



92610300 Add-a-Leaf Instruction Sheet

Thank you for purchasing from Rough Country Suspensions Systems. Please read instructions before beginning installation.

Installation requires a professional mechanic. Prior to beginning carefully inspect the vehicle's steering and driveline system, paying close attention to the tie rod/drag link ends, ball joints, and wheel bearing preload. Also check the steering sector-to-frame and all suspension to frame attaching points for stress cracks. The overall vehicle must be in excellent working condition; repair or replace all worn parts.

Rough Country has two types of add-a-leaves, full length and overload type. The installation process is basically the same for either type. The only difference is their position in the spring pack. An add-a-leaf is always placed beneath the leaf that is just longer than it is so that all spring pack leaves remain progressively longer from bottom to top.

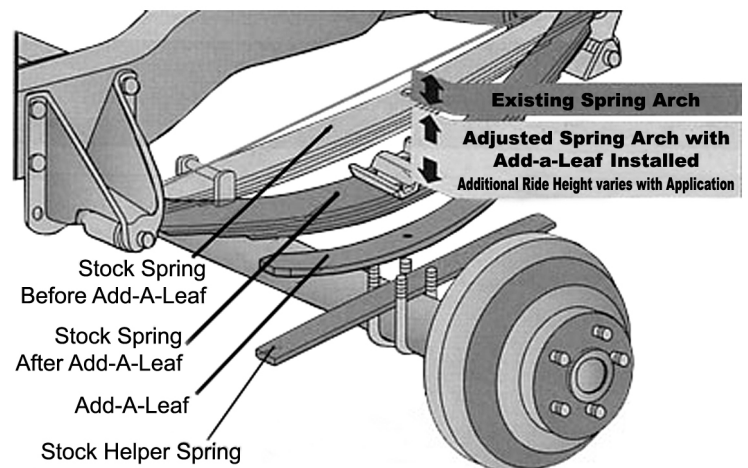
All full length and some overload type add-a leaves require spring pack disassembly. Some springs have fairly thick riveted on steel straps that hold the leafs plates together. Generally, the straps must be spread apart for spring pack disassembly, then reformed to allow for the add-a-leaves extra thickness. These straps reform easily when heated and can be reused. Depending on fuel tank location, for safety it may be necessary to remove the springs from the vehicle.

Notes:

- If a torch is used during this installation, protect any heat-sensitive components located in the immediate area by covering them with a water saturated cloth. Most undercoating are flammable, but can be extinguished using a water filled spray bottle. Have this and a ABC rated fire extinguisher at hand.
- Prior to inserting leafs, be sure all leaf mating surfaces are free of grit, grease, undercoating, etc.
- A factory service manual for this particular year and model should be on hand. The manual will contain fastener torque specs and any assemble techniques or special tool requirements that are unique to this vehicle.
- Shock absorber length, depending on the particular vehicle, may not be adequate. Whatever the case, we highly recommend the installation of a premium grade shock for optimum performance.
- The spring pads (where the leafs or blocks seat on the axle) are prone to collapse or warp, especially on older models. The blocks (or springs) require a perfectly flat surface for mating or excessive spring axle wrap-up will result. The pads are not flat, repair or replace them.
- Overload add-leafs are designed to replace the stock spring pack's bottom leafs. The stock bottom leaf can be retained (positioned under the add-a-leaf) if the extra lift is desired. The extra lift gained will only be the thickness of the stock bottom leaf.
- Prior to disassembly, inspect the stock u-bolts for corrosion and adequate length. Rear u-bolts will probably be to short if degree shims are used or if the stock overload leaf is retained when the overload type add-a-leaf is used.

INSTALLATION INSTRUCTIONS

- Step 1. Put the vehicle in neutral, raise the vehicle and support with jack stands or other suitable means on the frame. For front installations, the stands normally are placed just behind the springs rear hangers. For rear installations the stands are generally placed just in front of the springs front hangers. Put vehicle in park, or low gear for manual transmissions, and chock the tires remaining of the floor to prevent accidental movement.
- Step 2. Remove the tires and position floor jack to support the axle. Remove the bottom shock bolts.



