bolts to factory specifications. Be sure to double check your work.
- 2. Check steering and suspension in all positions to ensure that there is no bind and adequate clearance between all moving, fixed, and heated members.
- 3. Test drive and note the location of the steering wheel.
- 4. Adjust the drag link to center the steering wheel if necessary.
- 5. Align the vehicle as soon as possible. Set to minimum factory caster angle and factory toe-in specifications.
- 6. Alignment cam plate kit, **RE1479**, is provided, as an aid to your alignment technician, if needed to achieve proper caster adjustment. Install the alignment cam plates using supplied **16mm X 110mm** bolts and hardware. **PHOTOS** #8, #9, and #10

NOTE: Red arrow is front of vehicle. Red outlines are the location tabs in the factory bracket. Material must be removed from factory bracket to get a + or - caster change.

NOTE: If using stock control arms, adjustments shown in photo #8 will return caster angle to factory spec.

7. Recheck all bolts after 50 miles and again after every off road excursion.

## (Photo #8)



1.5 degree less (negative) caster

## (Photo #9)



1.5 degree more (positive) caster

## (Photo #10)



0 degree change from stock. Use like this to weld onto bracket as a repair to a worn out hole

## **Application information:**

- **Rubicon Edition:** This kit is designed for the use of up to **37**" diameter tires or smaller on Rubicon Edition Vehicles. To have full tire clearance, the corners of the upgraded **OE** winch capable steel bumper (MC6) must be unbolted. An aftermarket bumper is another alternative, but clearance should be checked during installation.
- All Other JT Editions: This kit is designed for the use of up to 37" diameter tires or smaller on the Jeep JT Sport and Overland Editions. If 35" or 37" tires are to be installed, it is recommended to use 35"/37" X 12.50" tires on an 8"-9" wide wheel with a 4.75" backspace. 37" tires will require an aftermarket bumper for turning clearance.





#### RUBICON EXPRESS ADVANTAGE LIFETIME WARRANTY

### Notice to Owner, Operator, Dealer and Installer:

Vehicles that have been enhanced for off-road performance often have unique handling characteristics due to the higher center of gravity and larger tires. This vehicle may handle, react and stop differently than many passenger cars or unmodified vehicles, both on and off-road. You must drive your vehicle safely! Extreme care should always be taken to prevent vehicle rollover or loss of control, which can result in serious injury or even death. Always avoid sudden sharp turns or abrupt maneuvers and allow more time and distance for braking! Rubicon Express reminds you to fasten your seat belts at all times and reduce speed! We will gladly answer any questions concerning the design, function, maintenance and correct use of our products.

Please make sure that the Dealer / Installer explains and delivers all warning notices, warranty forms and instruction sheets included with Rubicon Express product.

Application listings in this catalog have been carefully fit checked for each model and year denoted. However, Rubicon Express reserves the right to update as necessary, without notice, and will not be held responsible for misprints, changes or variations made by vehicle manufacturers. Please call when in question regarding new model year, vehicles not listed by specific body or chassis styles or vehicles not originally distributed in the USA.

Please note that certain mechanical aspects of any suspension lift product may accelerate ordinary wear of original equipment components. Further, installation of certain Rubicon Express products may void the vehicle's factory warranty as it pertains to certain covered parts; it is the consumer's responsibility to check with their local dealer for warranty coverage before installation of the lift.

#### Warranty and Return Policy:

Rubicon Express warranties its full line of products to be free from defects in workmanship and materials for the life of the product. Rubicon Express's obligation under this warranty is limited to repair or replacement, at Rubicon Express's option, of the defective product. Any and all costs of removal, installation, freight or incidental or consequential damages are expressly excluded from this warranty. Rubicon Express is not responsible for damages and / or warranty of other vehicle parts related or non-related to the installation of Rubicon Express product. A consumer who makes the decision to modify his vehicle with aftermarket components of any kind will assume all risk and responsibility for potential damages incurred as a result of their chosen modifications.

Warranty coverage does not include consumer opinions regarding ride comfort, fitment and design. Warranty claims can be made directly with Rubicon Express or at any factory authorized Rubicon Express dealer.

#### Claims not covered under warranty:

- Parts subject to normal wear; this includes bushings\*, shock absorbers, driveshafts, ball joints, tie rod ends and heim joints.
- Discontinued products at Rubicon Express's discretion.
- Finish after 90 days.

Rubicon Express accepts no responsibility for any altered product, improper installation, lack of or improper maintenance

or improper use of our products.

\*Rubicon Express PT-MEG Super-Ride bushings are covered by the Rubicon Express Advantage Lifetime Warranty, and will be replaced in the event of failure for the life of the product.