

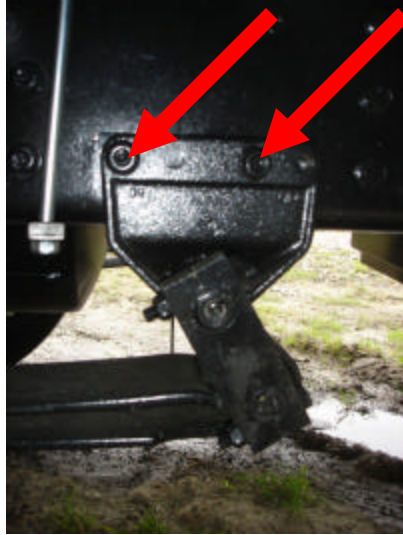


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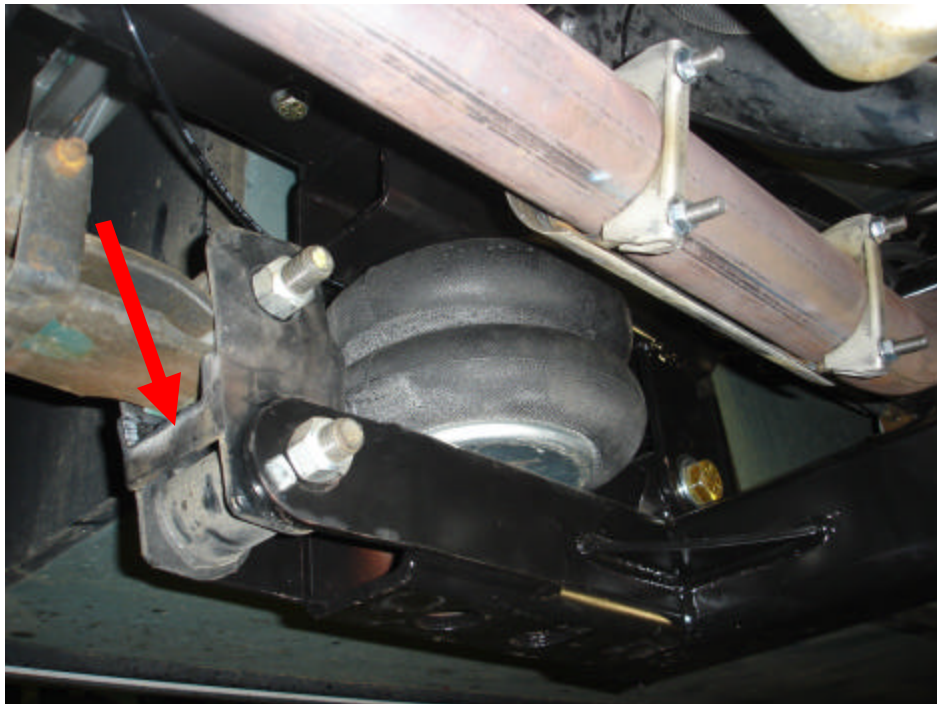
Workhorse Chassis Front Installation Instructions



