



2265 Crosswind Drive • Prescott, AZ 86301
(928) 636-3175

DT22 N, S, SSV

1994 Dodge Ram 1500 4WD

2" Suspension Lift

INSTALLATION INSTRUCTIONS



WARNING

1. Read and understand all instructions, warnings and cautions in these instructions, your owner's manual and related service manuals before the installation or use of this product. DO NOT install or use this product if there is anything you do not understand in these instructions or related materials.

2. Certain Trail Master products are intended to improve off-road performance. Modifying your vehicle for off-road use may result in the vehicle handling differently than a factory equipped vehicle. Use of oversize tires, suspension lifts, body lifts and other suspension modifications may raise your vehicle's center of gravity resulting in an increased tendency for the vehicle to pitch and roll during sudden turns or abrupt maneuvers. Extreme care must be used to prevent loss of control or vehicle roll over. Failure to drive your modified vehicle safely may result in serious injury or death. Drive at reduced speeds to ensure your ability to maintain control of the vehicle under all driving conditions. **Always** wear seat belts.

3. DO NOT combine suspension lifts, body lifts or other lift devices. Combined use of lifts may result in unsafe and/or unexpected handling characteristics (see enclosed product safety WARNING label).

4. Many states now have laws restricting vehicle modifications such as lift, bumper height or other alterations. Consult your state vehicle equipment laws to determine if the installation of this kit or other modifications are permitted.

5. The use of larger than OE tire and wheel combinations may reduce the effectiveness of the braking system (including ABS equipped) and increase the amount of pedal pressure necessary to obtain a given braking distance with normal stops and increase the stopping distance in a panic stop. Drive at reduced speeds and allow for extra stopping distance while driving a vehicle



WARNING

equipped with larger than OE tires. Discuss this issue with your tire and wheel dealer before installing larger tires and do not use tire and/or wheel combinations that compromise safe braking performance.

6. Supplied in this kit is a safety WARNING label. Install this label inside the cab of the vehicle where it will be highly visible to all operators of the vehicle.



CAUTION

1. Proper installation of Trail Master products requires knowledge of recommended procedures for disassembly/assembly of OE vehicles and components (i.e. steering tie rods, control arms, brake calipers, etc.). Access to OE shop manuals and special tools is required. Attempting to install this kit without knowledge of these procedures may affect the safety of your vehicle and/or the performance of these components. Trail Master strongly recommends that this kit be installed by a certified mechanic with off-road experience.

2. Use the appropriate tool for the job and be sure that tools are in good condition. Failure to use proper tools and/or tools in good condition may result in personal injury.

3. Always wear safety glasses while installing this kit to avoid eye damage from debris, broken tools, etc.

4. Use Loctite 243 thread locker on all metal fasteners (per the manufacturers directions) unless otherwise noted in these instructions. Failure to use thread locker may result in fasteners becoming loose over time.

5. The components included in this kit require regular inspection for wear or damage. Periodically check fasteners for proper torque (see chart of required torque specifications on next page). Worn, damaged or loose parts can fail suddenly resulting in loss of control of the vehicle and personal injury.

PRE-INSTALLATION NOTES



WARNING

1. Properly block and secure vehicle prior to installation.

Compare parts included in your system with the enclosed parts list. Placing hardware with components before you start may reduce installation time. Contact your Trail Master dealer if any parts are missing or appear to be different than those indicated on the parts list.

GLOSSARY OF TERMS

- TM: Trail Master
- DRV: Driver's side of the vehicle
- PASS: Passenger's side of the vehicle
- OE: Original equipment

TORQUE SPECIFICATIONS


1/4 FASTENERS	10'LBS.
5/16 FASTENERS	17'LBS.
3/8 FASTENERS	30'LBS.
7/16-14 FASTENERS	50'LBS.
7/16-20 FASTENERS	55'LBS.
1/2-13 FASTENERS	75'LBS.
1/2 U-BOLTS	65-80'LBS.
9/16 FASTENERS	110'LBS.
9/16 GRADE 8 FASTENERS	170'LBS.
9/16 U-BOLTS	75-90'LBS.
5/8 FASTENERS	150'LBS.
5/8 U-BOLTS	85-110'LBS.
3/4 FASTENERS	270'LBS.
12MM FASTENERS	55'LBS.

