

### 1. INTRODUCTION

The kit consists of ten bottles of ultraviolet dye, fittings to enable the dye to be introduced into the air conditioning system, an ultraviolet lamp to show up any leaks and UV protective goggles.

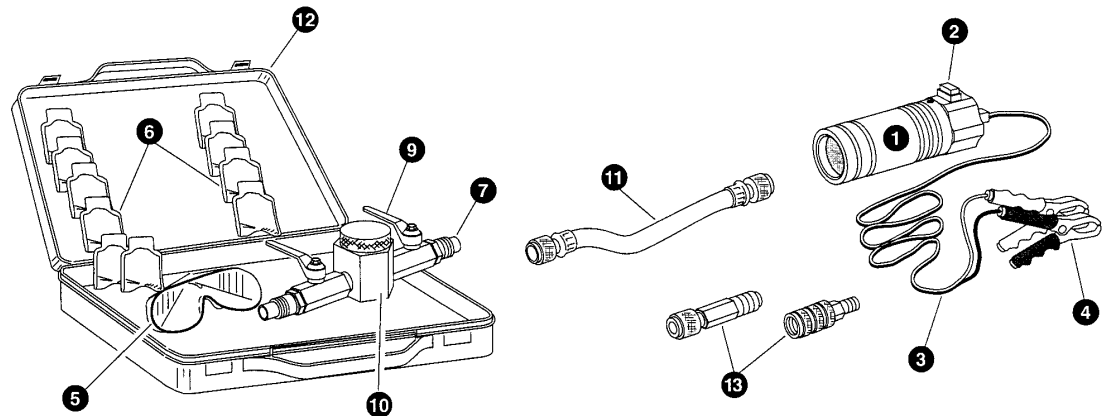
### 2. SAFETY INSTRUCTIONS

- ☐ **WARNING!** Ensure that Health and Safety, local authority and general workshop practice regulations are adhered to when using tools.
- ✗ **DO NOT** use tools if damaged.
- ✓ Maintain tools in good and clean condition for best and safest performance.
- ✓ Ensure that a vehicle which has been jacked up is adequately supported with axle stands.
- ✓ Wear supplied eye protection. A full range of personal safety equipment is available from your Sealey dealer.
- ☐ **WARNING! DO NOT** look into the UV lamp, even if wearing the UV goggles, and **DO NOT** point the lamp at other people or animals.
- ✓ Wear suitable clothing to avoid snagging. Do not wear jewellery and tie back long hair.
- ✓ Account for all tools and parts being used and do not leave them on or near the engine.
- ✓ On completion of work, place the equipment back in the carry-case and store in a cool, dry, childproof area.
- ✓ Wear suitable protective clothing, gloves and eye protection when handling the dye (Leak Detection Fluid) which can cause irritation on contact with skin and eyes. A safety data sheet covering the Leak Detection Fluid VS60012 & VS60033 is obtainable via your local Sealey dealer.

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

### 3. CONTENTS

1. UV Lamp, 12V
2. Lamp Switch
3. Lamp Cable
4. Battery Clips
5. UV Goggles
6. UV Dye, 10 Bottles
7. Injector
9. Valve
10. Reservoir
11. Hose
12. Case
13. Connectors

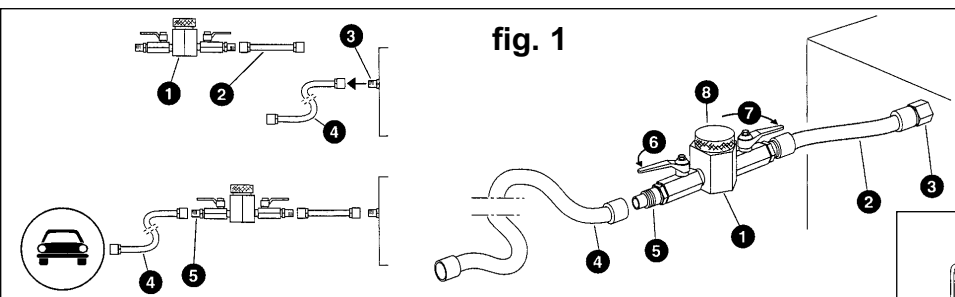


### 4. INSTRUCTIONS

#### 4.1. Installation

The dye injector (fig. 1.1) is designed to be used with air conditioning coolant recovery/recycling equipment. Connectors provided allow for permanent connection, see fig.1.

