



Installation Instructions for Air Ride Pin Box L-series Long & M-series Medium

Pin box rating: 22,000# tow, 1200# - 5200# pin weight

READ ENTIRE INSTRUCTION SHEET TO ENSURE A PROPER FIT BEFORE STARTING

PLEASE CALL TRAILAIR WITH ANY QUESTIONS OR COMMENTS AT 800-998-4238.

If installing a direct fit version, skip Step One. If you are installing a Multi-fit version, start here.

STEP ONE:

Measure outside to outside of pin box to be replaced. Most long and medium style pin boxes are 12" wide, which is why the Trailair pin box is 12" wide.

- If your pin box is 12 1/2" wide you will need adapter kit # 10050.
- If your pin box is 14" wide you will need adapter kit # 10051.



STEP TWO:

The Trailair pin box is installed in two main sections, upper bracket then lower jaw. Level trailer front to back. Measure old pin box from bottom of the kingpin plate to the ground. Add 9 1/2" to this measurement and that will be the height of the upper bracket to the ground. Remove old pin box. Care should be taken not to drop old pin box; this could cause injury. The pin box mounting wings will remain on the coach.



STEP THREE:

Position the top of the upper bracket to match the measurement you took in step 2 and hold securely in place with clamps.

Adjust to make sure the top of new pin box is level with trailer by putting a level on top and to the front of the new pin box. (If you are installing one of the pre-drilled versions, match the top bolt on the Trailair bracket to same hole used on the pin box removed and position at that spot in the mounting wings).

Care should be taken not to drop new pin box; this could cause injury.

If you are installing the multi-fit version, drill new pin box with the same size holes and in the same location as the mounting holes for the old pin box. If you are installing one of the pre-drilled versions, no drilling is required. We recommend using the nuts, bolts and washers that came on the coach unless they are in bad condition. Make sure replacement fasteners are corresponding the same grade and diameter as those removed. For torque specifications on pin box bolts refer to manufacturer's specifications. If no torque requirements exist, torque 1/2" bolts a minimum of 110 ft./lbs, 5/8" bolts a minimum of 160 ft./lbs and 3/4" bolts a minimum of 210 ft./lbs.



STEP FOUR:

Insert brass bearings into the sleeve on each side of the inner cross tube. Make sure that both the sleeve and the brass bearing are clean and without obstructions. Brass bearings are relatively soft, so care should be taken not to allow the bearings to be damaged prior to insertion. Position the large spacer washers over the outside of the bearing shaft lip on each side of the inner cross tube. A petroleum based lubricant to be applied on each side of the washer is suggested and is not required in the future as on going maintenance as it is only needed while the pin box is new. Slide the lower pin box assembly into position with the upper assembly. Make sure the rod in the middle of the lower assembly slides into vertical slot on inside middle of top of upper assembly. This pin will help hold both assemblies together.



Slide the lower jaw assembly into position with the upper body assembly. Slide the 1" square stop pins located on each side of the lower jaw into the retainer section of the side plates of the upper body. These square pins will keep the pin box from overextending or collapsing. This will also help you locate the position of the hole in the jaw side plate with the tube in the main body so you can install the pivot pin.



Carefully insert the large pivot shaft through both upper and lower assemblies.

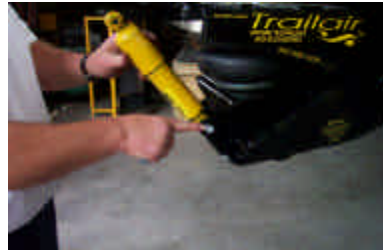
Secure the large shaft in place, on both sides, in this order: the medium washer, a star washer and then bolt in place. Torque bolts on each side to 100 ft./lbs. Use a back-up wrench to hold the bolt on each opposing end.

IMPORTANT: Make sure both ends are tightened.



STEP FIVE:

Install the air bag with the air fill fitting in the up position. Secure with 2 bolts and lock washers, not exceeding 20 ft./lbs. torque on the top plate of the air bag. The bag is not fastened at the bottom. Install air fitting using Teflon tape or pipe sealing compound. Install the air fitting using Teflon tape or pipe dope and do not exceed 20 ft./lbs torque.



