



INSTRUCTIONS FOR

# BATTERY CHARGERS 8/11/14/16/19/28AMP 230V

MODEL NO:

**CHARGE 106.V3/107.V3/110.V3/112.V3/115.V3/124.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



Warning:  
Explosive  
Material



Wear eye  
Protection



Warning:  
Corrosive  
substance



Wear  
Protective  
Gloves



Warning:  
Electricity



Protect  
From  
Rain



Use in  
Well  
Ventilated  
Areas



Keep away  
from sources  
of ignition:  
Battery could  
explode

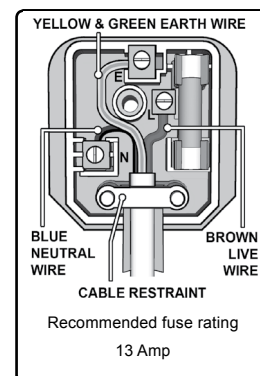
## 1. SAFETY

### 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. Sealey recommend that an RCD (Residual Current Device) is used with all electrical products. You may obtain an RCD by contacting your local Sealey dealer.  
If the product is used in the course of business duties, it must be maintained in a safe condition and routinely PAT (Portable Appliance Test) tested.

Electrical safety information, it is important that the following information is read and understood.

- 1.1.1. Ensure that the insulation on all cables and on the appliance is safe before connecting it to the power supply.
- 1.1.2. Regularly inspect power supply cables and plugs for wear or damage and check all connections to ensure that they are secure.
- 1.1.3. **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 - see fuse rating in these instructions.
  - \* **DO NOT** pull or carry the appliance by the power cable.
  - \* **DO NOT** pull the plug from the socket by the cable.
  - \* **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.
- 1.1.4. This product is fitted with a BS1363/A 13 Amp 3 pin plug.  
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.  
Replace a damaged plug with a BS1363/A 13 Amp 3 pin plug. If in doubt contact a qualified electrician.
  - a) Connect the GREEN/YELLOW earth wire to the earth terminal 'E'.
  - b) Connect the BROWN live wire to the live terminal 'L'.
  - c) Connect the BLUE neutral wire to the neutral terminal 'N'.Ensure that the cable outer sheath extends inside the cable restraint and that the restraint is tight.  
Sealey recommend that repairs are carried out by a qualified electrician.
- 1.1.5. If an extension reel is used it should be fully unwound before connection. A reel with an RCD fitted is preferred since any appliance plugged into it will be protected. The cable core section is important and should be at least 1.5mm<sup>2</sup>, but to be absolutely sure that the capacity of the reel is suitable for this product and for others which may be used in the other output sockets, we recommend the use of 2.5mm<sup>2</sup> section 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.**

- 1.2.1. 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.**

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

### 1.3. PERSONAL PRECAUTIONS

- 1.3.1. Ensure there is another person within hearing range 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. GENERAL 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 starter/charger in the upright position only and ensure it is placed on a stable surface which will adequately support its weight.
  - ✓ Ensure the charger is disconnected from the mains supply before attaching/detaching the power clamps to/from the battery.
  - ✓ 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.
  - ✓ Ensure that during charging, the charger is placed in a location where there is sufficient ventilation to prevent the build up of explosive gases from a lead acid battery, and **DO NOT** cover or obstruct the charger ventilation louvres.
  - ✓ 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.
- 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

Steel case with a sturdy carry handle, these single phase chargers feature good ventilation to maintain low transfer temperatures. A large ammeter displays rate of charge and a dash mounted fuse provides polarity protection in the event of the clips being connected incorrectly. Rocker switches control variable output to the battery to maintain peak condition. Suitable for regular and low maintenance batteries.

## 3. SPECIFICATION

Model no.	CHARGE106	CHARGE107	CHARGE110	CHARGE112	CHARGE115	CHARGE124
Output	12/24V	12/24V	12/24V	12/24V	12/24V	12/24V
Output charge peak (EN)	8A(6A)	11A(7A)	14A(10A)	16A(12A)	19A(15A)	28A(24A)
Battery range	10-95Ah	20-105Ah	20-120Ah	20-180Ah	20-250Ah	25-320Ah
Charging rates	2	2	2	2	2	2
Supply	230V	230V	230V	230V	230V	230V
Polarity protection	Fuse (1 x 15A)	Fuse (1 x 15A)	Fuse (1 x 20A)	Fuse (1 x 30A)	Fuse (1 x 30A)	Fuse (1 x 40A)
Fuse	SBF1550 (pack of 50) CHARGE106.07 (single)	SBF1550 (pack of 50), CHARGE107.07 (single)	SBF2050 (pack of 50) CHARGE110.07 (single)	MF3010 (pack of 10), CHARGE112.07 (single)	MF3010 (pack of 10), CHARGE115.07 (single)	MF4010 (pack of 10), CHARGE124.07 (single)

## 4. OPERATION

- ☐ **WARNING!** Ensure all the safety instructions in section 1 are read and followed before using the charger.

