Swing Axle Air Ride Install

Our goal is to make the install a breeze. Please read the entire guide before beginning. Something NEW for 2020, is the use of Smart Phone integrations by scanning QR codes with your phone's camera or a QR code app. Any time you see a 🔧 that tool is available on our Amazon tool page. If a Video tutorial has been created for this product, you will find it here. Photo tutorial is available here. If you have a tech question, you can text us here.

1. It is recommended to do the install of this kit with a pit or lift 🔧 or the body off. Being comfortable in an install is paramount to doing a quality job. Being able to see is crucial in measuring, leveling, etc. So this install will be written as you are installing it on a lift.
2. Disconnect the battery.
3. Disconnect the e-brake cables inside the vehicle.
4. Roll the vehicle onto the lift or between the posts.
5. Lift from the torsion tube on the rear and the 2 bolts on each side of the "Napoleon Hat" (outer front edge of pan half).
6. Remove the rear wheels.
7. Remove the (3) bolts that hold the axle tube to the spring plate. You will need to reuse these bolts.
8. Remove the shock absorber by removing the upper and lower bolts. You will be using this hardware again.
9. Remove the (4) bolts holding the spring plate cap.
10. 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 hard. 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.
11. This step can be modified to achieve the desired height of the vehicle. With the template in this PDF, mark the spring plate for notching. You now have the option to go all the way down by cutting 🔧 it where you just marked with the template or you can just cut a little bit to not go as low.
12. Paint 🔧 the spring plate with a paint so it will not rust.
13. Lube 🔧 up the rubber doughnuts and install them onto the spring plate. Bolt them up using the original hardware. Now your car will move up and down freely.

Tools you need

Video Tutorials

Photo Tutorial

Tech Support

14. 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.
15. Repeat steps 4 through 12 on the other side of the car.
16. At this time your car is rid of the factory sprung torsion bars and is able to ride on just the air bags that will be installed in the next few steps. You will now need to put the lower trailing arms together at this time. You will need (1) left hand heim-joint (1) 3/4" jam left hand nut, (1) right hand heim-joint (1) 3/4" jam right hand nut and (2) 3/4" washers for each side. With the heim-joints in hand, spin the nut all the way on and install a washer after that. Install the heim's on both ends of the control arms until they bottom out. Using the 4 supplied trailing arm hangers; bolt one on each side of the heim with the supplied 12mm bolts washers and nylocs. On the other side of the hangers install a heim-joint with the ½" bolts washers and nylocs. This heim needs to have a jam nut, washer, upper control arm hanger mount, a 3/4" washer, followed by a jam nut installed. Note, that one side is right hand and one side is left hand. Jam nuts are also this same way.
17. You will now need to install your new 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.
18. With the existing hardware install the upper portion of the shock and tighten.
19. To install the lower shock you will need to do the following. Take the supplied 130mm bolt (the long one) install a 12mm washer on it install a bronze bushing install the back end of the control arm (the hole in the trailing arm will be closer to the back end of the vehicle) install another bronze bushing take the bolt now and slide it through the lower shock mount from the side of the car install the lower part of the shock onto it install a 12mm washer and nyloc and tighten.
20. Grind 🔧 away the surface paint or undercoating on the torsion housing to allow for the welding of the upper control arm hanger mount.
21. You will need to tack weld 🔧 this hanger mount about ¼" from the top of the torsion tube. Make sure the mount is level 🔧. Once both side are the same weld in.
22. You will need to sand 🔧 the back side of the torsion housing next to the shock mount for welding in the next steps.
23. Mount the air bag to the control arm with the supplied 2.250" bolts. Leave loose for adjustments.
24. Install the upper top mount to the air bag with the supplied bolts and 3/8" washers. Leave them loose for adjustments as well. Every car is different in the sense that the factory torsion can have different gaps and casting marks in the torsions. So you might have to do some slotting or grinding 🔧 to the upper mount to make them fit properly.
25. Lift the rear suspension up until the suspension travel has hit the stops in the torsion. This is where the car will be at the lowest point. You can use duct tape 🔧 over the hole of the bag to keep it at a collapsed height. Squeeze the bag down until it's completely deflated and the mount is flush to the torsion housing. You will now

verify that the bag looks like two donuts stacked on top of one another. This is where the upper bag mount will end up. Before tacking it into place make sure it is level to the torsion tube and parallel to the torsion tube. Then tack it into place.

26. With the front most brackets, they will need to sit on the side of the upper bracket and flush with the bottom side of the upper bracket. This will allow the bag to sit flat and not have any interference. Once again, because all torsions are some what different notching or grinding the bracket to fit might be needed. Once you like the way this bracket fits, tack it in.
27. On the rear most bracket it will be similar in installation. It will need to sit flat against the upper bracket and flush with is as well. The same can be said of the notching or grinding to meet the specific installation of your vehicle might be needed. Once you are happy with the fit, tack it in.
28. Check the travel of the control arm by lowering and raising the suspension. Make sure that the air bag does not touch anything. This will lead to rubbing and may puncture to the bag.
29. Once completely satisfied remove the airbag and weld in the upper mount. Once it has cooled, paint 🔧 it so it will not rust and re-install the air bag with the fore mentioned hardware.
30. With the supplied ½" reducers apply teflon tape 🔧 to them and install them into the air bags.
31. Insert the 90 degree push loc fittings into the previously mentioned bushing.
32. Run your lines to your management and pressure test. 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.
33. Re-install your wheels, tires, eBrake cables and then lower the vehicle down. Make sure you have air in it so you can get the jack out. Now deflate! BOOM! Rock bottom!

If your early Beetle or Ghia is outfitted with original axle tubes in which the shock flanges on the trans-axle are parallel with the chassis, they will need to be switched out to a later version.

TOP
TRIM THIS AREA