Install the shock absorber using the longer bolts with lock washer and nut. Tighten nuts to 60 ft./lbs torque.



STEP SIX:

Insure that the fifth wheel coupler located in your truck is properly mounted according the proper instructions of the fifth wheel manufacturer. In addition, make sure that it is in good working condition as this could affect the performance of the Trailair air ride pin box and could result in unsafe towing. As a reminder, your fifth wheel connection should never be located behind the center of the drive axle. (You may add a level, as shown, if you desire).



STEP SEVEN:

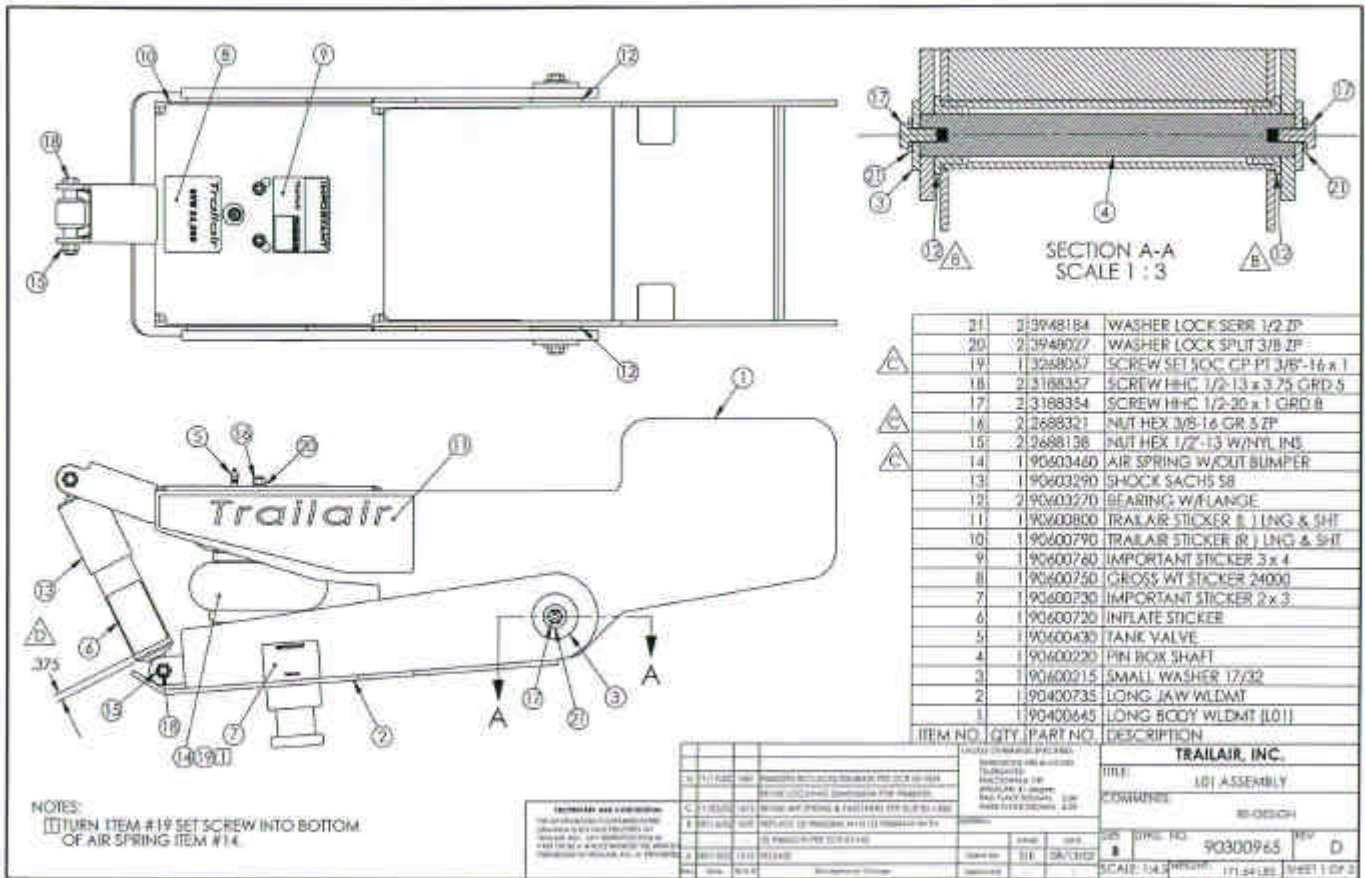
After all nuts, and bolts are tightened, attach trailer to tow vehicle and apply air to nozzle fitting at top of pin box. Inflate the air bag with only enough air to raise pin box to the ride height mark on the front of the shock absorber with the truck and trailer at rest. **WARNING: DO NOT**

