

kelderman air ride

"The difference in the ride is like night and day"

Inside this manual:

Tools required for installation	2
Preliminary and safety instructions, installation steps 1-4	2
Parts location, installation steps 5-8	3
Installation steps 9-10	4
Installation steps 11-13	5
Installation steps 14-20	6
Contact Information	7
Parts List	8

2003 & Newer Dodge 2-bag Rear System

Kelderman Air Ride has just developed its most recent system in a line of quality air ride suspension systems. This system was developed to improve the ride of 2003 Dodge 3/4 & one-ton pickups. There are many advantages to equipping your truck with air ride suspension:

- Improves the ride of the truck
- Automatic leveling is available
- Dump option available
- Bolts into existing holes on truck frame



2003 Dodge



Warranty Disclaimer Notice Read Before Beginning Installation

Some Kelderman Air Ride kits contain both fine thread and course thread fasteners, fittings and air bag mountings. Before attempting to tighten

any threaded portion of the Air Ride, check to be sure the threads are the same size and thread count before attempting to tighten. Damaged or cross-

threaded fasteners, fittings and air bags caused by improper size. Thread count or misalignment are not covered by warranty.



2003 & Newer Dodge

Tools Required for Installation of the Air Ride Unit

Before installation of the Air Ride unit, prepare a smooth, flat, hard surface and have all tools and equipment needed for the job. Chock the front wheels of the truck, to prevent it from rolling forward or rearward. Place a jack on each side of frame ahead of the rear springs, front bolts. (1.1)

Tools and equipment required:

Cutting Torch, or Grinder

(2) Jacks

(2) Jack Stands

Wheel Chocks

Side Cutters

(2) C-clamps (if truck has overload springs)



1.1



DANGER

****When raising or lowering the truck, keep jack stands in place to prevent the truck from falling, which could cause severe personal injury or death****

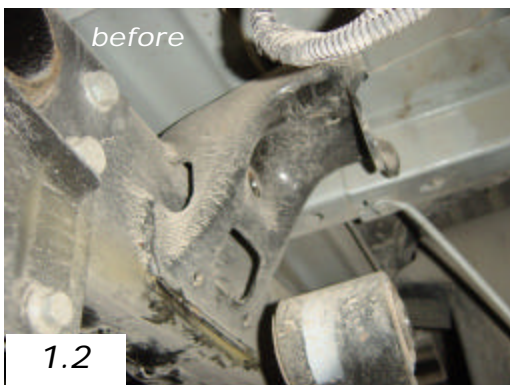
Installing the Air Ride

Step 1. Remove the spare tire and carrier bracket from the truck.

Step 2. Raise the truck up, enough to allow the rear spring lower shackle bolts to be removed. Remove both shackle bolts.

Step 3. Using a reciprocating saw, cut-off wheel or torch, remove the shackle hanger. (1.3)

Step 4. One side at a time, remove the five bolts that holds the factory receiver in place.

