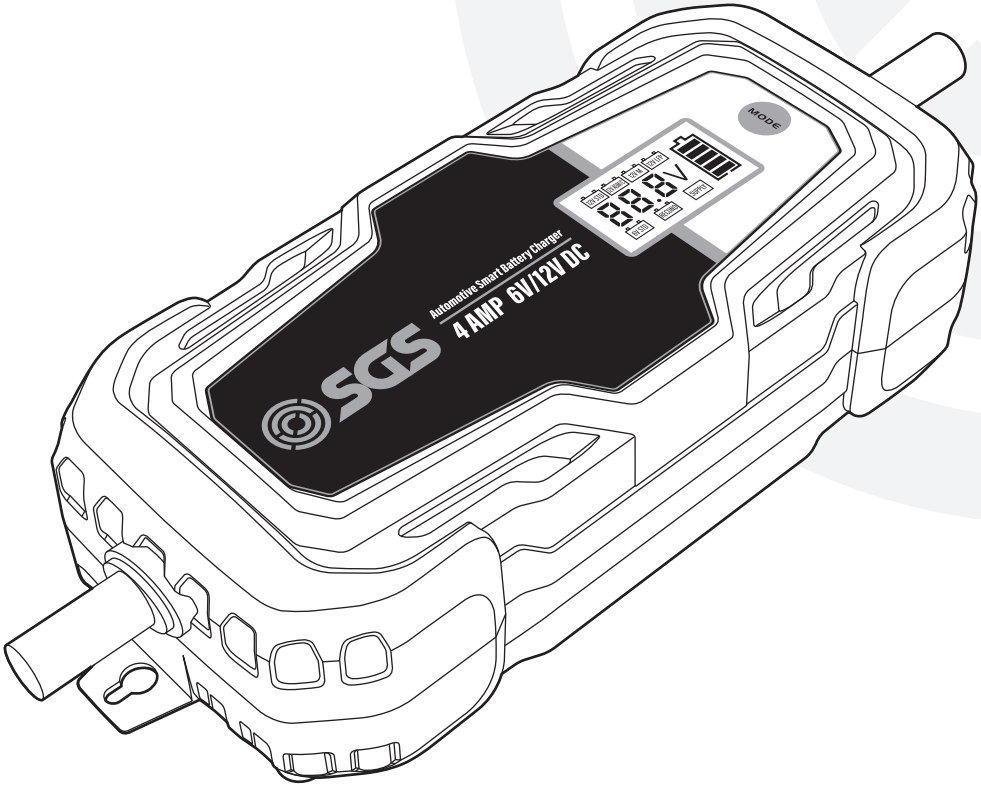
OWNER'S OPERATING MANUAL
MODEL NO: SSBS4A



6V/12V Automotive Smart Battery Charger

IMPORTANT! PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE ALL SAFETY INSTRUCTIONS AND WARNINGS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY CAUSE DAMAGE TO PROPERTY AND/OR PERSONAL INJURY.

PLEASE KEEP THESE INSTRUCTIONS SAFE AND AVAILABLE FOR FUTURE REFERENCE.

CERTIFICATE OF GUARANTEE

This product is guaranteed for a period of 2 Years, with effect from the date of purchase and applies only to the original purchaser. This guarantee only applies to defects arising from, defective materials and or faulty workmanship that become evident during the guarantee period only and does not include consumable items. The manufacturer will repair or replace the product at their discretion subject to the following. That the product has been used in accordance with the guidelines as detailed in the product manual and that it has not been subjected to misuse, abuse or used for a purpose for which it was not intended. That it has not been taken apart or tampered with in any way whatsoever or has been serviced by unauthorised persons or has been used for hire purposes. Transit damage is excluded from this guarantee, for such damage the transport company is responsible. Claims made under this guarantee must be made in the first instance, directly to the retailer within the guarantee period. Only under exceptional circumstances should the product be returned to the manufacturer. In this case it shall be the consumer's responsibility to return the product at their cost ensuring that the product is adequately packed to prevent transit damage and must be accompanied with a brief description of the fault and a copy of the receipt or other proof of purchase. The manufacturer shall not be liable for any special, exemplary, direct, indirect, incidental, or consequential loss or damage under this guarantee. This guarantee is in addition to and does not affect any rights, which the consumer may have by virtue of the Sale of Goods Act 1973 as amended 1975 and 1999.

