



# 6/12V 10Amp Intelligent Car & Motorcycle Smart Battery Charger



SWIBC4

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



### Item Layout & Contents

1. Power Indicator LED (Red)
2. Charged Indicator LED (Green)
3. Charging Indicator LED (Orange)
4. 6V Indicator LED (Orange)
5. Crocodile Clips (+ Red) & (- Black)
6. Voltage Selector Button
7. 12V Indicator LED (Orange)
8. ◀ Digital Display Selector
9. 240V Mains 3-pin plug & cord.



## 1. IMPORTANT SAFETY INSTRUCTIONS

### SAVE THESE INSTRUCTIONS.

- 1.1 SAVE THESE INSTRUCTIONS –**  
This manual contains important safety and operating instructions.
- 1.2** Do not expose the charger to rain or snow.
- 1.3** Use of an attachment not recommended or sold by the battery charger manufacturer may result in a risk of fire, electric shock or injury to persons.
- 1.4** To reduce the risk of damage to electric plug and cord, pull by the plug rather than the cord when disconnecting charger.
- 1.5** An extension cord should not be used unless absolutely necessary. Use of improper extension cord could result in a risk of fire and electric shock. If an extension cord must be used, make sure:
- That the pins on plug of extension cord are the same number, size and shape as those of plug on charger.
  - That extension cord is properly wired and in good electrical condition; and
  - That wire size is large enough for AC ampere rating of charger.
- 1.6** Do not operate charger with damaged cord or plug – replace the cord or plug immediately.
- 1.7** Do not operate charger if it has received a sharp blow, been dropped, or otherwise damaged in any way.
- 1.8** Do not disassemble charger; incorrect reassembly may result in a risk of electric shock or fire.
- 1.9** To reduce risk of electric shock, unplug charger from outlet before attempting any maintenance or cleaning. Turning off controls will not reduce this risk.
- 1.10 WARNING: RISK OF EXPLOSIVE GASES.**
- a. Working in vicinity of a lead-acid battery is dangerous. Batteries generate explosive gases during normal battery operation. For this reason, it is of utmost importance that you follow the instructions each time you use the charger.
  - b. To reduce risk of battery explosion, follow these instructions and those published by battery manufacturer and manufacturer of any equipment you intend to use in vicinity of battery. Review cautionary marking on these products and on engine.

## 2. PERSONAL SAFETY PRECAUTIONS

- 2.1** Consider having someone close enough by to come to your aid when you work near a lead-acid battery.
- 2.2** Have plenty of fresh water and soap nearby in case battery acid contacts skin, clothing, or eyes.
- 2.3** Wear complete eye protection and clothing protection. Avoid touching eyes while working near battery.
- 2.4** If battery acid contacts skin or clothing, wash immediately with soap and water. If acid enters eye, immediately flood eye with running cold water for at least 10 minutes and get medical attention immediately.
- 2.5** NEVER smoke or allow a spark or flame in vicinity of battery or engine.
- 2.6** Be extra cautious to reduce risk of dropping a metal tool onto battery. It might spark or short-circuit battery or other electrical part that may cause explosion.
- 2.7** 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.
- 2.8** Use charger for charging LEAD-ACID and AGM-type rechargeable batteries with recommended rated capacities of 40-200Ah (6V&12V). It is not intended to supply power to a low voltage electrical system other than in a starter-motor application. Do not use battery charger for charging dry-cell batteries that are commonly used with home appliances. These batteries may burst and cause injury to persons and damage to property.
- 2.9** NEVER charge a frozen battery.





