12/24V COMPACT SMART BATTERY CHARGER AND MAINTAINER 15A/25A

MODEL NO'S: **SCBC15, SCBC25**

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 instructions | Wear eye protection | Warning | Electrical shock hazard | Indoor use only | Keep in dry area protect from rain | Keep away from sources of ignition | Use in well ventilated areas

1. SAFETY

1.1. ELECTRICAL SAFETY

❑ **WARNING!** It is the user's responsibility to check the following:

✓ Check all electrical equipment and appliances to ensure that they are safe before using.

✓ Inspect power supply leads, plugs and all electrical connections for wear and damage.

✓ Ensure that the insulation on all cables and on the appliance is safe before connecting it to the power supply.

× **DO NOT** use worn or damaged cables, plugs or connectors.

✓ Ensure that any faulty item is repaired or is replaced immediately by a qualified electrician.

✓ If the cable or plug is damaged during use, switch off the electricity supply and remove from use.

✓ If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard. Ensure that repairs are carried out by a qualified electrician.

✓ Sealey recommend that an RCD (Residual Current Device) is used with all electrical products.
Important: Ensure that the voltage rating on the appliance suits the power supply to be used and that the plug is fitted with the correct fuse.

× **DO NOT** pull or carry the appliance by the power cable.

× **DO NOT** pull the plug from the socket by the cable.

1.2. GENERAL 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 CHARGING EQUIPMENT.**

❑ **WARNING!** During charging the battery must be placed in a well ventilated area.

✓ Follow these instructions and those published by the battery and vehicle manufacturer, 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.

❑ **WARNING!** Modern vehicles contain extensive electronic systems.
You are required to check with the vehicle manufacturer, for any specific instructions regarding the use of this type of equipment on each vehicle.

✓ No liability will be accepted for damage/ injury, where this product is not used in accordance with all instructions.

1.3. PERSONAL PRECAUTIONS

✓ Ensure there is another person within hearing range of your voice 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 a ring or the like to metal, 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.

× **DO NOT** smoke or allow a spark or flame in the vicinity of battery or engine.

1.4. CHARGING SAFETY INSTRUCTIONS

✓ Familiarise yourself with the application and limitations of the charger as well as the potential hazards.
Also refer to the vehicle manufacturer's hand book. IF IN ANY DOUBT CONSULT A QUALIFIED ELECTRICIAN.

✓ Ensure the charger is in good order and condition before use. If in any doubt **DO NOT** use the unit, contact your Sealey stockist.

✓ Use the charger in horizontal position only and ensure it is placed on a stable surface which will adequately support its weight.

1.4.1. Connection Procedure

✓ The battery terminal not connected to the chassis has to be connected first. The other connection is to be made to the chassis, remote from the battery and fuel line. The battery charger is then to be connected to the supply mains.
After charging, disconnect the battery charger from the supply mains. Then remove the chassis connection and then the battery connection.

✓ Keep tools and other items away from the engine and ensure you can see the battery and working parts of engine clearly.

✓ Ensure the output of the charger is the same voltage as the battery.

✓ If battery has caps to access the battery fluid, remove the caps and check the fluid level before connecting the power clamps.