INTRODUCTION

Thank you for purchasing this product which has passed through our extensive quality assurance process. Every care has been taken to ensure that it reaches you in perfect condition. However, in the unlikely event that you should experience a problem, or if we can offer any assistance or advice please do not hesitate to contact our customer care department. For details of your nearest customer care department please refer to the telephone numbers at the back of this manual.

Safety First
Before attempting to operate this product the following basic safety precautions should always be taken to reduce the risk of fire, electric shock and personal injury. It is important to read the instruction manual to understand the application, limitations and potential hazards associated with this product.

HELPLINE & SPARE PARTS

In the unlikely event of a defect occurring please contact our Helpline.
Office hours: Monday - Friday 9:00am – 5:00pm. Telephone Number 01332 576 850

INTENDED USE

This product is a multi-stage battery charger for vehicles. It is used for charging and maintenance charging 6V and 12V lead batteries (WET, AGM and gel). It can also charge 12 V lithium iron phosphate batteries (LiFePO, LFP) in the charging program intended for this. The charger is not suitable for charging lithium-ion batteries.

Any other application beyond the conditions established for use will be considered misuse. SGS Engineering accepts no responsibility for improper use of this product.

IMPORTANT SAFETY INSTRUCTIONS

The purpose of safety rules is to attract your attention to possible dangers. The safety symbols and the explanations with them, require your careful attention and understanding. The safety warnings do not by themselves eliminate any danger. The instruction or warnings they give are not substitutes for proper accident prevention measures.

SAFETY ALERT SYMBOL

Indicates danger, warning, caution or notice. May be used in conjunction with other symbols or pictures.

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE indicates information considered important, but not hazard-related (e.g., messages relating to property damage).

Failure to obey a safety warning can result in serious injury to yourself or to others. Always follow the safety precautions to reduce the risk of fire, electric shock and personal injury.

Do not attempt to operate this tool until you have read thoroughly and completely understood the safety rules, etc. contained in this manual. Failure to comply can result in accidents involving fire, electric shock or serious personal injury. Save this Owners Operating Manual and review it frequently for continual safe operation and for instructing others who may use this tool.

Due to continued product refinement policy, product features and specifications can and will change without notice. Check current features and specifications with your retailer.

WARNING: Read and understand all instructions. Failure to follow all instructions listed below could result in electrocution, fire, and/or explosion, which can cause death or serious injury.

VEHICLE BATTERY HEALTH AND SAFETY PRECAUTIONS

WARNING!
Risk of explosive gases

Working in the vicinity of lead-acid batteries is dangerous as they generate explosive gases during normal operation. Follow these instructions and those published by the battery manufacturer and the manufacturer of any other equipment to be used in the vicinity of the battery.

Review warning markings on all these products and on the engine.

When working near a lead-acid battery, ensure someone is within range of your voice or close enough to come to your aid.

Never smoke or allow a spark or flame near the battery or engine.

Take extra care not to drop a metal tool onto the battery. It could spark or short circuit the battery.

WARNING!
NEVER charge frozen batteries

Wear suitable eye/face protection and protective clothing. Avoid touching your eyes while working near battery.

Have plenty of fresh water and soap nearby in case battery acid contacts eyes, skin or clothing. If acid enter eyes, wash eye under cold clean running water for at least 15 minutes and get medical attention immediately.

Remove any metallic items such as rings, bracelets, necklaces and watches. A lead-acid battery can produce a short circuit current high enough to weld a metallic item, which may cause a severe burn.

IMPORTANT SAFETY INSTRUCTIONS

Ensure hands, clothing (especially belts) are clear of fan blades and other moving or hot parts of engine, remove ties and contain long hair.

CHARGER SPECIFIC SAFETY INSTRUCTIONS

The battery charger is for use in dry conditions only. **DO NOT** expose to rain or wet conditions.

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.

CAUTION! In order to reduce the risk of injury, only charge LFP or lead-acid wet-cell gel or AGM car batteries in the intended modes and voltage levels. Other battery types or voltage levels can lead to the battery bursting and cause injuries to persons and damage to property.

DO NOT use for charging dry-cell batteries, these batteries may burst and cause injury to persons or damage to property.

The 12 V LFP mode is only suitable for 12 V lithium iron phosphate batteries, not for other lithium batteries. Charging other lithium batteries or lead batteries in this mode is prohibited.

For lead-acid batteries whose battery voltage is lower than 3 V for an extended period, it is advisable to replace the battery if this charger is unable to increase the voltage.

Do not charge any 24 V lead batteries.

