

SEALEY

30A (3 X 10A) 12V 3 BANK SMART CHARGER & MAINTAINER

MODEL NO: **MBC310**

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



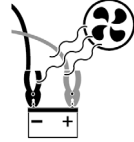
Wear protective gloves



Warning! electricity



Protect from rain



Use in well ventilated areas



Keep away from sources of ignition: battery could explode



Warning! explosive material



Warning! corrosive substance

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.
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 VERY IMPORTANT TO READ AND FOLLOW THESE INSTRUCTIONS CAREFULLY, EACH TIME YOU USE THE CHARGING EQUIPMENT.**
- ✓ 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.
- ❑ **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.

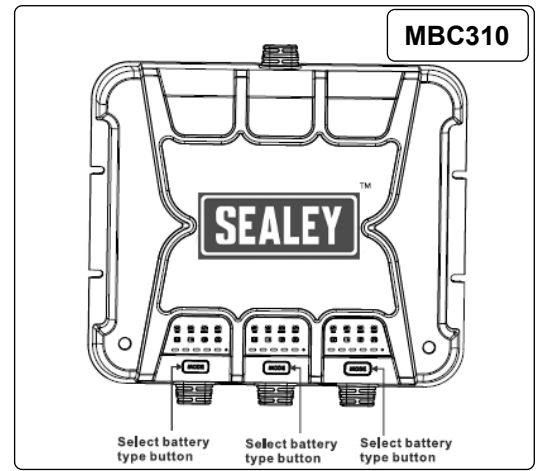
1.3. PERSONAL PRECAUTIONS

- ✓ 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.
- ✓ Ensure the charger is disconnected from the mains supply before attaching/detaching the power clamps to/from the battery.
- ✓ Lead acid batteries during charging, the battery must be placed in a well-ventilated area.
- ✓ 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.
- ✓ The supply cord cannot be replaced. If the cord is damaged the appliance should be scrapped
- ✓ 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 either fuse blows, ensure it is replaced with an identical fuse type and rating. Use only Sealey genuine parts.
 - ✓ 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.
 - ✓ When not in use, store the charger carefully in a safe, dry, childproof location.
- NOTE:** This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.



2. INTRODUCTION

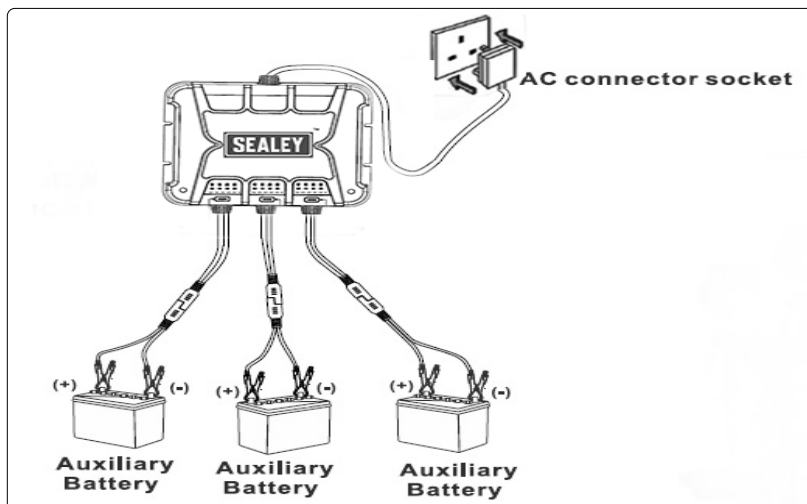
Compact 12V independent three bank battery charger perfect for automotive, motorcycle and marine workshops. 9-Stage charger reacts continuously to battery condition and delivers whatever charge rate is required also harbouring the ability to recover and charge dead batteries from zero volts. Suitable for trickle charging all AGM, Gel, VRLA and Leisure batteries commonly found in everything from automotive and farm equipment to motorcycles, ATVs, golf buggies and lawnmowers. Also suitable for Lithium batteries. Supplied with SAE quick connectors on leads and battery terminals eyelets. Featuring over voltage, short circuit, over temperature and reverse polarity protection. 5-Stage LED indicator shows the charge level of the battery.

