SEALEY VS003 Cooling System Cap Testing Kit Instruction Manual

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SEALEY VS003 Cooling System Cap Testing Kit

Thank you for purchasing a Sealey product. Manufactured to a high standard, this product will, if used according to these instructions, and properly maintained, give you years of trouble-free performance.

IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS & CAUTIONS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. KEEP THESE INSTRUCTIONS SAFE FOR FUTURE USE.

SAFETY

WARNING! Ensure all Health and safety, local authority, and general workshop practice regulations are strictly adhered to when using this product.
WARNING! Ensure the engine and cooling system has cooled, before opening the radiator cap.

1. Maintain tools in good and clean condition for best and safest performance. DO NOT use tester if damaged.
2. Wear suitable clothing to avoid snagging. DO NOT wear jewellery and tie back long hair.
3. Wear approved eye protection. A full range of personal safety equipment is available from your Sealey stockist.
4. Keep yourself, tools, and test equipment away from hot engine parts.
5. DO NOT use this tool for any purpose other than that for which it is designed.
6. Never lay tools on the vehicle's battery. This may short the terminals together, causing harm to yourself, the tools, or the battery.
7. Account for all tools and parts being used and DO NOT leave any in the engine bay.
8. Keep children and other unauthorised persons away from the working area.
9. Keep test kit parts clean, store parts in the carry case, and keep this in a safe, dry, childproof location.

10. DO NOT run engine while pressure testing.
11. DO NOT use in radiators or header tanks with internal neck diameters greater than 45mm.

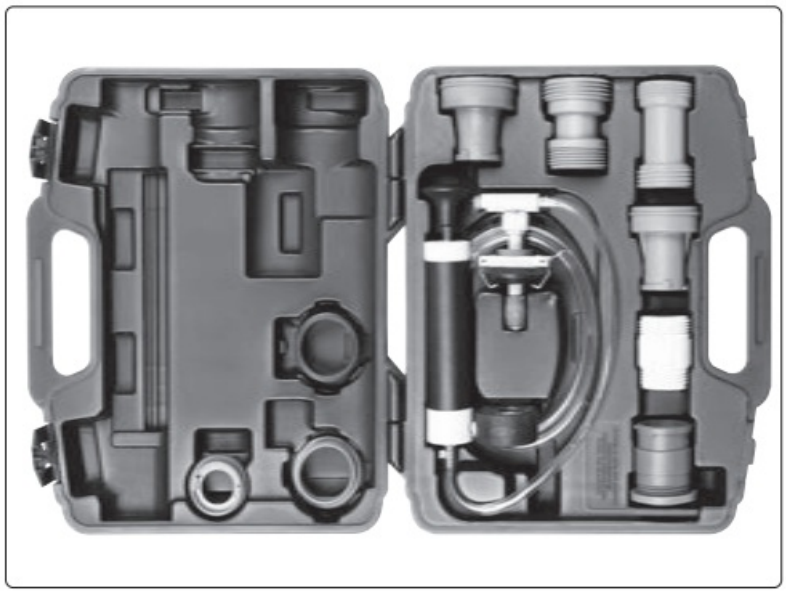
IMPORTANT: Always refer to the vehicle manufacturer's service instructions, or a proprietary manual to establish the current procedure and data. These instructions are provided as a guide only.

INTRODUCTION

Capless cooling system tester uses an inflatable bladder to seal the pressure head to the radiator or header tank. Bladder system can be used on both screw and bayonet fittings and seals 90% of cars and lig ht commercial vehicles straight out of the box. Also suitable for motorcycles, off-road and marine applications. Supplied with set of double-end adaptors enabling testing of cooling system pressure caps. Supplied in storage case.