It is not intended to supply power to a low voltage electrical system other than in a starter motor application.

DO NOT use for charging dry-cell batteries, these batteries may burst and cause injury to persons or damage to property.

These devices are not designed to be operated by persons who have insufficient experience and/or insufficient knowledge or by persons with impaired physical, sensory or mental capabilities, unless they are being supervised by a person who is responsible for their safety or they are receiving instructions about how these devices are to be used. Children shall not play with the device. Cleaning and user maintenance shall not be made by children without supervision.

Before plugging the charger into the power supply, check that the plug, cord and casing are in good condition. If they are damaged or any defective part/s evident, get them replaced immediately by a suitably qualified person.

ONLY use the clamps and accessories recommended and supplied by SGS Engineering.

DO NOT use this unit if the clamp leads are damaged or worn.

WARNING! Explosive gases.
Prevent flames and sparks. During charging provide adequate ventilation. The battery must be placed in a well-ventilated area (for chargers for lead-acid batteries).

Set up the charger and cord in a safe place where it will not be knocked, tripped over or stepped on and where it is well ventilated.

The battery terminal not connected to the chassis must 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 mains supply.

After charging, disconnect the battery charger from the mains supply. Then remove the chassis connection and then the battery connection.

IMPORTANT SAFETY INSTRUCTIONS

ALWAYS unplug the charger from the power supply after charging and before carrying out any cleaning or maintenance.

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.**

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 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.

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 "Vehicle Battery Health And Safety Precautions".

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 start engine when charger is connected to battery.

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 charger inside vehicle or inside engine compartment. Ensure there is effective ventilation to prevent a build-up of explosive gases.

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.

When not in use, store the charger carefully in a safe, dry, childproof location.

CONNECTION TO THE POWER SUPPLY

This appliance is supplied with an approved plug and cord for your safety.

If the power supply cord is damaged, it must be replaced by SGS Engineering, an authorised service agent or similarly qualified personnel in order to avoid a hazard. The damaged or incomplete plug, when cut from the cord, shall be disabled to prevent connection to a live electrical outlet.

DOUBLE INSULATED: The charger is double insulated and does not require an earth connection to protect against electric shock from accessible conductive parts in the event of failure of the basic insulation.

The charger is designed for connection to a power supply matching that detailed on the rating label and compatible with the plug fitted.

The value of the fuse fitted is marked on the pin face of the plug. Should the fuse need replacing, use a small plain-slot screwdriver to remove the fuse cover. Ensure the substitute is of the correct rating, approved to BS 1363/A and ASTA or BS Kite marked. This should only be performed by suitably qualified personnel.

IMPORTANT SAFETY INSTRUCTIONS

Use of an extension lead is not recommended with this charger.

If an extension lead is required, use an approved and compatible lead rated for this product.

Follow all the instructions supplied with the extension lead.

