

FIGURE 1

*** DIFF BREATHER CLEARANCE ON LATE MODELS**

To ensure clearance of bellow from brake hose or wide wheels the lower diff mount must be positioned toward centre of vehicle before tightening "U" bolts. Late model (2004-) have a high diff breather on one side which prevents full clearance. If so equipped, disconnect breather hose, unscrew original breather fitment and replace with brass diff breather supplied in kit. (Tighten only 2 full turns past finger tight-some thread will remain exposed).

WARNING-DO NOT INFLATE BELLOWS WHEN IT IS UNRESTRICTED OR NOT INSTALLED. BELLOWS MUST BE CONTAINED BY SUSPENSION OR OTHER ADEQUATE STRUCTURE. DO NOT INFLATE BEYOND 100P.S.I IMPROPER USE OR OVER INFLATION MAY CAUSE ASSEMBLY TO BURST CAUSING PROPERTY DAMAGE OR SEVERE PERSONAL INJURY.

NORMAL RIDE HEIGHT: Normal ride height (no load) - This is defined as the distance between the bottom edge of the fenderwell to the center point of the wheel with the vehicle in an "as delivered condition" (without a load, i.e. tool box, camper, etc.) measurements should be taken before beginning the installation. The distance from the bottom edge of the fenderwell to the center point of the wheel should be recorded. All of our kits are designed to be installed and operated at normal ride height.

1. Jack up rear of vehicle or raise on hoist. Place safety jack stands under body and adjust so that the axle to frame distance is at normal ride height.
2. Loosely attach the lower bracket to the bottom of bellows and lower roll plate with two 3/8" - 16x1 hex head bolts, two 3/8" lockwashers, and two 3/8" flat washers. (Figure 1)
3. Loosely attach the upper bracket to the top of the bellows and upper roll plate with two 3/8" x 16x1 hex head bolts, two 3/8" lockwashers, and two 3/8" flat washers.
4. Install the air fitting on the top side. Tighten finger tight plus two turns. **Use a 9/16" open end wrench being careful to tighten on the metal hex nut only. DO NOT OVER TIGHTEN.** This fitting is pre-coated with thread sealant.
5. Loosen the nuts (four) holding the U-bolt on the axle housing so that you can move the u-bolt both up and down as well as side to side.
6. Remove the bounce rubber. Set the air spring assembly on the axle housing, sliding the tabs of the lower mounting bracket under the u-bolt (Figure 1).
7. Attach the upper mounting bracket to the upper frame rail using the original bounce rubber self tapping bolts and holes. Torque to 15-20ft.lbs.
8. Adjust the assembly so that the bellows is straight up and down and tighten u-bolt nuts. Torque 45-50ft.lbs.
9. Position bellow for clearance on exhaust side, the bellow must be aligned so swivel elbow allows airline to run down the outside of the chassis rail, protected from the exhaust.
10. Torque bolts holding bellows to lower bracket to 15-20 ft.lbs.
11. Torque bolts holding bellows to upper bracket to 15-20ft.lbs.
12. Repeat procedures 2 through 11 for the other side.

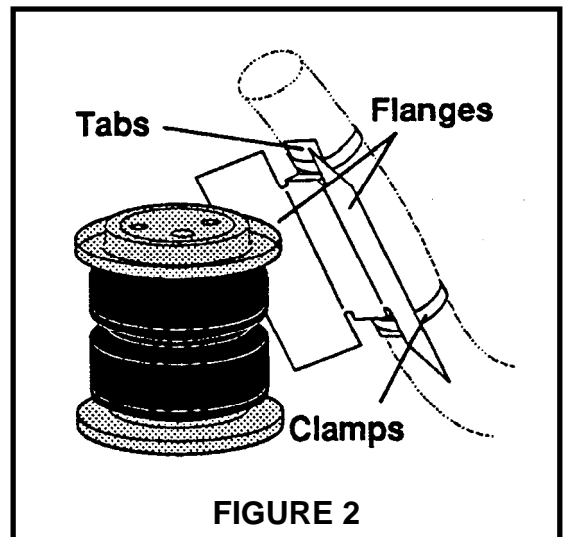


FIGURE 2

IMPORTANT:
BRAKE LINE MUST BE BENT AWAY TO CLEAR LOWER ROLL PLATE. POSITION BELLOW TO FACILITATE THIS CLEARANCE BEFORE TIGHTENING IN PLACE.

