



# ROADACTIVE SUSPENSION

These Fitting Instructions must be read and followed step by step for the to following kits.

## ITEM # 4514SAT, 4614SAT

### IMPORTANT

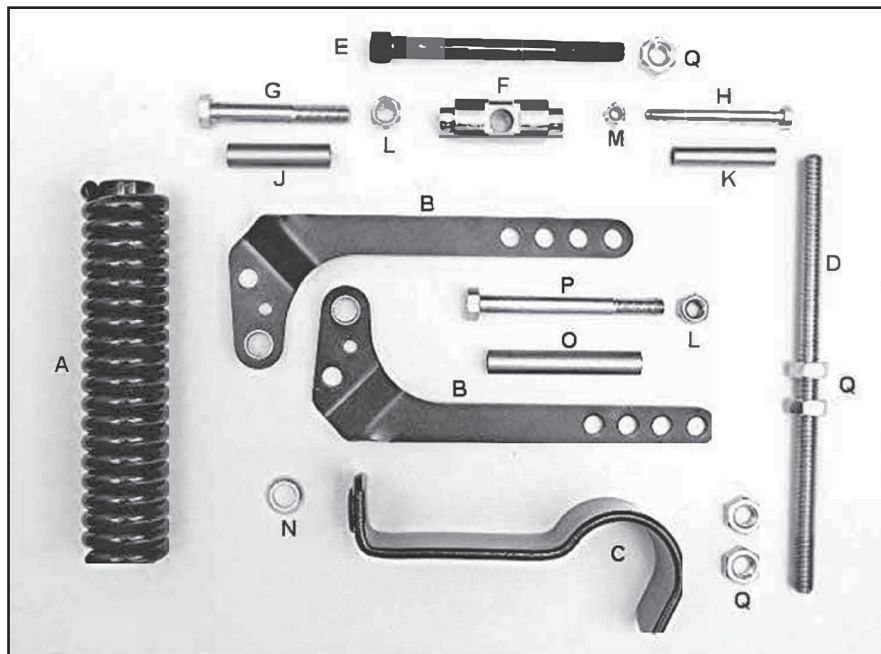
The RoadActive Suspension kit must **NEVER** be fitted while the vehicle is standing with the rear wheels on the ground. In this position the rear leaf springs will be under load and the RAS coil spring settings cannot be achieved, resulting in the RAS not working correctly.

Always install with the rear axle and leaf springs hanging free.

- A) ALWAYS CHECK THE LEAF SPRINGS FOR ANY EXCESS WEAR, FATIGUE, CRACKED OR BROKEN BLADES OR WORN BUSHINGS - ESPECIALLY OLDER SPRINGS, THESE MUST BE REPLACED WHERE NECESSARY.
- B) IF THE VEHICLE THE RAS KIT WILL BE INSTALLED ON, IS FITTED WITH OVERLOAD LEAF SPRINGS, LOCATED ABOVE THE LEAF SPRINGS, THE OVERLOAD LEAF SPRINGS MUST FIRST BE REMOVED BEFORE THE KIT CAN BE INSTALLED.

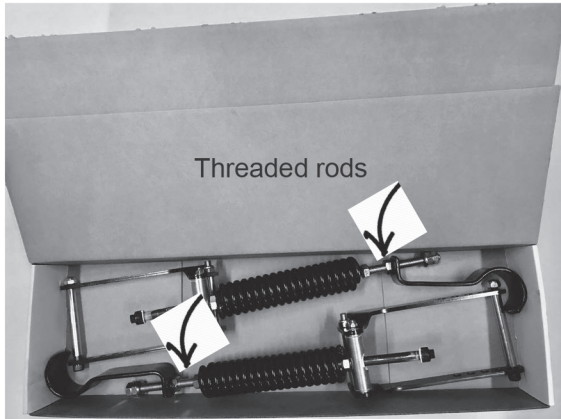
ANY DEVIATION FROM THESE INSTRUCTIONS WILL VOID THE WARRANTY. THIS KIT WILL NOT BE WARRANTED IF INSTALLED ON ANY VEHICLE USED FOR RACING, SIMILAR ACTIVITIES OR FITTED TO VEHICLES WHERE THE REAR SUSPENSION HAS BEEN MODIFIED IN ANY WAY.