### 4.1. PREPARATION

- 4.1.1. It is important to correctly prepare for charging, ensuring that you follow Section 1 safety requirements carefully.
- 4.1.2. Check that the capacity of the battery is compatible with charger output.
- 4.1.3. Charging current (amps) should not exceed one tenth of the value of the battery capacity (amp hours).
- 4.1.4. Check battery to ensure that the POSITIVE and NEGATIVE terminals are clearly identifiable before removing the battery from the vehicle.
- 4.1.5. Follow the vehicle manufacturer's instructions for charging the battery. Disconnect and remove the battery from the vehicle and place in an appropriate safe area ready for charging.
- 4.1.6. Remove the battery electrolyte cover or caps to allow the gases produced by charging to escape.
- 4.1.7. Check that the electrolyte fluid level in the battery is above the plates. If not, add distilled water to cover them by 5-10mm.
  - ✗ **DO NOT** touch the battery fluid as it is corrosive.

4.1.8. The correct charging status of the battery may be determined by using a hydrometer which will measure the specific density of the electrolyte. The following figures (kg/ltr) apply at 20°C:

1.28 = Fully charged, 1.21 = Half charged, 1.14 = Fully discharged.

**WARNING!** Be cautious and vigilant as the electrolyte is highly corrosive acid.

4.2. **CONNECTING CHARGER TO BATTERY**

4.2.1. Ensure that the battery charger is unplugged from the mains power supply before connecting power leads to the battery.

4.2.2. Select the charger voltage to match that of the battery by setting the rocker switch to either 12 or 24 volts. Initially, always set the Charge Rate rocker switch to 'MIN'.

4.2.3. Check the charger clamps and battery terminals to ensure that they are clean and free from oxidation.

4.2.4. Connect the charger POSITIVE (Red or +) lead to the POSITIVE (+) terminal of the battery and the NEGATIVE (Black or -) lead to the NEGATIVE (-) terminal of the battery.

4.3. **CHARGING THE BATTERY**

4.3.1. Connect the charger to the mains power supply and turn it on with the front panel mounted ON/OFF switch.

4.3.2. Check the current delivery to the battery by reading the ammeter on the front of the battery charger. During charging the pointer on the ammeter will slowly move to the left according to the capacity and condition of the battery (see fig.1, meter face may vary according to model.)

4.3.3. If a boost charge is required, ensure that an initial charge has built up first before moving the Charge Rate rocker switch to 'BOOST', see fig.2.

4.3.4. To indicate that the battery is fully charged the reading on the ammeter should be at the "0" output indicator. To correspond with this the electrolyte in the battery will begin to gas. Stop charging at this point in order to protect the battery plates from damage.

**WARNING!** The charger will not switch off automatically. The state of charge should be regularly monitored by the person with responsibility for charging the battery.

× **DO NOT** leave the charger operating unattended or overnight.

4.3.5. Unplug the charger from the mains power supply and then disconnect the clamps from the battery terminals. Clean and store the charger in a safe, dry area.

4.3.6. Replace the battery electrolyte cover or caps. Wipe up any splashes or spillages, remembering that the electrolyte is a corrosive acid. Return the battery to the vehicle, secure according to the manufacturer's instructions and re-connect the power leads.

