

Quadratec® 3" Add-A-Leaf Suspension Lift Kit

Installation Manual: for 1984-2001 Cherokee (XJ)

#16400.005X



PARTS LIST:

Front Coil Springs - QTY 2
Add-A-Leafs - QTY 2
5/16" x 3 Tie Bolts - QTY 2
5/16" Tie Bolt Nuts - QTY 2
Front Shocks - QTY 2
Rear Shocks - QTY 2

REQUIRED TOOLS:

Safety Glasses
Torque Wrench
T40 Torx Socket
1/2" Socket or Wrench
13mm Deep Well Socket
9/16" Socket & Open End Wrench

REQUIRED TOOLS: CONTINUED

15mm Socket & Open End Wrench
18mm Socket
21mm Socket
Locking Pliers
13/32" Drill Bit
Drill Motor
Hacksaw
Side Cutters

⚠ WARNING ⚠

TO REDUCE RISK OF SERIOUS INJURY OR PROPERTY DAMAGE: READ ALL SAFETY MESSAGES AND UNDERSTAND ALL INSTRUCTIONS AND PROCEDURE NOTICES BEFORE ATTEMPTING TO INSTALL OR USE THIS PRODUCT. FOLLOW ALL INSTRUCTIONS AND WARNINGS WITH PRODUCT & VEHICLE OWNERS MANUAL.

⚠ WARNING ⚠

THIS KIT INCLUDES A COCKPIT SAFETY WARNING STICKER REGARDING INCREASED ROLLOVER RISK. THIS STICKER MUST BE AFFIXED IN THE COCKPIT, VISIBLE TO ALL VEHICLE OCCUPANTS AT ALL TIMES.

⚠ CAUTION ⚠

RISK OF EYE INJURY! SAFETY GLASSES MUST BE WORN AT ALL TIMES WHILE INSTALLING OR MAINTAINING THIS PRODUCT. TORQUE AND RECHECK FASTENERS AFTER 250 MILES AND FREQUENTLY THEREAFTER. DO NOT USE IF DAMAGED.



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A Few Words About Product Safety:

Your Quadratec Suspension product is intended to enhance the utility and enjoyment of your off road capable vehicle. Before installation, please review the following safety information and installation recommendations.

Throughout these instructions important safety information is generally preceded by one of three signal words indicating the relative risk of injury, property damage or adverse consequence. **The signal words mean:**

⚠ WARNING ⚠	a hazardous situation which, if not avoided, could result in death or serious injury. You CAN be KILLED or SERIOUSLY HURT if you don't follow instructions.
⚠ CAUTION ⚠	a hazardous situation which, if not avoided, could result in minor or moderate injury. You CAN be moderately HURT and also may suffer property damage if you don't follow instructions.
NOTICE	Careful attention is required to this instruction or operation but does generally not relate to personal injury. Damage to your Quadratec® product or other property may result if you don't follow instructions.

Before You Begin Installation:

Congratulations on your purchase of the Quadratec 3" Add-A-Leaf Lift Kit for 1984-2001 XJ Cherokee Vehicles. When unpacking, check to make sure all

parts are included and not damaged due to shipping. If any part is missing or broken, please call Customer Service at 800-745-6037 as soon as possible.