PARTS LIST

Frame Extension (940501)	2
Add-A-Leaf (R35363)	2
10mm x 30 mm Bolt (10m030H150)	6
10mm Lock Nut (N10m56150)	6
3/8" Center Pin (380412FCP)	2
3/8" Fine Thread Nut (N38FS)	2
Hendricks Clip (HC212)	2
Front Shocks	2
Rear Shocks	2

FRONT INSTALLATION

1. Block and secure vehicle.
2. Raise front of vehicle and block frame. Remove wheel and tires.
3. With sufficient load on suspension, disconnect front upper shock mounts. Remove nuts retaining upper shock mounts to coil towers. Disconnect lower shock mount and remove shocks.
4. Coils are different on DVR and PASS side of vehicle. Mark coils according to the side they are on. Carefully allow front axle to extend so coil disengages from frame.



CAUTION

CAUTION: Ensure there is adequate slack in all lines, cables, and hoses when extending suspension. **Do Not** allow drive shaft to bind or slider to disengage from shaft.

Remove rubber coil isolators. Reinstall frame extensions in place of OE shock mount retainer ring. Retain OE shock towers to frame and extension using 10mm x 30mm bolts and locknuts provided. Install OE coil isolators in frame extension.

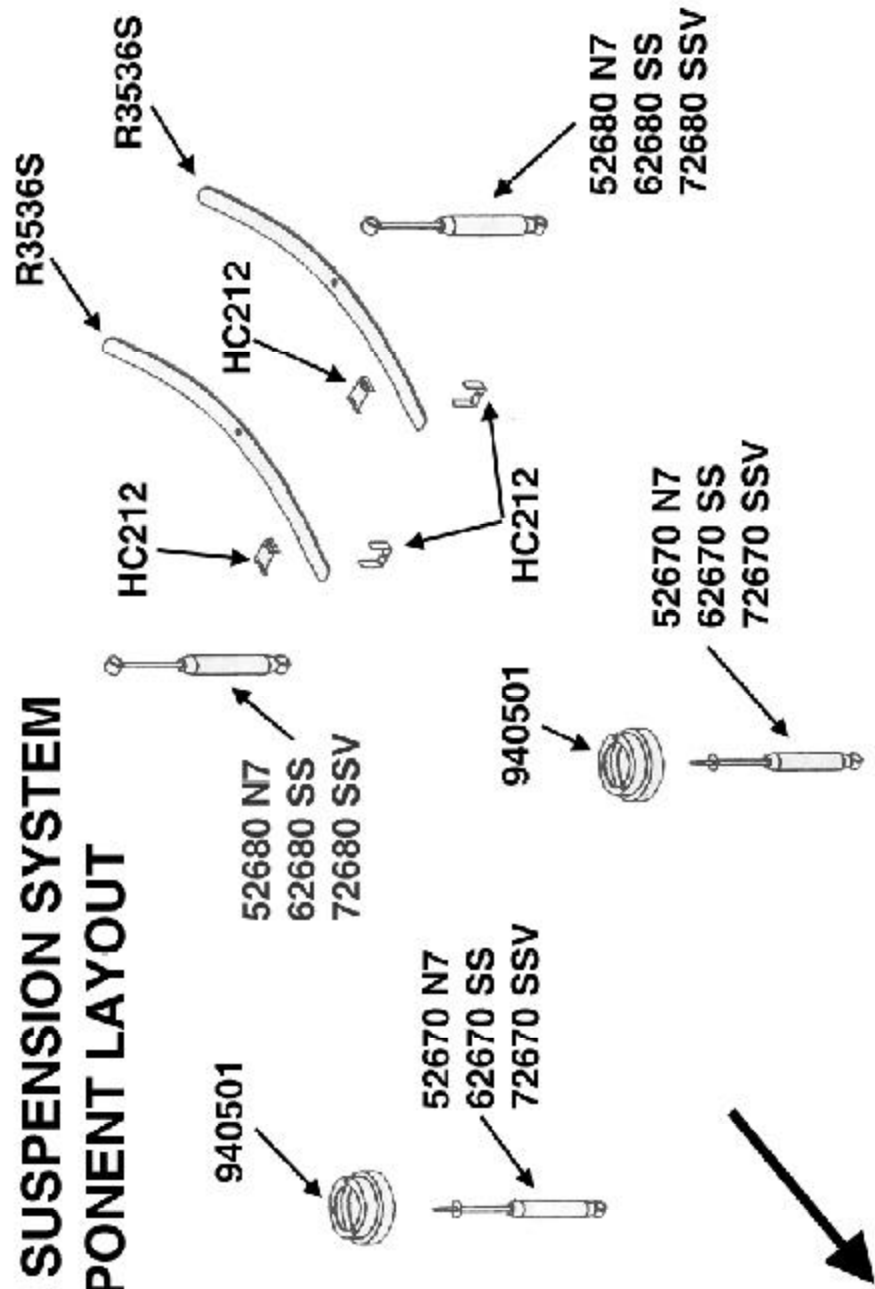
5. Position shocks and coils in their axle mounts. Raise axle engaging coils in extensions. Install and tighten upper shock mount. **Note:** A slight load on suspension will be required to install shocks. Extended length of shock must not allow disengagement of coil from seats.

