JEEP WRANGLER (XJ)

2” SUSPENSION SYSTEM

‘84- ’01 KIT# TM3720-40012

WARNING

Installation of a Trail Master suspension lift kit will change the vehicle’s center of gravity and handling characteristics both on- and off-road. You must drive the vehicle safely! Extreme care must be taken to prevent vehicle rollover or loss of control, which could result in serious injury or death. Avoid sudden sharp turns or abrupt maneuvers and always make sure all vehicle occupants have their seat belts fastened.

WARNING

Before you install this kit, read and understand all instructions, warnings, cautions, and notes in this instruction sheet and in the vehicle owner’s manual.

CAUTION

Proper installation of this kit requires knowledge of the factory recommended procedures for removal and installation of original equipment components. We recommend that the factory shop manual and any special tools needed to service your vehicle be on hand during the installation. Installation of this kit without proper knowledge of the factory recommended procedures may affect the performance of these components and the safety of the vehicle. We strongly recommend that a certified mechanic familiar with the installation of similar components install this kit.

WARNING

This kit should only be installed on a vehicle that is in good working condition. Before you install the kit, thoroughly inspect the vehicle for corrosion or deformation of the sheet metal. If the vehicle is suspected to have been in a collision or misused, do not install this kit. Off-road use of your vehicle with this kit installed may increase the stress applied to the factory components. Failure to observe this warning may result in serious personal injury and/or severe damage to your vehicle.

WARNING

Many states and municipalities have laws restricting bumper heights and vehicle lifts. Consult state and local laws to determine if the changes you intend to make to the vehicle comply with the law.

WARNING

The installation of larger tires may reduce the effectiveness of the braking system.

WARNING

Always wear eye protection when operating power tools.

WARNING

Before you install this kit, block the vehicle tires to prevent the vehicle from rolling.

WARNING

DO NOT combine suspension, body, or other lift devices. Use of vehicle with combined lifts may result in unsafe and/or unexpected handling characteristics.

NOTE

Lift height may vary depending on vehicle configuration, engine size, additional accessories, the factory suspension package, and vehicle’s condition.

NOTE

Trail Master recommends using thread locking compound on the threads of all kit nuts and bolts unless specified otherwise in these instructions.

INSTALLATION WORKSHEET—SAVE WITH VEHICLE RECORDS

Product Information

Part Number:	Date Purchased:	Purchased From:

Vehicle Information

Make:	Model:	Year:
VIN:	Mileage:	Engine:

Owner Information

Name:		
Address:		
City:	State:	Zip:

Vehicle Measurements

Axle Center to Fender Lip (on level ground, at ride height):	OE	Kit Installed
Right Front		
Right Rear		
Left Front		
Left Rear		

Bump Stop to Contact Point (on level ground, at ride height):	OE	Kit Installed
Right Front		
Right Rear		
Left Front		
Left Rear		

Tire & Wheel Information

Tire Size:	Tire Brand:	
Actual Tire Diameter (measured):	Wheel Size:	
Wheel Style:	Wheel Brand:	Wheel Backspacing:

Other Equipment and/or Accessories

Installer Information

Shop Name:	Installer:	
Address:		
City:	State:	Zip:
Phone Number:	Fax Number:	

Attach: Copy of Purchase Receipt
Copy of Vehicle Wheel Alignment Results

Before Starting Installation

NOTE

Kit parts are prefaced by the word *kit* and appear in **bold** print.

1. Carefully read all warnings and instructions completely before beginning.

2. Verify all parts have been received in this kit by checking the parts list at the end of this document.

3. **Only install this kit on the vehicle for which it is specified.**

4. Park vehicle on a clean, dry, flat, level surface and block tires so vehicle cannot roll in either direction.

5. Measure ride height with the vehicle supporting its own weight on level ground. To settle the suspension, the vehicle should be driven forward at least 10 feet immediately prior to taking these measurements. Ride height is the measurement from the center of the axle straight up (vertical) to the fender lip. Record this measurement for all four wheels.

