ROADMASTER ACTIVE SUSPENSION

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

Item# 3611 3611S 3611Y 3612 3613GT 3614 4511 4511T 4514 4611DV 4611 4611T 4612 4612DV 4614 4614T

Patent No 94/5738. Patents Worldwide. USA 5,540,417 Canada 2129275

Patents Worldwide. USA 5540417 Canada 2129275

----------IMPORTANT----------

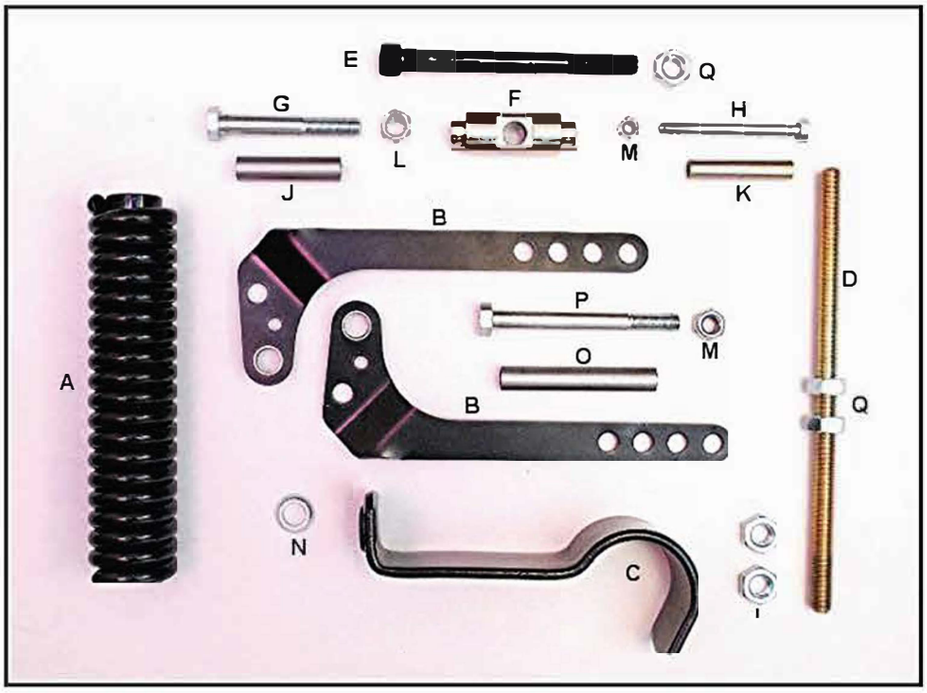
The Roadmaster Active Suspension kit must never be fitted while the vehicle is standing with the rear wheels on the ground. In this position the rear leaf springs will be under load and the Roadmaster coil spring settings cannot be achieved, resulting in the Roadmaster not working correctly. Always install 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 ROADMASTER 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 WARRANTIED 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



E	Cap Screw 14mm X 150mm	2	J	Tube 13mm x 65mm	2
F	Roller	2	K	Tube 9mm x 65mm	2
B	Axle Brackets	2	O	Tube 13mm x110mm	2
D	Threaded Rod	2	G	Bolt 12mm x 90mm	2
Q	14mm nut	10	H	Bolt 8mm x 90m	2
C	Eye Bracket	2	P	Bolt 12mm x 120mm	2
N	Cup Bearing	2	L	Nuts 12mm nyloc	4
A	Coil Spring	2	M	Nuts 8mm nyloc	2

1

When fitting to a Ford F250 or F350 with an overload spring located above the leaf spring pack, SEE PAGE 5 before starting.
When fitting to a Nissan Titan Pickup, SEE PAGE 6 before starting.
When fitting to a Toyota Tacoma 4X4 or Pre-Runner pickup, SEE PAGE 7 before starting.

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.

