

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, AND CAUTIONS. USE THIS 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.**

## 1. SAFETY INSTRUCTIONS

- ❑ **WARNING! Ensure all Health & Safety, local authority, and general workshop practice regulations are strictly adhered to when using product.**
- ❑ **WARNING! Ensure the radiator is cool before opening the cap.**
- ✓ Maintain tester in good and clean condition for best and safest performance. DO NOT use tester if damaged.
- ✓ Wear suitable clothing to avoid snagging when working under the bonnet with the engine running.
- ✓ Do not wear jewellery and tie back long hair.
- ✓ Use proper ventilation and avoid breathing in exhaust fumes.
- ✓ Keep a fire extinguisher to hand.
- ✓ Account for all tools and parts being used and do not leave them in or near the engine.
- ✓ Keep tester parts clean and dry and store each component part in its appropriate location in the carry case.
- ✓ Thick gloves must be worn when working with this tester to protect the operator from discharges of steam from radiator or header tank.
- ✓ Arms and wrists should also be covered.
- ✓ Wear eye protection when using this product.

*IMPORTANT: Always refer to the vehicle manufacturer's service instructions, or proprietary manual, to establish the current procedure for draining off coolant.*

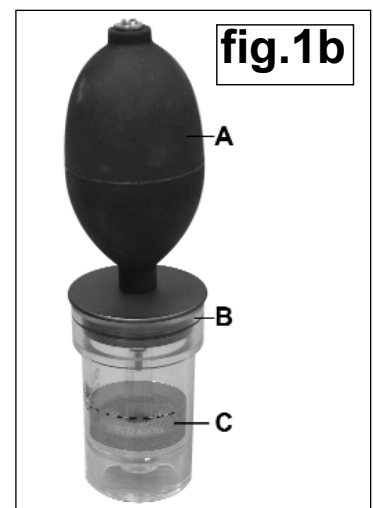
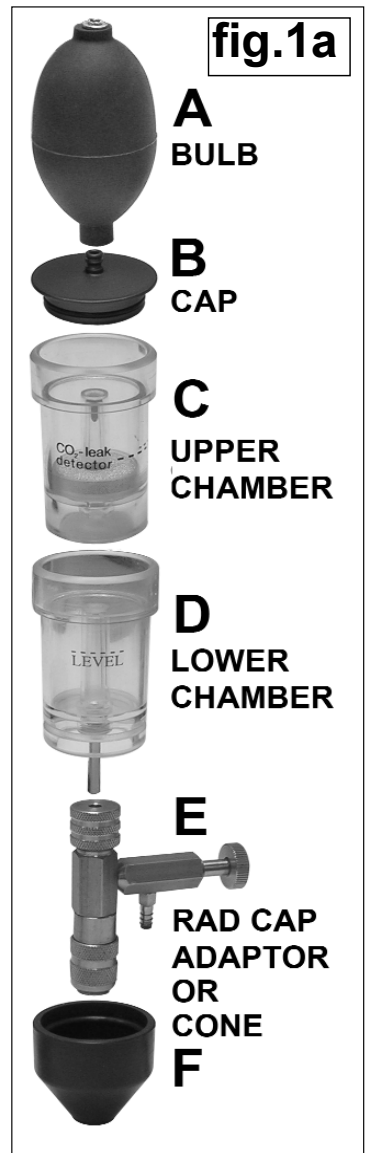
## 2. INTRODUCTION

The VS0061 combustion leakage test kit is designed to diagnose blown gaskets and cracked cylinder heads quickly and easily by checking for the presence of CO<sub>2</sub> in the cooling system. If combustion gasses are present the colour of the test fluid changes from blue to yellow. The tester comes with a cone adaptor or may be used in conjunction with radiator caps from the VS006 set. For a refill of test fluid order Part No.VS0061F.3