### 3. PREPARING TO CHARGE

- 3.1 If necessary to remove battery from vehicle to charge, always remove grounded terminal from battery first. Make sure all accessories in the vehicle are off, so as not to cause an arc.
- 3.2 Be sure area around battery is well ventilated while battery is being charged.
- 3.3 Clean battery terminals. Be careful to keep corrosion from coming in contact with eyes.
- 3.4 Add distilled water in each cell until battery acid reaches level specified by battery manufacturer. Do not overfill. For a battery without removable cell caps, such as valve regulated lead acid batteries, carefully follow manufacturer's recharging instructions.
- 3.5 Study all battery manufacturer's specific precautions while charging and recommended rates of charge.
- 3.6 Determine voltage of battery by referring to vehicle owner's manual and make sure that output voltage selector switch is set at correct voltage. If charger has adjustable charge rate, charge battery initially at lowest rate.

### 4. CHARGER LOCATION

- 4.1 Locate charger as far away from battery as DC cables permit.
- 4.2 Never place charger directly above battery being charged; gases from battery will corrode and damage charger.
- 4.3 Never allow battery acid to drip on charger when reading electrolyte specific gravity or filling battery.
- 4.4 Do not operate charger in a closed-in area or restrict ventilation in any way.
- 4.5 Do not set a battery on top of charger.

### 5. DC CONNECTION PRECAUTIONS

- 5.1 Connect and disconnect DC output clips only after setting any charger switches to "off" position and removing AC cord from electric outlet. Never allow clips to touch each other.
- 5.2 Attach clips to battery and chassis, as indicated in the sections 6 and 7.

### 6. FOLLOW THESE STEPS WHEN BATTERY IS INSTALLED IN VEHICLE

**A SPARK NEAR THE BATTERY MAY CAUSE A BATTERY EXPLOSION. TO REDUCE THE RISK OF A SPARK NEAR THE BATTERY:**

- 6.1 Position AC and DC cords to reduce risk of damage by hood, door, or moving engine part.
- 6.2 Stay clear of fan blades, belts, pulleys, and other parts that can cause injury to persons.
- 6.3 Check polarity of battery posts. POSITIVE (POS, P, +) battery post usually has larger diameter than NEGATIVE (NEG, N, -) post.
- 6.4 Determine which post of battery is grounded (connected) to the chassis. If negative post is grounded to chassis (as in most vehicles), see (6.5). If positive post is grounded to the chassis, see (6.6).
- 6.5 For negative-grounded vehicle, connect POSITIVE (RED) clip from battery charger to POSITIVE (POS, P, +) ungrounded post of battery. Connect NEGATIVE (BLACK) clip to vehicle chassis or engine block away from battery. Do not connect clip to carburetor, fuel lines, or sheet-metal body parts. Connect to a heavy gage metal part of the frame or engine block.
- 6.6 For positive-grounded vehicle, connect NEGATIVE (BLACK) clip from battery charger to NEGATIVE (NEG, N, -) ungrounded post of battery. Connect POSITIVE (RED) clip to vehicle chassis or engine block away from battery. Do not connect clip to carburetor, fuel lines, or sheet-metal body parts. Connect to a heavy gage metal part of the frame or engine block.
- 6.7 When disconnecting charger, turn switches to off, disconnect AC cord, remove clip from vehicle chassis, and then remove clip from battery terminal.
- 6.8 See *Operating Instructions* for length of charge information.





## 7. FOLLOW THESE STEPS WHEN BATTERY IS OUTSIDE VEHICLE

**A SPARK NEAR THE BATTERY MAY CAUSE A BATTERY EXPLOSION. TO REDUCE THE RISK OF A SPARK NEAR THE BATTERY:**

- 7.1 Check polarity of battery posts. POSITIVE (POS, P, +) battery post usually has a larger diameter than NEGATIVE (NEG, N, -) post.
- 7.2 Attach at least a 24-inch-long 6-gauge (AWG) insulated battery cable to NEGATIVE (NEG, N, -) battery post.
- 7.3 Connect POSITIVE (RED) charger clip to POSITIVE (POS, P, +) post of battery.
- 7.4 Position yourself and free end of cable as far away from battery as possible – then

connect NEGATIVE (BLACK) charger clip to free end of cable.

