



INSTRUCTIONS FOR: DIGITAL BATTERY TESTER WITH PRINTER

MODEL No: **BT2013.V5**

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.

1. SAFETY

DANGER! BE AWARE, LEAD-ACID BATTERIES GENERATE EXPLOSIVE GASES DURING NORMAL BATTERY OPERATION. FOR THIS REASON, IT IS VERY IMPORTANT TO READ AND FOLLOW THESE INSTRUCTIONS CAREFULLY, EACH TIME YOU USE THE BATTERY TESTER.

Follow these instructions and those published by the battery and vehicle manufacturers, and the maker of any equipment you intend to use in the vicinity of the battery. Remember to review warning marks on all products and on engines.



Read instructions before use



Explosive material



Wear eye protection



Corrosive substance



No open flames



Indoor use only

1.1. PERSONAL PRECAUTIONS

- ▲ **IMPORTANT!** Observe all Warning Symbols.
- ☐ **WARNING!** Wear approved eye protection. Wear appropriate Personal Protective Equipment. A full range of Personal Protective Equipment is available from your Sealey dealer.
- ✓ Remove personal metallic items such as rings, bracelets, necklaces and watches. A lead-acid battery can produce a short-circuit current high enough to melt or weld a ring, which would cause severe burns.
- ✓ Ensure that hands and clothing are clear of fan blades and other moving or hot engine parts. Remove ties and ensure that belts cannot become entangled.
- ✓ Ensure that there is another person within hearing distance and is able to come to your aid should a problem arise when working near a lead-acid battery.
- ✓ Have fresh water nearby in case battery acid contacts skin or clothing; flush affected area immediately. If acid enters eyes, flush immediately with clean running water for a minimum of 15 minutes, seek medical attention.
- X **DO NOT** smoke or allow a spark or flame in the vicinity of the battery or engine.

1.2. GENERAL SAFETY INSTRUCTIONS

- ✓ Familiarise yourself with the application, limitations and potential hazards of the tester. Also refer to the vehicle manufacturer's hand book. **IF IN ANY DOUBT CONSULT A QUALIFIED ELECTRICIAN.**
- ✓ Ensure that the tester is in good condition before use. If in any doubt do not use the unit and contact a qualified electrician.
- ✓ Only use recommended attachments and parts. To use unapproved items may be dangerous and will invalidate your warranty.
- ✓ Keep tools and other items away from the engine and ensure that you can see the battery and working parts of engine clearly.
- ✓ Determine the system voltage before using the tester.
- ✓ If the tester receives a sharp knock or blow the unit must be checked by a qualified service agent before using.
- ✓ Clean battery terminals before using the tester.
- ✓ Keep children and unauthorised persons away from the work area.
- X **DO NOT** disassemble the tester for any reason. The tester must only be checked by qualified service personnel.
- ☐ **WARNING!** To prevent the risk of sparking, short circuit and possible explosion **DO NOT** drop metal tools in the battery area, or allow them to touch the battery terminals.
- X **DO NOT** cross-connect tester to battery. Ensure positive (RED) clamp is to positive terminal and negative (BLACK) clamp is to negative terminal. If battery symbols cannot be distinguished, remember that the negative terminal is the one directly connected to the vehicle bodywork.
- X **DO NOT** use the tester outdoors, or in damp, or wet locations and **DO NOT** use in the vicinity of flammable liquids or gases.
- ✓ Ensure there is effective ventilation to prevent a build-up of explosive gases.
- X **DO NOT** use the tester for a task for which it is not designed.
- ✓ When not in use, store the tester carefully in a safe, dry, childproof location.

2. INTRODUCTION

Fast, accurate diagnosis and recording of battery faults. Tests battery condition and charge level. LCD Screen shows easy-to-follow test prompts and results. Integral printer will produce hard-copy results for your own or customer's records. Suitable for GEL, AGM, VRLA, SLI batteries. Supplied with carry-case, four AA batteries, two printer rolls and instruction manual.

3. SPECIFICATION

MODEL No:	BT2013.V5	Rated Systems:	DIN, EN, IEC, JIS, SAE
Rated Battery Voltage:	6-12V	Test Range:	25-1300CCA DIN
Printer rolls (Pack of 2):	BT2003.01		40-2100CCA EN
Note: CCA = Cold Cranking Amps			30-1500CCA IEC
			By battery type JIS
			40-2000CCA SAE

Battery Type:
Regular liquid.
AGM Flat Plate.
AGM Spiral.
Gel.