NOTE

Adhere to recommendations when replacement fasteners, retainers and keepers are called out in the factory service manual. When re-assembling the vehicle it is recommended by the vehicle manufacturer that certain fasteners are replaced in order to maintain proper retention characteristics. This system may not include all replacement hardware as recommended by the factory service manual. Additional replacement hardware should be obtained prior to installation of this system to meet the requirements of the factory service manual.

Wheel & Tire Requirements

The factory wheel and tire combination will fit once this kit is installed.

Torque Specifications:

See factory service manual for torque values when reusing OE fasteners.

See factory service manual for torque values when re-using OE fasteners.

Bolt Size	Grade 5 (ft.-lbs.)	Grade 8 (ft.-lbs.)
1/4”-20	10	10
1/4”-28	10	12.5
5/16”-18	17	22.5
5/16”-24	20	25
3/8”-16	30	40
3/8”-24	35	45
7/16”-14	50	65
7/16”-20	55	70
1/2”-13	75	100
1/2”-20	80	115
9/16”-12	105	135
9/16”-18	115	150
5/8”-11	150	195
5/8”-18	160	210
3/4”-16	175	225

Engine Compartment

1. Disconnect both battery cables. Disconnect negative cable first, then positive cable.

Prepare to Install Front Suspension

WARNING

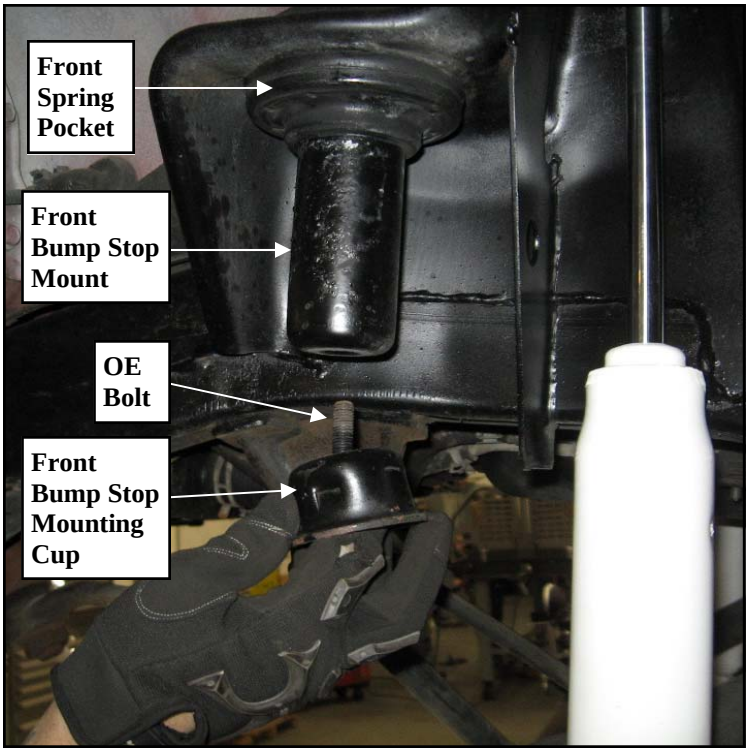
Compressed coil springs can expand violently causing serious personal injury. Before removing the coil springs, lower the axle housing as far as possible to allow the coil springs to expand.

1. Loosen, but do not remove, lug nuts on each front wheel.
2. Place the vehicle in neutral. Place your floor jack under the front axle and raise the vehicle. Place jack stands under the frame rails and lower the frame onto the stands. Remove the jack and place the vehicle back in gear, set the emergency brake, and place blocks both in front and behind the rear wheels. Remove the front wheels.