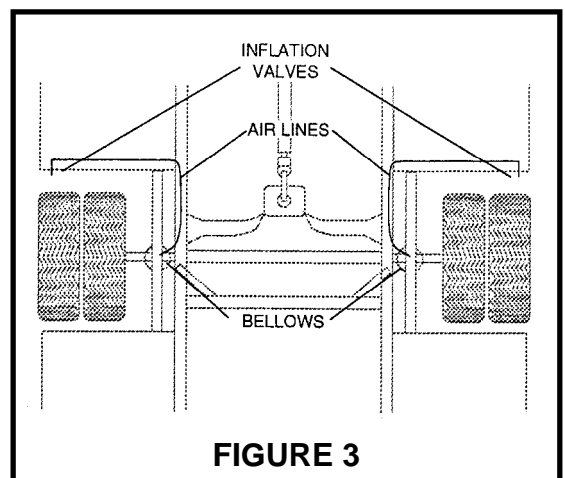
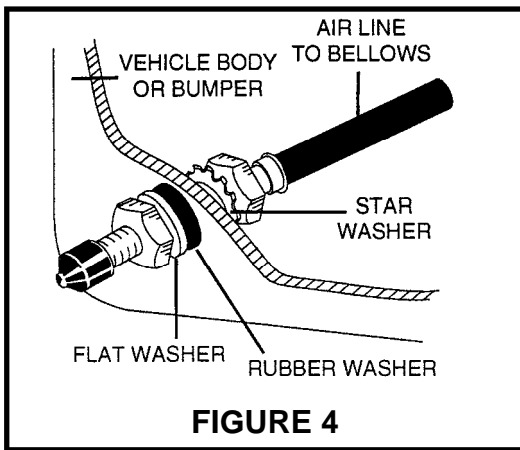


FIGURE 3



13. Installation of this kit may require an exhaust heat shield (Figure 2). The heat shield is attached to the exhaust pipe with the flanges bent toward the air bellows. The shield may be trimmed or bent to prevent contact with the bellows or hardware during suspension travel. There should be a minimum of a "thumbs width" of space between the exhaust pipe, the shield and the bellows..

14. Select a location for the inflation valves in the rear bumper area or rocker panel flange insuring that each valve will be protected and accessible with an air hose. (Figure 3).

15. Use a standard tube cutter, a razor blade, or very sharp knife to cut the air line. A clean square cut will ensure against leaks. Cut the air line assembly into two equal parts. Drill 5/16" hole for inflation valves and mount as illustrated. Rubber washer on outside is for weather seal (Figure 4).

CAUTION: LEAVE SUFFICIENT HOSE SLACK TO PREVENT ANY STRAIN ON VALVE STEM DURING NORMAL AXLE MOTIONS.

16. Route air line from inflation valve location along frame rail to bellows. Route the air line so that it will be protected from the direct heat from the muffler or tailpipe and kept away from sharp edges. The air line should not be bent or curved sharply (Figure 3). Attach air line to chassis with the provided plastic straps.

TO PREVENT AIR LINE FROM MELTING,KEEP IT AT LEAST TWELVE INSHES FROM EXHAUST SYSTEM.

17. Cut off excess air line squarely and install into the fitting. This is a push to connect fitting. Push and slightly turn the cut end of the air line into the fitting as far as it will go (9/16"). You will hear/feel a definite "click" when the air line is seated. The air line is now installed.

18. Repeat process for other side.

19. Inflate air springs to 60 psi pressure. Test for air leaks by applying a soapy solution to all valve cores, fittings and connections.

20. This now completes the installation. Before proceeding, check once again to be sure you have sufficient clearance around the bellows.

21. Lower vehicle to the ground and deflate the air springs until the vehicle sits at the normal ride height measurement recorded previously.

22. For best ride use only enough air pressure in the bellows to level the vehicle when viewed from the side (front to rear). Inflate the bellows to maintain this height under any condition of load. NOTE: too much air pressure in the bellows will result in a stiffer ride, while too little air pressure will allow the vehicle to bottom out. Too little air pressure will also not provide the improvement in handling that is possible. **TO PREVENT POSSIBLE DAMAGE, MAINTAIN A MINIMUM OF 5 P.S.I. IN THE BELLOWS AT ALL TIMES.**
23. Recheck air pressure after 24 hours. A 5 – 7 p.s.i. Loss after initial installation is normal. If pressure has dropped more than 7lbs. re-test for leaks with a soapy water solution.

RECOMMENDED PRESSURES

MINIMUM	MAXIMUM
5 P.S.I.	100 P.S.I.

NOTE

1. **IMPORTANT:** For your safety and to prevent possible damage to your vehicle, do not exceed maximum load recommended by the vehicle manufacturer. Although your bellows are rated at maximum inflation pressure of 100 p.s.i., this pressure may represent too great of load on some vehicles. Check your vehicle owner's manual and do not exceed maximum loads listed for your vehicle.
2. **Should it become necessary to raise the vehicle by the frame, make sure the system is at the minimum (5psi) to reduce the tension on suspension/brake components.** Use of on-board leveling systems or routine tyre changes DOES NOT require deflation or disconnection.

Caution: DO NOT EXCEED THE VEHICLE MANUFACTURERS MAXIMUM GROSS VEHICLE WEIGHT RATING.