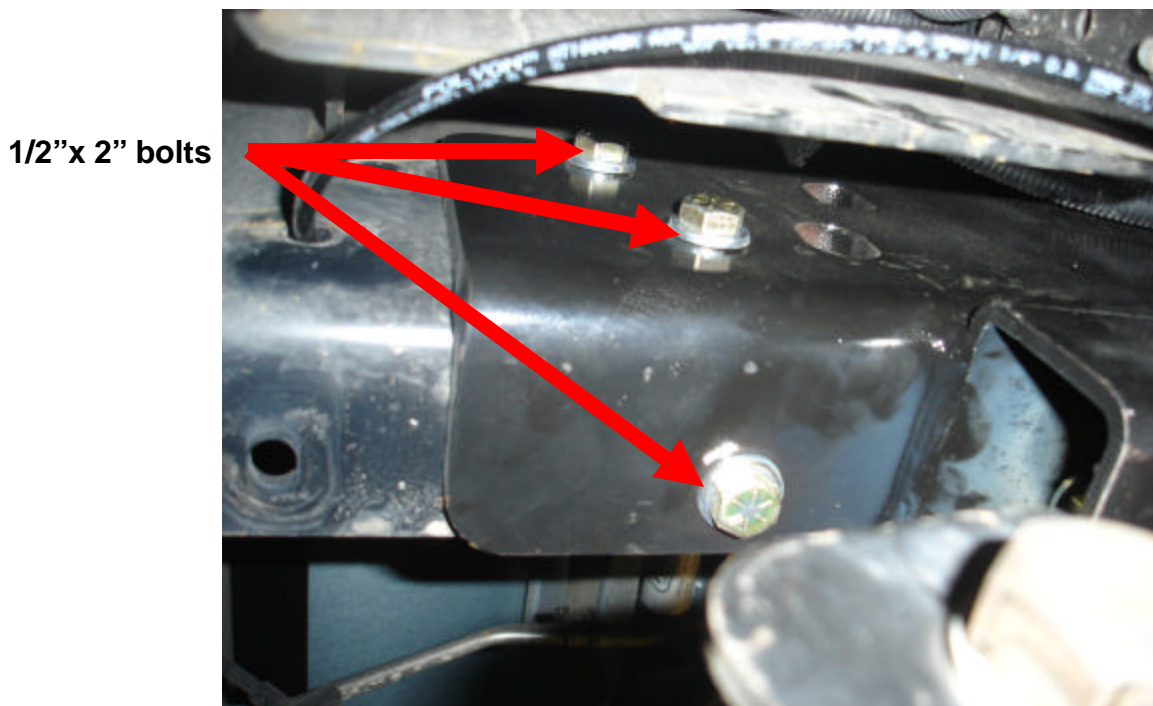
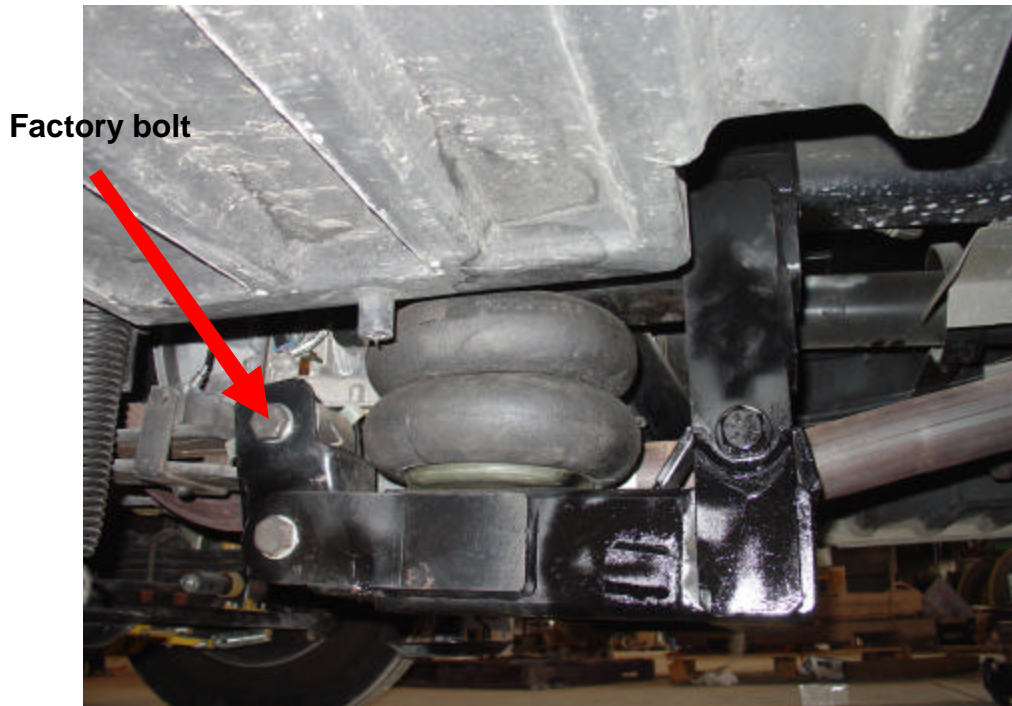
1. Jack up the coach from the frame right behind the rear shackles and place a jack stand under the frame on each side of the bus in front of the axle.
2. Loosen the shackle bolts and remove the shackles.
3. Remove the bolts that hold the shackle hangers in place and remove the shackles. The shackle hanger will not be reused.



