



# 12/24V 200A STARTER/60A AUTOMATIC BATTERY CHARGER

MODEL NO: **SUPERSTART200D**

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



Warning: Explosive Material



Warning: Corrosive substance



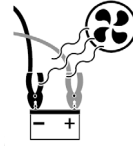
Wear Protective Gloves



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.
- Electrical safety information.** It is important that the following information is read and understood:
- ✓ Ensure that the insulation on all cables and on the appliance is safe before connecting it to the power supply.
- ✓ Regularly inspect power supply cables and plugs for wear or damage and check all connections to ensure that they are secure.
- 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.
- ✗ **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.
- ✓ The battery charger must only be plugged into an earthed socket-outlet
- Ensure that repairs are carried out by a qualified electrician.**
- ✓ 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
- ✓ Always operate battery charger in a well ventilated area.
- ✗ **NEVER** smoke or allow a spark or flame in the vicinity of the battery or engine.
- ✗ 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.

### 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.

- WARNING!** Wear complete eye protection and clothing protection, when working with lead-acid batteries.
  - ✓ Make sure someone is within range of your voice or close enough to come to your aid when you work with or near a lead-acid battery.
  - ✓ Have soap and plenty of fresh water nearby for use if battery acid contacts skin, clothing or eyes. If battery acid contacts skin or clothing, wash immediately with soap and water.
  - ✓ Avoid touching your eyes while working with a battery. Acid particles (corrosion) may get into your eyes! If acid enters your eye, immediately rinse eye with running cold water for at least 10 minutes. Get medical attention immediately.
  - ✓ Remove personal metal items such as rings, bracelets, necklaces, and watches when working with a lead-acid battery. A lead-acid battery can produce a short-circuit current high enough to weld a ring or the like to metal, causing a severe burn.
  - ✓ Take care not to drop a metal tool or other metal onto the battery. Metal may cause sparking or short circuit the battery or another electrical device. Sparking may cause an explosion.
- 1.4. **SPECIFIC BATTERY CHARGING 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 Dealer.
  - ✓ Use the 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.
  - WARNING!** Life-threatening danger to infants and children! Never leave children unsupervised with the packing material as this can cause suffocation. Do not allow children to play with cables – strangulation hazard! Do not allow children to play with the components or fasteners, as they could be swallowed and result in suffocation.
  - WARNING!** Explosive gases. When a battery is charged, it can produce hydrogen gas which is explosive. Charging should be carried out in a well-ventilated area and away from sources of heat flames and sparks.
  - ✓ Store and use indoors only. Do not expose to rain or moisture.
  - ✗ **DO NOT** cover the charger. Allow air to the charger, as it will overheat.
  - ✓ Wear safety goggles and acid-proof safety gloves. Before charging maintenance type battery, the electrolyte (battery acid) must be filled to the maximum marked levels. Never use tap water. Distilled water or electrolyte must be used.
  - ✓ Never attempt to charge non-rechargeable batteries.
  - ✓ Never attempt to charge a frozen battery as well as a damaged or distorted battery.

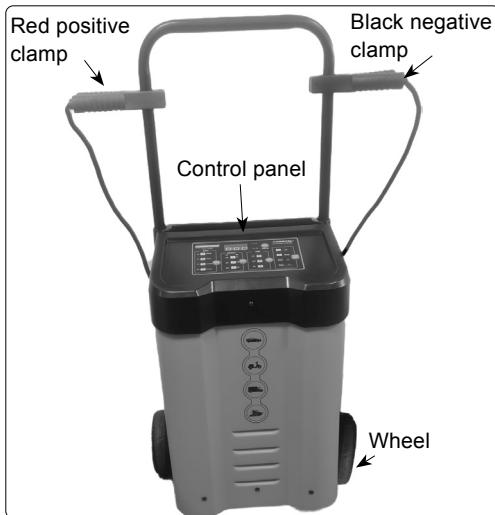
## 2. INTRODUCTION

Automatic battery charger and starter designed for charging and boosting a variety of AGM (stop/start), GEL, Lead Acid and Lithium lifepo4 batteries up to 600ah. Intuitive digital display and 200A peak engine start function, makes this unit ideal for every workshop. Features overcharge, short circuit, and reverse polarity protection. Dedicated charging programs for AGM, GEL, conventional Lead Acid and Lithium batteries with fully automated charging algorithms. Three charging rates for both 12v and 24v systems makes this ideal for whatever job comes through the workshop. Portable design with handle means you can easily manoeuvre the unit around the workshop.