APPLICATIONS

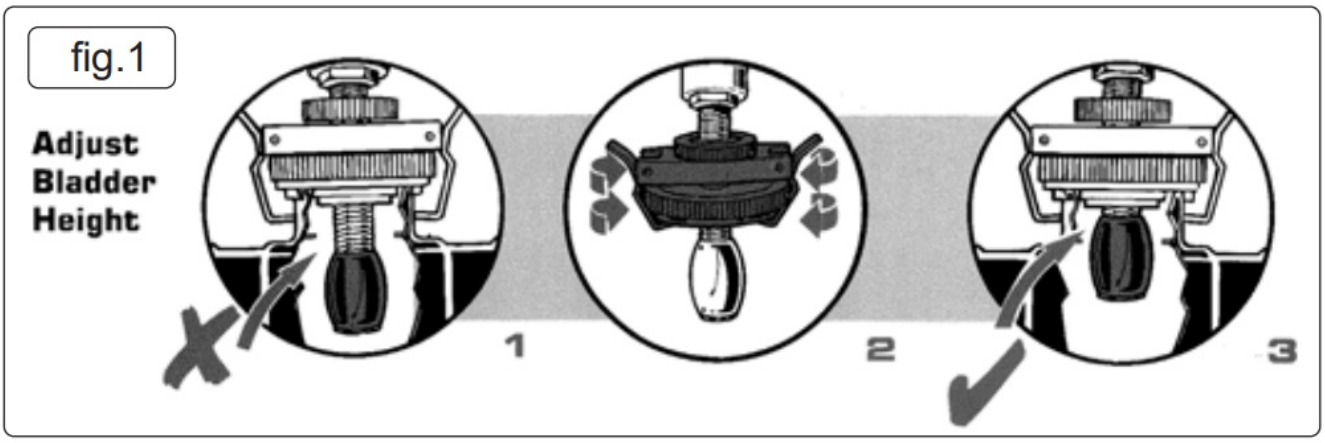
Pressure Cap Test; Standard Bayonet (Ford, GM N Body), External Thread (Jeep, Saab, VW/Audi), Internal Thread (Small Japanese Deep, VW/Audi), Internal Thread (Small Japanese Shallow, Late Model VW/Audi), External Thread (Late Model BMW, Land Rover), External Thread (Late Model Mercedes), Pressure System; Universal