RESIDUAL RISK

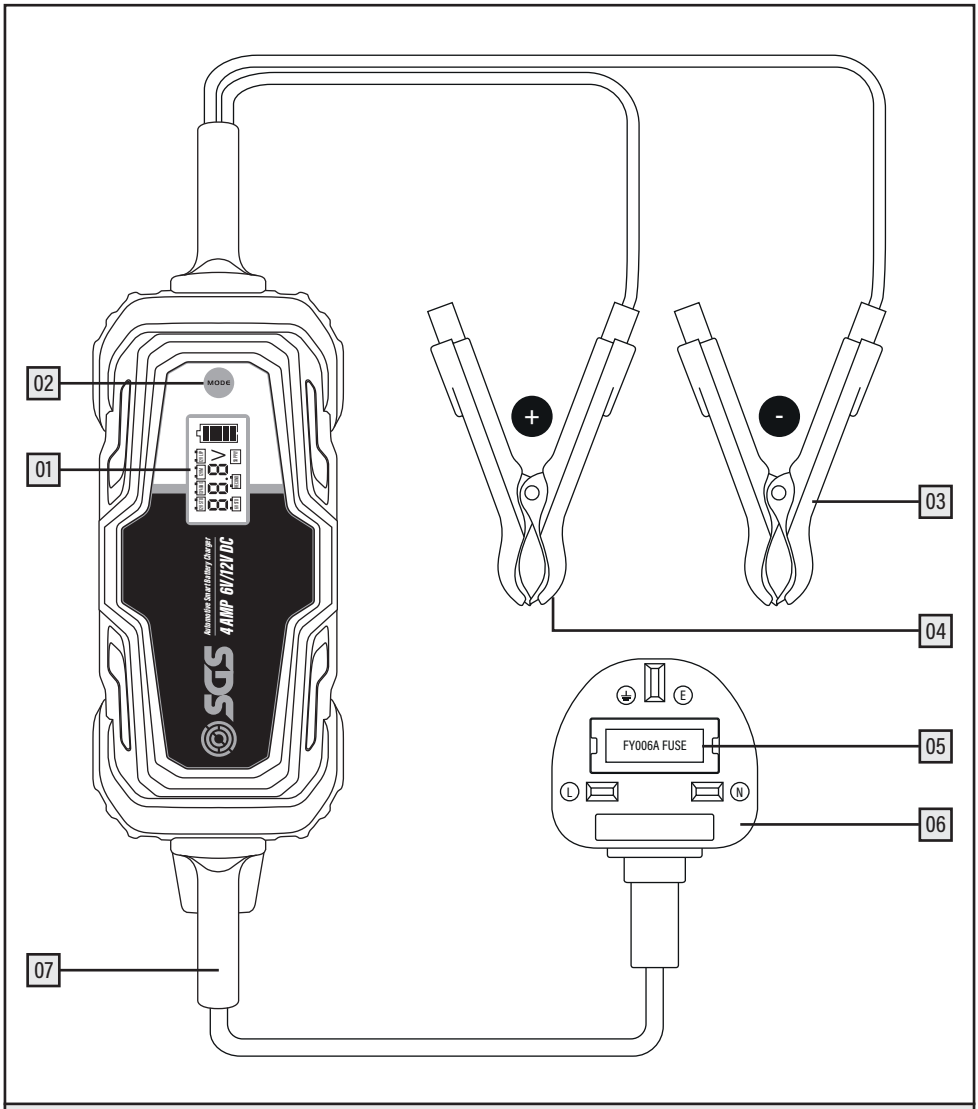
The safety instructions in this manual cannot account for all possible conditions and situations that may occur. Exercise common sense and caution when using this product and protect against any additional conceivable risks.

SAFETY SYMBOLS

Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to more safely operate the product.

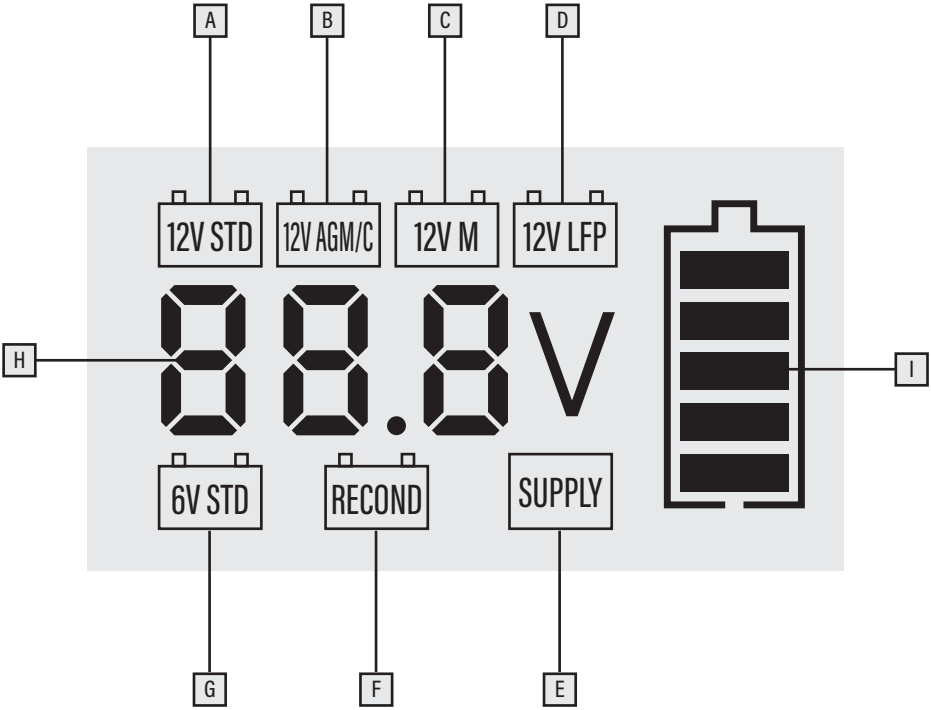
SYMBOL	DESIGNATION/EXPLANATION
	Do not expose to rain or use in damp locations.
	To reduce the risk of injury, the user must read and understand the operator's manual before using this product.
	Always wear safety goggles or safety glasses with side shields and, as necessary, a full face shield when operating this product.
	Precautions that involve your safety.
	Do not incinerate or throw onto fire.
	Class II construction (Double Insulated).
	For indoor use only, do not expose to rain.
F	Short-circuit proof safety isolating transformer.
130°	Fuse protective device.
	Polarity indication.
	Rated voltage.
	Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice.
CE UK CA	Conforms to relevant safety standards.

