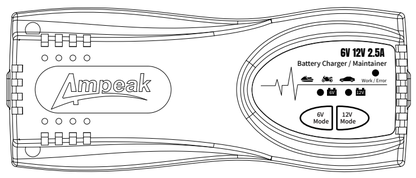
6 / 12V 2.5A
Smart Battery Charger

For Lead-acid Batteries



BC01

Please kindly email us if you need any help: customer.services@ampeak.com

Thank you for choosing Ampeak! Always follow basic safety precautions when using electrical appliances. Read all instructions carefully before use and keep it for further reference.

E-mail: customer.services@ampeak.com

Facebook: Ampeak

Twitter: Ampeakofficial

Skype: +86 13530487430

Facebook

Wechat

Content

IMPORTANT SAFETY INFORMATION

WARNING:

- Read and understand all instructions. Failure to follow all instructions may result in serious injury or property damage.
- The warnings, cautions, and instructions in this manual cannot cover all possible conditions or situations that could occur. Exercise common sense and caution when using this tool.
  Always be aware of the environment and ensure that the tool is used in a safe and responsible manner.
- Do not allow persons to operate or assemble the product until they have read this manual and have developed a thorough understanding of how it works.
- Do not modify this product in any way. Unauthorized modification may impair the function and safety and affect the life of the product. There are specific applications for which the product was designed.
- Use the right tool for the job. DO NOT attempt to force small equipment to do the work of larger industrial equipment. There are certain applications for which this equipment was designed. This product will be safer and do a better job at the capacity for which it was intended.
- DO NOT use this equipment for purpose for which it was not intended.

GENERAL PRECAUTIONS

WARNING: RISK OF SHOCK, FIRE AND EXPLOSION

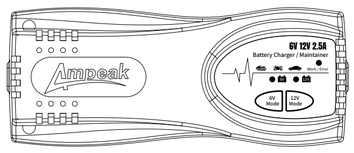
- Lead-acid batteries are very dangerous to work. Batteries produce explosive gas during the normal battery operation. For this reason, it's important to follow the instructions before you use a charger.

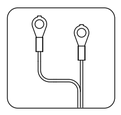
- To reduce the risk of battery explosion, follow the instructions from battery manufacturers and manufacturers about any devices you intend to use in vicinity of the battery. Check these products and warning signs on the engine.
- Make sure the area around the battery is well ventilated. DO NOT use this product in an enclosed space. Batteries vent explosive hydrogen gas, which can be ignited by sparks from electrical connections.
- DO NOT expose this product to water, rain, snow, condensation, or spray.
- DO NOT use an attachment not recommended or sold by the battery charger manufacturer, or it may result in a risk of fire, electric shock, or injury to persons.
- DO NOT use the damaged power line or plug to operate the charger-immediately replace the power line or plug, warning signs on the engine.
- DO NOT operate the charger if it received a sharp blow, drop or otherwise damaged; send it to the qualified maintenance personnel.
- DO NOT disassemble the charger; please send it to the qualified maintenance personnel when it is required to be repaired. Incorrect reassembly may lead to electric shock or fire.
- To reduce the risk of damage to the power supply plug and power cord, when unplug the charger, please unplug the plug instead of the power cord.
- To reduce the risk of electric shock, before any maintenance or cleaning, please unplug the charger on the socket first. Shutting down control won't reduce this risk.

PERSONAL SAFETY & EQUIPMENT DAMAGE

- Keep away from children, this is not a toy.
- Someone should be within the range of your voice, or close enough to come to your aid when you work near batteries.
- Avoid touching your eyes while working near batteries.
- Have plenty of fresh water and soap nearby in case battery acid contacts skin, clothing, and eyes.
- If battery acid comes in contacts to your skin or clothing, wash immediately with soap and water. If acid enters your eyes, immediately flood them with cold running water for at least 20 minutes and get medical attention immediately.
- Remove personal metal items such as rings, bracelets, necklaces, and watches when working with batteries. Batteries produce a short circuit current high enough to weld a ring or other similar objects to metal, causing a severe bum.
- NEVER charge a frozen or dead battery.
- NEVER smoke or allow a spark or flame in vicinity of battery or engine.
- Be careful to reduce the risk of metal tools falling into the battery. Otherwise, the battery or other electrical components may cause explosion or sparks or short circuits.
- Use charger for charging a 6V/12V battery only. 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.
- This product is only for indoor use.