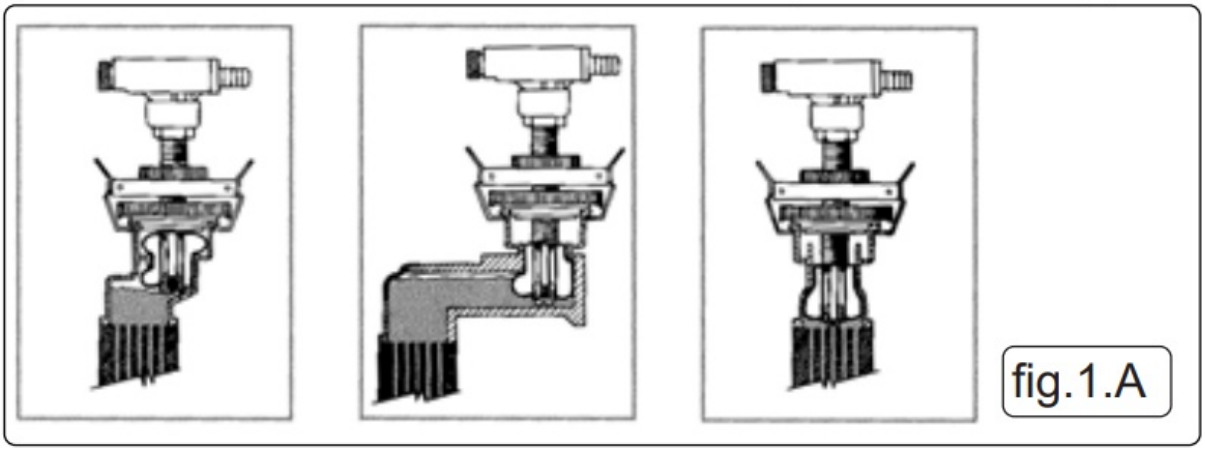
OPERATION

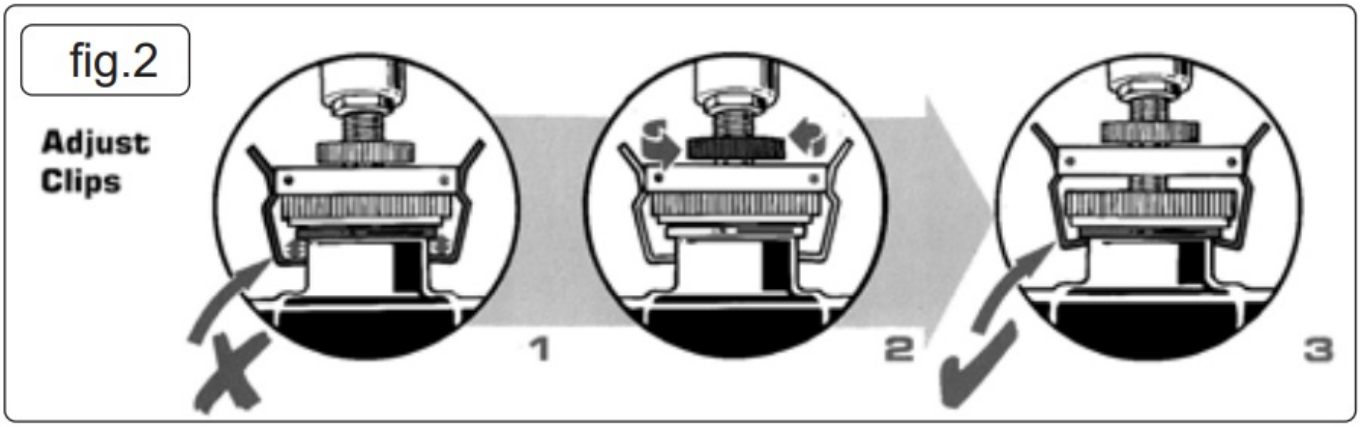
PRIOR TO TESTING

1. Make sure you have read warnings before use.
2. Remove the radiator pressure cap and check the condition.
3. Inspect the filler neck for any sharp obtrusions that may damage the bladder and remove if necessary.
4. Check coolant level and top up if required.
5. To ensure secure fitting and positive sealing two-thirds of the bladder (fig.1.3) should be below the lower flange on the radiator or header tank neck before being inflated.



NOTE: It may not always be possible to adjust the bladder the desirable position (two-thirds of the bladder below the lower flange). The flexible nature of the inflatable bladder will create the required seal in these applications.





PRESSURE TESTING

WARNING: DO NOT run engine while pressure testing. Note: If testing is being carried out on a warm engine a pressure drop may occur due to engine cool down, which may not be due to a leak. Pressurise and inspect again after cool down is complete.

