

Link Pin Air Ride Install



Our goal is to make the install a breeze. Please read the entire guide before beginning.

Recommendations - It is recommended that you use drop spindles with the air ride kit to get the most drop out of the air ride kit. If you do not have drop spindles, please scan the code to the right with your smart phone.

If your wheels are close to the fender edge now, when installing the drop spindles and airing out the vehicle, the fender and fender edge will contact the tire. An Ultimate Beam would remedy this and make the installation a breeze. Scan the code on the left to view and purchase one.

1. Loosen the lug nuts 1/4 turn before jacking the vehicle up.
2. Jack up the front of the vehicle and place stands underneath the chassis. The PRO's like to use this jack and these jack stands.
3. Remove the wheels and place under the chassis as a fail safe.
4. Disconnect the battery
5. Remove the dust cap, remove the spindle nuts and slide off the drum. On the driver's side remove the (3) bolts holding the backing plate onto the spindle and set to the side. Do not break loose any brake lines to avoid having to bleed the brakes afterwards.

Drop Spindles



Ultimate Beam



Floor Jack



6. To remove the spindle, you will need to remove the link-pin bolts on the back side of the spindle. When removing the spindle make sure that you don't get the shims mixed up and set them aside as inner and outer shims and upper to lower shims.

Allen Sockets



7. Remove the upper and lower control arms by removing the jam nuts and grub screws. If you need some nice quality metric allen sockets, [click here](#).

8. Remove the center grub screws and remove the factory torsion springs.

9. It is now time to install the Through rods. These inserts allow your front end to move freely and will ultimately rely on the Airkewld's air shocks. The through rods to come in two pieces, one male and one female. These can be screwed together and adding Loctite to create a bond or by adding a tack weld to them once you have spun them together. Slide the rods into the front end.

Loctite



10. If you have an Ultimate Beam from Airkewld, slide the control arms in the beam. If they do not slide in easily, you will need to remove them and polish the bearing surfaces to make sure they move freely. You will need to Emory cloth/sand paper to smooth out these grooves. Scan the QR code to pick some up! If you see major grooving in them it's time to replace them. Always

Emory Cloth



Grease



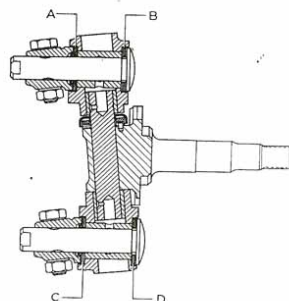
remember to use assembly lube/grease for all surfaces when you install. Once all items are moving freely pump grease through the grease zerks on the front end. 10-12 pumps will be sufficient. Here is a link to the [grease gun](#) and the [grease](#) we use.

Offset in mm	Arrangement of Shims on Torsion Arm Link Pins			
	Number of Shims for			
	Upper Torsion Arm		Lower Torsion Arm	
	Inner Shims (A)	Outer Shims (B)	Inner Shims (C)	Outer Shims (D)
5,5	2	6	5	3
6	2	6	4	4
6,5	3	5	4	4
7	3	5	3	5
7,5	4	4	3	5
8	4	4	2	6
8,5	5	3	2	6

11. Install the upper and lower control arms with the supplied hardware as follows: washer, thrust bearing, washer and Hex nut. Tighten all the way down until the arm does not move and back it off 1/2 turn. Check to make sure that the washer touching the control arm sits flat if it doesn't surface it until it does. Then install the final hex nut so that it can not back off. This will keep it in place. Then cut off the excess through rod on each side.

Note:

- a - There must always be 8 shims and one retainer with dust excluder fitted to each torsion arm link pin.
- b - If the offset is 7 mm B and D have 5 shims each and A and C 3 each.
- c - If the offset is in excess of 7 mm, shims should be added to A and removed from C.
- d - If the offset is below 7 mm, shims should be removed from A and added to C.
- e - Number of shims at B and D should always be brought up to 8.