WARNING

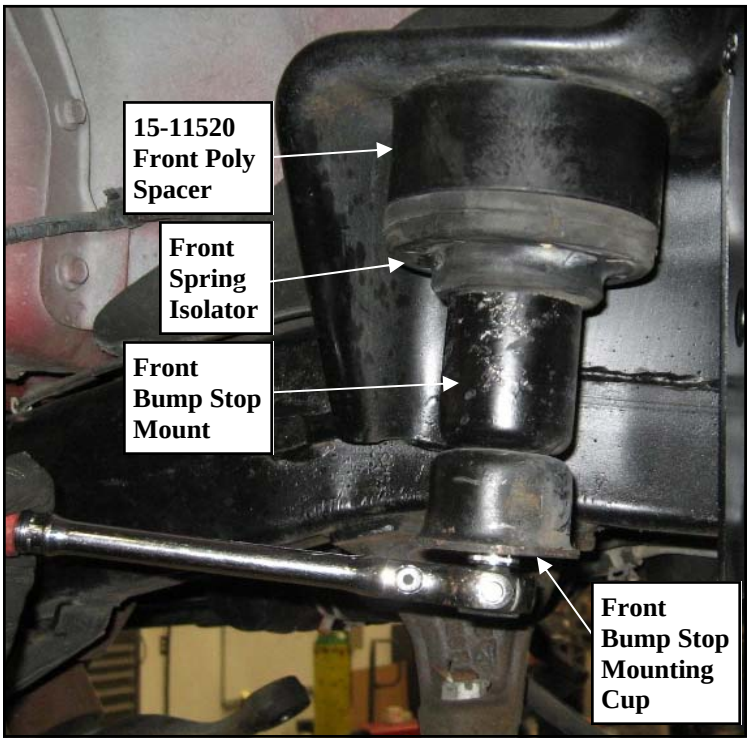
Use extreme caution when lifting vehicle from ground. To prevent serious personal injury, ensure the lifting device is securely placed.

3. Unbolt and remove the transmission skid plate from the vehicle.
4. Unbolt the front sway bar end links from the axle. Save the hardware for reuse.
5. Unbolt and remove the front shocks from the vehicle. It may be necessary that you slightly raise the axle to unload the shocks for removal.
6. Unbolt the front track bar from the front axle mount and secure up and out of the work area. Save the hardware for reinstallation.
7. Unbolt the all the ABS mounting clips from the vehicle.
8. Unbolt the front brake line brackets from the frame.
9. Lower the front axle enough to remove the coil springs from the front spring pockets. Save the factory isolators for re-use. Be sure to support the axle while the springs and shocks are removed.
10. Remove the front bump stops and unbolt the bump stop-mounting cups.