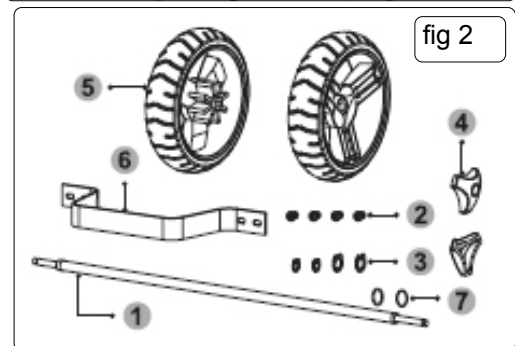
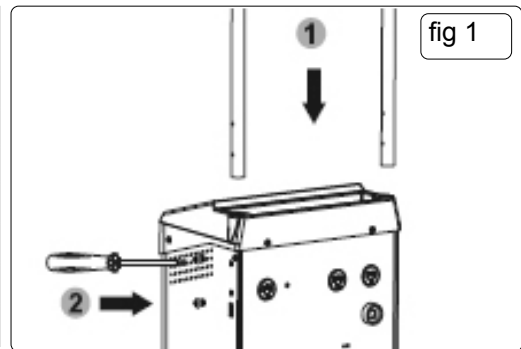
### 3. SPECIFICATION

Model No	SUPERSTART200D
Battery Range	10Ah-600Ah
Battery Support /DC Mode	No
Battery Type	GEL, AGM, LEAD ACID, LITHIUM (12V ONLY), LEISURE
Cable & Clamp Length	2m
Charger Type Traditional (T) or Intelligent (HF)	HF
Max Size Size Battery (AH) Full Charge in 12hrs from Discharged	600Ah
Output Charge Peak	60A 12V, 30A 24V Twelve battery cell max
Output Charge Rates	12V - 60A, 30A, 10A 24V - 30A, 15A, 5A 12V 10A LiFePO4
Plug Type	3-Pin
Power Supply Cable Length	1.9m
Start Peak	200A
Supply Current	13A
Supply Voltage	230V

### 4. FEATURES



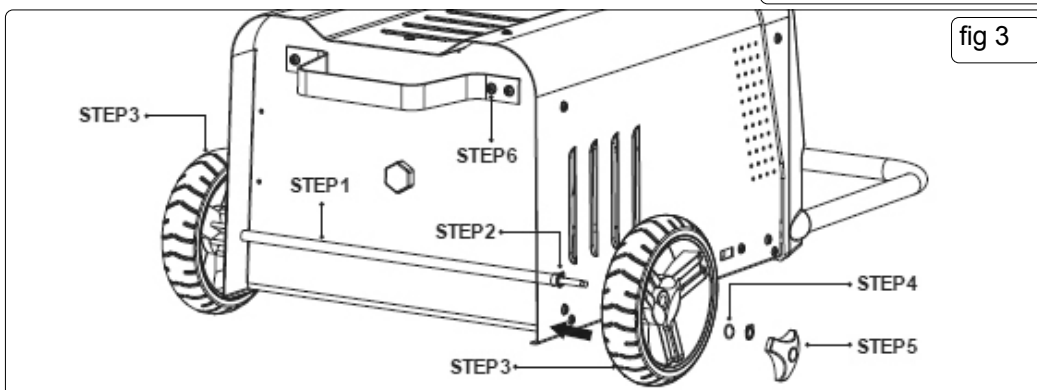
Part Number	Name
1	Axle
2	Screws x 4
3	Circlip x 4
4	Hubcap x 2
5	Wheel x 2
6	Stand
7	Washer x 2



### 5. ASSEMBLY

#### 5.1. HANDLE INSTALLATION (fig.1)

- 5.1.1. Insert the handles into the two holes on both sides of the storage slot.
- 5.1.2. Find the four holes on two sides of the charger, tighten the screws, and make sure that the screws completely secure the handle.