IMPORTANT PRODUCT SAFETY TIPS

⚠ WARNING ⚠	INSTALLATION OF THIS PRODUCT ON YOUR JEEP® WILL MODIFY AND ENHANCE ITS SUSPENSION AND OFF-ROAD PERFORMANCE. IT MAY HANDLE DIFFERENTLY THAN AS FACTORY-EQUIPPED INCLUDING; INCREASED RIDE-HEIGHT; REDUCED LATERAL STABILITY; AND HIGHER RISK OF ROLL-OVER OR OTHER ACCIDENT. ALSO, OWNER'S CHOICE OF LARGER TIRE/WHEEL COMBINATIONS MAY REQUIRE ADDITIONAL PEDAL PRESSURE OR INCREASED DISTANCE TO STOP; CAUSE SPEEDOMETER TO READ SLOW AND MAY REDUCE VISIBILITY AROUND THE VEHICLE. CHOICE OF TIRE/WHEEL COMBINATIONS OTHER THAN AS TESTED OR RECOMMENDED MAY COMPROMISE FMVSS 126 COMPATIBILITY.
⚠ WARNING ⚠	FAMILIARIZE YOURSELF WITH VEHICLE HANDLING AND REVIEW ALL VEHICLE MANUFACTURERS AND QUADRATEC® WARNINGS, INSTRUCTIONS AND LIMITED WARRANTIES BEFORE DRIVING A MODIFIED SUSPENSION JEEP®. FOLLOW ALL RECOMMENDED MAINTENANCE PROCEDURES AND ROUTINELY INSPECT YOUR VEHICLE COMPONENTS FOR UNUSUAL WEAR OR OFF-ROAD DAMAGE.
⚠ WARNING ⚠	DO NOT DRIVE UNDER ANY SPEED OR MANEUVERING CONDITIONS WHICH MAY CAUSE THE VEHICLE TO TRIP, ROLL, LOSE TRACTION OR COMPROMISE YOUR ABILITY TO SAFELY BRAKE IN AN EMERGENCY. QUADRATEC® DOES NOT RECOMMEND COMBINED USE OF SUSPENSION KITS, BODY LIFTS, OTHER LIFTING DEVICES OR COMPONENTS ALTERING THE INTENDED RIDE-HEIGHT OR FUNCTION OF ITS PRODUCTS. MANY STATES HAVE LAWS RESTRICTING THE EXTENT OF VEHICLE MODIFICATIONS. OWNER/DRIVER IS RESPONSIBLE FOR MODIFICATIONS CONSISTENT WITH STATE LAWS AND GOOD SENSE.



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IMPORTANT PRODUCT SAFETY TIPS



QUADRATEC® RECOMMENDS PROFESSIONAL INSTALLATION OF THIS PRODUCT.



PARTS LIST:

Front Coil Springs - QTY 2
Add-A-Leafs - QTY 2
5/16" x 3 Tie Bolts - QTY 2
5/16" Tie Bolt Nuts - QTY 2
Front Shocks - QTY 2
Rear Shocks - QTY 2

REQUIRED TOOLS:

Safety Glasses
Torque Wrench
T40 Torx Socket
½" Socket or Wrench
13mm Deep Well Socket
9/16" Socket & Open End Wrench

REQUIRED TOOLS: CONTINUED

15mm Socket & Open End Wrench
18mm Socket
21mm Socket
Locking Pliers
13/32" Drill Bit
Drill Motor
Hacksaw
Side Cutters



PARK THE VEHICLE ON FLAT, LEVEL GROUND AND SET EMERGENCY BRAKE. ALWAYS SUPPORT FRAME RAILS USING JACK STANDS.

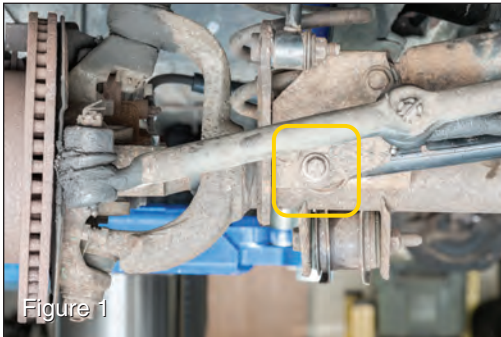
Caution: In preparation to install, park the vehicle on flat, level ground and set emergency brake. Put on safety glasses. Raise the front of the vehicle and support frame rails using jack stands.

Do not lower the axle at this time.
Remove front tires/wheels.

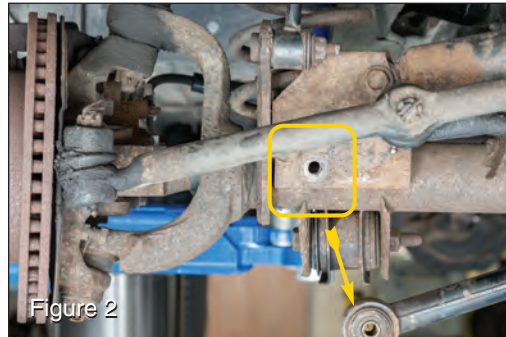


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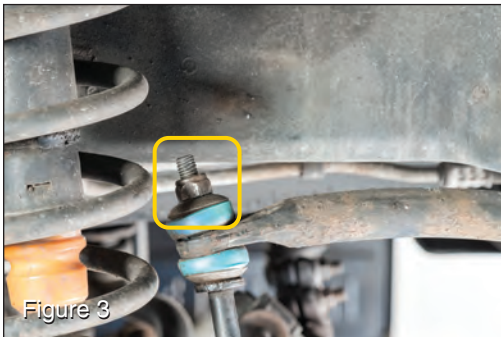
Add-A-Leaf Spring Lift Kit Installation: Front



