

# **VERA Air Cup Kit**

## INSTALLATION AND USERS GUIDE



Air suspension should only be installed by a professional experienced in air suspension installation, improper installation may result in property damage, personal injury or death. Should additional support from manufacturer be necessary you or the person who is doing the installation must know how to properly use this product. Always support vehicle on properly rated jack stands, do not go under a vehicle supported by a jack. Please read through the entire installation guide before beginning, provided instructions are not a substitute for experience.







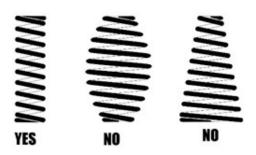
## IN THE BOX (VA-ACK12/VA-ACK20)

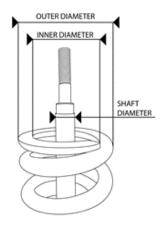
- 2 VERA Air Cups w/ 3/8" PTC fittings installed
- 2 top mount spacers (for Macpherson strut types)

#### FITMENT VERIFICATION

#### **SPRINGS**

The air cups can only be installed on linear style springs as shown below. Ensure your spring will sit flat in the cup, but not touch the inner walls. The cups will accept a spring with an Inner Diameter of 2.5" (62mm) and maximum Outer Diameter of 4" (100mm).





#### **COILOVER REQUIREMENTS**

The air cup requires ~1.20" of height on the shock shaft. There should be enough thread left on the coilovers to lower the springs to install, if not, you will need to install shorter springs.



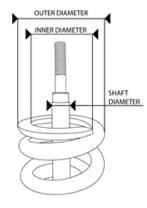




#### SHOCK SHAFT REQUIREMENTS

A caliper/micrometer is recommended as this is very important, measure the THICKEST part of the shock shaft. This part of the shaft is typically brightly polished.

- For shock shafts measuring 20mm part # VA-ACK20 is required
- For shock shafts measuring 12mm part # VA-ACK12 is required



#### **CLEARANCE**

Before installation, we recommend checking the suspension where the cup will be to ensure clearance. Then, make sure you have enough clearance around the coilovers with the cup installed, check this BEFORE you operate the system. Do not forget to make sure the air fitting has clearance as well.

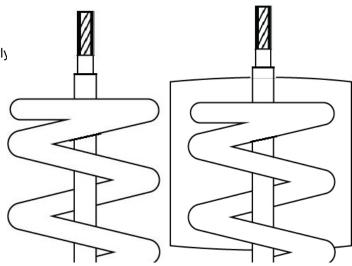
Cup Width: 4.75" (120mm)

#### AIR CUP INSTALLATION - PART 1 (READ BOTH PART 1 AND 2 PRIOR TO ASSEMBLY)

Disassemble all the parts above the spring, retain ALL parts, you will need them to reassemble. Remove the dust boots and bump-stops from the shaft, we do not recommend reusing those parts. If there is a circlip on the shaft, that needs to come off as well. DO NOT LOSE IT! Make sure that the shaft is not scored or scratched and thoroughly clean prior to installing the cup.



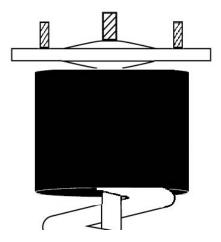
2. Lower the coilover spring about 1.20" via the spring perches to make space for the air cup. Grease the threaded portion of the shock shaft and install the air cup by carefully and slowly ROTATING it clockwise, down the threads onto the smooth portion of the shock shaft. If you force it down, it will tear the seals. TORN SEALS DUE TO IMPROPER INSTALLATION ARE NOT COVERED UNDER THE WARRANTY. Make sure the spring sits properly into the air cup.



3. Before proceeding to PART 2, please confirm if you have Macpherson or Wishbone type suspension.

#### **AIR CUP INSTALLATION – PART 2**

FOR WISHBONE SUSPENSION: Reassemble all parts in reverse order on top of the air cup. Reuse all parts that were taken off. There needs to be ZERO preload on the spring. It only needs to be snug and you should be able to rotate the spring with some resistance, but not up and down. Adjust the collars on the coilover to ensure the spring is snug.



FOR MACPHERSON SUSPENSION









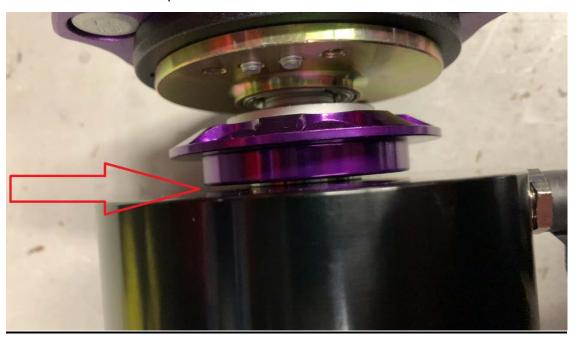
See diagram below, use the provided spacer on TOP of the cup, but below the insert for the pillowball This is

required so the strut will rotate as designed.

Flex the pillowball mount to the limit to ensure there is no contact between the camber plate (or top mount) and the cup kit.

Keep in mind that the air cups will turn with steering. Make sure the air cup and fitting can rotate freely without coming in contact with anything. If you need additional spacers please contact us

At least 2mm of spacer recommended



#### AIR CUP SYSTEM USE AND MAINTENANCE

- The system is designed to only be pressurized if you want to pass an obstacle. DO NOT OPERATE THE SYSTEM PRESSURIZED DRIVING DOWN THE ROAD.
- The system should only be used at very low speeds, ie. when you have to pass obstacles.
- Only use the system when it is mounted on the car, keep your fingers and hands away from the air cups when it's in use.
- Rinse the air cups monthly with water only to prevent dirt accumulation. DO NOT USE SOAP/DEGREASER as it will wash away the lubrication on the internal cup walls.
- Maximum air cup working pressure is 150 psi, excess pressure will void warranty.



### **INSTALLATION TIPS**

- We recommend using a Loctite 545 (or equivalent) sealant on all NPT fittings. We do not suggest thread tape.
- A tool designed for hose cutting will ensure minimal leaks at PTC junctions, DO NOT USE DYKES OR SCISSORS. Dual blade cigar cutters work well too.

#### WARRANTY DURATION AND REQUIREMENTS

2-year warranty limited warranty on seals Lifetime structural warranty on cups Warranty claims can be sent to <a href="mailto:info@veraair.com">info@veraair.com</a>, proof of purchase required