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- Step 3. Remove nuts and washers from the u-bolts on one side of the axle. If the straps or bend clips must be disturbed, do these first before removing spring eye bolt. Have c-clamps in place on either side of each strap before center bolt is removed.
- Step 4. Remove the spring eye bolts and nuts and remove the spring.
- Step 5. Unbolt center pin and remove. Un-clamp leaf spring. CAUTION - Take care when releasing the c-clamps since the springs are under load and will "spring" apart when released.
- Step 6. Position add-a-leaf under the next longest leaf of the spring pack. Replace the shorter spring leaves under the helper leaf and clamp together, being careful to align the center pin holes in the spring leaves. If less lift is desired the leaf under the new add-a-leaf can be removed.
- Step 7. Insert the new center pin supplied with the kit through the spring assembly with the head of the center pin in the same location as the stock pin. Re-compress the pack with the c-clamps, not center pin, to avoid stripping of nut/bolt threads. Bolt together, being sure to align leaves. Cut off excess threads on the center pin with a hack saw. If applicable, re-form straps or install new bend straps. If heat is used on the straps, allow them to cool naturally and thoroughly before removing the c-clamps.
- Step 8. Replace spring on vehicle and replace u-bolts, nuts and washers. Torque u-bolts evenly using a "x" tightening sequence to the following values.
- | | |
|-------|-----------------|
| 1/2" | 65-80 ft./lbs |
| 9/16" | 75-90 ft./lbs. |
| 5/8" | 86-110 ft./lbs. |
- Do not fully tighten the stock shackle and stationery spring eye bolts. These bolts are not torqued until the suspension is supporting the vehicle weight.
- Step 9. Front only - Most models have a turning radius stop bolts located on the front axle knuckles. In a full locked turn these stops limit turning before the tires make contact with the leaf springs or the steering sector itself is "bottomed out". Adjust, as required, each stop bolt to where it limits turning at least 1/2" before tire-to-spring contact occurs. Tire-to-spring contact may cause tire damage and, in extreme cases, increase the possibility of vehicle rollover.
- Step 10. Repeat process for the other spring.
- Step 11. Remove jack stands and lower vehicle to floor. With the suspension supporting vehicle weight, torque the springs stationary and shackle eye bolts.
- Step 12. Alignment - On solid axle applications, alignment is not significantly altered by add-a-leaf lift. But, we suggest that alignment be checked to assure correct tire wear and drivability.

PRODUCT USE INFORMATION

As a general rule, the taller a vehicle is, the easier it will roll. Offset, as much as possible, what is lost in rollover resistance by increasing tire track width. In other words, go "wide" as you go "tall". Many sportsmen remove their mud tires after hunting season and install ones more appropriate for street driving; always use as wide a tire and wheel combination as possible to enhance vehicle stability. We strongly recommend, because of rollover possibility, that the vehicle be equipped with a functional roll-bar and cage system. Seat belts and shoulder harnesses should be worn at all times. Avoid situations where a side rollover may occur. Generally, braking performance and capability are decreased when significantly larger/heavier tires and wheels are used. Take this into consideration while driving. Do not add, alter, or fabricate any factory or after-market parts to increase vehicle height over the intended height of the Rough Country product purchased. Mixing component brands is not recommended. Rough Country makes no claims regarding lifting devices and excludes any and all implied claims. We will not be responsible for any product that is altered.

NOTICE TO DEALER AND VEHICLE OWNER

Any vehicle equipped with any Rough Country product should have a "Warning to Driver" decal installed on the inside of the windshield or on the vehicle's dash. The decal should act as a constant reminder for whoever is operating the vehicle of its unique handling characteristics.

INSTALLING DEALER - it is your responsibility to install the warning decal and forward these installation instructions on to the vehicle owner for review. These instructions should be kept in the vehicle for its service life.

MAINTENANCE INFORMATION

It is the ultimate buyers responsibility to have all bolts/nuts checked for tightness after the first 100 miles and then every 1000 miles. A qualified professional mechanic must inspect wheel alignment, steering system, suspension and driveline systems at least every 3,000 miles.