COMPONENTS & CONTROLS



01. LCD digital display
02. Mode button
03. Black negative (-) charger lead
05. Red positive (+) charger lead
05. Plug fuse housing
06. Plug
07. Power cable

LCD DIGITAL DISPLAY



A. 12V STD: For the charging of a 12V battery (lead-acid and gel batteries) up to 14.5V.
B. 12V AGM/C: For the charging of a 12V AGM battery /winter mode (for lead-acid and gel batteries) up to 14.8V.
C. 12V M: For the charging of a 12V battery with a reduced charging current of 2 A (lead-acid, AGM and gel batteries) up to 14.4V.
D. 12V LFP: For the charging of a 12V battery (LiFePO4, LFP) up to 14.6V
E. SUPPLY: Voltage supply / power supply mode (only suitable for 12V).
F. RECOND: Restoration of the charging capacity of discharged lead-acid batteries with an increased charging voltage or easily deep-discharged batteries up to 16.5V.
G. 6V STD: For the charging of a 6V battery (AGM, lead-acid and gel batteries) up to 7.5V.
H. Charging voltage in volts / battery defective (BAD) / fully charged (FUL) / short circuit at terminals or connected with the wrong polarity (Err)
I: Charge status of the battery in percent (1 bar = 20%) and charging process.

- Bar is lit = the battery has achieved the charge status.
- Bar in the battery symbol is blinking = the battery is being changed to the next charge status.
- All the bars are lit = the battery is fully charged.

TECHNICAL SPECIFICATION

Rated Input Voltage	**230V~50Hz**
Maximum Input Power	**70W**
End of Charge Voltage	**7.2V (6V STD)**
	14.4V (12V STD & 12V M)
	14.6V (12V LFP)
	16.5V (RECOND)
Rated Charging Currents	**1A (12V M)**
	1.5A (RECOND)
	2A (6V STD)
	4A (12V STD, AGM/C, LFP)

Suitable Battery Types	**6V or 12V Lead Acid (WET, AGM and gel), & 12V LiFePO, LFP)**
Charging Type	**10 Steps, Fully Automatic**
Digital Display	**LCD**
Cable Length	**1.5m**
Protection Class	**II**
Protection Type	**IP65**
Operating Temperature	**-20 to 40ºC**
Weight	**545g**

Your product is designed and rated for continuous operation at ambient temperatures up to 40°C. When needed, it may be operated at temperatures ranging from -20°C to 44°C for short periods of time. If exposed to temperatures outside this range during storage, it should be brought back within this range before operation.

UNPACKING

CAUTION: This packaging contains sharp objects. Take care when unpacking.

Remove the machine, together with the accessories supplied, from the packaging. Check carefully to ensure that the machine is in good condition and account for all the accessories listed in this manual. Also make sure that all the accessories are complete.

If any parts are found to be missing, the machine and its accessories should be returned together in their original packaging to the retailer. Do not throw the packaging away, keep it safe throughout the guarantee period, then recycle if possible, otherwise dispose of it by the proper means. Do not let children play with empty plastic bags due to the risk of suffocation. Take care when lifting the compressor from the packaging.

OPERATING INSTRUCTIONS

WARNING: Before using review all safety and connection directions before using charger. Failure to do so can damage the battery and cause serious injury or death.

Please read your vehicle manufacturer's instructions for further information and advice regarding charging and the disconnection of the battery for charging purposes.

Check that the voltage of the battery matches that of the charger.

IMPORTANT: Before charging the battery it is recommended that the battery is disconnected from the vehicle to avoid damage to the alternator.

NOTICE: To avoid loss of audio or security codes before disconnecting the battery connect a 12V memory saver or an EOBD 16 pin diagnostic socket type.

WARNING: Only charge 6 or 12V batteries, do not charge any batteries with other operating voltages.

OPERATING INSTRUCTIONS

IMPORTANT: This charger will only recover batteries with a minimum residual voltage of 1.5V. If the residual voltage is lower than this figure, the charger will not operate.