4. CONTENTS

Item.....	Description.....	Qty
1.....	Analyser/Lead/Crocodile Clips.....	1-set
2.....	Rubber Jacket.....	1
3.....	Printer Rolls.....	2
4.....	"AA" 1.5v Batteries.....	4
5.....	Blow Mould Carry Case.....	1



4. OPERATION

❑ **WARNING!** Ensure that you read, understand and apply the safety and operational instructions before connecting the tester clamps to the battery. Only when you are sure that you understand the procedures is it safe to proceed with the testing process.

4.1. PREPARATION

❑ **WARNING!** Ensure that the vehicle, or battery, is in a well ventilated area before starting to test.

4.1.1. Check battery casing for cracks or leakage. If damage is found **DO NOT** test, replace battery.

4.1.2. Clean battery terminals.

4.1.3. If possible, check electrolyte levels and top-up with distilled water as necessary.

4.1.4. Unless otherwise specified, tests are carried out with **all** electrical items switched off. **Leaving any items on (boot light, interior light, etc.) can result in misdiagnosis.**

4.1.5. Confirm that the 4 x AA Batteries (supplied) are correctly fitted (fig.2) in the compartment in the rear of the tester. Batteries are best fitted with the rubber jacket removed (fig.3)

Note that nothing will be seen on the display until the tester is connected to a vehicle battery.

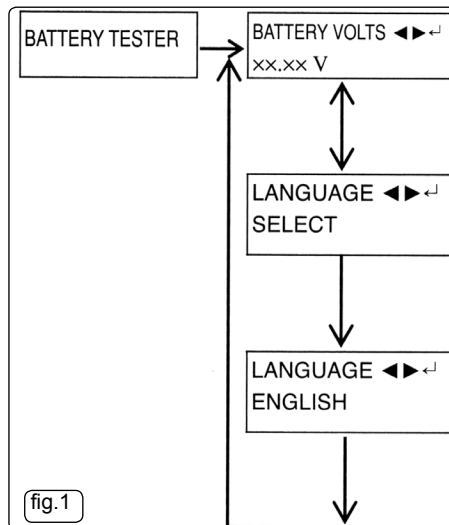
4.1.6. Connect the red clamp to the positive (+) battery terminal and the black clamp to the negative (-) terminal. When the internal battery becomes discharged the display will read **INTERNAL BATTERY LOW.**

4.1.7. If there is a poor connection the display will read **CHECK CLAMPS**, otherwise the display will read **BATTERY TEST.**

4.1.8. Paper Load: Open the clear cover. Insert the paper in the feeder, it will auto feed in to the printer.

4.2. DISPLAY GENERAL

By pressing the < (forward) and > (backward) buttons the display will cycle through the options. Press **ENTER** button when the option you require is displayed.



Use the < (forward) and > (backward) buttons to select language or press ENTER to commence battery test

Use the < (forward) and > (backward) buttons to return to battery test or press ENTER to set language.

Use the < (forward) and > (backward) buttons to select language. English, French, German, Spanish, Italian, Portuguese or Japanese. Press ENTER to confirm choice and return to battery test.

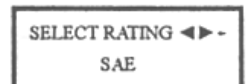
4.3. BATTERY TEST

4.3.1. With battery test screen displayed press ENTER.

4.3.2. Use the < (forward) and > (backward) buttons to select the battery type: Regular Liquid, AGM Flat Plate, AGM Spiral or Gel. Press ENTER to confirm choice.



4.3.3. Use the < (forward) and > (backward) buttons to select the battery rating: SAE, EN, IEC, DIN or JIS. Press ENTER to confirm.



4.3.4. Use the < (forward) and > (backward) buttons to input the battery capacity.

CCA:

DIN: 25 - 1300

EN: 40 - 2100

IEC: 30 - 1500

JIS: By battery type

SAE: 40 - 2000



Press ENTER to begin test.

TESTING

4.3.5. Battery being tested for a few seconds.

4.3.6. Press < (forward) or > (backward) buttons to select battery fully charged: **Yes** or **No**. Press ENTER to confirm choice.

IS BATTERY ◀▶ ↵
CHARGED? YES

4.3.7. When the test is complete, the LCD shows the actual volts and CCA Press < (forward) or > (backward) buttons to select: SOH (State of Health) or SOC (State of Charge).
One of the following results will be displayed.