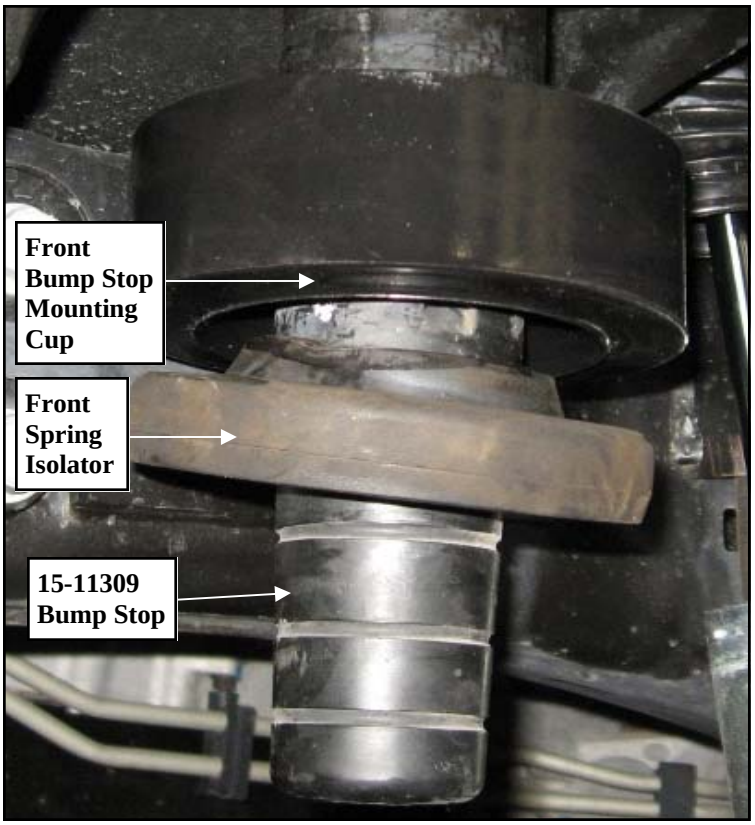


Install Front Suspension

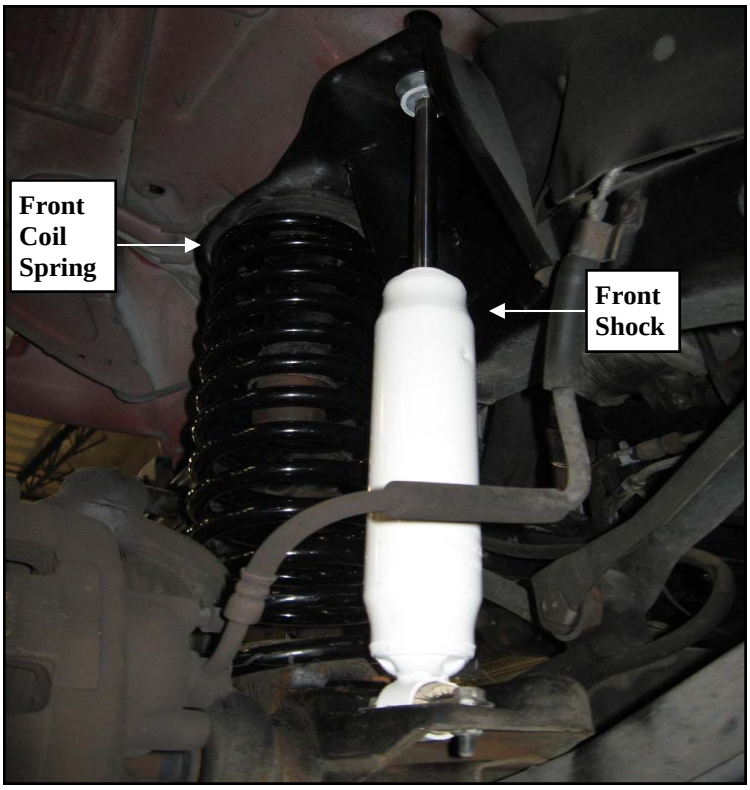
1. Install the front poly spacers **(15-11520)** and isolator over the bump stop mount. Reinstall the bump stop cup using the previously removed **OE** hardware.
2. Install the bump stop **(15-11309)** to the mounting cup.



3. Reinstall the front coil springs. Jack up the front axle making sure the front coil spring seats properly on the lower spring perch.



4. Install your new front shocks **(TM72215007)** using the **OE** hardware. Torque the upper mounting hardware to 17 ft./lbs. and the lower to 35 ft./lbs.



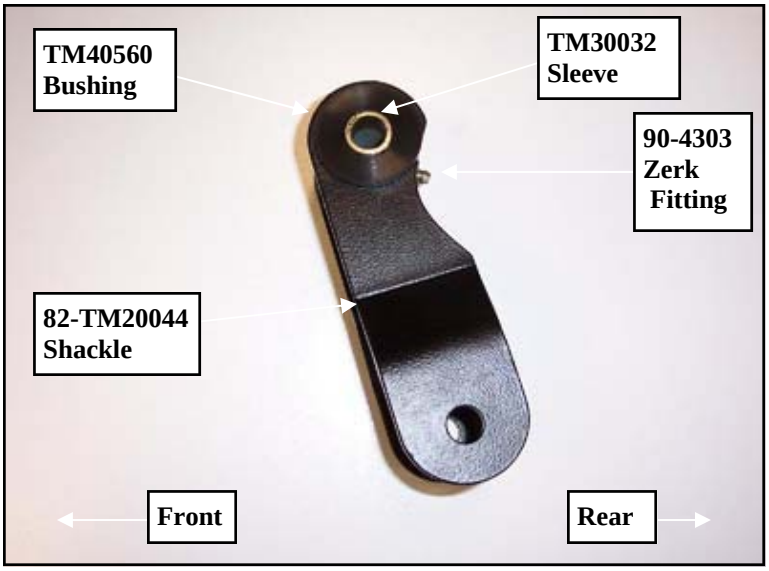
5. Reinstall the ABS and brake line brackets to the vehicle using the previously removed **OE** hardware.
6. On both sides of the vehicle, check the routing of the brake lines and the ABS wire harnesses. There must be no pinching, rubbing, or stretching of either component. Use zip ties to secure these items to the steering components. At full droop, cycle the steering from lock to lock while observing the reaction of these components. Reposition them if needed.
7. Reinstall the front wheels and lower the vehicle to the ground. Torque the lug nuts according to the wheel manufacturers recommendations.
8. Reinstall the **OE** front track bar to the axle mount using the previously removed **OE** hardware. Torque the track bar mounting bolt according to manufacturers specifications.
9. Remove the **OE** rear bump stops from the bump stop-mounting cups.