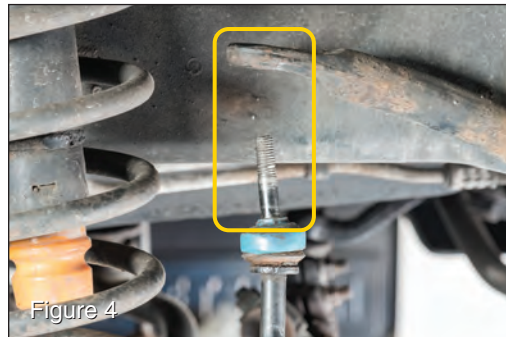
Put on safety glasses. First, disconnect the front track bar using the 1/2" drive



ratchet with a 15mm socket as shown above. (see FIG 1 & 2)



Proceed to disconnect the front sway bar end links at the top using the 1/2"



drive ratchet with a 15mm socket as shown above. (see FIG 3 & 4)

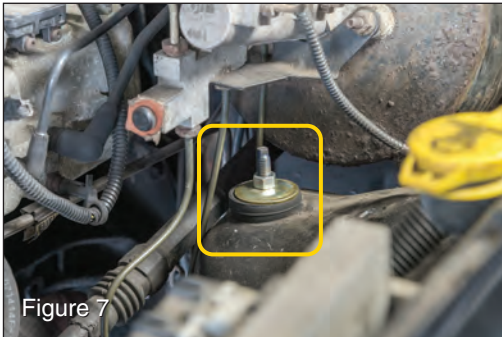


Disconnect the bottom end of the front shocks using a 13mm deep well socket and open end wrench. (see FIG 5 & 6)

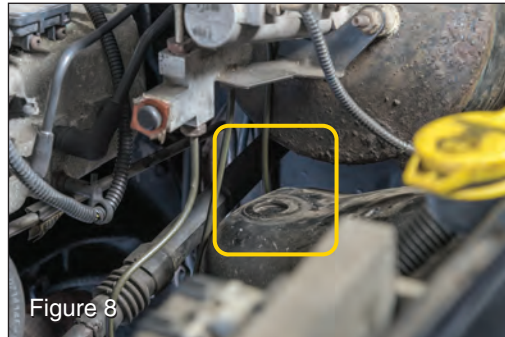


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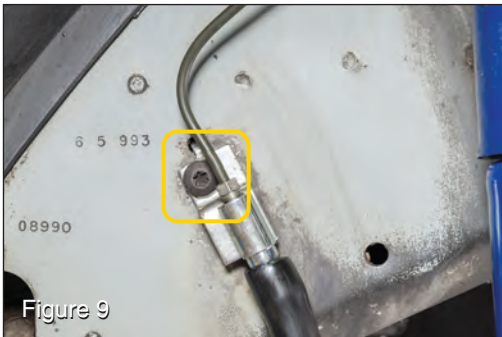
Add-A-Leaf Spring Lift Kit Installation: Front



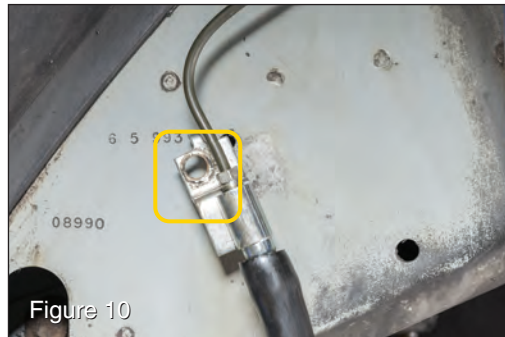
Locate upper shock mount stem and remove using 15mm socket or wrench.



(see FIG 7 & 8) Discard front shocks.



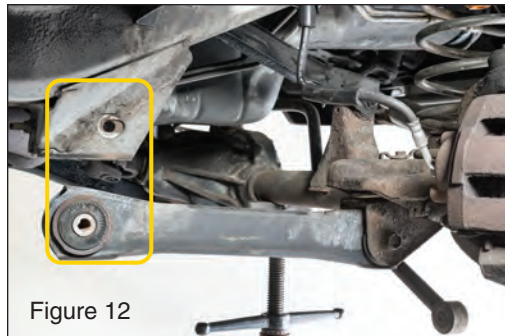
Disconnect brake line brackets from frame using a T40 Torx socket.



(see FIG 9 & 10)



Locate lower control arms and remove frame side bolts using a 21mm socket and open end wrench. (see FIG 11 & 12)



This will allow you to easily remove the coil springs safely.