## 3. OPERATING INSTRUCTIONS

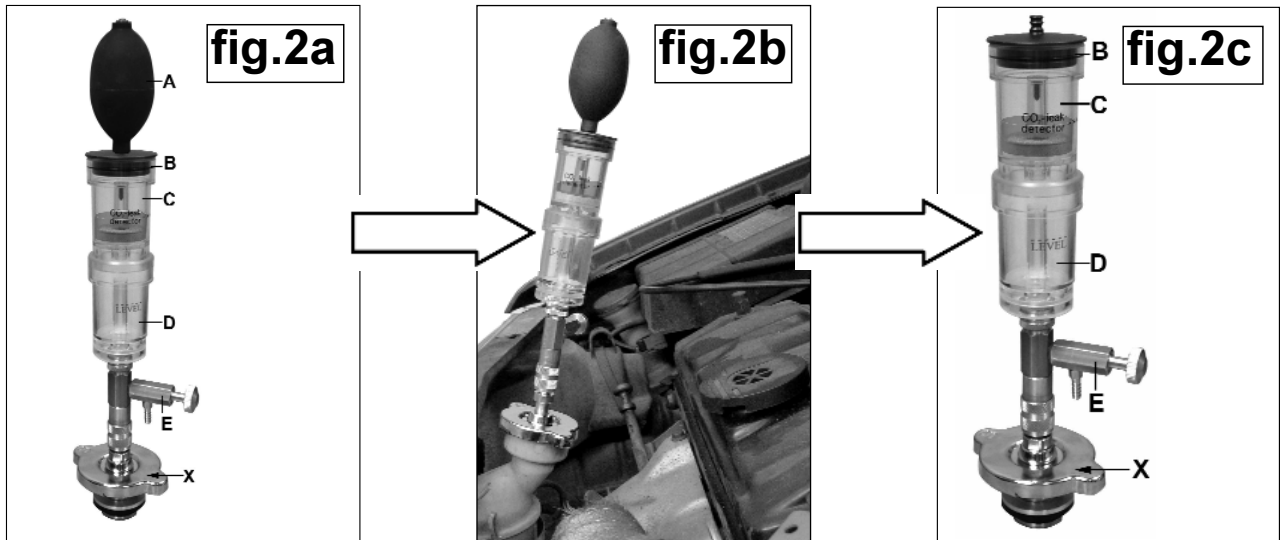
### 3.1 PREPARATION

- 3.1.1 Remove approximately 1/10 of the volume of coolant from the radiator. Consult an appropriate vehicle repair manual on the best method of doing this.
- 3.1.2 The various components of the tester are a push fit with the exception of the brass Rad Cap Adaptor which has a ring at the top which allows it to be tightened onto the tube which protrudes from the lower chamber. The two chambers are a close fit and may require a twisting action to assemble them or get them apart.
- 3.1.3. The tester component parts, as shown in fig.1, can be configured in two main ways. See over page.



### 3.2 RADIATOR/HEADER TANK ADAPTOR CONFIGURATION.

- 3.2.1 As shown in fig.2a the tester can be configured to fit onto a header tank or radiator using one of the adaptors supplied with the VS006 pressure test kit. See fig.2b. When the tube on the lower chamber 'D' is inserted into the brass adaptor 'E' ensure that the brass ring at the top of the adaptor is tightened down so that it grips the tube. The brass adaptor 'E' will be a push fit onto the radiator or header tank adaptor. Push down until it clicks into place. To release the assembly pull the ring at the bottom of the brass adaptor upwards.
- 3.2.2 Fill the upper chamber with test fluid up to the dotted line.
- 3.2.3 Turn on the vehicle engine and wait for steam to enter the lower chamber.
- 3.2.4 When steam is visible in the lower chamber pump the rubber bulb several times to draw steam into the upper chamber and observe the colour of the test fluid. If the fluid turns yellow this indicates the presence of CO<sub>2</sub> in the coolant and the need to investigate further for a suspect cylinder head gasket or cracked head.
- 3.2.5 Alternatively the tester can be used without the bulb attached as shown in fig.2c. In this configuration the steam will automatically pass into the upper chamber. Take care to keep limbs and face away from any jet of steam being expelled from the hole in the top of the cap.
- 3.2.6 As soon as the test is complete turn off the engine and allow the system to cool for a while. Before removing the tester from the radiator or header tank open the tap on component 'E' to allow any remaining pressurised steam to escape. Thick gloves must be worn during this process and when the tester and adaptor are removed from the radiator.
- 3.2.7 Remove the upper chamber from the lower chamber by twisting them apart. Pump the bulb several times to draw fresh air into the chamber. When the air mixes with the test fluid it should return to a blue colour and can be retained for future use. See fig.1b.



### 3.3. HAND-HELD CONE CONFIGURATION.

- 3.3.1 Where no adaptor is available a rubber cone can be fitted to the bottom of the tester as shown in fig.3a. This allows the tester to be held in place on a header tank (see fig.3b) or radiator opening (see fig.3c).
- ❑ **WARNING!** Thick protective gloves must be worn when using the tester in this configuration to protect the operator from any escaping steam. Great care should be taken when placing the adaptor over the radiator or header tank opening and also when removing it.
- 3.3.2 Fill the upper chamber with test fluid up to the dotted line.
- 3.3.3 Remove the radiator or header tank cap. Turn on the vehicle engine and wait for steam to appear. Place the tester onto the radiator or header tank opening and hold it down and steady so that it makes an effective seal against the opening.
- 3.3.4 As soon as steam appears in the lower chamber pump the bulb to draw the steam into the upper chamber and observe the colour of the test fluid. If the fluid turns yellow this indicates the presence of CO<sub>2</sub> in the coolant and the need to investigate further for a suspect cylinder head gasket or cracked head.
- 3.3.5 As soon as the test is complete remove the tester from the radiator opening and turn the engine off. When there is no more steam emanating from the opening replace the cap.
- 3.3.6 Remove the upper chamber from the lower chamber by twisting them apart. Pump the bulb several times to draw fresh air into the chamber. When the air mixes with the test fluid it should return to a blue colour and can be retained for future use. See fig.1b.