Before connecting the charger to the power supply ensure that the information on the rating label matches the supply voltage.

WARNING: Do not charge any frozen batteries.

PREPARATION OF THE BATTERY

Release or remove the battery caps (if fitted) from the battery.

Check the acid level in the battery and top up with distilled water if necessary. **UNDER NO CIRCUMSTANCES SHOULD TAP WATER BE USED**

WARNING: Battery acid is aggressive, wear protective gloves and safety glasses. Rinse off any acid splashes thoroughly with plenty of water and seek medical advice if necessary.

To avoid battery acid splashing, the cell caps should be replaced but not tightened until charging is complete.

This allows any gases formed during charging to escape. It is inevitable that some minor escape of acid will occur during charging. If your battery is permanently sealed it is unnecessary to carry out these checks.

LOCATION AND CONNECTION

Maintain as much distance as is practical between the battery and charger. Some slack in the input and output leads must be maintained. Position the charger on a level, stable surface, completely free of combustible materials. Never place the charger directly above the battery being charged; gases from battery will corrode and damage the charger. Ensure the charger leads cannot be damaged by the vehicle bodywork , sharp or moving engine parts.

To avoid sparks which could cause an explosion, the mains supply should always be disconnected before making or breaking battery connections.

CHARGING WITH THE 6V/12V BATTERY REMOVED FROM THE VEHICLE (FIG.1)

When connected with the battery, the charger will recognise the voltage of the battery and automatically select the charging mode, 6V charging mode or 12V charging mode.

WARNING: It is recommended that charging should be supervised at all times. Monitor the temperature of the battery during charging. If the temperature of the battery exceeds 40ºC cease charging until the battery has cooled to a safe temperature. Failure to do so may result in the battery exploding.

Connect the RED positive charger lead to the positive (marked +, +ve or P) terminal of the battery.

Then connect the BLACK negative lead to the negative (marked —, — ve or N) terminal of the battery.

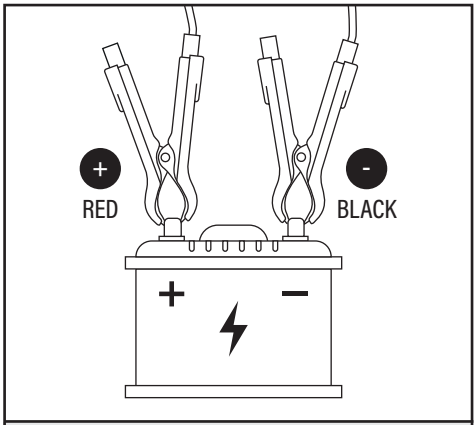


Fig.1

Connect the plug to a power socket to switch on.

OPERATING INSTRUCTIONS

The LCD digital display will illuminate.

NOTICE: If the battery is connected with the incorrect polarity or in the event of a short circuit, "Err" lights up on the LCD digital display.

Select the desired charging program (See "Charging Programs").

When the charging process has finished, "FUL" appears in the display. The charger automatically switches to maintenance charging.

Unplug the charger from the power supply.

Disconnect the black charging lead first, then disconnect the red charging lead from the positive terminal. Refit the battery caps back into position (if removed or released).

STANDARD CHARGING PROGRAMS (12V)

In order to switch between the standard charging programs, just press the "MODE" button briefly, Fig.2.

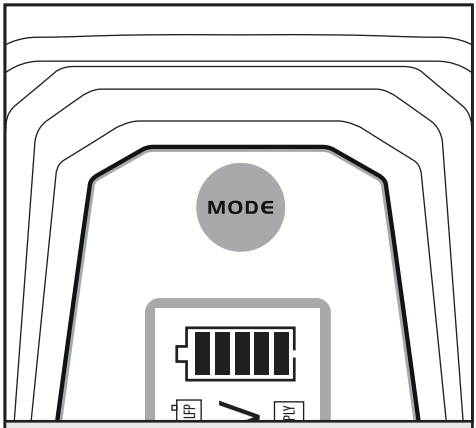


Fig.2

The charger stores the most recently selected standard charging program. This will be automatically selected after the plug has been re-inserted into the socket.

A. 12V STD: charging program for lead-acid and gel batteries. After the charger is used for the first time, 12 V STD appears in the display.

B. 12V AGM/C: charging program for AGM batteries and recommended charging program in cold weather (-20°C - +5°C ambient temperature) for normal lead-acid batteries.