#### 5.2. WHEEL INSTALLATION (fig.2 and fig.3)

- 5.2.1. Pass the axle through the housing.
- 5.2.2. Snap the big circlips onto both sides of the axle near the housing.  
**NOTE:** Make sure the circlips are properly positioned in the grooves.
- 5.2.3. Slide the wheels onto the axle.
- 5.2.4. Slide the backup rings onto both ends of the axle. Snap the small circlips onto the end of the axle on both sides.
- 5.2.5. Push the hubcaps into the center of the wheels.
- 5.2.6. Secure the foot stand using screws.

## 6. OPERATION

### 6.1. DISPLAY PANEL

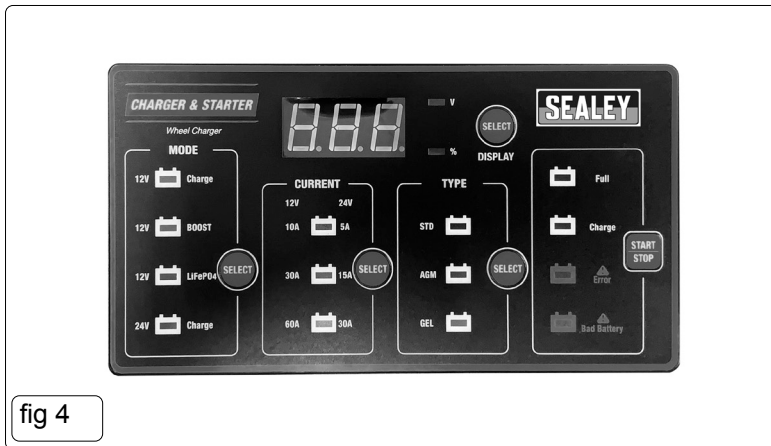


fig 4

### 6.2. HOW TO CONNECT

- 6.2.1. The charger's output leads have color-coded battery clips (RED- POSITIVE and BLACK- NEGATIVE). Determine which post of battery is grounded (connected) to the chassis.
- 6.2.2. 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.
- 6.2.3. After charging, disconnect the battery charger from the mains supply. Then remove the chassis connection and then the battery connection.

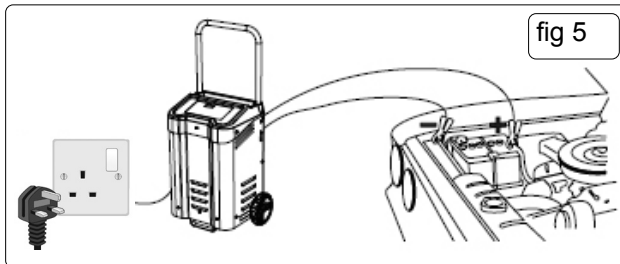


fig 5

### 6.3. IF NEGATIVE POST IS GROUNDED TO CHASSIS

- 6.3.1. Connect the red clamp to the battery's positive pole.
- 6.3.2. Connect the black clamp to the vehicle chassis remote from the fuel pipe and the battery.
- 6.3.3. Connect the charger to the wall socket.

### 6.4. IF POSITIVE POST IS GROUNDED TO THE CHASSIS

- 6.4.1. Connect the black clamp to the battery's negative pole.
- 6.4.2. Connect the red clamp to the vehicle chassis remote from the fuel pipe and the battery.
- 6.4.3. Connect the charger to the wall socket.
- ✓ When disconnecting charger, disconnect AC cord first, remove clamp from vehicle chassis, and then remove clamp from battery terminal.

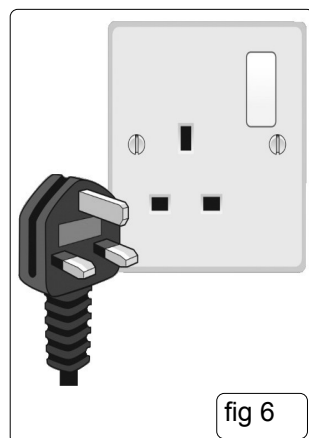


fig 6

Connect the battery and AC power. The display shows the battery's voltage.