### ALL COMPONENTS FOR THIS KIT



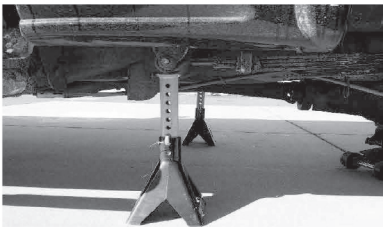
- |                         |                        |                        |
|-------------------------|------------------------|------------------------|
| A Coil Spring (2)       | G Bolt 12mm (2)        | N Cup Bearing (2)      |
| B Axle Brackets (2)     | H Bolt 8mm (2)         | O Tube Spacer 5/8" (2) |
| C Eye Bracket (2)       | J Tube Spacer 5/8" (2) | P Bolt 12mm (2)        |
| D Threaded Rod 14mm (2) | K Tube Spacer 1/2" (2) | Q Hex Nut 12mm (10)    |
| E Cap Screw 14mm (2)    | L Nyloc Nuts 12mm (4)  |                        |
| F Roller (2)            | M Nyloc Nuts 8mm (2)   |                        |

# IMPORTANT INSTALLATION NOTES



## When Removing From The Packing Box

- There are two gold colored threaded rods that come with approx. six inches screwed into the end of the coil springs, this is for packing purposes only.
- You may need to screw each of the threaded rods out of the coil springs, to lengthen kit to fit your vehicle.



## When Setting Or Adjusting Tension On Coil Spring

- The axle should be hanging free & leaf springs should be in the maximum arch position.
- If not using a lift, jack stands should be placed under the front leaf spring eye.
- To be sure, any support (lift or jack), should only be utilized by placing within an inch of, but **should not** be supporting axle or differential.



## If You Require Removal Of RoadActive Suspension Kit

- The Axle should be hanging free and leaf spring in maximum arch position.
- Loosen the two nuts at the rear of the spring, turn the spring to screw the threaded rod out of the spring to completely eliminate the tension on the spring.
- Once the tension is eliminated (and kit is loose), remove front bolt to free kit.

1



1) Before starting the installation make sure the vehicle is on a level surface, then place wheel chocks on both sides of the front wheels.

2



2) Loosen all the rear wheel lug nuts just one turn, but don't remove at this stage.

3



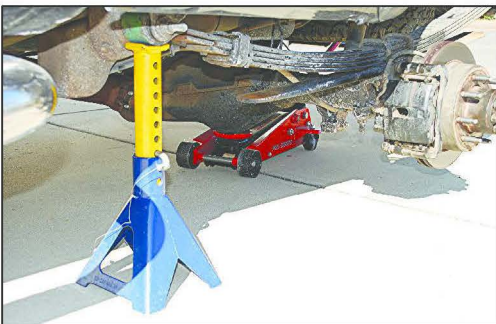
3) Position a floor jack of (the correct capacity for your vehicle) under the differential housing.

4



4) Next raise the rear of the vehicle with the jack sufficiently to place jack stands on both sides of the vehicle. As the vehicle has rear leaf springs, the ideal place to position the stands is under the front eye of the leaf springs, connected to the fixed shackles, as illustrated. With the floor jack still under the differential, next remove the rear wheels. With the lug nuts now loosened, this will make the removal a lot easier.

5

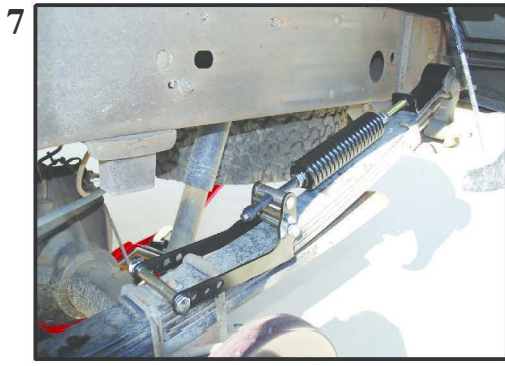


5) With both jack stands now correctly positioned and safely supporting the rear of the vehicle, **very slowly** lower the floor jack checking that the pads on the stands are still in the correct position at all times. With the vehicle now well supported, continue lowering the jack until the jack just makes contact with the differential housing, then raise the pad of the jack about 1/2 inch only, as shown in the illustration. The floor jack will be used as an extra safety device. Before starting the installation, once again check that the rear of the vehicle is well supported.

6



6) The RAS kit comes fully assembled out of the box. Remove one side and place it on top of the rear leaf spring with the eye bracket hook (C) facing the rear of the vehicle. Next position the eye bracket over the rear wrap eye of the leaf spring, as illustrated.



7) Illustration showing the eye bracket located and the unit on top of the leaf springs. There are two different adjustments that can be used to achieve the correct length of the RAS depending on the vehicle you are installing it on. The axle connecting brackets (B) have four holes on each side and comes with the 12 mm bolt, spacer and nyloc nut, located through the end holes in the bracket. The nyloc nut has only been turned on hand tight, the other length adjustment is on the threaded rod, which will be explained and shown in (9).