FEATURES





Model NO.	BC01
Description	Battery Charger
Input Voltage Range	100V-132V
Rated Input Voltage	120V
Input Frequency Range	50Hz-60Hz
Rated Input Frequency	60Hz
The Static Loss (100-132V)	≤ 0.5W
Rated Input Power	≤ 50W
120V Input Efficiency	≥ 78%

Working Temperature	32°F (0°C) - 104°F (40°C)
Working Relative Humidity	10%-90%
Storage Temperature	-4°F (-20°C) - 176°F (80°C)
Storage Relative Humidity	5%-95%
No-load Voltage (Slow Flash Green LED)	0V (MOS turn off)
Constant Current Charging (Slow Flash Green LED)	2.5±0.15A
Full of Cut-off Current (Green LED ON)	<150±50mA
Full of Cut-off Voltage (Steady Green LED)	>7.2±0.3Vor>14.4±0.3V
Low Voltage Protection (Fast Flash Green LED)	6V : <2.5 ± 0.5VDC 12V : <2.5 ± 0.5VDC
Over voltage Protection (Steady Green LED)	>7.5±0.5 or >15±0.5VDC
Over current Protection (Slow Flash Red LED)	>3.5A
Bad Battery Judgment (Slow Flash Red LED)	6V: >30±10Min, Voltage<5V 12V: >30±10Min, Voltage <11V
Floating charge (Slow Flash Green LED)	6V < 6V±0.1V 12V <13.5±0.1V
Short Circuit Protection (Fast Flash Red LED)	Electrical output between the positive and negative resistance is less than 0.03 ohms
Overtime Charging (Steady Green LED)	> 24±2h
Reverse Polarity Protection (Steady Red LED)	Positive and negative reverse, current < 1 mA

Anti-Current Reverse Irrigation Function:

When the charger disconnects the power supply, if the battery pack is still inserted on the charger, the battery pack will reverse discharge to the charger, and the reverse discharge current is not more than 30uA.

Anti-Reverse Function:

When the positive and negative poles of the charger are wrongly connected to the positive and negative poles of the battery, no spark, no damage, the discharge current of the battery is not more than 1mA.

OPERATING INSTRUCTIONS

Before operating the charger, make sure the location meets the following conditions.

Dry	DO NOT drop or pour any liquid on the charger.
Cool	Keep the charger from direct lighting. Maintain the ambient air temperature between 32°F (0°C) and 104°F (40°C)
Safe	DO NOT operate in the same compartment as stored flammable liquids and gasoline.
Clean	DO NOT operate the charger in an area that is prone to dirt, dust or debris.
Ventilated	Leave at least 2" (5cm) clearance around the charger for air flow. Make sure the ventilation openings are not obstructed.
Close to Battery	DO NOT use an excessively longer DC cable, as it increases wire resistance and reduces input power.

Protected from removing	If necessary to remove the 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.
Specific Precautions of the Battery	Study all battery manufacturers, specific precautions such as removing or not removing cell caps while charging and recommended rates of charge.
Battery Voltage Requirement	Determine voltage of battery by referring to car owner's manual. Do not use the battery charger unless battery voltage matches the output voltage rating of the charger.
Distilled Water Requirement	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.

⚠ DC CONNECTION PRECAUTIONS

- Connect and disconnect DC input clips only after removing AC cord from the outlet. Never allow clips to touch each other.
- Attach clips to battery and chassis as indicated in the following Scene No.l (5) and (6), Scene No.2 (2) and (4).

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

Scene No.l: USING THE CHARGER WHEN BATTERY IS INSTALLED IN CAR.

1.To reduce the risk of damage by hood, door, or moving engine part, put the AC and DC cables together.

2.Keep away from fan blades, belts, pulleys, and other components that may harm people.

3.Check the polarity of battery post. The diameter of POSITIVE (POS, P, +) battery post usually larger than NEGATIVE (NEG, N,-) post.

4.Determine which post of battery is grounded (connected) to the chassis. If the negative post is grounded (eg, most cars), see (5). If it is rooted in the chassis, see (6)

5.For negative-grounded car, connect the charger's POSITIVE (RED) clamp to the POSITIVE (POS, P, +) ungrounded post of battery. Connect the charger's NEGATIVE (BLACK) clamp to the car chassis or engine block, away from the battery.DO NOT connect the clamps to the carburetor,fuel line, or metal plate parts. Connected to the frame or the thick metal parts of the engine body.

6.For positive-grounded car, connect the charger's NEGATIVE (BLACK) clamp to NEGATIVE (NEG, N, -) ungrounded post of battery.Connect the charger5 s POSITIVE (RED) clamp to car chassis or engine block, away from battery. DO NOT connect damp to carburetor, fuel lines, or sheet-metal body parts. Connected to the frame or the thick metal parts of the engine body.

7.When disconnecting charger, turn off the switches, disconnect AC cord, remove clamp from car chassis, and then remove clamp from battery terminal.

8.Refer to specification for length of charge information.

Scene No.2: USING THE CHARGER WHEN BATTERY IS OUTSIDE CAR.

1.Check the polarity of battery post. The diameter of POSITIVE (POS, P, +) battery post usually larger than NEGATIVE (NEG, N,-) post.

2.Attach at least a IM 20AWG insulated battery cable to NEGATIVE (NEG, N,-) battery post.

3.Connect POSITIVE (RED) charger damp to POSITIVE (POS, P, +) post of battery.

4.Keep the free end of the cable away from the battery position, and then connect the NEGATIVE (BLACK) charger clamp to the free end of the cable.

5.DO NOT face the battery when it is finally connected.

6.When disconnecting charger, please proceed in the reverse order of the connection sequence and disconnect the first connection while as far away from battery as practical.

7.A marine (boat) battery must be unloaded and charged on shore. Equipment charged on board ships requires equipment specially designed for using on the sea.