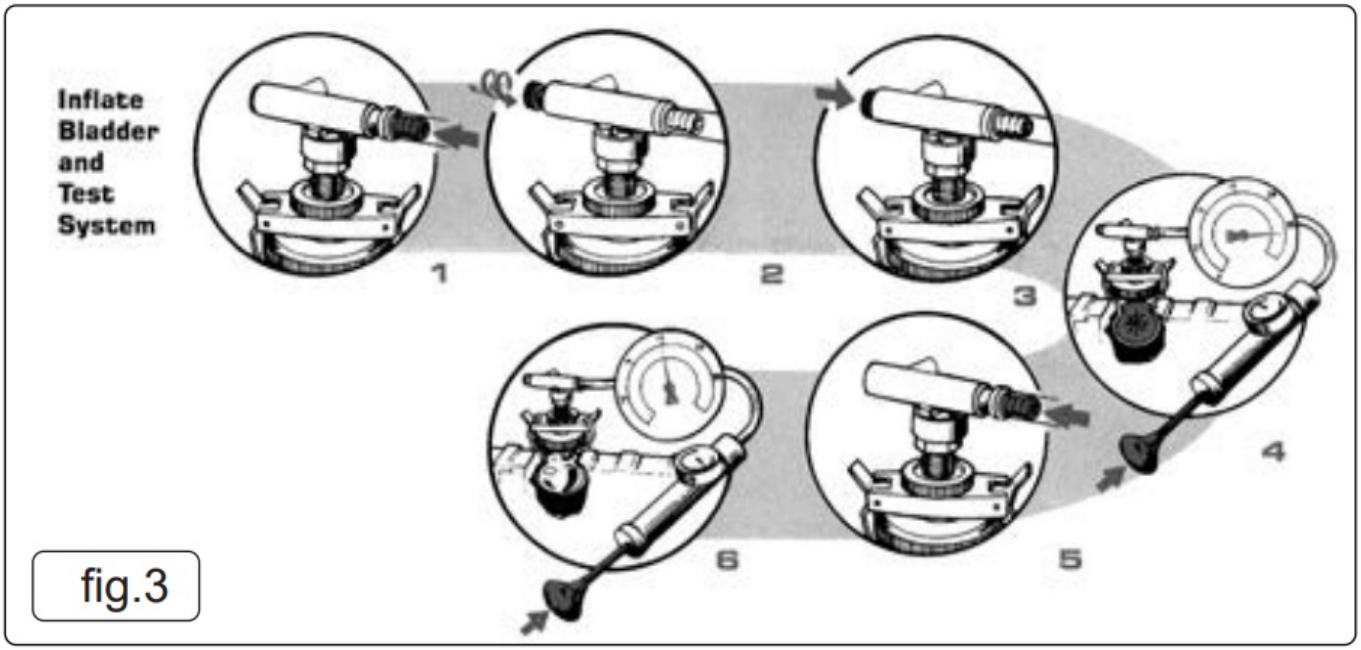


fig.3

1. Move the slide valve so that the brass bleed screw is exposed (fig.3.1).
2. Adjust pressure bleed screw clockwise until firm – DO NOT over-tighten (fig.3.2).
3. Press the brass bleed screw until the valve slides across (fig.3.3).
4. Operate the hand pump to inflate the bladder to 15 psi (DO NOT exceed this pressure) (fig.3.4) NOTE: Due to the design of the internal pump seal, a vigorous pumping action is required to activate the seal and pressurise the system. A light or slow pumping action will prove ineffective. The larger the air space within the cooling system being tested, the more vigorous the initial pumping should be. By filling the cooling system and therefore reducing the airspace within, less effort will be needed to pressurise it.
5. Move the slide valve so the brass bleed screw is exposed (fig.3.5)
6. Operate the hand pump to pressurise the system to the manufacturer-specified pressure – DO NOT exceed this pressure as system damage may occur (fig.3.6).
    - If system pressure is maintained no serious leaks are present.
    - A pressure drop indicates a system leak.
    - Continued pressure drop, visually inspect for external leaks.

REMOVAL FROM SYSTEM

WARNING: DO NOT deflate the bladder or disconnect the unit until gauge reads ‘0’ psi. Adjust pressure bleed screw anti-clockwise (fig 4.1).