- 7.5 Do not face battery when making final connection.
- 7.6 When disconnecting charger, always do so in reverse sequence of connecting procedure and break first connection while as far away from battery as practical.
- 7.7 A marine (boat) battery must be removed and charged on shore. To charge it on board requires equipment specially designed for marine use.

## 8. AC POWER CORD CONNECTIONS

This battery charger is for use on a nominal 230~240 volt circuit. The plug must be plugged into an outlet that is properly installed in accordance with all local codes and ordinances. The plug pins must fit the receptacle (outlet).

DANGER-Never alter AC cord or plug provided -if it does not fit the outlet. An improper connection can result in a risk of an electric shock or electrocution.

### USING AN EXTENSION CORD

The use of an extension cord is not recommended. If you must use an extension cord, follow these guidelines:

- Pins on plug of extension cord must be the same number, size, and shape as those of plug on charger.
- Ensure that the extension cord is properly wired and in good electrical condition.
- Wire size must be large enough for the AC ampere rating of charger.

## 9. ASSEMBLY INSTRUCTIONS

- 9.1 Remove all cord wraps and uncoil the cables prior to using the battery charger.

## 10. CONTROL PANEL

### LED INDICATORS

#### POWER (red) LED lit:

Connecting the AC cord to 120V power source.

#### CHARGING (yellow) LED lit:

The charger is charging the battery.

#### CHARGED (green) LED lit:

The battery is fully charged and the charger is in maintain mode.

**NOTE:** See the Operating Instructions section for a complete description of the charger modes.

### DIGITAL DISPLAY

Connecting DC output cord to a battery, what the digital display shows as listed below:

Battery's Voltage	Digital Display Shows
>15V	"HI" or "V"
>3V	"BR" ("BAD") or "V"
3V<V<8V	"CHG" or "V" charging started
	"FUL" or "V" charging completed
>8V	"CHG" or "V" charging started
	"FUL" or "V" charging completed

- Pushing ◀ button to show battery capacity's percentage, after seconds, go back to voltage/ status automatically.
- **Voltage** – The digital display shows the voltage at the charger battery clamps, in DC volts.





**6V & 12V CHARGING MODE**

**In 6V mode:** Start charging with 10A constant current, the digital display shows “CHG” and battery’s voltage alternatively. Once the battery’s voltage reaches 7.4V, start with constant voltage charge at 7.4V, the current goes down slowly. After the current drops to 1Amp, the charging process is completed. The digital display will show “FULL” and battery’s voltage alternatively, and the “Charged” LED indicator will be lit.

**In 12V mode:** Start charging with 10A constant current, the digital display shows “CHG” and battery’s voltage alternatively. Once the battery’s voltage reaches 14.8V, start with constant voltage charge at 14.8V, the current goes down slowly. After the current drops to 1Amp, the charging process is completed. The digital display will show “FUL” and battery’s voltage alternatively, and the “Charged” LED indicator will be lit.

**11. OPERATING INSTRUCTIONS**

**WARNING:** A spark near battery may cause a battery explosion.

**IMPORTANT:** Do not start the vehicle with the charger connected to the AC outlet, or it could result in damage to the charger.

**NOTE:** This charger is equipped with an auto-start feature. Current will not be supplied to the battery clamps until battery is properly connected. The clamps will not spark if touched together.

**CHARGING A BATTERY IN THE VEHICLE**

1. Turn off all the vehicle’s accessories.
2. Keep the hood open.
3. Clean the battery terminals.
4. Place the charger on a dry, non-flammable surface.
5. Lay the AC/DC cables away from any fan blades, belts, pulleys and other moving parts.
6. Connect the battery, following the precautions listed in sections 6 and 7.
7. Connect the charger to an electrical outlet.
8. Select the battery type and charging rate.
9. When charging is complete, disconnect the charger from the AC power, remove the clamps from the vehicle’s chassis, and then remove the clamp from the battery terminal.