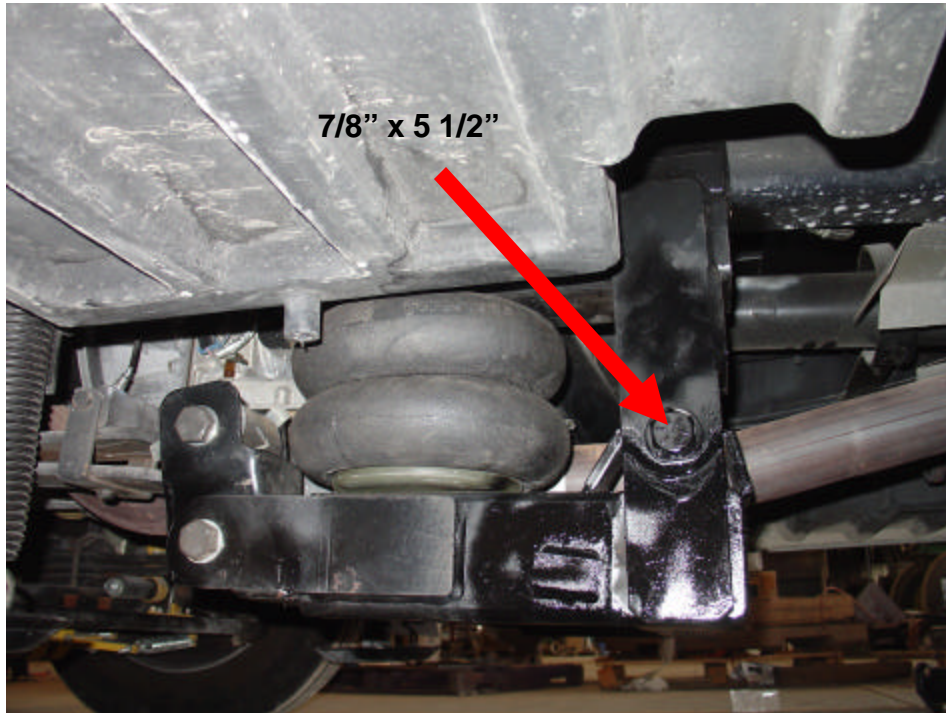
4. Locate the upper frame work pieces. There is a right side and left side frame work. The right side (passenger) has a notch cut in it for chassis ground.
5. It is necessary to cut approx. 1/2" out of the factory shackle.



6. Fasten the upper frame work pieces to the side of the frame using supplied (3) 1/2" x 2" bolts. The (2) 1/2" x 2 1/2" will replace the bolts removed from the factory transmission crossmember. A 5/8" x 2" bolt will be inserted toward the rear of the upper bracket. Just start these bolts, do not tighten them. By leaving them loose, it will make installing the swing arm much easier.



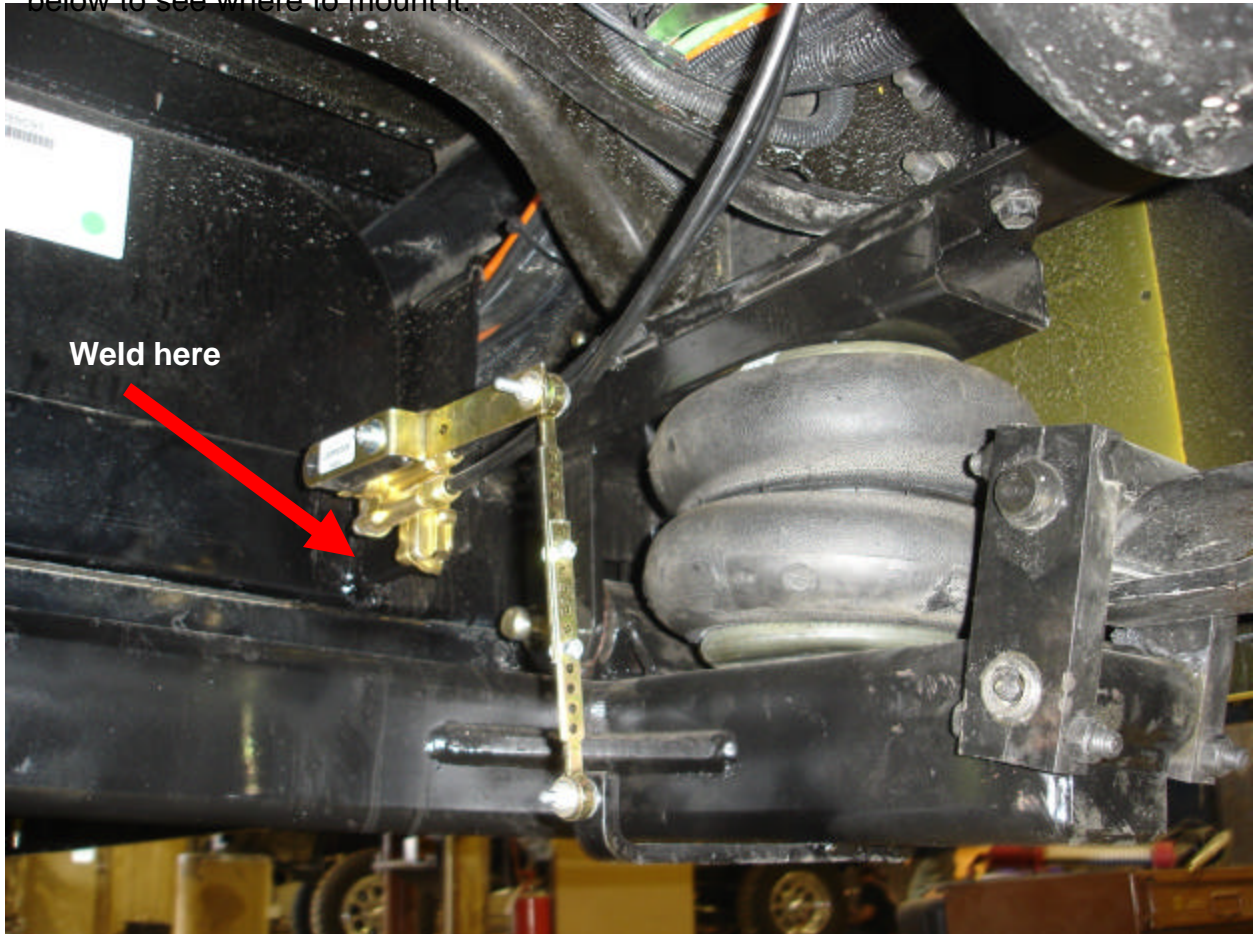
7. Locate the lower swing arm. The swing arm connects to the upper frame works with two 7/8" x 5 1/2" bolts. The bolts go in from the outside in. Use a flat washer on each side of the mounts. The swing arm is heavy, so it will take 2 people to hold it up and another to insert the bolts. Just let the swing arm hang until the bags are installed.



