

IRS Air Ride Install

The tutorial is on the installation of Airkewld's IRS Axle Air Ride kit for the 1969-1977 Standard Beetle and Ghia.

1. Disconnect the battery.
2. Raise the car and put it on jack stands. The higher you lift the car the easier it will be to install the kit.
3. Remove the rear wheels.
4. Disconnect the e-brake cables inside the vehicle.
5. Remove the (4) bolts that hold the IRS trailing arm to the spring plate. You will need to reuse these bolts.
6. Remove the shock absorber by removing the upper and lower bolts. You will be using this hardware again.
7. Remove the (4) bolts holding the spring plate cap.
8. Please read this entire step before beginning. Be very careful and wear safety goggles! Using a pry bar release the tension of the factory torsion bars inside by prying the spring plate off of its perch. Be careful because the spring plate is going to spring down extremely fast. It may be better if you stand towards the front of the car and pry underneath it. Once removed remove the torsion bar and the rubber doughnuts and set aside. You will no longer need the torsion bars. Do not damage the doughnuts when removing because you will need to reuse them.
9. Lube up the rubber doughnuts with Valvoline grease found here and install them onto the spring plate. Bolt them up using the original hardware. At this time you can replace them with new rubber versions or you can buy urethane versions. Now your car will move up and down freely.
10. Reinstall the original axle bolts and tighten down. Always use removable Loctite when installing the original bolts. This will give you the peace of mind that they will not come loose on you.
11. Now let's remove the bump stops. Once removed with a Sawz-all or hack saw remove the top half of the snubber ball so that it is flush with the trailing arm. Drill a 3/8 hole in the center and install your new urethane bump stops.
12. You will now need to install your new Doetsch tech shocks. The new shocks have steel spacers inside the box and will need to be pressed into the shock ends. This will allow the shock to be torqued down but does not allow the shock bushing to become smashed. With the old mounting hardware and the 16 spacers included, install the shock and tighten so they are spaced evenly in the lower pockets.
13. Grind away the surface paint or undercoating by the upper shock mounts to allow for the welding of the upper air bag mounts.
14. In 2015, we updated the upper mount to be telescoping to add strength, make it easier to position and easier to remove and weld during mock up.

15. Mount the air bags to the upper mounts as well as the lower bag circles supplied in the kit.
16. You will need to jack up the axle until the shock bottoms out and the trailing arm is hitting the new bump stops.
17. You will need to install the upper mount so that the centers of the trailing arms are just below the upper bag mounts. The angle of the trailing arm and the upper bag mounts need to be the same. So twist the mount until they are the same.
18. Once everything is lined up tack the upper mounts in. Do not fully weld just yet.
19. With a sharpie draw a line around the lower airbag circle onto the IRS trailing arm. This is where you will need to modify the trailing arm by cutting out the circle you just marked on the trailing arm.
20. Once cut out you will need to weld a 3/8 bolt to the lower bag circle. Once welded in jack the trailing arm up until the bag circle is flush inside the trailing arm and tack.
21. Check the travel of the control arm by lowering and raising the suspension. Make sure that the air bag does not touch the torsion housing. This will lead to rubbing and may puncture to the bag.
22. Once completely satisfied remove the airbag and weld in the mounts.
23. Once it has cooled, paint it so it will not rust and re-install the air bags. We use this kind of paint. With the supplied 1/2 bushings, apply a thread compound or Teflon tape to them and install them into the Airbags. Insert the 90 degree push loc fittings into the previously mentioned bushing and the put Teflon tape onto it. If you take the time now to leak test them you will not have problems in the future. Take a soapy solution and spray around the fittings to see if you have a leak and fix accordingly.
24. Re-install your wheels tires E-brake cables and then let down. Make sure you have air in it so you can get the jack out. Now deflate! BOOM! Rock bottom!