



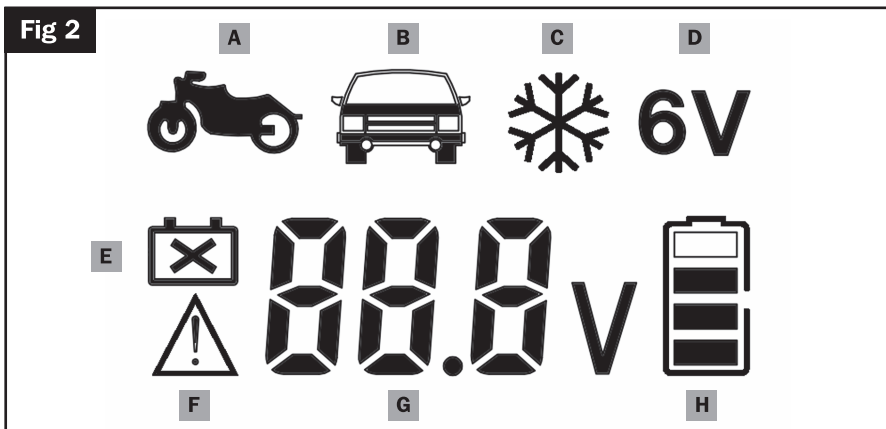
SWIBC6

# 6/12V 4Amp Intelligent Car & Motorcycle Smart Battery Charger




*with interchangeable Clips or O-rings*



**Read and understand these instructions before attempting any operation of this battery charger and retain for future reference!**



**Fig 3****Suggested battery charging times**

Battery size (Ah)	Mode	For about 80% charge (hours)
4	 (small batteries <14.4A)	1
8		2
20	 (large batteries, normal conditions)	5
60		15
100	 (large batteries, temps below 0°C)	23
120		28

**Please Note:** All charging times are approximate and will depend on the condition of the battery being charged.

**INDEX**

1. Safety regulations
2. Item layout & contents
3. Operating instructions
4. Maintenance and battery care
5. Cleaning
6. Troubleshooting
7. Disposal and recycling
8. Technical data

**Danger!**

When using the equipment, a few safety precautions must be observed to avoid injuries and damage. Please read the complete operating instructions and safety regulations with due care. Keep this manual in a safe place, so that the information is available at all times. If you give the equipment to any other person, hand over these operating instructions and safety regulations as well. We cannot accept any liability for damage or accidents which arise due to a failure to follow these instructions and the safety instructions.

**1. Safety regulations**

The corresponding safety information can be found in the enclosed booklet.

**Danger!**

**Read all safety regulations and instructions.** Any errors made in following the safety regulations and instructions may result in an electric shock, fire and/or serious injury.

**Keep all safety regulations and instructions in a safe place for future use.**

**Waste disposal**

Batteries: Only dispose of these items through motor vehicle workshops, special collection points or special waste collection points. Ask your local council.

**Explanation of the warning signs on the equipment.**

1. Ingress Protection - Resistant to water projected by a nozzle (6.3 mm) against enclosure from any direction for 15 mins - & shall have no harmful effects.
2. The equipment is double insulated.
3. TÜV approved.
4. CE approved.
5. UKCA approved.
6. WEEE recycling (see page 7)

## 2. Item Layout & Contents

(Fig 1)

1. Charging cable, Black (-) & Red (+) Clips
2. MODE Button
3. Securing feet (x2 - if required)
4. Interchangeable connecting cable
5. Mains power cable
6. LCD display
7. Charging cable, Black (-) & Red (+) O-Rings

### Pack Contents

Open the packaging and take out the equipment with care. Remove the packaging material and any packaging and/or transportation braces (if available). Check to see if all items are supplied. Inspect the equipment and accessories for transport damage. If possible, please keep the packaging until the end of the warranty period.