V-5

12. If you are installing new PRO Built Spindles, or new Link Pins and King Pins, you will need to measure the offset of the upper and lowering control arms.

13. Install the spindle into the control arms with the original hardware and adjust the link pins by turning them clockwise until they tighten up, back them off by a hair and then tighten the bolts.

14. Reinstall the backing plates with the original hardware and tighten.

15. Reinstall the drum or rotor and tighten the nut until the rotor cannot turn at all. Then back it off ¼ of a turn.

16. Install the thrust washer and spindle nut.

17. Reinstall the dust cap and push the speedometer cable through.

18. Attached with the original circlip.

19. If you did purchase an Ultimate Beam, skip these next 4 steps. If you did not, you will have to weld the upper shock extender onto the beam. Place the bracket on the beam where the contour fits the beam and mark the outer perimeter. Remove the bracket and sand the area you just marked to clean the surface for welding. Tack weld the bracket on.

20. Install the air shocks with the supplied hardware and lower crush sleeve.

21. Cycle the suspension up and down to verify that nothing is rubbing, touching or binding. Once satisfied, remove the shock from the beam and control arm.

22. Weld the upper mount, let it cool, prime and paint the surface so that it does not rust. Then reinstall the shock.

23. With the supplied custom fittings you will need to use a thread compound or Teflon tape to the air shock. Do not over tighten the fittings that attach to the air shock because you can split them. Be careful. The way these fittings work is by inserting a straight cut piece of tubing into the fitting until it pops into place and then pull out to engage them. If you need to remove them again simply push the brass rings in and pull out the tubing.

24. Run your air lines to a tee and install the inflation stem. Then do a leak test on the air lines.

25. Please take your time so you will not have a problem in the future. Use a soapy solution on the fittings and fix if necessary.

26. Reinstall the wheels and remove the jack stands. Make sure the car is inflated so you do not damage your front apron with the floor jack.

27. Now deflate! BOOM! Rock bottom!

28. It is now time to do a poor mans alignment. Set the ride height to about have the up and down distance. Break loose your tie rod end jam nuts. If you are still running the same beam you had in the vehicle before, center the steering wheel and adjust the tie rods evenly to keep the steering wheel centered. Measure from one side of the tire to the other remembering where you measured to on the front of the tires as well as the back of the tires. Just get it close. Tighten your tie rod jam nuts.



Teflon Tape



Tips

A common question I here on the early beetle front air ride kits is "My front end does not lift" To solve this go down this check list.

Is this a stock beam or a Ultimate beam?

For either application you will need to look at this step. When you installed the control arms did all four control arms move freely? Scan the code to the right for an example of what you need to have to work properly. If yes continue to the next field. If no you will need to remove them and polish the bearing surfaces to make sure they move freely. If you see major grooving in them it's time to replace them. Always remember to use assembly lube/ grease for all surfaces when you install. Once all items are moving freely pump grease through the grease zerks on the front end.

10-12 pumps will be sufficient.

Did you replace the grease seals?

If your stock grease seals are mushy replace them. The poly grease seals would be ideal.

When installing your through rods were you still able to move the control arms fluidly up and down?

If not you probably have them to tight.

After installing your spindles were you able to grab your spindle and move the whole assembly If not you need to look at two things. Lubing the link pins and checking the tightness of the link pins. There are two zerks per spindle that need to be greased to achieve fluidity. Pump grease through them until the grease is coming out all areas of the spindles. Here is a link to the [grease gun](#) and [the grease](#) we use.

How much pressure do you have going to the shocks?



If it's below 160PSI add more pressure. You can do this by adjusting the pressure switch until the car lifts up. Normal ranges are 165-195PSI. If you are going above 200PSI you need to do one of the following. Review the steps above and make sure all parts are moving freely or install our lower shock relocaters and it will lift the car approximately 30PSI lower. You can scan the code to the left to see them on our website. But this will not solve the problem if you have no fluid like motion of your suspension components.



Grease Gun



Grease Tubes