Prepare to Install Rear Suspension

1. Loosen, but do not remove, lug nuts on each front wheel.
2. Block the front tires and raise the rear of the vehicle. Support the frame with jack stands forward of the rear springs.
3. Remove the wheels and tires.
4. Remove the shocks on both sides of the vehicle. It may be necessary that you slightly raise the axle to unload the shocks for removal.
5. If your vehicle is equipped with factory sway bar, unbolt it from the rear axle. Save the hardware for reuse.
6. Support the rear axle with a floor jack and remove the **OE** U-bolts on the driver side. Slightly loosen the **OE** U-bolts on the passenger side.
7. Lower the rear axle. Be sure not to over extend the rear brake line and rear axle vent line.
8. While supporting the rear leaf spring, remove the factory spring mounting bolts and remove the leaf spring from the driver side only at this time.

Install Rear Suspension

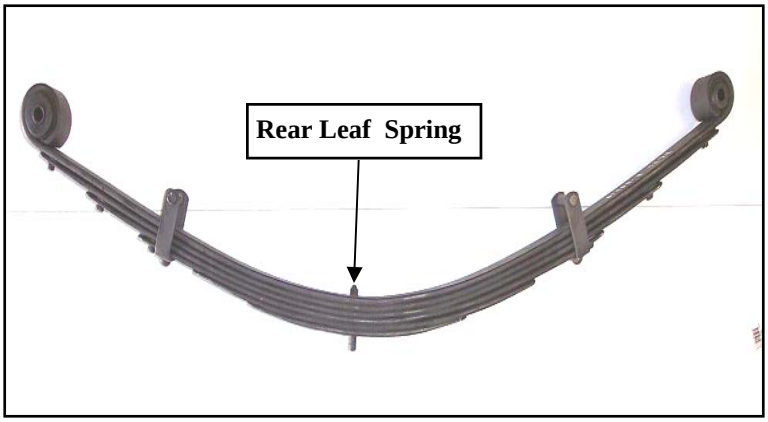
1. Assemble the new extended shackles **(82-TM20044)** using the supplied bushings **(TM40560)** and sleeves **(TM30032).**



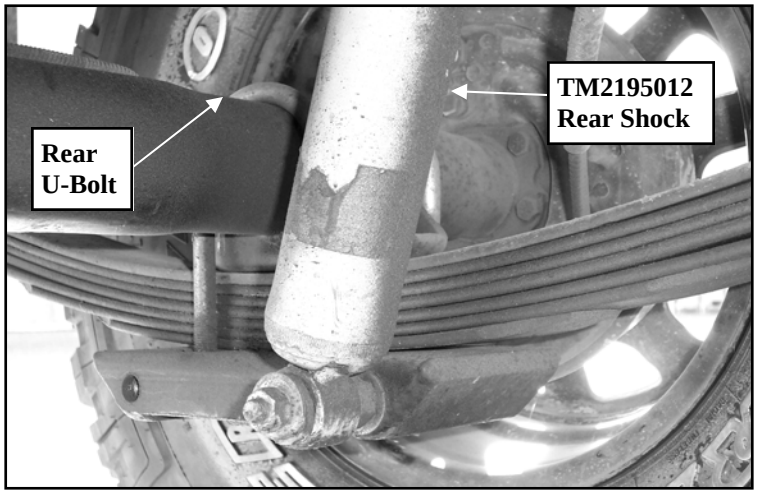
2. Install the supplied Zerk fittings **(90-4303)** into the shackles. Do not over tighten the fitting.
3. Install new extended rear shackles to the frame mounts, with the cutout facing toward the rear of the vehicle, using the previously removed **OE** bolts and hardware..
4. Reinstall the **OE** springs to the front mount and rear shackle using the previously removed **OE** bolts and hardware.