6. Install wheels and tires. Lower vehicle to ground. Loosen link arm pivot bolts and bounce front end to normalize vulcanized bushings. Re-torque pivots to OE specifications.

REAR INSTALLATION INSTRUCTIONS

1. Block and secure vehicle.
2. Safely raise vehicle and block frame so rear suspension hangs freely. Remove wheels and tires. Support axle, disengage axle from springs. Open front clips on outboard side of springs. Safely clamp spring pack and remove center pin. Install one Add-A-Leaf between the second and third leaf of OE springs. Clamp spring assembly and install new center pin. Trim center pin if necessary.
3. Re-mount axle to springs. Reform spring clamps to maintain position of spring leaves. If required, use hendricks clip provided to ensure proper positioning of spring pack leaves.
4. Torque all fasteners to specifications.
5. Install new shock absorbers and tighten.
6. Install wheels and tires. Lower vehicle to ground.

TRAIL MASTER DT22 SUSPENSION SYSTEM COMPONENT LAYOUT



POST-INSTALLATION NOTES



WARNING

1. Check all fasteners for proper torque before driving the vehicle for the first time with this kit, after the first 500 miles, after each off-road use and during routine vehicle servicing. Worn, damaged or loose parts can fail suddenly resulting in loss of control of the vehicle and personal injury.
2. In ALL steering and suspension positions, check to ensure that there is adequate clearance between ALL rotating, moving, fixed and heated members. Ensure adequate clearance around steering components, exhaust components, brake lines, fuel lines, fuel tank and electrical wiring.
3. Visually inspect components for wear or damage after each off-road use and during routine vehicle servicing. Worn, damaged or loose parts can fail suddenly resulting in loss of control of the vehicle and personal injury.
4. Trail Master does not recommend a particular tire and wheel combination for use with its products and assumes no responsibility for customer choice of tires and wheels. Consult your owner's manual for recommended tire sizes and warnings related to use of oversize tires and wheels. In general, larger tire and wheel combinations may increase stress and wear on steering components leading to increased maintenance and greater risk of component failure, including loss of steering control. Property damage or personal injury may result. Large tire and wheel combinations may also alter speedometer calibration, reduce braking effectiveness and alter vehicle center of gravity height (See product safety warnings). Check with an experienced off-road shop for the tire and wheel combinations that work best on your truck. Remember, **BIGGER** isn't necessarily better.
5. Trail Master's goal is to provide you with the best system possible for a reasonable cost. It must be noted that the components in your Trail Master system do not eliminate OE component weaknesses.
6. Perform headlight adjustment.
7. Set vehicle alignment within OE specifications. The size of rim and tire combinations should be considered when making front end adjustments.
8. Retain this and all information regarding your altered vehicle for future reference. Thank you for choosing Trail Master. For questions, contact our Technical Assistance Department at (928) 636-3175.

PRODUCT SAFETY LABEL

Supplied in kit is a safety warning label. Install label inside cab. Locate label in a highly visible location to all operators of this vehicle. If label becomes lost or damaged, contact Trail Master at (928) 636-3175 for a replacement.



WARNING

The suspension of this vehicle has been modified to improve off-road performance. As a result, this vehicle may handle differently than factory equipped vehicles. Extreme care must be used to prevent loss of control or roll over during sharp turns or abrupt maneuvers. 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. Consult the instructions accompanying this product and the vehicle owner's manual for additional product safety warnings. Always wear seat belts, reduce your speed and drive safely.

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