

# *kelderman air ride*

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

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## *2005 & Newer Ford Front System*

**Kelderman Air Ride systems are developed for 2005 & newer Fords. This system was developed to improve the ride of the 3/4 & one-ton Ford pickups. There are several advantages to equipping your truck with air ride suspension:**



***2005 & newer Ford Front***

- **Improves the ride of the truck**
- **Increases load carrying capacity**
- **Easy to install, maintenance free**



### *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.**



## 2005 & Newer Ford

### 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 rear wheels of the truck, to prevent it from rolling forward or rearward. Place a jack on each side of frame behind the front wheels, in the vicinity of the front seat. (1.1)**

#### **Tools and equipment required:**

**Drill**

**7/16" Drill Bit**

**(2) Jacks**

**(2) Jack Stands**

**Wheel Chocks**

**Combination Wrench Set**

**Socket Set**

**Center Punch & Hammer**



**Jack Placement**

**1.1**



**\*\*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. Measure the height of the front of the truck while setting on a level surface. Record this measurement here: \_\_\_\_\_"**

**Step 2. Lift up the truck by placing a jack under the frame on the side of the truck which will be installed first. Place jack stand next to the jack for safety. Remove the front tire.**

**Step 3. Place a jack under the axle of the side of the truck that will be installed first. Remove the top nut on the shock and the nut on top of the sway bar end link**

**Step 4. Remove the two bolts that hold the brake sensor to the bottom spring mount. Remove the 18 mm bolt that holds the bottom of the coil spring in place. Lower the jack**

**under the axle and remove coil spring.**

**Step 5. Locate the upper air bag mount. Pull plate out towards you and to the front of the vehicle. Hold the bracket up in the factory leaf spring perch and mark the holes. Remove the bracket and use a center punch to locate the holes. Use a 7/16" drill bit and drill the two holes. Use the two 3/8" x 1 1/4" bolts to fasten the upper bag mounts in place.**

## *Installation Instructions (continued)*

**Step 6. Locate the bottom air bag bracket and air bag. Bolt the bottom of the air bag to the bracket. Do not tighten yet.**



**Recommended torque ratings on bolts:  
3/8" grade 8 fine thread - ft. lbs  
factory bolts - 45 ft. lbs.**

**Step 7. Bolt the bottom air bag bracket into the axle using the 22mm bolt. Fasten the top of the air bag into the top bag mount. Now tighten the bottom of the air bag. Use the 1/4" x 1" bolt and nut to fasten the brake sensor.**



## *Installation Instructions (continued)*

**Step 8. Jack the axle up and reconnect the sway bar end link and refasten shock.**

**Step 9. Repeat the steps for the other side.**

**Step 10. Thread the air line fitting into the top of the air bag.**

**Step 11. If this kit is manual fill, route the air line to where you want to locate the fill valve. Make sure to keep the line away from heat and sharp objects.**