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Add-A-Leaf Spring Lift Kit Installation: Front



Figure 13

Locate and remove the coil spring retainers using a ratchet and a 13mm

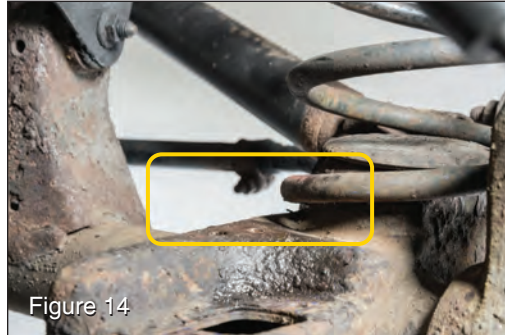


Figure 14

socket as shown above. (see FIG 13 & 14)

CAUTION

THE COIL SPRINGS MAY BE UNDER TENSION. REMOVE CAREFULLY.

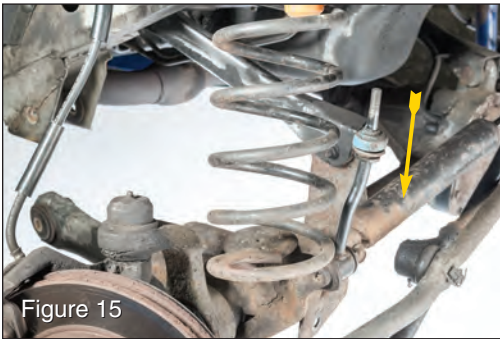


Figure 15

Gently lower axle housing towards the ground and remove original coil springs. (see FIG 15)

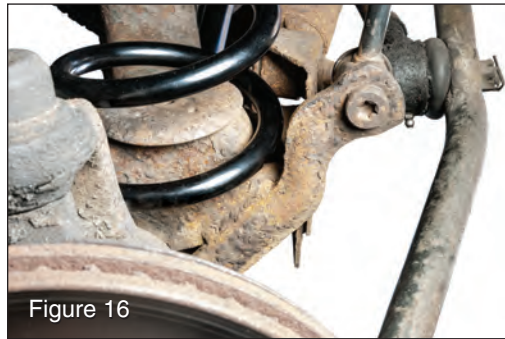


Figure 16

Install new coil springs and index on bottom mount as shown. (see FIG 16)



Figure 17



Figure 18

Locate & assemble front shocks as shown (see FIG 17, 18 & 19).



Figure 19



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Add-A-Leaf Spring Lift Kit Installation: Front



Figure 20
Install front shocks into original opening at top mount and tighten securely a 9/16" socket or wrench. (see FIG 20)

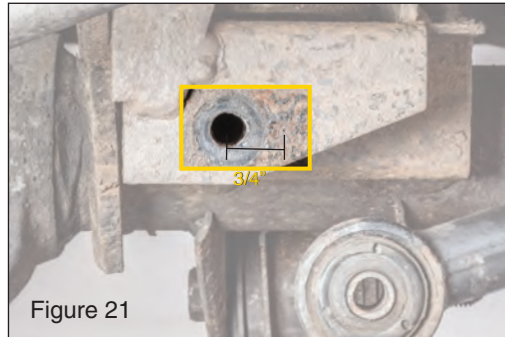


Figure 21
Raise the axle using a floor jack enough so that control arms can be re-attached to the frame loosely at this time.

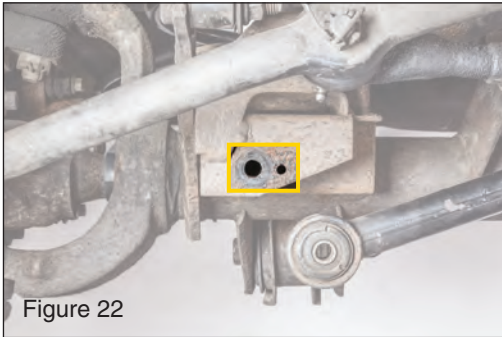


Figure 22
Next raise the axle so the full weight of vehicle is on the newly installed coil springs. Re-attach brake line bracket to frame. Re-attach front sway bar end links to sway bar and tighten securely.

Using factory hardware, re-attach the bottom end of the shock and torque to 21 ft lbs. Install wheels/tires and torque to 105 ft lbs. Finally, replace front wheels and tire, remove jack stands and lower vehicle onto the ground.