4.3.7. Check to ensure that all tools are removed before closing the bonnet or boot.

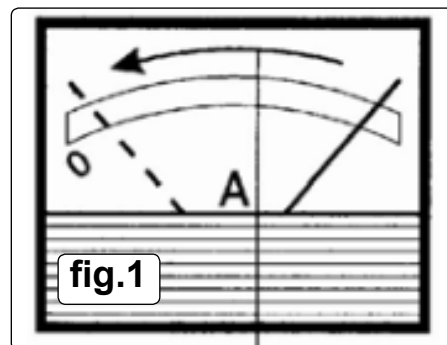


fig.1

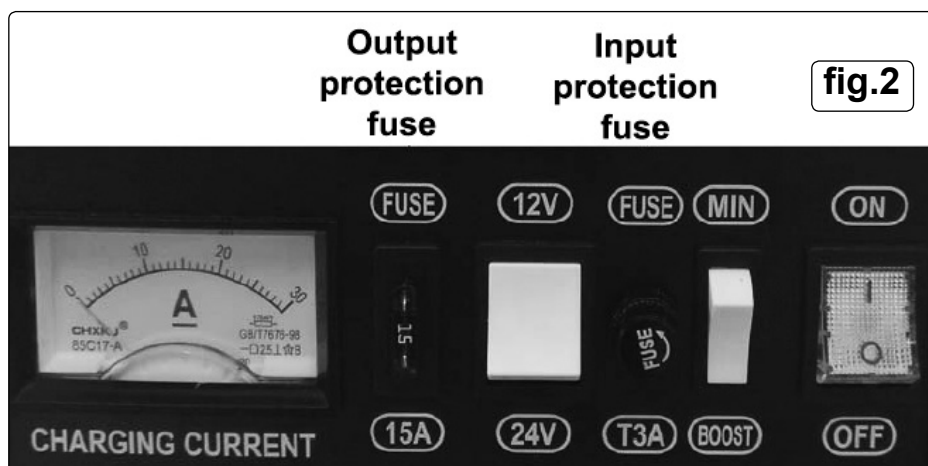


fig.2

4.3.8. **SEALED BATTERIES**

4.3.8.1. Charge a sealed battery very slowly, carefully monitoring the voltage across the battery terminals using a normal tester.

4.3.8.2. When the battery terminal voltage reaches 14.4V for 12V batteries or 28.8V for 24V batteries, stop charging.

4.4. **MULTIPLE BATTERY CHARGING**

**WARNING! DO NOT** simultaneously charge different types of battery or batteries with different capacities or levels of discharge.

4.4.1. A number of batteries may be charged at the same time. To do so we recommend "parallel connection" as shown in fig.3.

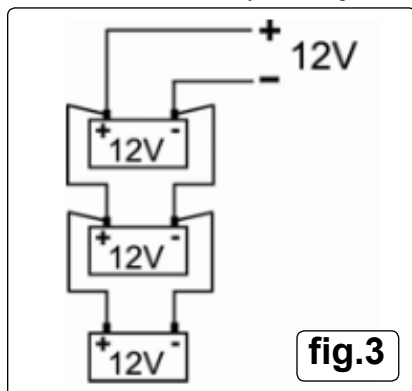


fig.3

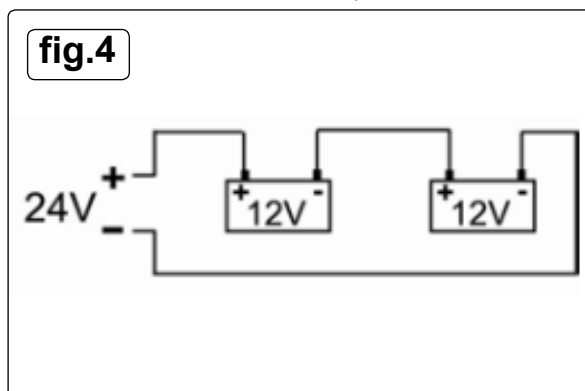


fig.4

4.4.2. Two batteries may be charged in series using the 24V output as shown in fig.4.

#### 4.5. FUSE

4.5.1. The charger is equipped with two front panel mounted fuses. The output protection fuse on the left will interrupt the circuit in the following circumstances:

- a) Overload - too high a current to the battery.
- b) Short circuit - clamps touch, or cross-connection to battery.
- c) If the output fuse blows take the following action:

Disconnect the charger from the mains power supply.

Allow the unit to cool down, establish the reason for fuse blowing and correct.

Replace the fuse. **DO NOT** use a fuse with copper bridge or similar as these will damage your starter charger. Refer to Section 3 'Specifications' for fuse information. We recommend that you hold 2 spare fuses with the charger.

4.5.2. The input protection fuse is situated to the right hand side of the control panel, see fig.3. If this fuse blows, replace only with a fuse of the same value.

#### 4.6. THERMAL PROTECTION

4.6.2.1. When a high current causes the charger to overheat the internal thermal protection will cut off the current. When the charger has cooled sufficiently it will automatically reconnect.

NOTE: The use of an incorrect fuse will invalidate your warranty.



#### 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.

**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.

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