### Danger!

**The equipment and packaging material are not toys. Do not let children play with plastic bags, foils or small parts. There is a danger of swallowing or suffocating!**

## 3. Operating Instructions

**Before using the equipment.**

**Please also refer to the instructions in the vehicle owner's manuals for the car, radio, navigation systems, etc.**

The charger is designed for charging non-maintenance free or maintenance free 6/12V starter batteries (lead acid batteries) and for Lead GEL/ AGM batteries which are used in motor vehicles. The equipment is to be used only for its prescribed purpose. Any other use is deemed to be a case of misuse. The user/operator and not the manufacturer will be liable for any damage or injuries of any kind caused as a result of this. Please note that our equipment has not been designed for use in commercial, trade or industrial applications. Our warranty will be voided if the machine is used in commercial, trade or industrial businesses or for equivalent purposes.

### Notes on automatic charging

The charger is a microprocessor controlled automatic charger, i.e. it is suitable in particular for charging maintenance-free batteries and for the long-term charging and maintenance-charging of batteries which are not in constant use, e.g. for classic cars, recreational vehicles, lawn tractors and the like. The integrated microprocessor enables charging in several steps. The final charging step, maintenance charging, maintains the battery capacity at 95-100% and therefore keeps the battery fully charged at all times. The charging operation does not need to be monitored. However, it is recommended to periodically check on the battery during this type of charging.

### Explanation of the symbols in the LCD display (Fig. 2)

- A** - Charging of a 12V battery (lead acid battery, AGM battery and GEL battery) with 2A charging current.
- B** - Charging of a 12V battery (lead acid battery, AGM battery and GEL battery) with 4A charging current.
- C** - Charging of a 12V battery (lead acid battery, AGM battery and GEL battery) in winter mode with 4A charging current and an ambient temperature of - 20°C to +5°C. **Danger!**  
Do not charge any frozen batteries.
- D** - Charging of a 6V battery (lead acid battery, AGM battery and GEL battery) with 2A charging current.
- E** - Defective battery
- F** - Clamps are wrongly connected (reverse polarity) or there is a short-circuit
- G** - Battery voltage display in volts
- H** - Charge status of the battery in percent (1 increment = 25%) and charging procedure (increment in the battery symbol flashes = battery charging in progress; all increments are lit = battery is fully charged).

## Charging settings

Press the Mode button (Fig. 1/No. 1) to set the charging functions  
12V/2A (Fig. 2/Item A),  
12V/4A (Fig. 2/Item B)  
12 V/4A Winter Mode (Fig. 2/Item C)  
(see section above).

## Charging the battery:

Please note: This intelligent battery charge is set to 6V charge as default. When you connect to a 12V battery without changing the charge setting, the 'ERR' message will show on the LCD display. To rectify, disconnect the charger from the 12V battery and select the correct charge mode, by pressing 'MODE' before reconnecting to the battery.

Decide which method of charging you are using the Clips or the O-Rings, and connect the required cables to the charger using the cable connector.

When charging the battery, first, plug in the battery charger to your mains power supply to turn on the LCD display, and select the appropriate charge mode by pressing the MODE button. Then, open up your vehicle's bonnet and locate the battery. Remove the battery terminal caps (if necessary).

Before charging, you may need to top up the vehicle battery with distilled water. **WARNING:** Battery acid is extremely harmful. If any battery acid gets on to your skin, please wash off using plenty of water and seek medical attention.

First connect the red charging cable (+) using Clips or O-Ring as required to the positive battery terminal. Then connect the black charging cable (-) using Clips or O-Ring as required to the metal bodywork of your vehicle, while making sure that the cable is away from the battery and the petrol pipe. Once the battery cables have been correctly connected, the charge will commence and the display will show you the current charge level. During the charge, the charge current will automatically be adjusted to prevent overcharging.

### Please Note:

O-Rings are for use when the battery is to be left charging for longer periods of time.

### WARNING:

During charge, the battery may emit gases which are flammable. For this, please keep away from naked flame or sparks when charging your battery. Risk of explosion.