Finally, at the front end, locate front axle side track bar mount and measure to the drivers side 3/4" from center of factory hole and make a mark using center

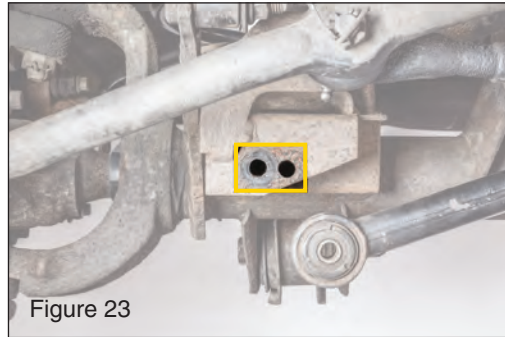


Figure 23
punch (see FIG 21). Drill pilot hole. (see FIG 22) Drill out to 13/32". (see FIG 23)

Re-attach track bar into the new hole using factory hardware and torque to 74 ft lbs. Torque the Control Arm bolts to 133ft lbs.

Prepare to work on vehicle rear:

At this point, you may now prepare to work at the back end. Block the front wheels, raise the rear of the vehicle & support frame rails securely using jack stands. Remove the rear tires / wheels.



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Add-A-Leaf Spring Lift Kit Installation: Rear



Remove the original shocks at the bottom using a 18mm socket, (see FIG 24)



and the top using a 13mm socket. (see FIG 24) Discard rear shocks.



Support the rear axle and remove the leaf spring u-bolts using a 18mm socket. (see FIG 26) Be sure to check for appropriate slack and avoid damage to ABS lines, brake lines, differential breather hose & etc.



When safe, lower the rear axle to gain access to the leaf springs.

Remove the main eye bolts using a ratchet and 21mm socket. (see FIG 27)



Remove the shackle bolts using a 21mm socket. (see FIG 28) Now carefully remove leaf spring from the vehicle.

Now, we move on to prepare to add a leaf to the existing rear leaf springs.



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Add-A-Leaf Spring Lift Kit Installation: Rear



To perform the installation of the new rear add a leafs properly, you must use two large C-clamps to contain the elastic potential energy of the OEM rear leaf springs when the OEM tie bolts are



being removed. Attach & tighten a C-clamp on each end of the OEM rear leaf spring to hold the leaf spring assembly securely together. (see FIG 29)



Locate leaf spring tie clamps. (see FIG 30) Remove and discard using side cutters or pliers of your choosing. (see FIG 31)



Using a wrench & locking pliers to hold the head of the OEM tie bolt, loosen & remove. (see FIG 32) With care, slowly loosen & remove the C-clamps.



Install the new rear add a leafs into the OEM rear leaf springs so the leaves remain progressive longest to shortest while matching the long end & short end of the new rear add-a-leafs to the OEM rear leaf springs. (see FIG 33)

Install the new tie bolt through each OEM leaf spring. Do not tighten at this time.



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Add-A-Leaf Spring Lift Kit Installation: Rear



DO NOT USE NEW LEAF SPRING TIE BOLTS TO DRAW THE LEAF SPRINGS TOGETHER. FAILURE OF TIE BOLT CAN CAUSE EXPLOSIVE DISASSEMBLY.



Figure 33

Do not use the new tie bolts to draw the OEM leaf spring leaves together. Failure of any component can cause an explosive disassembly & possible injury!

Place one C-clamp on each side of the new tie bolts & tighten evenly. Once the

C-clamps have drawn the leaves securely together, hold the tie bolt head with locking pliers & tighten the tie bolt nut securely using a ½" wrench or socket. Remove the C-clamps & cut off the excess length of the new tie bolts using a hacksaw. (see FIG 33)

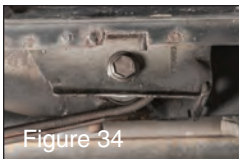


Figure 34



Figure 35

Re-install the modified leaf springs to vehicle using original hardware loosely at this time. (FIG 34 & 35)

Raise the rear axle & install the OEM u-bolts using the OEM hardware and torque to 52ft lbs. (FIG 36)



Figure 36



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Add-A-Leaf Spring Lift Kit Installation: Rear



Figure 37



Figure 38



Figure 39

Locate and assemble rear shocks as shown (see FIG 37, 38 & 39). Install into original opening at top mount and torque to 20ft lbs. Slide shocks onto lower axle mounts and tighten securely using the original hardware.

Install the rear wheels and tires and lower vehicle to the ground. Tighten all shackle bolts to 109ft lbs.