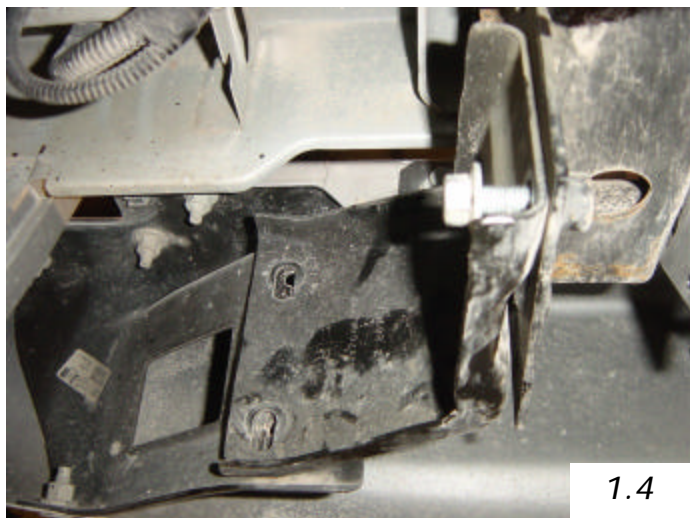


1.2

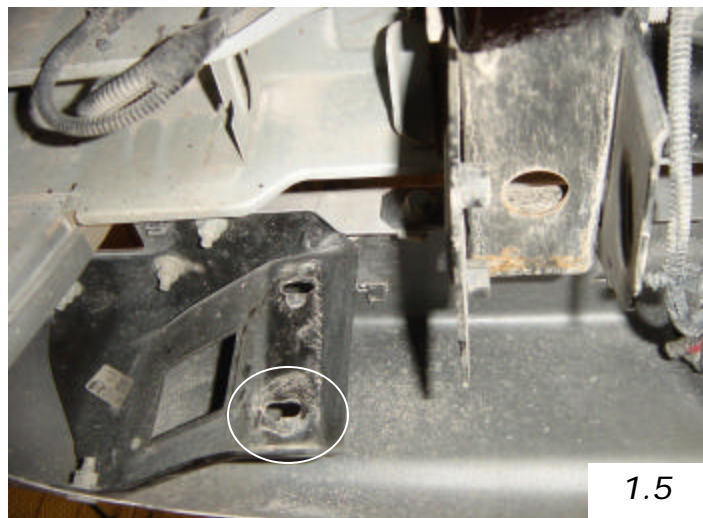


1.3

Installation Instructions (continued)



1.4

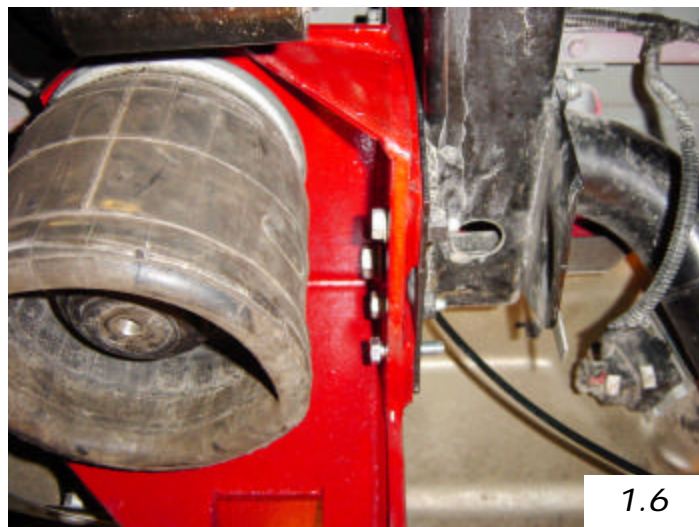


1.5

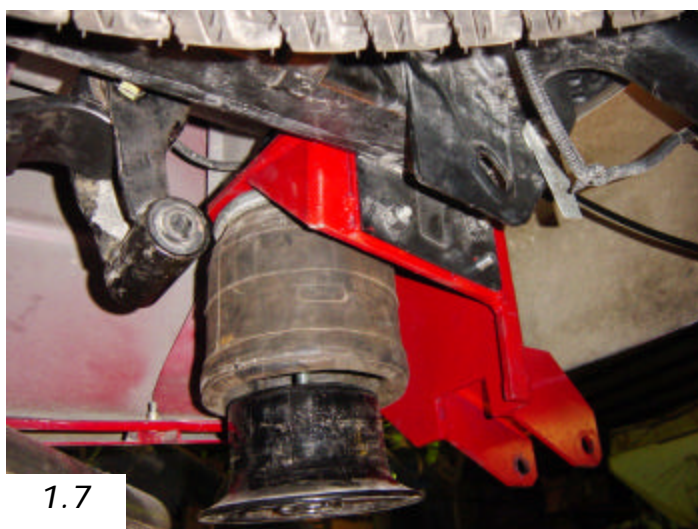
Step 5. Remove rear bumper support on one side. (1.4 & 1.5)

Step 6. Using the factory hitch bolts, fasten the upper framework to the side of the truck frame. (1.6 & 1.7) There will also be a bolt that will insert into the bumper support bottom hole (1.5 & 1.6)