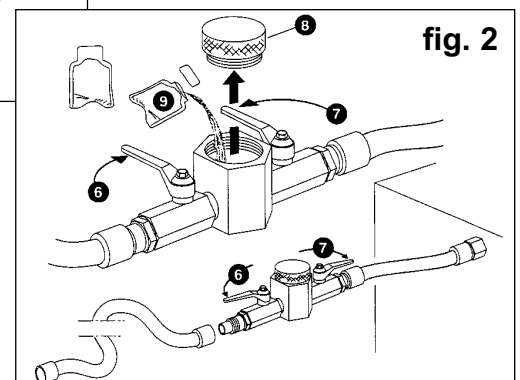
- 4.1.1. Evacuate the pipes on the recovery/recycling equipment and disconnect the low pressure hose (4).
- 4.1.2. Connect the kit hose supplied (2) to the low pressure connector (3).
- 4.1.3. Connect the injector (1) to the kit hose (2) and the low pressure hose (4) to the other injector valve (5).
- 4.1.4. Check that the injector valves (6 & 7) are open and the injector cover (8) is tightly closed.



**Ambient Range**  
Temperature . . . . . 10 to 45°C  
Humidity . . . . . 20 to 90%

#### 4.2. Dye Injection - A/C system under vacuum or low pressure (fig. 2)

- 4.2.1. Recover the remaining coolant and set the system under vacuum.
- 4.2.2. Close the two injector valves (6 & 7) and unscrew the cover (8).
- 4.2.3. Pour one bottle of dye (9) into the tank and then screw the cover back on, firmly.
- 4.2.4. Open the injector valve that is between the equipment and the car (6).
- 4.2.5. Start the recovery/recycling equipment loading function and immediately open the second injector valve (7). The air conditioning system will be charged with coolant and dye.
- 4.2.6. When the required system loading level is reached stop the recovery/recycling equipment. Leave both injector valves open.



#### 4.3. Dye Injection - A/C system under pressure

- 4.3.1. It requires a minimum of approximately 450g of coolant to flow through the injector to ensure that all the dye is transferred to the A/C system. Therefore recover this amount, or more, from the system.
- 4.3.2. Close the two injector valves (fig. 3.6 & 7).
- 4.3.3. **Warning! The injector is pressurised.** Remove the cover (fig. 3.8) slowly and with care.
- 4.3.4. Pour one bottle of dye (fig. 2.9) into the tank and then screw the cover back on, firmly.
- 4.3.5. Open the injector valve that is between the equipment and the car (fig. 2.6).
- 4.3.6. Start the recovery/recycling equipment loading function and immediately open the second injector valve (fig. 2.7). The air conditioning system will be charged with coolant and dye.
- 4.3.7. When the required system loading level is reached stop the recovery/recycling equipment. Leave both injector valves open.

#### 4.4. Dye Injection with a manometric unit (fig. 4)

- The dye injector can also be used with a manometric charging system, as shown in fig. 4.
- 4.4.1. Connect the injector pipe (1) to the low pressure fitting (2).
  - 4.4.2. Follow the instructions as for use with the recovery/recycling equipment.
  - 4.4.3. To start the coolant flow open the low pressure valve (3) of the manometric unit.

#### 4.5. Leak detection

**Note:** Leaks will be more obvious if the UV inspection is carried out in low ambient light.

- 4.5.1. Run the air conditioning for at least 10 minutes to distribute the dye throughout the system and then turn off the engine.
- 4.5.2. Connect the UV lamp to the vehicle battery terminals, or other suitable 12 volt supply, noting that correct polarity (red clamp to positive terminal) is important.
- 4.5.3. **Wearing the UV safety goggles**, point the UV lamp at the area to be inspected and then press the switch to turn it on. Switch off the lamp while redirecting it to the next area of interest.

**Warning! The lamp gets hot during use. Do not touch the lens, do not place the lamp near inflammable material and do not return the lamp to the case until it has cooled.** Leaks will become obvious as the dye will fluoresce under the UV light.