Install Cockpit Warning label sticker in a location visible to all drivers and occupants.

Re-torque all the bolts after the first 100 miles of driving.



COMPLETE INSTALLATION BY DOUBLE CHECKING THAT ALL NUTS AND BOLTS ARE TIGHT. CAREFULLY INSPECT AND CONFIRM CLEARANCE OF CHOSEN TIRE/WHEELS THROUGH FULL STEERING SWEEP AND SUSPENSION TRAVEL. ASSURE BRAKE LINES CLEAR AND NOT RUBBING AGAINST ANY SURFACE, ABS FITTINGS AND OTHER FASTENERS SECURED. HAVE ALIGNMENT SETTINGS CHECKED AND RE-ALIGN AT SHOP WITH EQUIPMENT SUITED FOR MODIFIED SUSPENSION JEEP VEHICLES. RE-ADJUST HEADLIGHTS.



INSTALL COCKPIT WARNING STICKER ON VISOR OR OTHER LOCATION VISIBLE TO ALL DRIVERS.



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Quadratec® Exclusive Limited Lifetime Warranty

Your Quadratec® branded accessories are covered by the following **Limited Warranty** provided exclusively by Quadratec, Inc., 1028 Saunders Lane, West Chester PA 19380.

This Limited Warranty is the only warranty made in connection with your purchase. Quadratec neither assumes nor authorizes any vendor, retailer or other person or entity to assume for it any other obligation or liability in connection with this product or Limited Warranty. This Limited Warranty does not apply and is not cumulative to any accessory or part distributed by Quadratec for which the Manufacturer provides a separate written warranty.

What is Covered: Subject to the terms, exclusions and limitations herein and with respect only to Quadratec branded accessories first sold in the United States, Quadratec warrants to the initial retail purchaser only that your Quadratec accessory shall be free of defects in material and workmanship: **for as long as the original purchaser owns the vehicle. The Warranty on bushings and other serviceable wear items (including shock absorbers) is limited to 1 year from date of retail purchase.** This Limited Warranty is not assignable and shall terminate upon sale of the vehicle upon which the Quadratec accessory is installed or other transfer third persons.

All other warranties are hereby disclaimed, except to the extent prohibited by applicable law in which case any implied warranty of merchantability or fitness for a particular purpose on this limited to **for as long as the original purchaser owns the vehicle.** Quadratec reserves the rights to: (a.) require invoice or other proof your accessory is within the terms of this Limited Warranty as a condition of warranty service and, (b.) make future revisions to this product and Limited Warranty without prior notice or obligation to upgrade your product.

What is Not Covered:

Your Quadratec Limited Warranty does not cover products or parts Quadratec determines to have been damaged by or subjected to: (a.) installation damage, alteration, modification, combination with other parts, failure to maintain or improper repair or service, (b.) defects or use which pre-dates installation of Quadratec® accessory

or suspension kit by authorized dealer or shop, (c.) normal wear & tear or gradual reduction in expected performance of vehicle or components, (d.) emissions control or electronic stability systems or components, (e.) cosmetic damage or damage from moisture or water immersion, (f.) fleet, rental or commercial use, (g.) Acts of God, accidents, misuse, negligence, inadequate mounting or impact with vehicle(s), obstacles or other aspects of the environment, (h.) theft, vandalism or other intentional damage. (i.) use in competition or racing.

Other Exclusions: Surface finish of exposed suspension components is not covered under this Limited Warranty.

Remedy Limited to Repair/Replacement:

The exclusive remedy provided hereunder shall, upon Quadratec inspection and at Quadratec's option, be either repair or replacement of product or parts (new or refurbished) covered under this Limited Warranty. Customers requesting warranty consideration should first contact Quadratec to obtain a RGA number (610-701-3336). All labor, removal, shipping and installation costs are customer's responsibility.

Other Limitations - Exclusion of Damages - Your Rights Under State Law:

In consideration of the purchase price paid, neither Quadratec nor any independent Quadratec distributor/licensee are responsible for any time loss, rental costs, or for any incidental, consequential, punitive or other damages you may have or incur in connection with any part or product purchased. Your exclusive remedy hereunder for covered parts is repair/replacement as described above.

This Limited Warranty gives you specific rights. You may also have other rights that vary from state to state. For example, some states do not allow limitations of how long an implied warranty lasts and /or do not allow the exclusion or limitation of incidental or consequential damages, so the limitations and exclusions herein may not apply to you.

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