NOTE

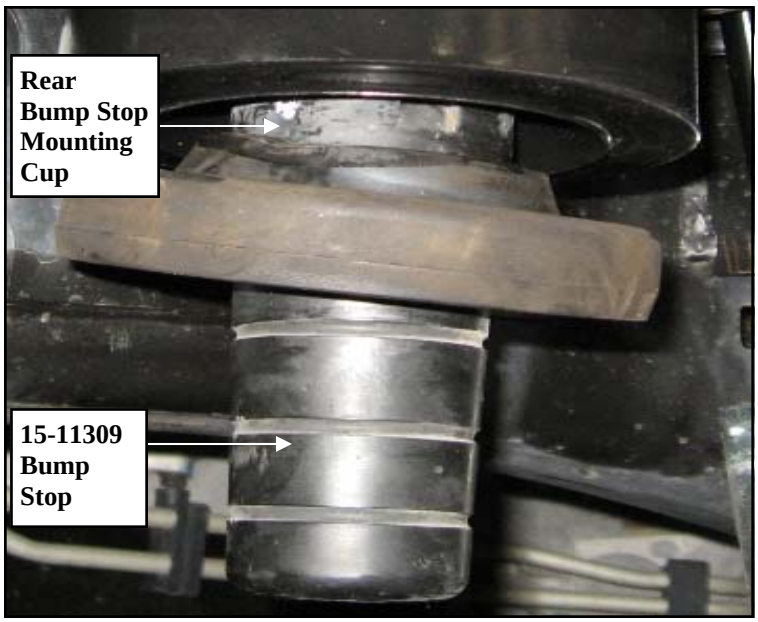
The larger leaf spring bolt will attach to the frame mount
DO NOT fully tighten spring eyebolts until vehicle is back on the ground



5. Make sure the pins fit into the holes on the spring perch. Use your floor jack to raise the axle to the spring making sure the head on the factory leaf fit into the holes on the spring perch.
6. Secure the assembly with the previously removed **OE** U-bolts and hardware. Do not tighten the U-bolts at this time. Make sure the spring sits flush on the axle perch. If there is a gap grinding down the heads of the bolts may be necessary.
7. Install the new rear shocks **(TM72195012)** using the previously removed **OE** bolts and hardware. Torque according to manufacturers specifications.



8. Reinstall the rear sway bar end links to the rear axle mounts using the previously removed **OE** hardware.
9. Install the bump stop **(15-11309)** to the mounting cup.



10. Repeat the installation on the other side of the vehicle.
11. Lower axle so that it is at full droop. Rotate the rear drive shaft to insure the yokes do not bind. If binding occurs and shims are properly installed, a CV yoke and CV drive shaft are likely required.
12. Reinstall the wheels and tires and lower the vehicle to the ground. Torque according to manufacturers specification. If you are using aftermarket wheels follow the manufacturers recommended specifications.
13. Torque the spring mounting hardware at this time. The front bolts are torqued to 80 ft. lbs. and the rear bolts are torqued to 80 ft. lbs. Torque the U-bolts to 90 ft. lbs. If the U-bolt threads are too long you can trim the threads.
14. Recheck the wheel lug torque on all four wheels at this time.
15. Recheck all hardware for proper installation and torque at this time.
16. On completion of the installation, have the headlights re-aligned.
17. Test drive and note location of steering wheel.
18. Align vehicle as soon as practical to minimum factory caster and maximum factory toe-in specifications.
19. After 100 miles recheck for proper torque on all newly installed hardware.
20. Recheck all hardware for tightness after off road use.