#### 4.6. Bulb replacement (fig. 5)

- 4.6.1. Remove the two body screws (1) and pull apart the lamp body, taking care not to damage the lens (3).
- 4.6.2. Disconnect the bulb (5) from the socket (4).
- 4.6.3. Fit the new bulb to the socket, ensuring that you do not touch the bulb glass (7). Always hold the bulb by the outer edge (6). Touching the glass will shorten the life of the bulb.
- 4.6.4. Reassemble the lamp and refit the two body screws (1).

fig. 5

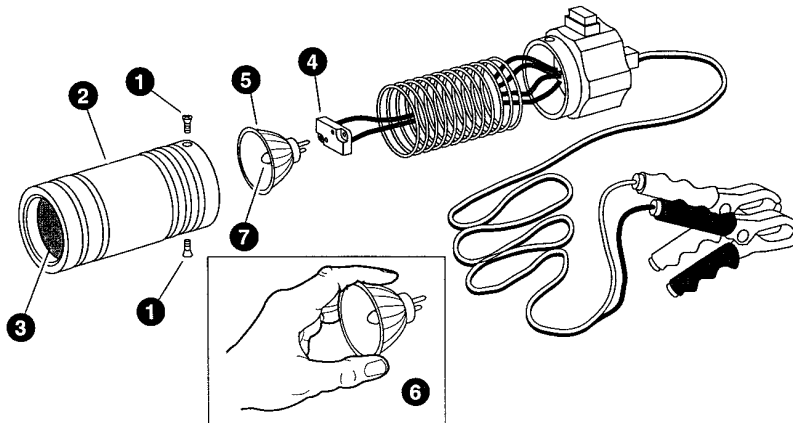


fig. 3

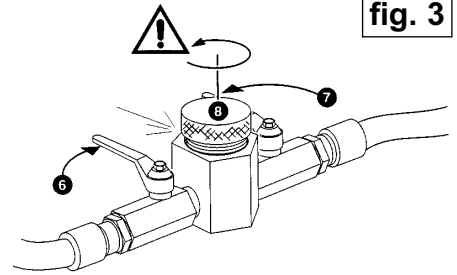
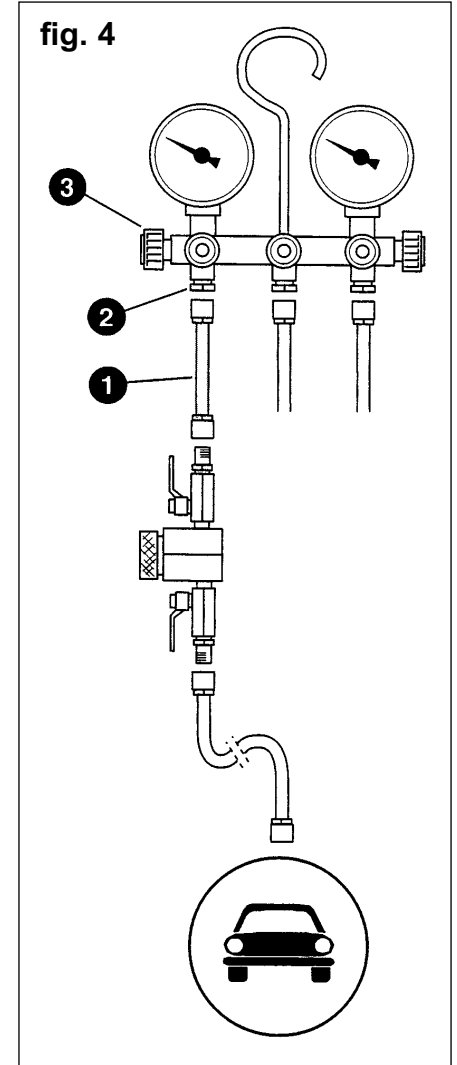


fig. 4



## 5. DECLARATION OF CONFORMITY

**Declaration of Conformity** We, the sole importer into the UK, declare that the product listed below is in conformity with the following standards and directives.

**Air Conditioning Leak Detection Kit  
Model VS600**

89/336/EEC EMC Directive  
93/68/EEC CE Marking Directive



The construction file for this product is held by the Manufacturer and may be inspected, by a national authority, upon request to Jack Sealey Ltd.

Signed by Mark Sweetman

A handwritten signature of Mark Sweetman.

21st October 2002

For Jack Sealey Ltd. Sole importer into the UK of Sealey Professional Tools.

**NOTE:** It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice.

**IMPORTANT:** No responsibility is accepted for incorrect use of this equipment.

**WARRANTY:** Guarantee is 12 months from purchase, proof of which will be required for any claim.

**INFORMATION:** For a copy of our latest catalogue and promotions call us on 01284 757525 and leave your full name and address, including postcode.



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