4.3.8. **GOOD & PASS:** Battery is capable of holding a charge.

GOOD & PASS
xx,xxV xxxx SAE

4.3.9. **GOOD & RECHARGE:** The battery is good but needs to be recharged.

GOOD & RECHARGE
xx,xxV xxxx SAE

4.3.10. **RECHARGE & RETEST:** Battery is discharged, the battery condition cannot be determined until it is fully charged. Recharge and retest.

RECHARGE & RETEST
xx,xxV xxxx SAE

4.3.11. **BAD & REPLACE:** The battery will not hold its charge. Replace.

BAD & REPLACE
xx,xxV xxxx SAE

4.3.12. **BAD CELL & REPLACE:** The battery has at least one cell short circuit. Replace.

BAD CELL & REPLACE
xx,xxV xxxx SAE

4.3.13. **LOAD ERROR:** The tested battery is larger than 2000CCA or 200Ah. Or the clamps are not connected properly. *Please fully charge the battery and retest after excluding both previous reasons. If reading is the same, the battery should be replaced immediately.*

LOAD ERROR

NOTE! The operator is asked if any accessories are left on as a possible cause. If accessories are left on, the operator is instructed to charge and retest the battery. If accessories are not left on, the operator is instructed to replace the battery since the charging system is working and a good battery should have accepted a charge.

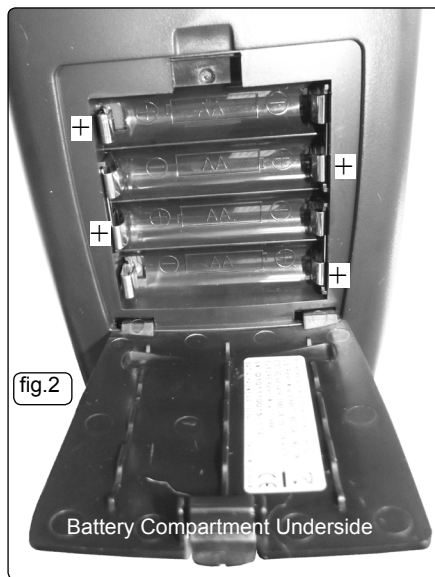
4.3.14. Press < (forward) or > (backward) buttons to select result printing: Yes or No. Press ENTER to confirm choice.

PRINT RESULT? ◀▶ ↵
NO

4.3.15. Press ENTER to return to the start screen or remove the clamps from the battery after completion of testing.

5. MAINTENANCE

- 5.1. After each use clean the tester clips.
- 5.2. Clean the tester casing, jacket and lead with a soft cloth and mild detergent solution.
- 5.3. Keep the tester leads loosely coiled during storage without snagging or crushing.
- 5.4. **DO NOT** attempt to repair damaged leads, these must be replaced by your Sealey service agent or a qualified person.
- 5.5. **DO NOT** attempt to repair tester electronics, this must be done by your Sealey service agent or a qualified person.
- 5.6. Replace "low" batteries as described in 4.1.5.. Observe polarity from fig.2 and read the note on **Battery Removal** below.



Battery Removal
Remove rubber cover and open battery compartment to remove batteries.
Under the Waste Batteries and Accumulators Regulations 2009, Jack Sealey Ltd are required to inform potential purchasers of products containing batteries (as defined within these regulations), that they are registered with Valpak's registered compliance scheme. Jack Sealey Ltd's Batteries Producer Registration Number (BPRN) is BPRN00705.



Environmental 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 off any fluids (if applicable) into approved containers and dispose of the product and the fluids according to local regulations.



WEEE Regulations
Dispose of this product at the end of its working life in compliance with the EU Directive on Waste Electrical and Electronic Equipment (WEEE). When the product is no longer required, it must be disposed of in an environmentally protective way. Contact your local solid waste authority for recycling information.

Parts support is available for this product. To obtain a parts listing and/or diagram, please log on to www.sealey.co.uk, email sales@sealey.co.uk or telephone 01284 757500.

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 liability is accepted for incorrect use of this product.

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



SEALEY

Sole UK Distributor, Sealey Group,
Kempson Way, Suffolk Business Park,
Bury St. Edmunds, Suffolk,
IP32 7AR



01284 757500

01284 703534



www.sealey.co.uk

sales@sealey.co.uk