## IMPORTANT:

If for any reason the battery charger's connection has been reversed, then the charger's reverse polarity protection ensures that the charger does not get damaged. If such a case arises, please disconnect the charger from the mains power supply and disconnect the cables from the battery.

## Calculating the charging time (Fig. 3)

The charging time depends on the charge status of the battery. If the battery is fully discharged, the approximate charging up time to approx. 80% charge, can be calculated using the following formula:

$$\text{Charging time/h} = \frac{\text{Battery capacity in Ah}}{\text{Amp. (charging current)}}$$

The charging current should be 1/10 to 1/6 of the battery capacity.

**Note!** Gases are released during the charging process. It is essential that you ventilate the rooms well. When the equipment is in charging mode, the LCD display is illuminated GREEN. When charging is complete, the LCD display shows "FUL"

## Finishing charging the battery

- Pull the plug out of the socket.
- First disconnect the black charging cable (-) from the bodywork.
- Then release the red charging cable (+) from the positive pole on the battery.
- **Important!** In case of positive earthing, first disconnect the red charging cable from the bodywork and then the black charging cable from the battery.
- Screw or push the battery stoppers back into position (if there are any).

## Battery tester for 12V batteries

Connect the charger to the battery. The LCD symbol "**H**" (Fig. 2) shows the charge status (1 increment = 25%). The battery voltage is shown on the LCD display "**G**".

## Overload cut-out

The charger is equipped with electronic protection against overload, short circuit and reverse polarity. One or more fuses are also fitted. If a fuse suffers a burnout it must be replaced by a new fuse with the same amp value. If necessary, please contact our customer support centre.

## 4. Maintenance and battery care

- Ensure that your battery is always fitted securely.
- A perfect connection to the cable network of the electrical system must be ensured at all times.
- Keep the battery clean and dry. Apply a thin coating of grease to the connection terminals using an acid-free, acid-resistant grease (Vaseline).
- Check the level of the acid in batteries that are not maintenance-free versions approximately every 4 weeks and top up with distilled water if necessary.

### Maintenance

There are no parts inside the equipment which require additional maintenance.

## 5. Cleaning

### Danger!

Always pull out the mains power plug before starting any cleaning work.

### Cleaning

- Keep all safety devices, air vents and the motor housing free of dirt and dust as far as possible. Wipe the equipment with a clean cloth or blow it with compressed air at low pressure.
- We recommend that you wipe clean the device immediately each time you have finished using it.
- Clean the equipment regularly with a microfibre cloth. Do not use any cleaning agents or solvents; these could attack the plastic parts of the equipment.
- The charger should be placed in a dry room for storage. Any corrosion must be cleaned off the charging terminals.

## 6. Troubleshooting

If the equipment is operated properly you should experience no problems with malfunctions or faults. In the event of any malfunctions or faults, please check the following before you contact your customer services.

### Fault

Equipment does not charge up.

### Possible cause

Charger clamps connected incorrectly.

### Remedy

Connect the red clamp (+) to the positive pole and the black clamp (-) to the bodywork.

### Possible cause

Contact between the charger clamps.

### Remedy

Prevent contact.

### Possible cause


Battery defective.

### Remedy

Have the battery checked by an expert and replace it if necessary.

## 7. Disposal and recycling

The equipment is supplied in packaging to prevent it from being damaged in transit. The box and recyclable materials in this packaging can be reused or recycled. Any plastic packaging must be disposed of in accordance with current local authority procedures.

The WEEE  symbol on this product means that the battery charger should be ethically dismantled or recycled to minimise environmental impact. Please check with your local authority for more information.

### **IMPORTANT:**

#### **ADDITIONAL SAFETY INFORMATION**

This Battery Charger is **NOT** intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they are supervised or have been given instruction concerning use of the Battery Charger by a person responsible for their safety.

## 8. Technical data

Mains voltage: 230V~50Hz

Power rating max: 70W

Nominal output voltage: 6V DC / 12V DC

Nominal output current at 6V: 2A

Nominal output current at 12V: 2A / 4A

Battery capacity: 4-120 Ah