



INSTRUCTIONS FOR: BATTERY DROP TESTER MODEL: BT91/3

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.

1. SAFETY INSTRUCTIONS



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.

1.1. PERSONAL PRECAUTIONS

- ✓ Ensure there is another person within hearing range of you and close enough to come to your aid, should a problem arise when working near a lead-acid battery.
- ✓ Wear safety eye protection and protective clothing. Avoid touching eyes while working near battery.
- ✓ Have fresh water and soap nearby in case battery acid contacts skin, clothing, or eyes.
- ✓ Wash immediately with soap and water if battery acid contacts skin or clothing. If acid enters eye, flush eye immediately with cool, clean running water for at least 15 minutes and seek immediate medical attention.
- ✓ Remove personal metallic items such as rings, bracelets, necklaces and watches. A lead-acid battery can produce a short-circuit current which is high enough to weld such items to the vehicle, which would cause severe burns.
- ✓ Ensure hands, clothing (especially belts) are clear of fan blades and other moving or hot parts of engine. Remove ties and contain long hair.
- 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.
- ✓ Confirm that the battery to be tested is 12 volt, and not 6V or 24V, 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.
- ✓ If the battery terminals are corroded or dirty clean them before using the tester.
- ✓ Keep children and unauthorised persons away from the work area.
- x **DO NOT** dis-assemble 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** use the tester outdoors, or in damp, or wet locations and **DO NOT** use within 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.
- x **DO NOT** connect the tester for more than 8 seconds at a time. Use for longer may result in

2. INTRODUCTION

The BT91/3 is a traditionally styled drop tester for all 12 volt automotive batteries. It applies a load across the cells and measures the output on the meter. This gives an accurate indication of the battery voltage, a faulty cell or a short circuited cell.

3. OPERATION

- ❑ **WARNING!** Ensure you read, understand and apply the safety and operational instructions before applying the tester probes to the battery. Only when you are sure that you understand the procedures is it safe to proceed with the testing process.
- 3.1. Preparation
 - 3.1.1. Check battery casing for cracks or leakage and confirm that it is 12 volts.
 - 3.1.2. Clean battery terminals.
 - 3.1.3. If possible, check electrolyte levels and top up with distilled water as necessary.
- ❑ **WARNING!** Ensure vehicle, or battery, is in a well ventilated area before starting to test.
- 3.1.4. Remove the caps from the ends of the probes, press one probe to the positive (+) battery terminal and the other probe to negative (-) terminal. Note that this tester is not polarity sensitive. If the pointer does not move, either there is a bad connection **or** the battery is completely dead.
- 3.1.5. Note the meter reading, remove the tester from the battery and re-fit the caps to the end of the probes.
- 3.1.6. Refer to the chart below for diagnostics.

BATTERY CONDITION	METER READING	ACTION NECESSARY
1. Battery fully charged and healthy.	Needle will indicate approximately 9 volts and will remain steady in this position. Note: Smaller capacity or 'Economy' batteries may read 7 or 8 volts. Very heavy duty batteries may read a steady 10 or 11 volts.	
2. Battery healthy but discharged.	Needle will indicate as above but will drop away steadily to 3 volts and remain there.	This condition should be checked by the use of a hydrometer and battery should be removed, re-charged and re-tested.
3. Faulty cell*	Needle will indicate approximately 9 volts and drop rapidly to approximately 3 volts and remain there or rise slowly to approximately 6 volts.	Battery should be replaced.
4. Shorted cell(s)	Needle will indicate zero volts and then rise to approximately 6 volts and remain there.	Battery should be replaced.
* Condition indicated in 3 & 4 may cause suspect cell to "Boil".		

Declaration of Conformity We, the sole UK importer, declare that the products listed below are in conformity with the following standards and directives.

The construction files for these products are held by the Manufacturer and may be inspected, by a national authority, upon request to Jack Sealey Ltd.

12V Battery Tester

Model: BT91/3

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



Signed by Mark Sweetman

17th September 2006

For Jack Sealey Ltd. Sole UK importer of Sealey Power Products.

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 product.

WARRANTY: Guarantee is 12 months from purchase date, 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.



Sole UK Distributor
Sealey Group,
Bury St. Edmunds, Suffolk.

01284 757500
01284 703534

www.sealey.co.uk
sales@sealey.co.uk

BT91/3 - 2 - 200906