7. At full droop, cycle the steering from lock to lock while observing the reaction of these components. Reposition them if needed.
8. Reinstall the rear wheels and lower the vehicle to the ground. Torque the lug nuts according to the wheel manufacturers recommendations.
9. Reconnect the positive battery cable, then the negative battery cable.

Dynamic Vehicle Check

1. Check steering and suspension in all positions to ensure that there is no bind and adequate clearance between all moving, fixed, and heated members. Check operation of clutch, brake system, and parking brake. Check operation of transmission and transfer case. Ensure there is full engagement in all gears and 4WD ranges. Check battery connections and electrical component operations. Test-drive vehicle.

WARNING

Re-torque all fasteners after 500 miles and after off road use. All suspension lift components should be visually inspected and fasteners re-torqued during routine vehicle servicing.

CAUTION

Trail Master does not recommend any particular wheel and tire combinations for use with its suspension lifts and cannot assume responsibility for the customer's choice of wheels and tires. Refer to your owner's manual for recommended tire sizes and warnings related to the use of oversized tires. Larger wheel and tire combinations increase stress and wear on steering and suspension components, which leads to increased maintenance and higher risk for component failure. Larger wheel and tire combinations also alter speedometer calibration, braking effectiveness, center of gravity, and handling characteristics. Consult an experienced local off road shop to find what wheel and tire combinations work best with your vehicle.

NOTE

All warranty information, instruction sheets, and other documents regarding the installation of this product must be retained by the vehicle owner. Information contained in the instructions and on the warranty card will be required for any warranty claims. The vehicle owner needs to understand the modifications made to the vehicle and how they affect vehicle handling and performance. Failure to provide the customer with this information can result in damage to the vehicle and severe personal injury.

Kit Parts List:

TM3720-40012 Kit:

TM3720-40010-1

2 **Coil Spacer** (front, 15-11520)
4 **Bump Stop** (front & rear, 15-11309)
4 **Shackle Bushing** (rear, 35-TM40560)
2 **Shackle Sleeve** (rear, 35-TM30032)
2 **Shackle** (rear, 82-TM20044)
2 **Zerk Fitting:** 1/4”-28 (90-4303)

2 **Absorber** (shock, front, TM72215007)
2 **Absorber** (shock, rear, TM72195012)

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! **Trail Master Suspension** 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 your Dealer/Installer explains and delivers all warning notices, warranty forms and instruction sheets included with Trail Master Suspension product.
Application listings in this catalog have been carefully fit checked for each model and year denoted. However, **Trail Master Suspension** 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 **Trail Master Suspension** 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:
Trail Master Suspension warranties its full line of products to be free from defects in workmanship and materials. **Trail Master Suspension's** obligation under this warranty is limited to repair or replacement, at **Trail Master Suspension'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. **Trail Master Suspension** is not responsible for damages and / or warranty of other vehicle parts related or non-related to the installation of **Trail Master Suspension** 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 **Trail Master Suspension** or at any factory authorized **Trail Master Suspension** dealer.

IMPORTANT! To validate the warranty on this purchase please be sure to mail in the warranty card.
Claims not covered under warranty-
• Parts subject to normal wear; this includes bushings, bump stops, ball joints, tie rod ends and heim joints
• Discontinued products at **Trail Master Suspension's** discretion
• Bent or dented product
• Finish after 90 days
• Leaf or coil springs used without proper bump stops
• Products with evident damage caused by abrasion or contact with other items
• Damage caused as a result of not following recommendations or requirements called out in the installation manuals
• Products used in applications other than listed in **Trail Master Suspension's** catalog
• Components or accessories used in conjunction with other manufacturer's systems
• Warranty claims without "Proof of Purchase"
• **Trail Master Suspension** accepts no responsibility for any altered product, improper installation, lack of or improper maintenance, or improper use of our products.