**Step 12. If you are hooking the bags up to a solenoid, use the provided instructions.**

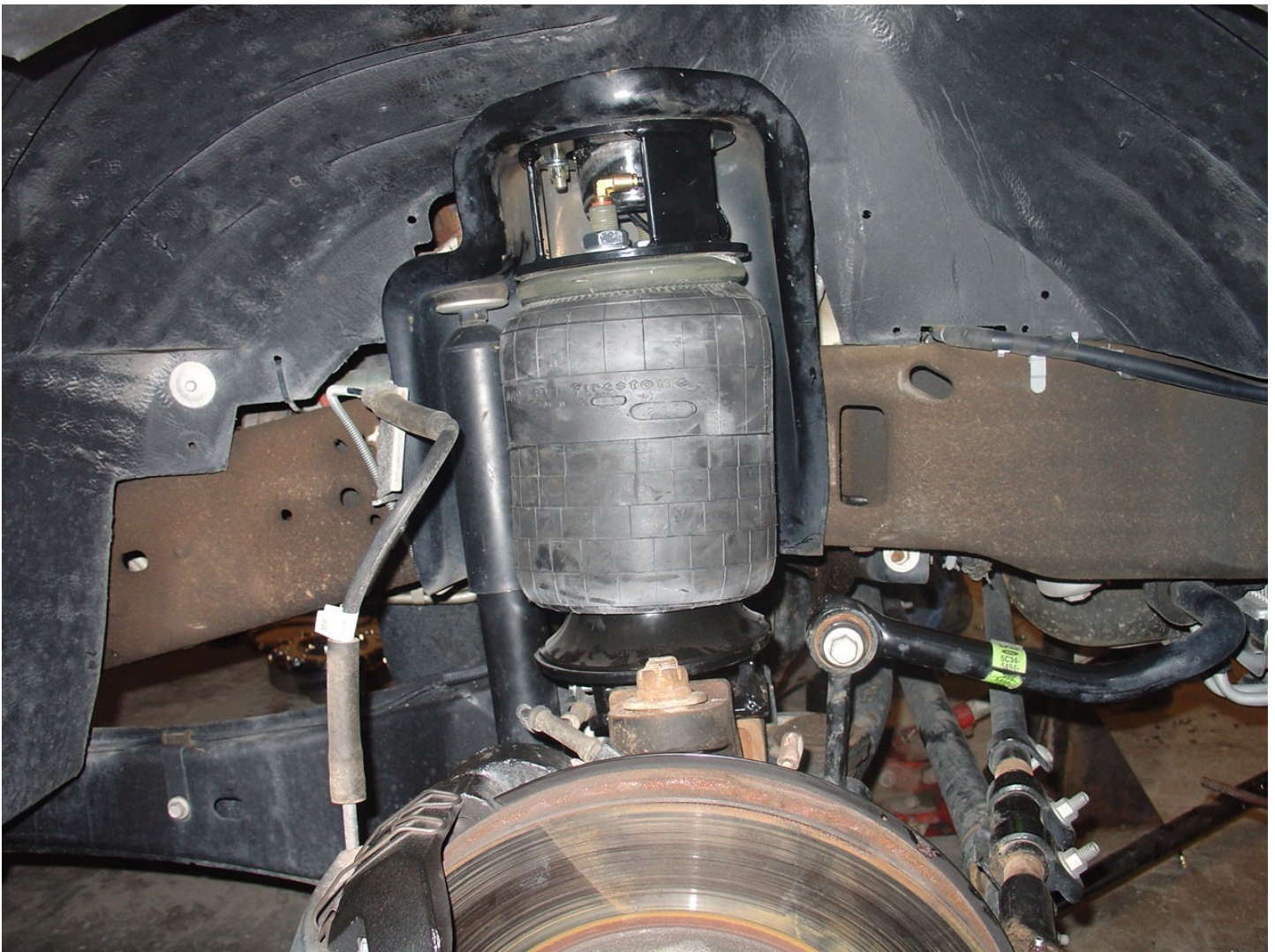
**Step 13. After both sides are installed, add air to the bags. Use the original measurements in step one to get the original ride height back. Inflate each side a little at a time to try and keep similar pressures in each side. Once the ride height is achieved, check the pressure and record this. The pressures may not be the same, however they should be within 10 lbs of each other.**



## 2005 & Newer Ford

**\*NOTE:** There is no magic number for air pressure requirements. All you have to do is go by the truck ride height. Apply air to the system until the vehicle is at the stock ride height. Do not be surprised if the pressure is different between sides. If the kit you purchased has adjustable shocks, start at the middle setting and adjust the settings until you discover the best ride for you and your truck.

**Step 14.** Make sure the bags are not rubbing on anything. Make sure to check the back side of the bag for foreign objects that might harm the bag. The bags should last the lifetime of the vehicle as long as they are not rubbing on anything. Start the motor and slowly turn the wheel all the way to the right and to the left. Make sure nothing is rubbing on the bag while the wheel is turned.



