



VAG1274B

Cooling System Pressurizing Tool

Using the GoWesty Cooling System Pressurization Tool is easy. Just remove the hose from the blue pressure cap on the pressurized coolant reservoir (this is the tank with the blue cap on it inside the engine compartment – not the overflow tank that is located behind the license plate). Install the rubber valve stem onto the nipple of the blue pressure cap. Now you can test the cap, check for coolant leaks, and bleed the air out of the radiator when the engine is COLD and *the conditions are safe*.

NOTE: THIS PUMP CAN APPLY **WAY** MORE PRESSURE THAN THE SYSTEM IS DESIGNED TO HANDLE. UNDER NO CIRCUMSTANCES SHOULD YOU APPLY MORE THAN 17 PSI TO THE SYSTEM. WATCH THE PRESSURE GAUGE ON THE PUMP CAREFULLY, AND **PROCEED WITH CAUTION**.

Cap testing:

To test the cap, pressurize the system to 17 psi. Remove the valve stem from the cap nipple. The caps should hold between 13-17 psi.

System leak testing:

To test your system for leaks, simply pressurize the system to 15 psi and let it sit for 10 minutes. Walk around the vehicle and see if there is any coolant dripping. Note: One common leak-prone component in Vanagons is the rear heater core, located under the back seat. When coolant leaks from it, it can take a long time to reach the ground. It has to fill up your van first! So, it is a good idea to uncover your rear heater and take a good look at it the first time you pressurize your system.

Cooling system air bleeding:

After performing any task that requires the cooling system to be drained, it is necessary to bleed the air out of the cooling system. The highest point of the cooling system is the upper half of the radiator. The top of the engine and the middle of the radiator are at about the same level, and the coolant pipes that connect the two are at the lowest point. The design of the system means that air gets trapped inside the upper half of the radiator, and cannot get out on its own. To bleed the air out of the radiator, proceed as follows:

- 1) Fill the coolant pressure reservoir with a 50/50 mix of **distilled** water and phosphate-free coolant.
- 2) Pump the system up to 15 psi using the pressurization tool. Watch the fluid level carefully during this process; do not let the coolant completely disappear —as that means you are pumping more air into the system. Refill as necessary so you can maintain 15 psi with coolant in the tank.
- 3) Go to the front of the vehicle and remove the upper (headlight) grille.
- 4) Locate the 8mm air bleed bolt at the top, passenger side of the radiator. Loosen the bolt just enough so you can hear air hissing out (less than ¼ turn).
- 5) Walk back to the rear of the vehicle to the pressure reservoir and watch the coolant level drop.
- 6) When the fluid in the reservoir gets close to the bottom, go back up to the front and snug the air bleed bolt back down. Note: Only about 5 ft-lb (60 in-lb) of torque is required.
- 7) Go back to the rear of the vehicle, remove the pump and cap, refill with coolant, and repeat steps 1-8 until coolant (instead of air) comes out of the air bleed bolt on top of the radiator.
- 8) Top off the pressure reservoir, install cap and hose (no clamp necessary), and top off the coolant overflow tank (the one in front of the license plate door).

That's it. Not all of the air will be completely out of the system yet. There will undoubtedly be some bubbles trapped in parts of the cooling and heater system that will accumulate at the top of the radiator over time. After a full warm up and cool down, it is a good idea to repeat the process and remove the remaining air.