C. 12V M: charging program for batteries with a small capacity (see "Technical Specification") and for the maintenance charging of all the batteries named under "Intended Use" on page 2.

D. 12V LFP: charging program for lithium iron phosphate batteries (LiFePO4 and LFP).

SPECIAL CHARGING PROGRAMS (6V, RECOND & SUPPLY)

In order to enter the mode for the special charging programs, you must press the "MODE" button for around 5 seconds.

To switch between the special modes, you just need to press the "MODE" button briefly.

To return to the standard charging programs, you must press the "MODE" button for around 5 seconds or disconnect the charger from the mains.

E. SUPPLY: for electric consumers that are usually operated at the 12V vehicle connection socket or to supply voltage to a vehicle with the battery removed.
ATTENTION: no engine start permissible!

F: RECOND: charging program with an increased end-of-charge voltage and charging with a constant current. This mode may only be used to restore the charging capacity of deep-discharged 12V lead-acid batteries and must be supervised. Observe the instructions of the battery manufacturer.

G. 6V STD: charging program for 6V AGM, lead-acid and gel batteries.

CHARGING WITH THE 6V/12V BATTERY CONNECTED TO A VEHICLE

WARNING: Do not attempt to start the vehicle with the charger connected to the battery. This may damage the battery charger.

Connect the RED positive charger lead to the positive (marked +, +ve or P) terminal of the battery.

Then connect the BLACK negative lead to the vehicle ground connection on either the engine or chassis, away from any fuel lines or battery vents.

Connect the plug to a power socket to switch on.

The LCD digital display will illuminate.

NOTICE: If the battery is connected with the incorrect polarity or in the event of a short circuit, "Err" lights up on the LCD digital display.

Select the desired charging program (See "Charging Programs").

When the charging process has finished, "FUL" appears in the display. The charger automatically switches to maintenance charging.

Unplug the charger from the power supply.

Disconnect the black charging lead first, then disconnect the red charging lead from the positive terminal. Refit the battery caps back into position (if removed or released).

SAFETY FEATURES

This battery charger comes with the following safety features:

- Short-circuit protection
- Overload protection
- Protection against reverse polarity
- Protection against overheating

FULLY AUTOMATIC 10-STEP CHARGING (FIG.3)

STEP 1: BATTERY CHECK
After selecting the charging mode, the charger checks the status of the battery.

STEP 2: DESULPHATION
Automatic detection of sulphated lead batteries. Pulsing the current and voltage dissolves the sulphate from the battery's lead plates to restore maximum battery capacity.

STEP 3: REFRESH
A gentle pre-charge current is used to charge older or rarely used batteries, thereby reactivating them.

STEP 4: REACTIVATION CHARGE
Gentle charging of the battery with an increased charging current.

STEP 5: ANALYSIS
Switching off the charging current to check the open-circuit voltage.

STEP 6: ACTIVATION CHARGE
Resumption of the increased charging current in preparation forthe main charge.

STEP 7: MAIN CHARGE
Constant-current charge with the maximum charging current.

STEP 8: CHARGE OPTIMISATION
The charging current is gradually reduced to reach the maximum possible battery capacity.

STEP 9: VOLTAGE CHECK
The battery's charging status is checked.

STEP 10: MAINTENANCE CHARGE
If necessary, a pulsed maintenance charge takes place, preventing the battery from discharging.

OPERATING INSTRUCTIONS

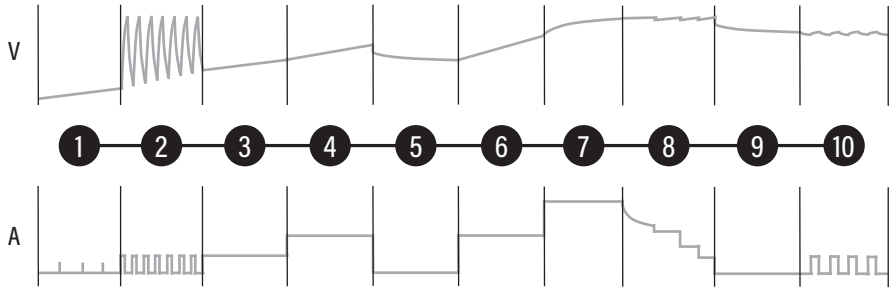


Fig.3

CHARGING TIMES

OUTPUT POWER 6V 2A		OUTPUT POWER 12V 4A	
BATTERY CAPACITY	TIME	BATTERY CAPACITY	TIME
6Ah	3 Hours	32Ah	8 Hours
12Ah	6 Hours	48Ah	12 Hours
15Ah	7.5 Hours	64Ah	16 Hours
21Ah	10.5 Hours	80Ah	20 Hours
24Ah	12 Hours	100Ah	25 Hours
30Ah	15 Hours	120Ah	30 Hours