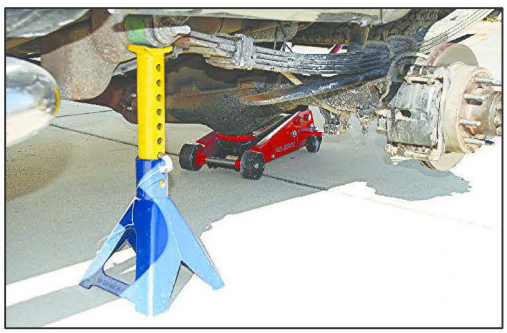
3

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

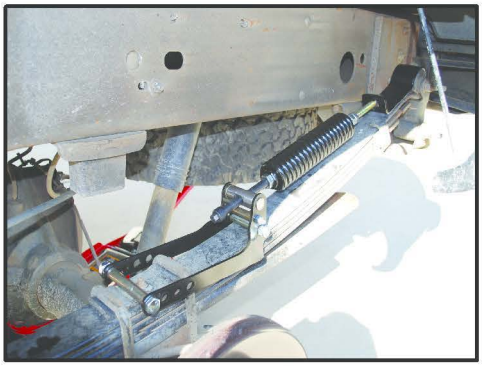


5) With both jack stands now correctly positioned and safely supporting the rear of the vehicle, **very slowly** lower the floor jack checking that the pads on the stands are still in the correct position at all times. With the vehicle now well supported, continue lowering the jack until the jack just 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 of the Roadmaster, once again check that the rear of the vehicle is well supported.

6

6) The Roadmaster 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



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 Roadmaster 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

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

9

9) For packaging purposes the gold threaded rod is screwed inside the tension spring approx 5 to 6 inches and you may need to lengthen the unit to fit your application. To lengthen the unit so the bolt spacer and nut can be located back into the axle bracket 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, this will screw the threaded rod OUT of the spring, making the unit LONGER.

10

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

11

spring.

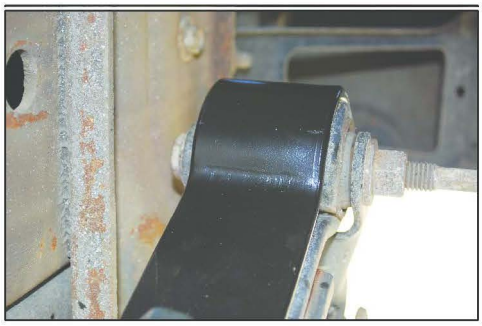
11) Next attach the nylon nut and tighten.

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

12

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



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.

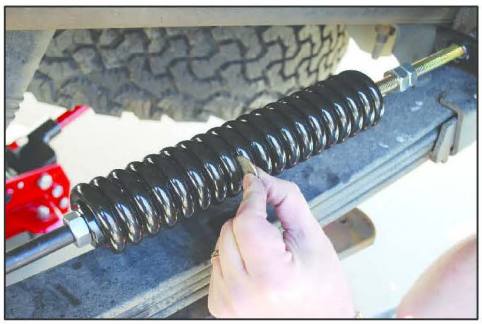
HOW TO TENSION THE COIL SPRING.

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

14

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



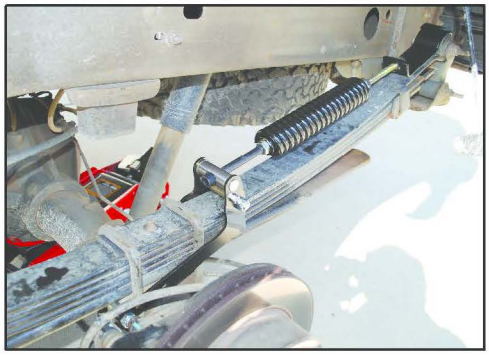
15) We have included with this kit two small discs, that are to be used as a gauge to adjust the tension setting of the variable rated tension coil springs. These can be adjusted to two different settings, depending on the vehicle requirement. For improved handling and 25% additional load carrying the 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

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



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

Roasmaster Active Suspension

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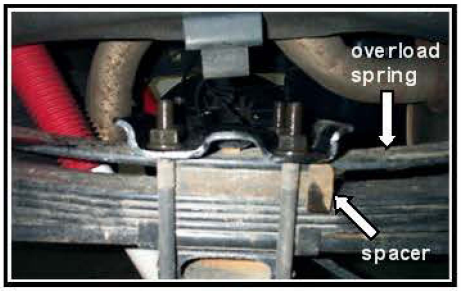
ADDITIONAL FITTING INSTRUCTIONS WHEN FITTING TO A 1973 - 2008 FORD F-250 OR F-350 PICKUP, THAT HAS AN OVERLOAD LEAF SPRING LOCATED ABOVE THE LEAF SPRING PACK.
FOLLOW THE MAIN FITTING INSTRUCTION UP TO # (5) THEN CONTINUE WITH THESE INSTRUCTIONS.