****NOTE:** start all bolts before tightening.



1.6



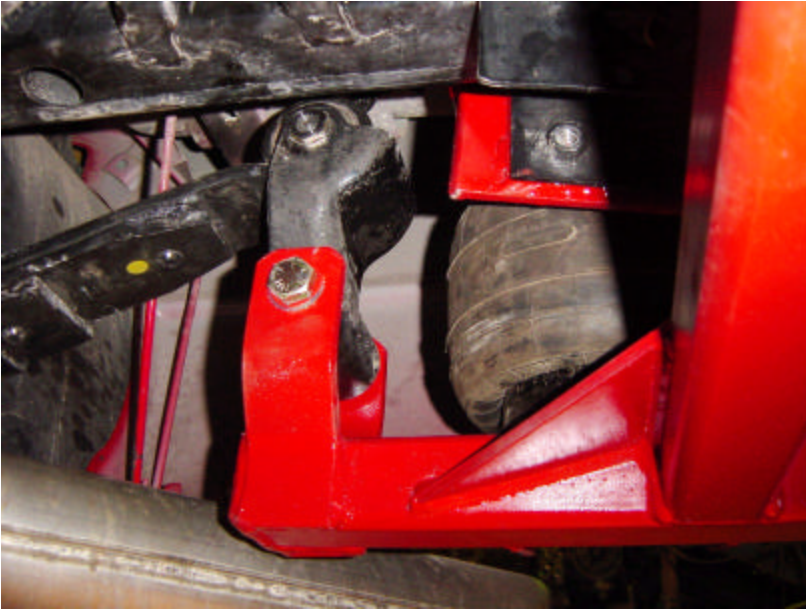
1.7

Step 7. Locate the air bag and install the air fitting. Slide the air bag up, into the top framework, put on 7/8" lock washer and nut. Next, put on lock washer and nut on the 1/2" stud and tighten. (1.6 & 1.7)

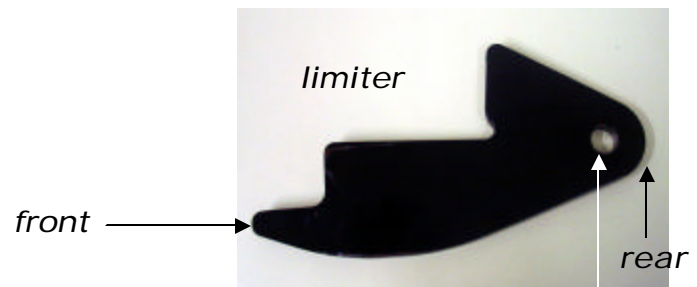
Step 8. Repeat steps 2-7.

passenger's side

Step 9. Locate the two 5/8" x 5" locking nuts. Using the 5/8" x 5" bolts, attach Air Ride swing arm to the rear pivot brackets on the top frame. Insert the bolts through the bracket on the top frame and the bushing on the lower frame so that the locking nut is facing the inside of the truck. Place two 5/8" washers on the bolt, slide on the limiter and put on the lock nut. Tighten the bolt until the upper framework ears are tight against the swing arm bushing. It is not required to torque this bolt. (1.8)

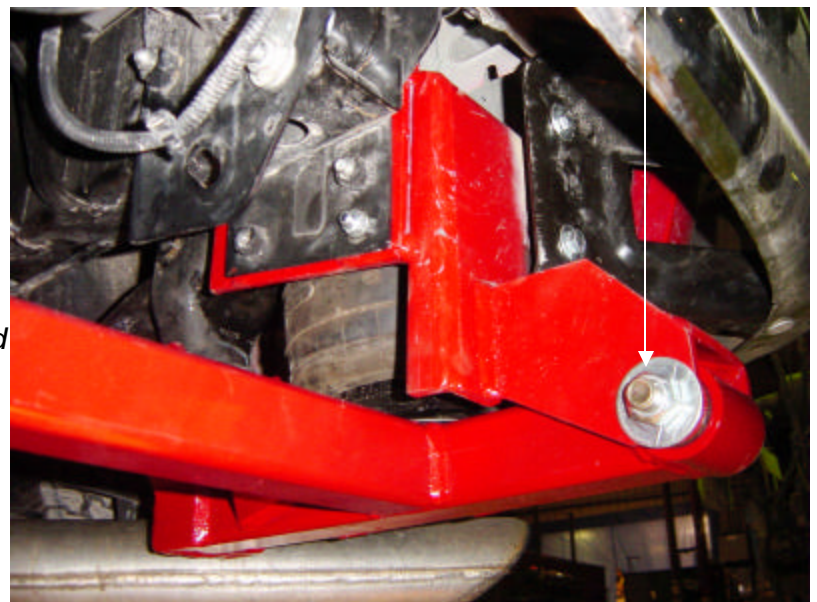


1.8



Step 10. Swing the lower section up to the air bags and install the 1/2" x 3" bolt with lock washer through the lower section swing arm and into the hole in the bottom of each air bag and tighten. Repeat for other side. (1.9)

***NOTE:** The limiter's function is to prevent the air bag from over-extending when the vehicle is lifted with a frame hoist or when unloading a trailer.