inflate air spring unless fully secured by the pin box structure, otherwise bodily injury could result.

Finish by installing the supplied air cap. The air spring is like a tire in that it can lose air pressure over time. Before starting on any trip you should check ride height mark front of shock absorber with the truck and trailer at rest. Finish by install the supplied air cap. Some adjustment to the level may be needed after a short period of use in the beginning. Also, certain circumstances such as a dramatic change in weight (500 lbs or more), temperature (50 to 70 degrees F or more) or altitude (5000 feet or more) may change the ride height and require some adjustment.



Illustration of Air Ride Pin Box L-Series Long & M-Series Medium



DISCLAIMER

Altering the pin box in any manner not prescribed by Trailair may adversely impact the product performance and or void the warranty. The Trailair air ride pin box is designed for trailers with pin weights that are 15% or more than the overall weight of the trailer and pin weights within a range of 1200# to 5200#. If your trailer falls outside of this category, the Trailair pin box may not function properly. Trailair can accommodate for pin weights less than 1200# and more than 5200# on a special ordered basis as long as the pin weight exceeds 15% of the overall coach weight.. In addition, the fifth wheel coupler must be mounted in your truck in accordance with the proper instructions of the fifth wheel manufacturer and failure to do so can hinder the performance of your Trailair air ride pin box. If your tow equation does not or cannot meet these requirements, and your not satisfied with the performance of the air ride pin box, you may be eligible for a refund less a nominal restocking fee, freight and damage fees.

If you have any questions regarding this or any other issue, please call us at 1-800-998-4238.



Trailair Air Ride Pin Box Installation Updates

L&M Series

Please be aware of the following running changes made to the Air Ride pin boxes in this supplement as you install your Trailair product.

Step 1; The adapter kits are needed only if you are using a Multi-Fit pin box that does not have holes and is 12" wide. If you have ordered a specific Trailair part to fit a specific type of original pin box, it will come with the correct width and bolt pattern

Step 2; The plate that the air spring is bolted too should line up with the distance of the old king pin plate to the ground, plus 9 ½". This is a general indicator to help line up the bolt holes. Because of the various patterns, you may need to slightly raise or lower the bracket off of this measurement to line up with the holes.

Step 3; Be very careful to avoid damaging any electrical wires or junction boxes in this step. It is common for wires to be cut or damaged when the new upper bracket is installed. Move these items as needed.

Step 4; An upgrade to the bearing eliminated the large spacer washers. The bearing now has the flange built into it's design. In addition, a lubricant is no longer needed because the bearing is a Bronze and Teflon combination that is oil impregnated. It is designed to be a dry system.

Step 7; The air spring has a threaded alignment pin protruding through the bottom plate. It is important that the pin aligns with the corresponding hole in the plate of the lower jaw before the air spring is inflated. If the pin is not aligned in the hole, the pressure can break the bottom plate of the air spring, which will ruin the air spring. In addition, an air spring can be filled with Nitrogen instead of air and will not be effect by changes in temperature and altitude. If you would like to try this, run the system for a short period of time with air to make sure any leaks are resolved before adding Nitrogen to save cost.

11-03-03