8) Next remove the nut, bolt and spacer. The bracket should now hang astride the leaf spring pack and U bolts.



9) To lengthen the unit so the bolt spacer and nut can be located on the other side of the U bolt and under the bottom leaf spring. Start turning the coil spring with one hand and hold the threaded rod with the other.



10) With the axle bracket now in positioned under the leaf springs, insert the connecting bolt and spacer as shown in the illustration.



11) Next attach the nylon nut and tighten.

**VERY IMPORTANT** The bolt with spacer must be located directly under the leaf spring.



12) When fitting to some Ford vehicles where the U bolts are located around the axle and have a hold down plate on top of the leaf springs, the axle connecting bracket must be located the same way as in illustration (10) also with the bolt and spacer directly under the leaf springs (11).



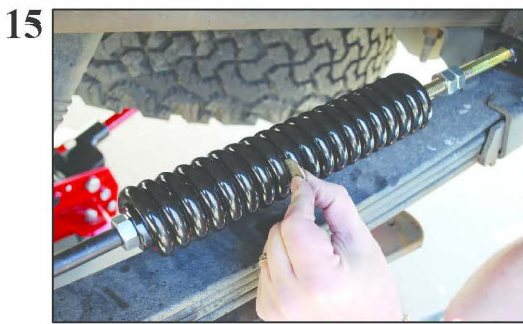
13) Before adjusting the coil spring to the correct tension, check to see that the eye bracket is in the center of the spring eye.

### **HOW TO TENSION THE COIL SPRING.**

#### **WITH THE REAR OF THE VEHICLE STILL SUPPORTED, THE LEAF SPRINGS STILL IN THEIR MAXIMUM ARCHED POSITION AND THE AXLE HANGING FREE**



14) Position the two nuts on the threaded rod as shown. Then use a ratchet fitted with a 12 mm socket on the head of the cap screw, and a 22 mm wrench on the lock nuts closest to the eye bracket at the end of the threaded rod. The two nuts come locked together when the kits are assembled at our factory. By holding the threaded rod stationary and turning the coil spring the gap between the coils will start opening.

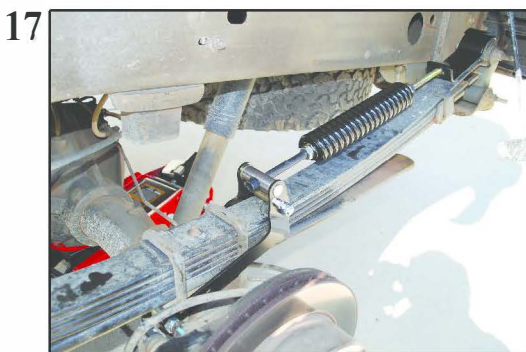


15) We have included with this kit two small discs, that are to be used as a gauge to adjust the tension setting of the variable rated tension coil springs. These can be adjusted to two different settings, depending on the vehicle requirement. For improved handling and 25% additional load carrying the correct adjustment between the coils is reached when the white disc (1mm thick) is used as a gauge and can just pass between the coils.

For improved handling and 40% additional load carrying the correct adjustment between the coils is reached when the black disc (2mm thick) is used as a gauge and can just pass between the coils. The additional load carrying as stated above, can vary depending on the vehicle.



16) Finally, jam one of the two nuts located in the center of the threaded rod hard against the coil spring, **then follow with the second nut and jam against the first.**



17) With the one side now installed, check all the fasteners to see that they are secure. Now continue the installation on the opposite side.

18) Once the installation on both sides is complete, raise the rear of the vehicle, replace the wheels, remove the two jack stands, lower the vehicle and remove the wheel chocks. Once you have taken the vehicle for a spin, we are sure that you will immediately feel the improvement in handling.

**Should you require technical support please call us at 1800-398-5036**

**RoadActive Suspension**

**330 - D East Hebron St Charlotte, NC 28273**

## PLEASE NOTE

**When installing this kit on a 2007 to PRESENT Toyota Tacoma or Pre-Runner all with axle under the pack of leaf springs**

On all these vehicles the rear shocks are located very close to the rear leaf springs, the two axel connecting bracket assemblies as shown below, must be installed so that the brackets do not interfere with the shocks or other brackets on this pickup.

1" Diameter spacers on each side of the tube spacer

NARROW HEAD OF BOLT THIS SIDE



THIS SIDE BRACKET  
MUST ONLY BE  
INSTALLED ON THE  
DRIVERS SIDE LEAF  
SPRING

1" Diameter spacers on each side of the tube spacer

NARROW HEAD OF BOLT THIS SIDE



THIS SIDE BRACKET  
MUST ONLY BE  
INSTALLED ON THE  
PASSENGER SIDE  
LEAF SPRING