



# REFRACTOMETER ANTIFREEZE/BATTERY FLUID/ SCREENWASH/ADBLUE®

MODEL NO: VS0052.V3

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.



Refer to  
instruction  
manual



Wear eye  
protection



Wear protective  
gloves

## 1. SAFETY

- ✓ Familiarise yourself with the applications and limitations of the refractometer.
- ✓ Keep the meter clean and in good condition.
- ✗ **DO NOT** use the meter for any purpose other than that for which it is designed.
- **WARNING! When testing fluids, especially battery fluid, ensure that none comes into contact with your eyes or skin since serious injury could result. Wear protective gloves and clothes. Ensure that all general workshop safety rules are applied when working with vehicle batteries.**

## 2. INTRODUCTION

Accurately measures the strength of battery fluid, screenwash, antifreeze and AdBlue® by measuring the refractive index of light passing through the mixture. Suitable for synthetic antifreeze mixtures including long-life OAT (Organic Acid Technology), G13 and aqueous/urea content of AdBlue®. Temperature corrected prism ensures accuracy. Eyepiece with adjustable focus. Simple calibration check using distilled water. Supplied with pipette, sample spatula, carry sleeve and storage case with foam inserts.

## 3. SPECIFICATION

Model No.: VS0052.V3  
Nett Weight: 0.32 kg

## 4. CONTENTS

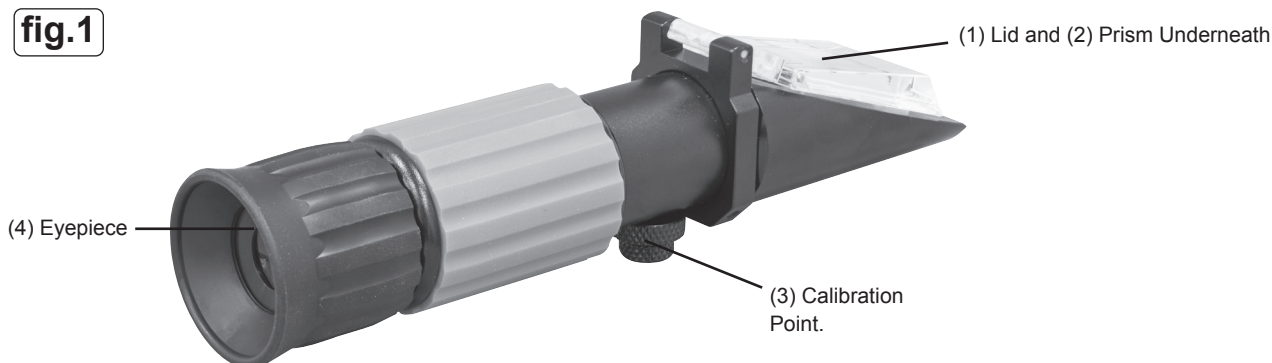
- 4.1. Refractometer, pipette, sample spatula, carry sleeve and storage case with foam inserts.

## 5. OPERATION

- 5.1. Check that the prism and lid are clean.
- 5.2. Open lid, hold tester so that prism surface is level and with pipette, place a drop of the fluid onto the prism.
- 5.3. Close the lid, to disperse the fluid evenly with no bubbles.
- 5.4. Turn eyepiece so that the display is correctly focused.
- 5.5. Read off the value, on the appropriate scale, indicated by the pronounced LIGHT-DARK dividing line.
- 5.6. On completion of each test carefully clean the prism with a lint-free dry cloth. The tester incorporates a display, subdivided into five scales see fig.2 overleaf, from which to check the following fluids.



fig.1



Refer to fig.2 for the following tests

## 6. ANTIFREEZE TEST

- 6.1. Read the test procedure.
- 6.2. For Propylene Glycol read the **left side of centre scale**. For Ethylene and OAT read the **right side of centre scale**.

## 7. WINDSCREEN WASHER TEST

- 7.1. Read the test procedure.
- 7.2. Refer to **lower right hand scale** (under the screen wash symbol). Note: Variations in formulation of windscreen washer fluids may result in an average value for a variety of alcohol based anti-freeze mixtures, this test is therefore a guideline only.

## 8. BATTERY FLUID TEST

- 8.1. Read the test procedure.
- 8.2. Refer to scale under the battery symbol, which Indicates the density of the battery fluid in kg per litre and the ranges for **Recharge, Fair and Good**.

## 9. UREA/ADBLUE TEST

- 9.1. Read the test procedure.
- 9.2. Refer to **scale 'Urea'** which indicates the percentage of urea to distilled water in Adblu: 32.5% indicates the most desirable percentage of urea in the solution.

## 10. CALIBRATION

- 10.1. For best results an ambient temperature of 20°C for both refractometer and fluid being tested is recommended.
- 10.2. To test instrument accuracy, place distilled water on the prism and check that the LIGHT-DARK dividing line is level with the "WATERLINE". If the reading is incorrect remove the black rubber cover from the calibration point (3). Insert the small supplied screwdriver into the hole in the calibration point. Turn the screwdriver whilst looking through the eyepiece until the waterline mark is on the light-dark dividing line.

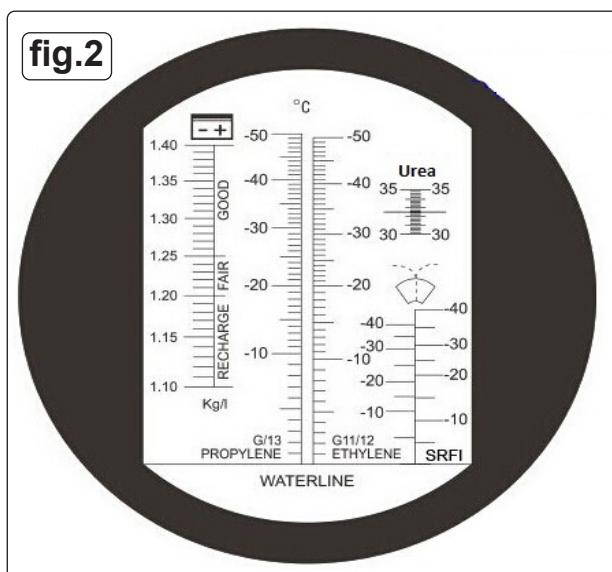
## 11. MAINTENANCE

- 11.1. Keep the unit clean. Protect eye lens, display lid and prism to prevent scratching.
- 11.2. After use and cleaning, store in supplied foam lined and plastic case.

## 12. END OF LIFE

- 12.1. Dispose of all elements in accordance with local, regional and national guidelines / regulations.

fig.2



### 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 which 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 component parts without prior notice. Please note that other versions of this product are available. If you require documentation for alternative versions, please email or call our technical team on [technical@sealey.co.uk](mailto:technical@sealey.co.uk) or 01284 757505.

**Important:** No Liability is accepted for incorrect use of this product.

**Warranty:** Guarantee is 12 months from purchase date, proof of which is required for any claim.



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PURCHASE HERE

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