8. Locate the 6905 air bags. Insert the fitting into the bag and tighten. Next insert the bag into the upper frame work and fasten in place with the 1/2" nuts and lock nuts. Raise up the swing arm and insert the 3/8" x 1" bolts and lock washers. Tighten the 1/2" nuts to 35 ft/lbs and the 3/8" bolts to 30 ft/lbs.
9. Re-attach the original shackle to the end of the swing arm and the end of the leaf spring. Go ahead and tighten the pinch bolts on the shackle. Use the service manual provided with the coach to get the torque specifications.
10. Go back to the bolts fastening the upper frameworks in place and torque the 5/8" bolts to 145 ft.lbs. Torque the factory bolts to 95 ft/lbs.

*NOTE - Most systems are manual fill. Add air until bottom swing arm is parallel with the ground. If height-control valve is ordered, proceed to steps 11-15.

11. Locate the height control valve and the height control mounting bracket. Fasten the height control valve to the mounting bracket with the 1/4" x 1" bolts. The height control valve mount must be welded to the factory cross member. Use the picture below to see where to mount it.



12. Once the height control mount is welded to the cross member, it is now time to plumb the system. The top port of the height control valve is the exhaust. Use the supplied plastic fitting and clear air line on this port. Next, locate the air tank. It should be right up by the front axle. Find a 3/8" air line coming out of the tank **(NOTE: DO NOT USE ANY AIR LINES THAT HAVE ANYTHING TO DO WITH THE AIR BRAKES. ALSO, MAKE SURE THE AIR PRESSURE IS DRAINED IN THE TANK BEFORE CUTTING INTO THE AIR LINE. FAILURE TO DO SO MAY RESULT IN INJURY.)** Use the 3/8 "T" fitting to tap into the air line. (NOTE: Run the 3/8" air line into the bottom of the height control valve. The middle port of the height control valve goes out to the bags. Go out from this port to a "T" fitting and then out to each bag.

13. Once the system is plumbed, go ahead and start the coach and build up the air pressure. By pushing up the height control valve lever, you can add air pressure to the air bags. The valve has an eight second delay, so don't be alarmed if nothing happens right away. Hold the lever up until the bags inflate and the bottom



swing arm is parallel with the ground.

14. Next, locate the height control linkage. Fasten the top of the linkage to the height control valve with the 1/4" x 1 1/2" bolt. ****NOTE: MAKE SURE YOU USE A 1/4" FLAT WASHER ON THE OUTSIDE OF THE LINKAGE.** This will prevent the rubber from pulling out of the linkage. Fasten the linkage to the lower height control mount with the 1/4" x 1 1/2" bolt. It may be required to cut the linkage shorter if the two pieces overlap and touch the eyelets.
15. Once the valve is installed, plumbed into the air system, and hooked up to the height control linkage, recheck all the bolts for tightness. Also, use a spray bottle with some soapy water to spray all the air fittings you added. If air bubbles form around the fittings, then air leaks are present. The fitting will either need tightening or the air line will need to be reinserted tighter, or re-cut to have a cleaner cut on