5a)

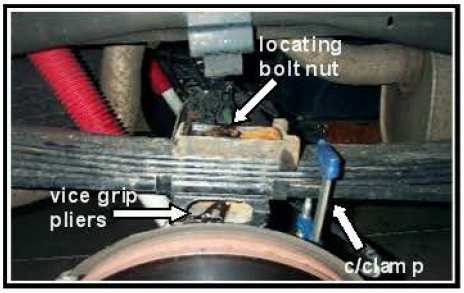


5a) ILLUSTRATION SHOWING ONE SIDE OF THE REAR LEAF SPRINGS BEFORE STARTING THE INSTALLATION OF THE ROADMASTER KIT.
THE PACK OF LEAF SPRINGS, HAS AN OVERLOAD SPRING ON TOP OF THE PACK WITH A CAST IRON SPACER BETWEEN THE PACK AND THE OVERLOAD SPRING

5b)

5b) BEFORE LOOSENING THE U/BOLT NUTS SPRAY THE U/BOLT THREADS WITH WD 40 OR SIMILAR ANTI-SEIZE LUBRICANT, THEN REMOVE THE FOUR NUTS, THE U/BOLT PLATE AND U/BOLTS.

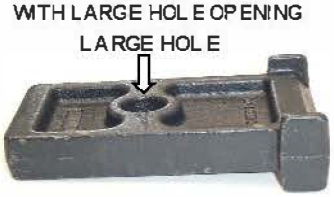
5c)



5c) NEXT CLAMP THE PACK OF LEAF SPRINGS TOGETHER, AS SHOWN, USING A C/CLAMP, THIS WILL PREVENT THE PACK OF LEAF SPRINGS SEPARATING. LOOSEN THE NUT ON THE LEAF SPRING CENTER LOCATING BOLT, THEN REMOVE THE OVERLOAD SPRING BLADE. (IF THE NUT TURNS TOGETHER WITH THE BOLT, RAISE THE SPRING PACK OFF THE AXLE PERCH BRACKET AND HOLD THE ROUND HEAD OF THE CENTER LOCATING BOLT WITH A PAIR OF VICE GRIP PLIERS. ONCE THE NUT HAS BEEN REMOVED, LIFT OFF THE CAST IRON SPACER BLOCK AND CUT OFF THE TWO LOBES ON TOP OF THE SPACER AS ILLUSTRATED BELOW. (NOTE NOT THE BOTTOM LOBES) THIS WILL ALLOW YOU TO RELOCATE THE U/BOLT PLATE ON A FLAT SURFACE, WHEN INSTALLING THE ROADMASTER KIT.

TOP SIDE OF SPACER WITH SMALL HOLE OPENING

BOTTOM SIDE OF SPACER WITH LARGE HOLE OPENING

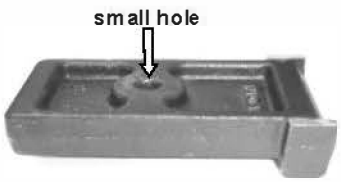


CUT OFF BOTH TOP LOBES ON THE SIDE WITH THE SMALL HOLE ON TOP AS SHOWN

SIDE VIEW OF SPACER SHOWING WHERE TO CUT

5d)

5d) ILLUSTRATION SHOWING CUTTING OFF THE TWO LOBES WITH A HACKSAW FROM TOP SIDE OF SPACER. (SIDE WITH SMALL HOLE)



SPACER WITH LOBES REMOVED

SIDE VIEW OF LOBES REMOVED.