- ✓ If necessary top-up the battery with distilled water by referring to the battery manufacturer's instructions. Apply the personal safety precautions described in part 1.3.
- ✓ If the charger 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 attaching the power clamps.
- ✓ Keep children and unauthorised persons away from the working area.
- × **DO NOT** dis-assemble the charger for any reason. The charger must only be checked by qualified service personnel.
- × **DO NOT** try to charge a non-rechargeable battery.
- × **DO NOT** try to charge battery if battery fluid is frozen.
- ❑ **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.
- × **DO NOT** allow power clamps to touch each other or to make contact with any metallic part of the vehicle.
- × **DO NOT** cross connect power leads from charger to battery. Ensure positive (+/RED) is to positive and negative (-/BLACK) is to negative.
- × **DO NOT** pull the cables or clamps from the battery terminals.
- × **DO NOT** use the charger outdoors, or in damp, or wet locations and **DO NOT** operate within the vicinity of flammable liquids or gases.
- × **DO NOT** use charger inside vehicle or inside engine compartment.
- ✓ Ensure there is effective ventilation to prevent a build-up of explosive gases, and **DO NOT** cover or obstruct charger ventilation louvres.
- × **DO NOT** use the charger for a task for which it is not designed.
- ❑ **WARNING! DO NOT** simultaneously charge batteries of different capacities or discharge levels.
- ❑ **WARNING!** If a fuse blows, ensure it is replaced with an identical fuse type and rating. Use only Sealey genuine parts.
- ✓ When not in use, store the charger carefully in a safe, dry, childproof location.
- ✓ An extension cord should not be used unless absolutely necessary. Use of an improper extension cord could result in a risk of fire and electric shock. If an extension cord must be used, make sure:
  • That the pins on the plug of the extension cord are the same number, size and shape as those of the plug on the charger.
  • That the extension cord is properly wired and in good electrical condition.
  • That the wire size is large enough for the AC ampere rating of the charger as specified.
- ✓ To reduce the risk of electric shock, unplug the charger from the outlet before attempting any maintenance or cleaning. Simply turning off the controls will not reduce this risk.
- ✓ A marine (boat) battery must be removed and charged on shore. To charge it on-board requires equipment specially designed for marine use.
- ✓ Children from age 8 years and above, persons with reduced physical, sensory, or mental capabilities those with lack of experience and knowledge can use the appliance, if they have been given supervision or instruction concerning use of the appliance in a safe way to understand the hazards involved.
- × Children shall **NOT** play with the appliance.
- ✓ Cleaning and user maintenance on the appliance shall not be made by children without supervision.
- ✓ The appliance shall be disconnected from its power source during service and when replacing parts and, if that the removal of the plug is foreseen, it shall be clearly indicated that the removal of the plug has to be such that an operator can check from any of the points to which he has access that the plug remains removed.

2. INTRODUCTION

Intelligent trickle 9-Stage battery charger, designed to optimise the condition of the battery and deliver charge when needed. Compatible with all AGM, Gel and VRLA flooded batteries commonly found in everything from automotive and farm equipment to motorcycles, ATVs, golf buggies and lawnmowers. Also suitable for charging lithium batteries (12V only). Microprocessor constantly regulates the voltage pattern allowing the battery to be recharged fully and safely without fear of overcharging. Extra-long reach across the workshop/garage with a 2m power supply cable length and 2m cable and clamp length. Safety features include overcharge, overheating, short circuit and reverse polarity protection. Output (12V/24V): 12V 5A or 15A, 12V 10A Lithium, 24V 7.5A.

3. SPECIFICATION

Speci	SCBC15	SCBC25
Cable & Clamp Length	2m	
Fuse Rating	13A	
Weight	1.65kg	
Plug Type	3 pin	
Power Supply Cable Length	2m	
Output	12/24V	
Supply	230V	
Output Charge	12V - 5/15A 12V Lithium -10A 24V - 7.5A	12V - 5A, 25A, 24V 12.5A, Lithium 15A
Battery Range	12V - 45-300Ah, 24V - 25-150Ah.	12V - 75-500Ah, 24V - 45-250Ah.

No. of cells and rated capacity of batteries that can be charged:
12V Lead Acid Battery:..... 6 Cells
24V Lead Acid Battery:..... 12 Cells
12V LiFePO4 Battery: ..... 4 Cells

4. BATTERY CHARGING

NOTE: Ensure all information from the Safety section is understood and followed.

4.1. CONNECTING THE CHARGER TO THE BATTERY

The charger's output leads have colour-coded battery clips (RED-POSITIVE and BLACK- NEGATIVE). Determine which post of battery is grounded (connected) to the chassis.
Connect the red clamp to the battery's positive pole.
Connect the black clamp to the vehicle chassis remote from the fuel pipe and the battery.
Connect the charger to the mains supply.
NOTE: Some vehicles may have positively earthed batteries. In this case:
Connect the black clamp to the battery's negative pole.
Connect the red clamp to the vehicle chassis remote from the fuel pipe and the battery.
Connect the charger to the mains supply.