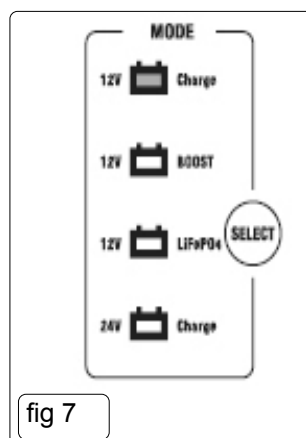


fig 7

Press the button to select charging voltage (12V / 24V).

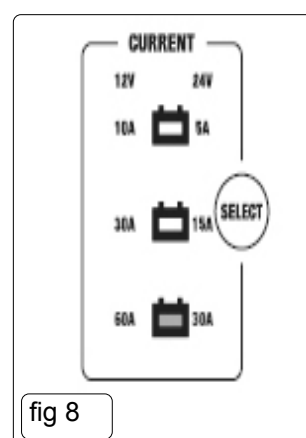


fig 8

Press the button to select charging current (12V 10A / 30A / 60A, 24V 5A / 15A / 30A).

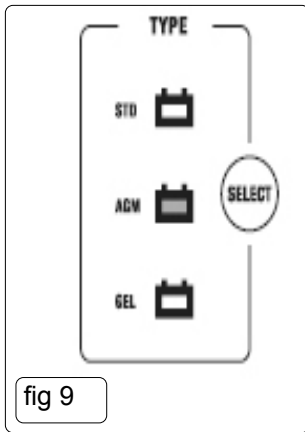


fig 9

Press the button to select battery type (STD / AGM / GEL).

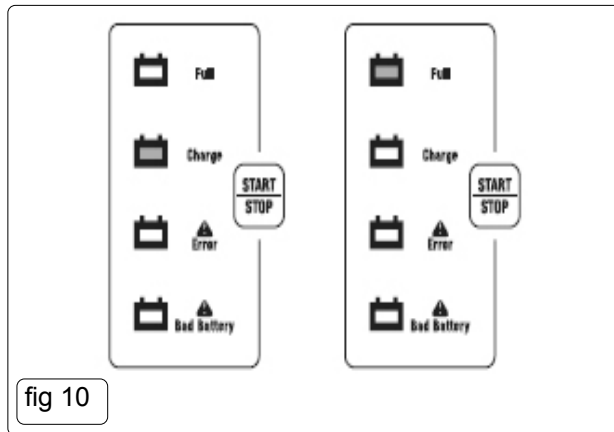


fig 10

Press "START / STOP" button to start charging and the "Charge" light will turn orange. When the battery is fully charged, the "Full" light will turn green.

## 6.6. HOW TO CHARGE LIFEPO4 BATTERIES

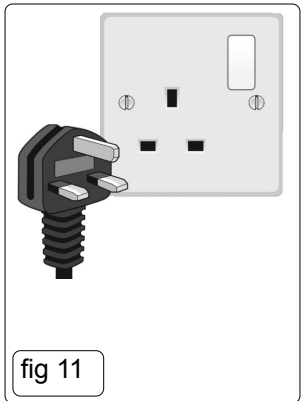


fig 11

Connect the battery and AC power. The display shows the battery's voltage.

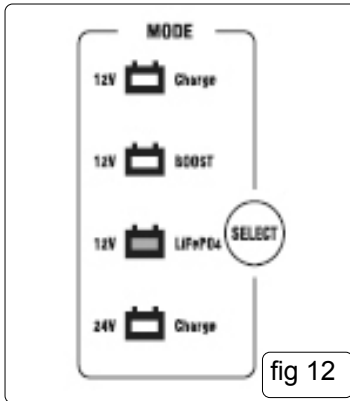


fig 12

Press the button to select LiFePO4 mode.