1.9

2003 & Newer Dodge

Step 11. Raise the truck frame high enough so that the spring shackles can be bolted to the front arms of the lower Air Ride section. (Use the original shackle bolt and nut that was removed in Step 2). (2.0 & 2.1)



2.0



2.1

Step 12. If the system is using an air compressor or self-leveling kit, use instructions supplied. For the manual fill system, it is now time to decide on a location for the fill valve (the only factor for determining this location is convenience. Normally, it is installed on the left side of the rear bumper near the license plate, or in one of the holes in the license plate). Drill a 5/16" hole in the desired location using caution not to damage wiring or other components of the truck. Insert the fill valve through drilled hole.

Step 13. Cut one 6" piece of air line and insert into fill valve. Insert the other end into airline "T". From the remaining two open ends on the tee, run a section of air line to each bag and assemble in the same manner as on the fill valve. Check the routing of the air lines to be sure they are not exposed to anything which could burn, cut or otherwise damage them. Be sure the air lines are properly secured.

Step 14. Carefully remove the jacks and the jack stands. Inflate the air bags to approximately 25-30 psi and use soapy water or a leak detector to check all air line fittings for leaks.

Step 15. Check clearance for exhaust with bottom swing arm. If it rubs, the exhaust will need to be bent forward slightly. For best results, insert a long bar into the exhaust pipe, heat at the bend and pull forward. **(1.8)**

Step 16. Check all fasteners to be sure they are tightened properly.

Step 17. If the truck has overload springs, locate the overload clamps. On the rear half of the leaf springs, use a large "C" clamp to pull the top overload spring down. Next, slide the overload tie-down clamp over the main leaf spring pack and the top overload springs. Make sure the overload spring clamps slide on from the outside of the truck (the bolt will be facing the truck frame). Tighten the bolt and remove "C" clamp. **(2.2)**

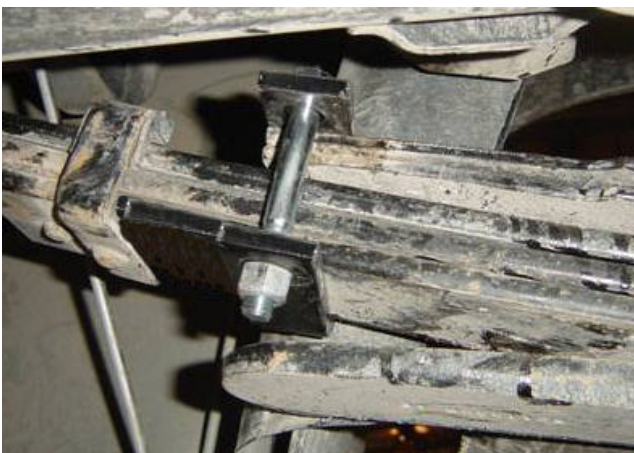
Step 18. Replace the spare tire and the carrier bracket.

Step 19. Check the air bags to be sure they are not exposed to any sharp object or other components that could cause wear or damage.

Step 20. Run bottom of Air Ride (swing arm) reasonably level with ground at all times. **(2.3)**

The bolt needs to go toward the outside of the leaf spring

2.2



DO NOT clamp around bottom leaf



2.3

Parts List

- (1) - Top air ride frame left & right
- (1) - Bottom air ride frame swing arm
- (2) - Limiters
- (2) - 5323 air bags
- (2) - Bag bolts: 1/2" x 3 1/2" bolts, lock washers, flat washers
- (2) - Top of bag: 1/2" lock washers and nuts
- (2) - 5/8" x 6" bolts
- (2) - 5/8" x 5 1/2" bolts
- (2) - 5/8" flat washers
- (2) - 5/8" lock nuts
- (2) - 3/4" lock washers
- (2) - 3/4" fine thread jam nuts
- (4) - 3/8" x 1 1/2" bolt and lock nuts
- (2) - Overload clamps
- (2) - 1/4" pipe thread to 1/4" air line fitting
- (1) - Air line "T"
- 10 feet - 1/4" air line
- (1) - Schrader valve
- (1) - Bumper sticker
- (1) - Installation instructions
- (1) - Owner's manual