WITH THE SPACER NOW MODIFIED CONTINUE THE INSTALLATION BY FOLLOWING THE MAIN FITTING INSTRUCTIONS STARTING FROM # (6). WITH THE AXLE ANCHOR BRACKET (F) LOCATED OVER THE CENTER LOCATING BOLT, PLACE THE SPACER ON TOP OF THE BRACKET (F) WITH THE TWO REMAINING LOBES FACING DOWN

ADDITIONAL FITTING INSTRUCTIONS WHEN FITTING TO A NISSAN TITAN PICKUP

FOLLOW THE MAIN INSTRUCTIONS UP TO NUMBER (5) THEN CONTINUE WITH THE INSTRUCTIONS ON THIS SHEET.

A)

A) THIS VEHICLE HAS A CLAMP BRACKET THAT ATTACHES TO THE OVERLOAD SPRING BLADE, AND HAS A ROLLER LOCATED ABOVE THE TOP SPRING BLADE. IN ORDER TO INSTALL THE ROADMASTER KIT THE ROLLER MUST BE REMOVED.

B)

B) THIS ILLUSTRATION SHOWS THE ROLLER REMOVED. IN ORDER TO REMOVE THE ROLLER THE COUNTER-SUNK HEXAGON SOCKET HEAD BOLT MUST FIRST BE REMOVED. THE HEAD OF THE BOLT IS LOCATED ON THE SPARE TIRE SIDE OF THE VEHICLE

WITH THE ROLLER NOW REMOVED, CONTINUE TO FOLLOW THE MAIN FITTING INSTRUCTIONS FROM (#3) ONWARDS

ADDITIONAL FITTING INSTRUCTIONS
WHEN FITTING TO A TOYOTA TACOMA 4x4 OR PRE- RUNNER PICKUP WHERE THE EYE BRACKET (C) WILL NOT FIT OVER THE REAR EYE OF THE LEAF SPRING, FOLLOW THE MAIN FITTING INSTRUCTIONS UP TO (#5) THEN CONTINUE WITH (A) ON THIS INSTRUCTION SHEET

A

WHEN FITTING TO A VEHICLE ON THE GROUND

WITH THE VEHICLE NOW WELL SUPPORTED WITH JACK STANDS UNDER THE FRAME AND THE LEAF SPRINGS HANGING FREE, REMOVE THE TWO NUTS ON THE REAR SHACKLES AS IN ILLUSTRATION (7a) DO NOT REMOVE THE TWO BOLTS.

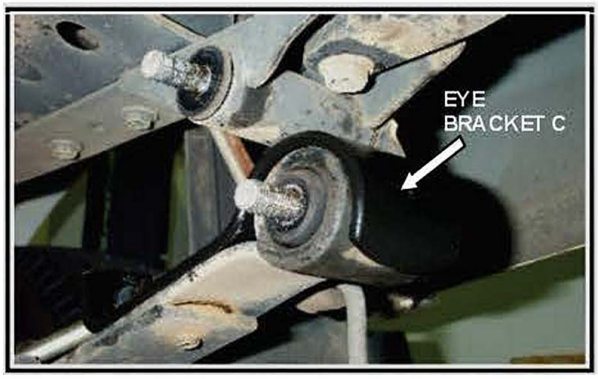
WHEN FITTING TO A VEHICLE USING A LIFT THAT WILL ALLOW THE REAR AXLE TO HANG FREE WITHOUT RESTRICTION.

WITH THE VEHICLE NOW WELL SUPPORTED UNDER THE FRAME AND THE LEAF SPRINGS HANGING FREE, REMOVE THE TWO NUTS ON THE REAR SHACKLES AS IN ILLUSTRATION (A)
DO NOT REMOVE THE TWO BOLTS.

B

NEXT REMOVE THE ONE SIDE OF THE SHACKLE

C



NOW POSITION THE EYE BRACKET (C) OVER THE EYE OF THE LEAF SPRING AND REPLACE THE SIDE OF THE SHACKLE THAT WAS REMOVED, AND SECURE THE TWO NUTS. REPEAT ON THE OTHER SIDE LEAF SPRING.

NOW CONTINUE WITH THE MAIN FITTING INSTRUCTIONS FROM (#6) ONWARDS