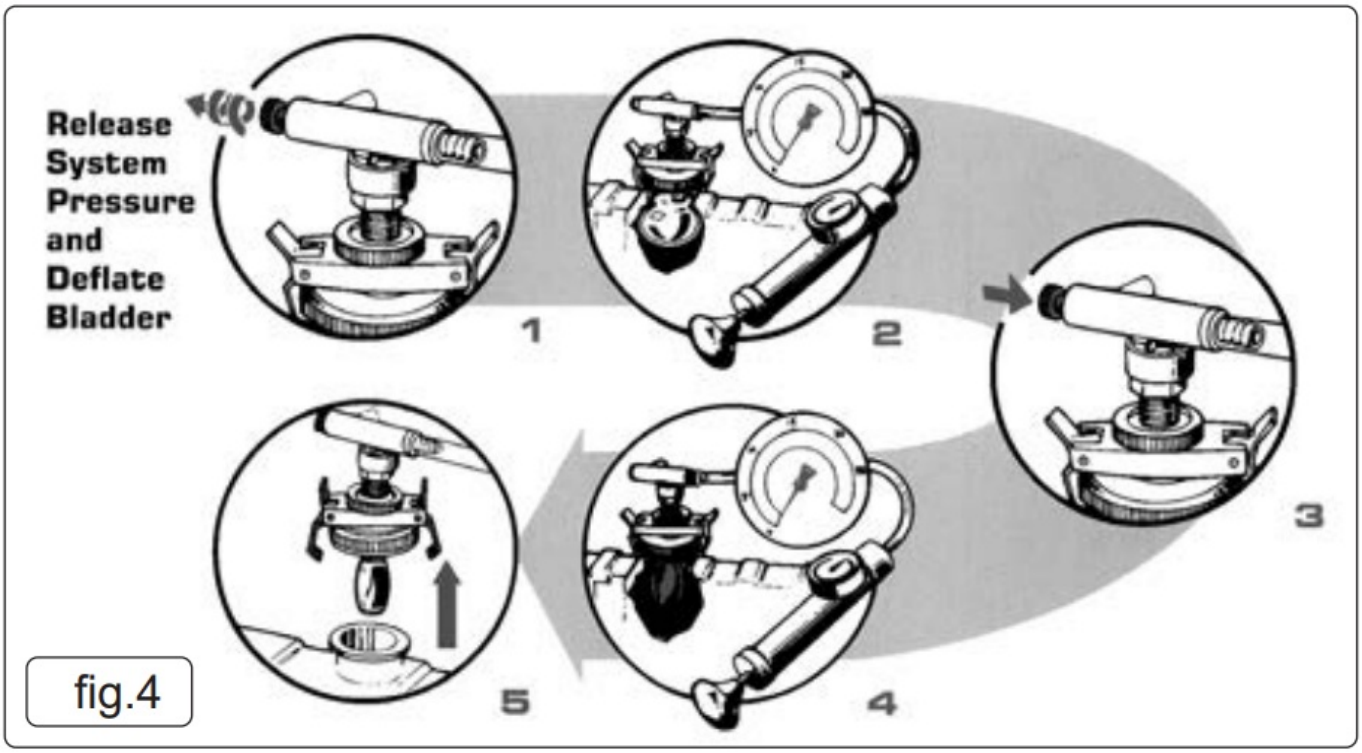


fig.4

1. Allow pressure to release via drain hose until gauge reads ‘0’ psi (fig.4.2).
2. Press on brass bleed screw until valve slides across (fig.4.3).
3. The bladder is now deflated (fig.4.4).
4. Release retaining clips and remove (fig.4.5).

MAINTENANCE

1. This unit is a testing instrument and should be treated accordingly. Keep unit clean by rinsing with water after each use to prevent internal components sticking.
2. Note: DO NOT use harsh chemicals or solvents.
3. The rubber bladder and safety seal will wear with normal use. Replace the bladder or safety seal if any deterioration is noted. BLADDER REPLACEMENT:
4. Remove the centre tube mounting screw from the base of the centre tube.
5. Remove the centre tube flange.
6. Remove bladder from stem.
7. Install new bladder onto stem using a twisting action (use water as a lubricant if required – DO NOT use grease or other lubricants). Install centre tube flange.
8. Install centre tube mounting screw with ‘O’- ring and tighten fully. Note: DO NOT over-tension.
9. Inflate the bladder to three or four times to condition and stretch the material.
10. With the bladder inflated, immerse in water to test for leaks.

TROUBLESHOOTING

PRESSURE DROP ON BLADDER CIRCUIT

1. Check the mounting of the bladder to sleeve, centre tube flange and stem.
2. Check the tension of the centre tube mounting screw.

3. Check the one-way pressure valve for leakage. Mounted in hand pressure pump. Use genuine replacement parts only. Check condition of pressure bleed screw and seat.
4. Check the condition of the side valve ‘O’-rings.

PRESSURE DROP ON SYSTEM CIRCUIT

1. First confirm the pressure drop is not due to a leak in the cooling system.
2. Check bladder size is adequate to seal tank neck. Condition bladder by inflating to 15psi three or four times off the vehicle if required.
3. Ensure correct adjustment of unit as per instructions (fig.2)
4. Check the one-way pressure valve for leakage. Mounted in pressure pump.
5. Check the condition of the pressure bleed screw and seat.
6. Check the condition of slide valve ‘O’-rings.

ENVIRONMENT PROTECTION
Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner that is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.

- **Note:** It is our policy to continually improve products and as such we reserve the right to alter data, specifications and parts without prior notice.
- **Important:** No Liability is accepted for incorrect use of this product.
- **Warranty:** The guarantee is 12 months from the purchase date, proof of which is required for any claim.

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Documents / Resources

	SEALEY VS003 Cooling System Cap Testing Kit [pdf] Instruction Manual VS003 Cooling System Cap Testing Kit, VS003, Cooling System Cap Testing Kit, System Cap Testing Kit, Cap Testing Kit, Testing Kit, Kit

References

- Sealey - Leading Professional Tool & Workshop Equipment Supplier
- User Manual