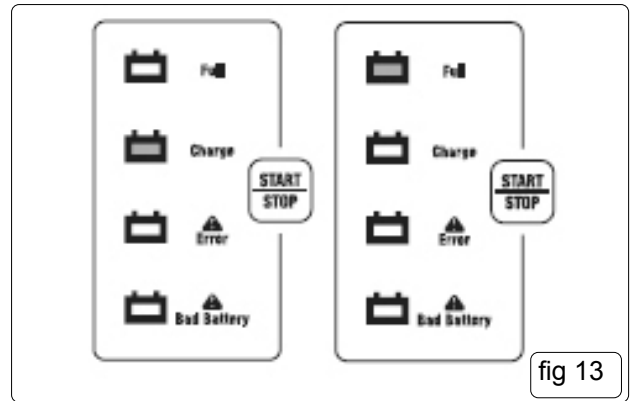


fig 13

Press "START / STOP" button to start charging and the "Charge" light will turn orange. When the battery is fully charged, the "Full" light will turn green.

### NOTE: Batteries with "Under Voltage Protection"

Some LiFePO4 batteries have on-board UVP (under voltage protection) which will disconnect the battery to prevent it becoming too deeply discharged and dead. This protection will disable the charger from detecting whether there's a battery connected. The lithium charging function can't work on LiFePO4 batteries if UVP is activated.

## 6.7. HOW TO BOOST

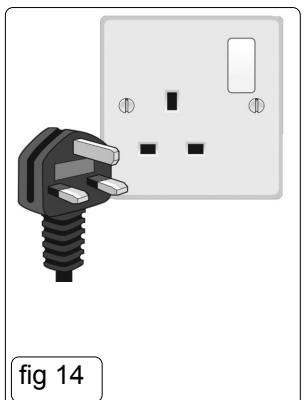


fig 14

Connect the battery and AC power. The display shows battery voltage.

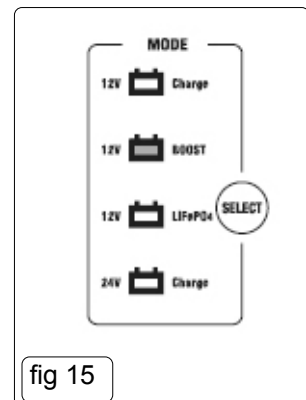


fig 15

Press the button to select 12V BOOST. During Boosting, other lights go out, and functions are locked.

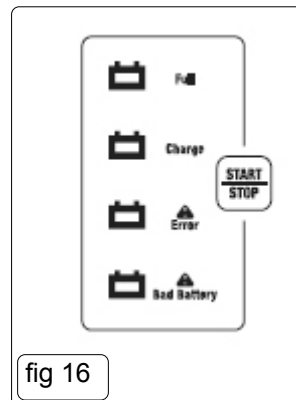


fig 16

Press "START / STOP" button to boost your car. The screen displays the countdown time. The car needs to be started within 90 seconds.

NOTE: The maximum of boosting time is 5 seconds and after each boost, it takes 180 seconds to cool down.

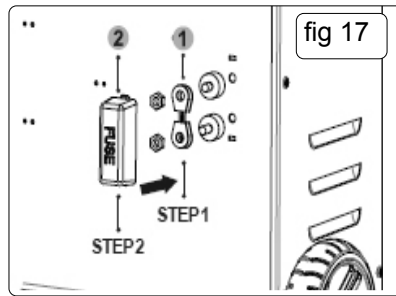
## 7. MAINTENANCE

### 7.1. FUSE REPLACEMENT (fig.17)

7.1.1. Replace the blown fuses on the two poles on the back of the charger, and screw them securely.

7.2. Put the plastic cover on the fuses for protection.

Part No	Name
1	Fuse (80A) x2
2	Plastic cover



## 8. TROUBLESHOOTING

Problem	Possible Cause	Solution
The "Error" light turns Red and buzzer sounds	The clamps are reversely connected	Connect the clamps correctly
	Battery voltage is below 1V	Check whether clamps are connected or replace battery
	Select 12V mode to a 24V battery	Change to 24V mode
The "Bad Battery" light Turns red and buzzer Sounds	The connected battery voltage is Between 1V to 4V	Replace battery
During the Charging/starting Process, the display Automatically returns To standby condition And displays the Battery voltage	The charger is over-temperature	Switch off machine and allow charger to cool
	The clamp is loose	Check the connections
	The output is short circuit	Connect the clamps correctly



### 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.



REGISTER YOUR PURCHASE HERE

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