BATTERY CHARGING TIME EQUATION

$$\text{Charging Time / Hours} = \frac{\text{Battery Capacity in Ah}}{\text{Amp (Charging Current)}}$$

MAINTENANCE

This charger requires minimal maintenance. As with any appliance or tool, a few common sense rules will prolong the life of this battery charger.

WARNING: Always unplug and disconnect the battery charger before carrying out any maintenance orcleaning.

Use a dry cloth to wipe all battery corrosion and other dirt or oil from the battery connectors.

Wipe over the case and cord with a slightly damp cloth and dry.

Examine the cords periodically for cracking or other damage and have them replaced if necessary.

Servicing should only be carried out by qualified personnel.

STORAGE

Store in a clean, dry place to avoid moisture damage.

Store the charger unplugged. The cord will still conduct electricity until it is unplugged from the mains.

DO NOT store the charger leads clipped together, on or around metal, or clipped to cables. If the charger is moved around the workshop 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.

Loosely coil up the cords when not in use.

SERVICE

Now that you have purchased your tool, should a need ever exist of repair or service, simply contact your nearest SGS Engineering Authorised Service Centre or other qualified service organisation. Be sure to provide all pertinent facts when you call or visit.

TROUBLESHOOTING

ERROR CODE/PROBLEM	CAUSE	SOLUTION
Err / Battery is not charging.	Charger lead clamps incorrectly connected/polarity reversed.	Disconnect and reconnect correctly.
	Battery voltage does not match the selected charging mode.	Select the correct charging program.
BAD / Battery voltage is too low.	Battery is deep discharged.	Leave the battery connected to the charger for 12 hours; if the voltage is captured, the battery is regenerated.
BAD / Battery is not charging.	Battery is defective.	Replace battery.

ENVIRONMENTAL PROTECTION

Information for (private householders) for the environmentally responsible disposal of Waste Electrical and Electronic Equipment (WEEE)

This symbol on products and or accompanying documents indicates that used and end of life electrical and electronic equipment should not be disposed of in household waste. For the proper disposal, treatment, recovery and recycling, please take these products to designated collection points, where they will be accepted on a free of charge basis. Alternatively, in some countries you may be able to return your products to your retailer upon the purchase of an equivalent new product. Disposing of this product correctly will help to save valuable resources and prevent any potential adverse effects on human health and the environment which could otherwise arise from inappropriate waste disposal and handling. Please contact your local authority for further details of your nearest designated collection point. Penalties may be applicable for incorrect disposal of this waste in accordance with national legislation.

FOR BUSINESS USERS IN THE EUROPEAN UNION.
If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

Information on Disposal in other Countries outside the European Union.
This Symbol is only valid in the European Union. If you wish to dispose of this product, please contact your local authorities or dealer and ask for the correct method of disposal.

EC DECLARATION OF CONFORMITY

1. **Product model:** SSBS4A

2. **Name and address of the manufacturer or his authorised representative:**

SGS Engineering (UK) Ltd
Unit 1 West Side Park, Raynesway, Derby, DE21 7AZ
Telephone: +44 (0)1332 576 850

3. **This declaration of conformity is issued under the sole responsibility of the manufacturer.**

4. **Object of the declaration:**

Equipment: 6V/12V Automotive Smart Battery Charger
Brand name: SGS
Model/type: SSBS4A

5. **The object of the declaration described above is in conformity with the relevant statutory requirements:**

Electrical Equipment (Safety) Regulations 2016
Electromagnetic Compatibility Regulations 2016
The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012

6. **References to the relevant designated standards used or references to the other technical specifications in relation to which conformity is declared:**

BS EN 60335-1
BS EN 60335-2-29
BS EN 55014
BS EN 61000

7. **The person authorized to compile the technical file:**

Name: Neil Sansom
Address: SGS Engineering (UK) Ltd, Unit 1 West Side Park, Raynesway, Derby, DE21 7AZ

Signed for and on behalf of:

Authorised Representative

Neil Sansom, CEO
Date: 08/10/2026

UK CA 26