**CHARGING A BATTERY OUTSIDE OF THE VEHICLE**

1. Place battery in a well-ventilated area.
2. Clean the battery terminals.
3. Connect the battery, following the precautions listed in sections 6 and 7.
4. Connect the charger to the electrical outlet.
5. Select the battery voltage, Press **V**, 6V or 12V LED display indicates chosen voltage. In charging mode Press **▶**, Digital display indicates Volts, % of charging or CHG.
6. When charging is complete (GREEN LED is lit), disconnect the charger from the AC power, disconnect the negative clamp, and finally the positive clamp.
7. A marine (boat) battery must be removed and charged on shore.

**CHARGE RATE**

The charger will automatically adjust the charging current, based on battery size, in order to charge the battery completely, efficiently and safely.

**BATTERY CHARGING TIMES**

APPLICATION	BATTERY SIZE	CHARGING TIME (Hours)
POWERSPORTS ↓	8Ah	1.5
	32Ah	4
AUTOMOTIVE ↓	300 CCA	3
	1000 CCA	7
MARINE ↓	50Ah	3.5
	105Ah	8

Times are based on a 50% discharged battery and may change, depending on age and condition of battery.

**AUTOMATIC CHARGING MODE**

When the Automatic Charge is performed, the charger switches to the maintain mode automatically after the battery is charged.

**USING THE BATTERY VOLTAGE TESTER**

1. With the charger unplugged from the AC outlet, connect the charger to the battery following the instructions given in previous sections.
2. Plug the charger AC power cord into the AC outlet.
3. Read the voltage on the digital display. Keep in mind that this reading is only a battery voltage reading; a false surface charge may mislead you. Compare the reading to the chart below.

6 V Battery Voltage Reading	12 V Battery Voltage Reading	Battery Condition
6.4 or more	12.8 or more	Charged
6.1 to 6.3	12.2 to 12.7	Needs charging
Less than 6.1	Less than 12.2	Discharged







## 12. MAINTENANCE AND CARE

- A minimal amount of care can keep your battery charger working properly for years.
- Clean the clamps each time you are finished charging. Wipe off any battery fluid that may have come in contact with the clamps to prevent corrosion.
- Occasionally cleaning the case of the charger with a soft cloth will keep the finish shiny and help prevent corrosion.
- Coil the input and output cords neatly when storing the charger. This will help prevent accidental damage to the cords and charger.
- Store the charger unplugged from the AC power outlet, in an upright position.
- Store inside, in a cool, dry place. Do not store the clamps clipped together, clipped to the handle, on or around metal, or clipped to the cables.

## 13. TROUBLESHOOTING/ERROR CODES

### Error Codes

ERROR CODE	DESCRIPTION	REASON/SOLUTION
8A0	The battery voltage is less than 3V.	The battery could be bad. Have it checked or replaced.
HIG	The battery voltage is more than 15V.	It could be a 24V battery; have it checked or replaced.

If you get an error code, check the connections and settings and/or replace the battery.

### Troubleshooting

PROBLEM	POSSIBLE CAUSE	REASON/SOLUTION
Battery clamps do not spark when touched together.	The charger is equipped with an auto-start feature. It will not supply current to the battery clamps until a battery is properly connected and selected 6V or 12V. The clamps will not spark if touched together.	No problem; this is a normal condition.
The charger will not turn on when properly connected.	AC outlet is dead.  Poor electrical connection.  Battery is defective.	Check for open fuse or circuit breaker supplying AC outlet.  Check power cord and extension cord for loose fitting plug.  Have the battery checked.
Connecting the AC input cord to a 230-240v power source. The digital display has no shows.	The clamps may not well connect with the battery.	Check clamps connection with the battery.






**WARRANTY:** The 12 month warranty on this product will need to be activated within 30 days of purchase, please go to our web site and click on the “Warranty” link and enter your details on the warranty screen. [www.streetwizeaccessories.com](http://www.streetwizeaccessories.com).

## 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.



**FOR INDOOR USE ONLY**

### 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.



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