4.2. Once the charger is connected to the battery correctly, it will start charging with a default setting (Current 5A & Battery , Type STD) IF the settings are not manually adjusted by the user.

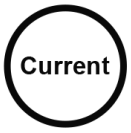
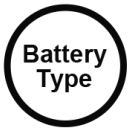
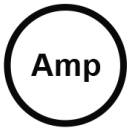
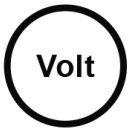
4.3. DISCONNECTION

4.3.1. When disconnecting charger, disconnect mains supply, remove clip from vehicle chassis, and then remove clip from battery terminal.

4.4. CHARGER OPERATIONAL MODES

Stage 1: Diagnostic
Analyse the battery and check if battery voltage is valid to prevent charging a damaged battery.
Stage 2: Recovery Charge
Low-voltage battery can be pre-charged with low current and increased voltage. The increased voltage can help to remove the sulphate inside the battery and restore its initial capacity.
Stage 3: Soft Start
Gradually increase the charge current until the preset charge current is reached.
Stage 4: Pulse Charge
Pulse current with appropriate fluctuation will take place to further activate the battery.
Stage 5: Recondition
Work as a preparatory stage to charge battery with a constant current before Bulk charging step.
Stage 6: Bulk Charge
Charge battery with a maximum constant current to reach the full voltage of battery according to the pre-set mode.
Stage 7: Absorption Charge
Charge battery with a constant voltage and charging will be gradually declining and ended to finally reach full battery capacity.
Stage 8: Evaluation Check
Automatically monitor the battery voltage for a while after being fully charged.
Stage 9: Floating Charge (maintenance)
Floating charge the battery with a small current to maintain and keep battery in a health state. If the battery is fully charged, the charger will stop charging for a while but still monitor the battery state. The charger will resume charging if battery voltage drops under rated level.

4.5. MODE SELECTION BUTTONS

	Change current between: SCBC15 12V 5A/12V 15A/24V 7.5A SCBC25 12V 5A/25A / 24V 12.5A by pressing this button. Settings can be changed during charging.
	Change battery type between STD/AGM/CAL by pressing this button. Settings can be changed during charging. 12V: STD: max 14.4V AGM: max 14.7V CAL: max 15.9V 24V: STD: max 28.8V AGM: max 29.4V CAL: max 30.5V
	Show current on the LCD display by pressing this button.
	Show voltage on the LCD display by pressing this button.
	Choose to charge 12V Lithium batteries SCBC15 at 10A, SCBC25 at 15A and Exit only by pressing this button again. The charger will return to previous charging mode. If the charger is under 24V charging mode, this button doesn't work.

4.6. DISPLAY PANEL INDICATIONS

	Charging status indicator This column will show charging status. It will be scrolling during charging and will display four solid bars once battery is charged.
	No Connection Loose Connection Reverse Polarity
	**Bad Battery:** The battery is in bad condition and may need to be replaced. **High Voltage:** You may choose the wrong voltage, for example, you may be charging a 12V battery with 6V mode or a 24V battery with 12V mode.
	High Temperature

4.7. MEMORY FUNCTION

The charger has a memory function. It will return to the mode that was last used, when the charger is connected to a battery.

5. CARE AND MAINTENANCE

❑ **WARNING!** Disconnect from mains supply before performing care or maintenance.

5.1. After each use, clean the battery charger clamps. Be sure to remove any battery fluid that will cause corrosion of the copper clamps. Clean the outside case of the charger with a soft cloth and, if necessary, mild soap solution.

5.2. Keep the charger cords loosely coiled during storage to prevent damage to the cords. Do not use the charger if cords or clamps have been damaged in any way.
If the power supply cord is damaged, it must be replaced by the manufacturer, its service agent or qualified person in order to avoid a hazard.

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.

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.

REGISTER YOUR PURCHASE HERE

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 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.

Sealey Group, Kempson Way, Suffolk Business Park, Bury St Edmunds, Suffolk. IP32 7AR
01284 757500 **sales@sealey.co.uk** **www.sealey.co.uk**