## **Parts Checklist**

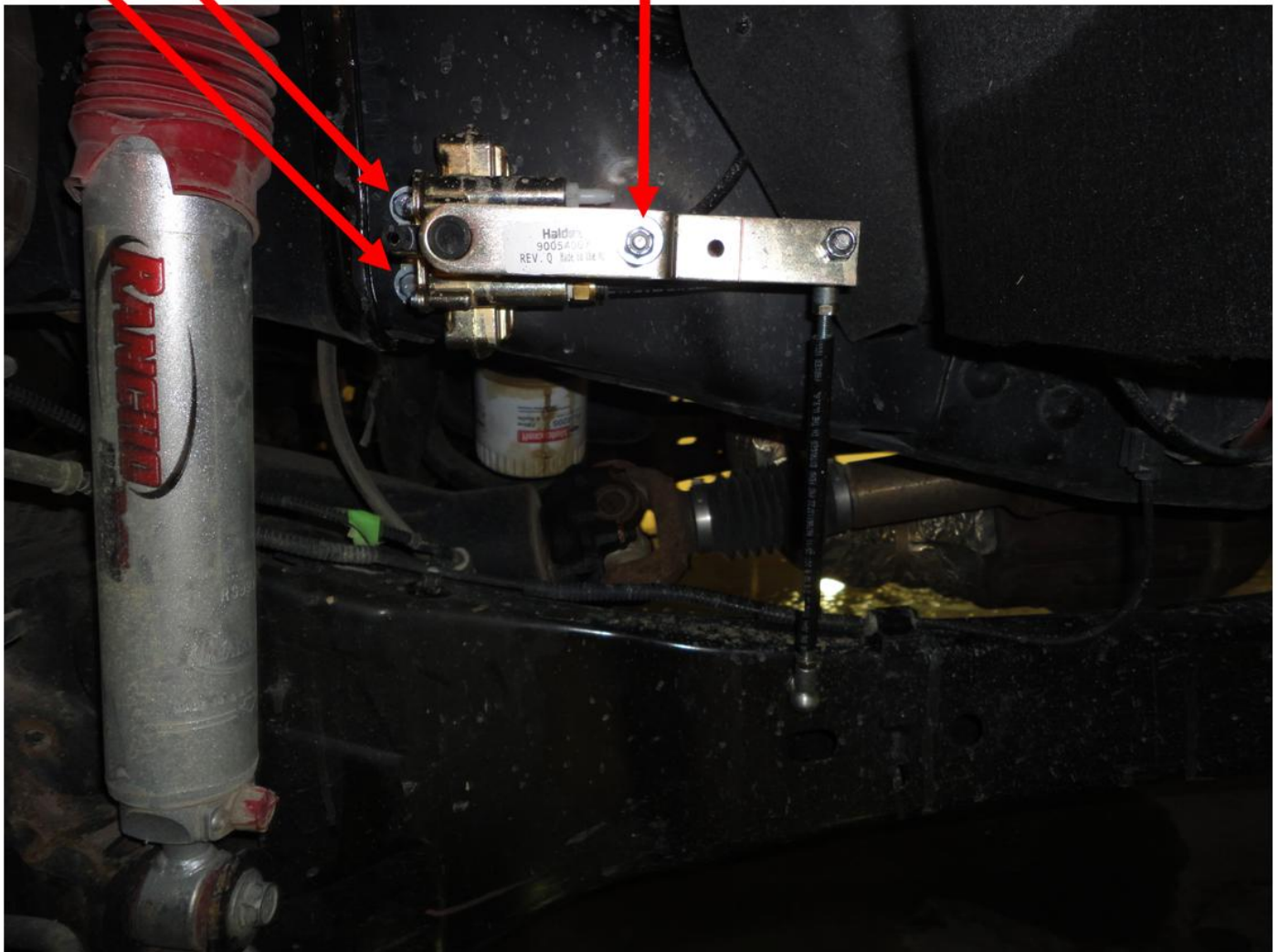
<b><u>Quantity</u></b>	<b><u>Description</u></b>
<b>2</b>	<b><i>1/2" Nuts and Lock Washers</i></b>
<b>2</b>	<b><i>3/4" Jam Nuts and Lock Washers</i></b>
<b>4</b>	<b><i>3/8" x 1 1/2" Grade 8 Bolts   Lock Nuts   Flat Washers</i></b>
<b>2</b>	<b><i>1/2" x 4 1/2" Grade 8 Bolts   Lock Nuts   Flat Washers</i></b>
<b>2</b>	<b><i>22mm Bolts</i></b>
<b>2</b>	<b><i>8979 Air Bags</i></b>
<b>2</b>	<b><i>Axle-Mounted Bracket</i></b>
<b>2</b>	<b><i>Air Bag Top Plate</i></b>
<b>2</b>	<b><i>Air fittings</i></b>
<b>2</b>	<b><i>Schrader Valves</i></b>
<b>1</b>	<b><i>Bumper Sticker</i></b>
<b>1</b>	<b><i>Installation Instructions</i></b>
<b>1</b>	<b><i>Owner's Manual</i></b>

## 2005+ front mechanical height control valve install instructions

1. Once the air ride installed, inflate the bags so they measure 8" tall. This is the distance between the upper and lower air bag mounts.
2. The height control valve mounts just to the back side of the shock mount tower. Hold the valve up so that there is enough room to drill and tap 2 holes to fasten the valve to the frame. Use a marker to locate the holes and drill two 7/32" holes. Use a 1/4-20 tap to tap the holes. Use the 1/4x1" bolts with flat washers and lock washers to fasten the valve to the frame.

1/4" bolts

Fine tune adjustment



3. Locate the ball stud. It mounts just above the oval cut out in the trailing arm. You can drill a 9/32 hole and tap it to 5/16-18 or drill a 3/8" hole in the trailing arm and slide the nut in through the oval.
4. Connect the trailing arms to the lower ball stud. Use the fine tune adjustment on the height control valve to make sure the truck sets level side to side. You can also lengthen the linkage and 1/8-3/16" if needed.
5. The top port is exhaust. The middle port goes to air bags. The bottom port goes to the air tank.