3. SPECIFICATION

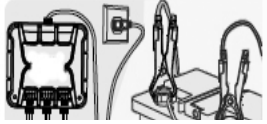

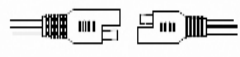
Model No:	MBC310		
Battery Range:	30-240Ah	Output Start Peak:	N/A
Battery Support/DC Supply Mode:	N	Plug Type:	3 pin
Cable & Clamp Length:	2m	Power Supply Cable Length:	1.8m
Fuse Rating within auxiliary cable:	3A	Supply (Current):	13A
Nett Weight:	4.3kg	Supply (Voltage):	230V
Max Size Battery Full Charge 12 Hrs:	100Ah	Type of Battery:	VRLA, GEL, AGM/EFB, Lithium, Leisure (Deep Discharge)
Output:	12V	Zero Volt Charging:	Y
Output Charge Peak:	3 x 10A	This unit will charge six cell lead acid batteries and four cell lithium batteries per bank.	

4. OPERATION



4.1. PREPARATION











4.2. OPERATION

Step 1		Connect the maintainer/charger as shown.
Step 2		Select the type of battery with the mode button. The mode has a memory which will go back to its last setting.
Step 3		Charger to battery connections connect as shown.

4.2.1. Power display

Display Icon	Description
	There are five display lights 20%, 40%, 60%, 80%, 100%.
	Power display

5.11. DISPLAY INDICATIONS

Displayed icon	Correlation model	Description
 SLA	12V SLA mode	Select the 12V SLA mode. The Icon should be illuminated. After connecting the battery, wait for 10seconds to start charging. The LED display icons will indicate the percentage of charge. Disconnect from battery should you wish to stop charging.
 AGM	12V AGM mode	Select the 12V AGM mode. The Icon should be illuminated. After connecting the battery, wait for 10seconds to start charging. The LED display icons will indicate the percentage of charge. Disconnect from battery should you wish to stop charging.
 Lithium	12V Lithium mode	Select the 12V Lithium mode. The Icon should be illuminated. After connecting the battery, wait for 10seconds to start charging. The LED display icons will indicate the percentage of charge. Disconnect from battery should you wish to stop charging.
 Repair mode	12V Repair mode	Repair mode will be activated before full charging occurs (excluding lithium batteries). The charger will automatically analyse to see if repair is required. If repair function is not required, then the repair light will remain off and the charging light will illuminate. If repair function is needed, then the 12V repair light will come on until this has been completed and then it will switch to charging mode. If after 2 hours the repair light is still on or flashing the repair has failed and it could highlight a potential issue with the battery.
	Protection Mode	
	Overvoltage protection	If the battery is over 15V the charger will not charge and the over-voltage light will illuminate.
	Short circuit protection	The battery connect cannot be charged. Take to battery specialist to investigate further.
	Over temperature	When the internal temperature of the charger is higher than 85°C the output current is automatically reduced and when reaches a temperature of 100°C the over temperature and reverse polarity indicator will blink.
	Reverse polarity	This is where the red and black wires are wired in reverse. The charger will not charge and the reverse polarity will blink.

5.12. CHARGING TIME

Battery size (Amp hours-Ah)	Time (hours-h)	
	12V	12V
30Ah	3.3	2.3
60Ah	6.6	4.5
100Ah	11	7.5
160Ah	17.6	12
240Ah	26.4	18
	Flat battery up to 80% charge	50% Charged at initial charge.

5. MAINTENANCE

- 5.1. Cleaning and user maintenance should be carried out by competent persons.
 - 5.2. After use and before performing maintenance, unplug and disconnect the battery charger.
 - 5.3. That 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.
 - 5.4. Use a dry cloth to wipe all battery corrosion and other dirt or oil from the battery connectors, cords, and the charger case.
 - 5.5. Ensure that all of the charger components are in place and in good working condition, for example, the plastic boots on the battery clips.
 - 5.6. Servicing does not require opening the unit, as there are no serviceable parts.
 - 5.7. All other servicing should be performed by qualified service personnel.
 - 5.8. If the mains cable is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons, in order to avoid a hazard.
 - 5.9. Store the charger unplugged, in an upright position. The cord will still conduct electricity until it is unplugged from the mains.
 - 5.10. Store inside, in a cool, dry place.
- ✱ **DO NOT** store the connectors clipped together, on or around metal, or clipped to cables. If the charger is moved around the shop or transported to another location, take care to avoid/prevent damage to the cables, connectors and charger. Failure to do so could result in personal injury or property damage.

Parts support is available for this product. Please email sales@sealey.co.uk or telephone 01284 757500



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



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.

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 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