MODE OF CHARGE

AUTOMATIC CHARGI NG AND BATTERY CONDITION MONITORING:

Ampeak chargers are completely automatic and may be connected to both AC power supplies and the battery that it is charging for long periods of time. The charger output current, voltage, and power depends on the condition of the charging battery.

Ampeak chargers have a status indicator LED that provides a visual means to determine the operating mode of the charger and hence the condition of the battery connected to the charger.The two-colored status indicator LED light is used to determine whether the charger is operating in one of the 4 primary charge modes:

Desulphation mode:

Pulse charges the battery to break down the buildup of lead sulphate crystals. Lead sulphate crystals can occur when a battery has been discharged or left unused for a period of time, seriously affecting the performance and lifetime of the battery.

Bulk Charge mode:

The main part of the charge process where 80% of the charge is applied.

Absorption mode:

Fully charges the battery by slowly reducing the charge rate to allow the battery to absorb more power.

Float mode:

Maintains the battery at 100% charge without overcharging or damaging the battery, allowing the charger to be left connected to the battery indefinitely. Ideal for batteries used intermittently, such as seasonally used vehicles including classic cars, motorcycles

TIME REQUIRED CHARGING A BATTERY:

The Ampeak charges at a rate of 2500mA, or 2.5A per hour. Therefore, a fully discharged 15 Ah (Amp-Hour) battery will take approximately 6 hours to recharge to 80% capacity.

STATUS INDICATING LED LIGHT:

LED Indicator	Charging Status
Steady GREEN LED	Full-charged; Over-voltage Protection; Overtime Charging Protection
Slow Flash GREEN LED	The battery is connected correctly and the charger will charge the battery; The green LED will slow flash until full-charged; No-load Voltage: 0V (MOS turn off); Floating Charge Voltage: 1) 6V charging mode: < 6V±0.1V, 2) 12V charging mode: <13.5±0.1V.

Fast Flash GREEN LED	Low Voltage Protection
Steady RED LED	Reverse Polarity Protection
Slow Flash RED LED	Wrong Battery Indicate: charging mode chosen incorrectly or may connect to a 24V battery by mistake; Over current Protection.
Fast Flash RED LED	Short Circuit Protection

TROUBLESHOOTING

Problem	Solution
Neither RED or GREEN	Please make sure that the AC outlet is supplying power. Please check by inserting a lamp, appliance or voltmeter.
The GREEN Light Goes on Immediately When Charging a Discharged Battery	The battery may be defective, take the battery to the dealer for testing.
Charger is Charging but the Green Light Does Not Go on	1. The battery may be defective, take the battery to the dealer for testing. 2.The battery current is too large, remove the battery from the device.

The Red Light Comes on When Storage Charging Batteries	1. The battery may be defective, take the battery to the dealer for testing. 2. The battery current is too large, remove the battery from the device.

* This appliance is not intended to be used by persons (including children) who are physically or mentally .or mentally depressed or have no experience and knowledge unless they are supervised or directed by persons who are responsible for their safety.

LIMITED WARRANTY

18-MONTH LIMITED WARRANTY POLICY

The 18-Month Limited Warranty Policy is the only one that applies to this unit and it sets forth all the responsibilities of Ampeak. There is no other warranty, other than those described herein. Any implied warranty of merchantability or fitness for a particular purpose on this unit is limited in duration of this warranty. This unit is warranted to the original purchaser only to be free of defects in materials and workmanship for one year from the date of purchase without additional charge. The warranty does not extend to subsequent purchasers or users.

Ampeak will not be responsible for any amount of damage in excess of the retail purchase price of the unit under any circumstances. Incidental and consequential damages are specifically excluded from overage under this warranty. This unit is not intended for commercial use. This warranty does not apply to damage to units from misuse or incorrect installation/connection. Misuse includes wiring or connecting to improper polarity power sources.

RETURN/REPAIR POLICY

If you are experiencing any problems with your unit, please contact AMPEAK Customer Service Department before returning product to Amazon. After speaking to a customer service representative, if products are deemed non-working or malfunctioning, the product may be returned to Amazon within 30 days of original purchase. Any defective unit returned to Amazon within 30 days of the date of purchase will be replaced free of charge or full refunded at buyer's option. If such a unit is returned more than 30 days but less than one year from the purchase date, manufacture will repair the unit or, at its option, replace it, free of charge. If the unit is repaired, new or reconditioned replacement parts maybe used, at manufacturer's option. A unit may be replaced with a new or reconditioned unit of the same or comparable design. The repaired or replaced unit will then be warranted under the terms of the remainder of the warranty period.

LIMITATIONS ON THE WARRANTY

This limited warranty does not cover: normal wear and tear(Including chips, scratches, abrasions, discoloration or fading due to usage or expose to sunlight); damage through abuse, neglect, misuse, or as a result of any accident or in any other manner; damage from misapplication, overloading, or improper installation;

improper maintenance and repair; and product alteration in any manner by anyone other than us, with the sole exception of alterations made pursuant to product instructions and in a workmanlike manner.