

AMAREW[®]

ChargeSmart Battery Charger 12V 15A



Read this manual carefully before using the battery charger

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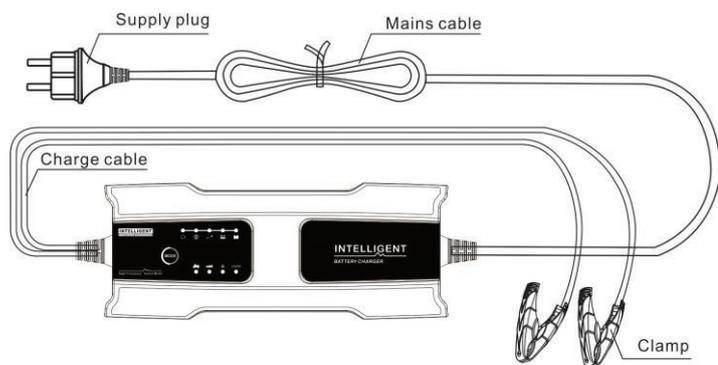
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General information

Thank you for purchasing an AMAREW® battery charger and we wish you will enjoy using it. AMAREW® battery chargers are designed and developed by professional engineering teams. Now they have succeeded in producing battery chargers which vary in charging current and battery types to fit various customers' requirements. Please read and retain this manual before using the battery charger. The manual contains information that describes the procedure for a safe operation and the daily maintenance of your battery charger. A safe operation will prevent personal injuries and product damage.

Model information

Model number:	01.82.150
Rated input voltage:	AC 220-240V
Rated input current:	1.8A
Output voltage:	DC 12V
Output current:	2.0A-12.0A



Important safety remarks

Working in the vicinity of a lead-acid or lithium battery is dangerous. These batteries generate explosive gases during normal use. For this reason, it is of utmost importance that each time before using your charger, you read this manual, the instructions published by the battery manufacturer and the instructions published by the manufacturers of all the devices you intend to use in the vicinity of the battery. In order to reduce the risk of battery explosion, it is important to exactly follow the instructions and also take into account the cautionary markings on the concerned products.

Operating the battery charger is not allowed by children (<16 years old), persons with reduced physical, sensory or mental capabilities, or persons with lack of experience and knowledge, unless they are supervised or have been given instructions concerning the operation by someone who is responsible for their safety.

The international protection rating (IP-rating) of this battery charger is 20. This means that the battery charger is not water resistant. Using the charger in the rain is not recommended.

General safety instructions

- This battery charger is designed for charging LEAD-ACID batteries and LiFePO4 batteries. Do not use the battery charger for other types of batteries. These batteries may burst and cause personal injuries and/or damage to properties.
- Only use spare parts and accessories recommended or sold by AMAREW®. The use of non-recommended spare parts and accessories may result in fire, an electric shock, or an injury.
- When disconnecting the battery charger, pull the plug instead of the cord. Pulling the cord may cause damage to the cord or the plug.
- Do not operate the battery charger with a damaged cord or plug. The plug and/or the cord have to be replaced immediately.
- Do not operate the battery charger if it has received a sharp blow, if it has been dropped , or if it has been damaged in any other way. The device should be taken to AMAREW® for inspection and possible repair.
- Do not disassemble the battery charger yourself. Take it to AMAREW® when service or repair is required. Incorrect reassembly may result in fire, an electric shock, or an injury.
- To reduce the risk of fire, an electric shock, or an injury, unplug the battery charger before attempting any maintenance or cleaning.

- Do not use an extension cord unless this is absolutely necessary. The use of an improper extension cord can result in fire, an electric shock, or an injury. If an extension cord must be used, make sure that:
 - o The pins on the plug of the extension cord are of the same number, size, and shape as those of the plug on the battery charger.
 - o The extension cord is properly wired and in good electrical condition.
 - o The wire size is large enough for the AC ampere rating of the battery charger.

- Always charge a battery in a well ventilated area. Never operate in a closed-in or restricted area without adequate ventilation, because this creates an increased risk of explosion.

- Locate the battery charger as far away from battery as the DC charger cables permit.

- Do not expose the battery charger to rain or snow.

- Never charge a frozen battery. When the battery fluid (electrolyte) is frozen, bring it into a warm area in order to let it thaw before charging.

- Never allow battery acid to drip on the battery charger when reading or filling the battery.

- Never place a battery on top of the battery charger.

- Never place the battery charger directly above the battery that is being charged. Gases from the battery will corrode and may damage the battery charger.

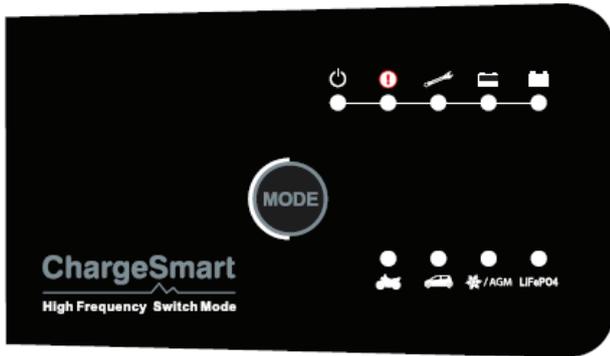
- Never touch the battery clips together when the battery charger is energized.

- Never start an engine with the battery charger still attached to the battery.

Personal precautions

- Do wear complete eye protection and clothing protection when working with or near lead-acid or lithium batteries.
- Make sure someone is within the range of your voice or close enough to come to your aid when working with or near lead-acid or lithium batteries.
- Have plenty of fresh water and soap nearby to clean your skin, your clothes or your eyes in case they get in contact with battery chemicals.
- Avoid touching your eyes while working with a battery, acid particles (corrosion) may get into your eyes. If acid enters your eye, immediately flood the eye by running cold water for at least 10 minutes. Also get medical attention immediately.
- Remove all personal metal items such as rings, bracelets, neck laces, and watches while working with lead-acid or lithium batteries. Lead-acid or lithium batteries can produce a short-circuit current high enough to weld these items.
- Make sure not to drop metal tools or other metal items onto the battery. Metal may cause sparking or short circuit the battery or another electrical device. Sparks may cause an explosion.
- Never smoke or allow a spark or a flame in the vicinity of a battery or an engine. Batteries generate explosive gases!

Battery types and settings



	<p>To select charging mode or re-set during charging.</p>
	<p>Fault Lights in case of short circuit, reverse polarity or bad battery condition.</p>
	<p>Battery repairing.</p>
	<p>Battery is being charged.</p>
	<p>Battery is full and charger is in floating mode to maintain battery in full charged status.</p>
	<p>Mode 14.4V/2.0A This mode is normally used for 12V lead-acid batteries <40Ah: wet batteries, MF-batteries, AGM-batteries and most GEL-batteries.</p>
	<p>Mode 14.4V/15.0A This mode is normally used for 12V lead-acid batteries <300Ah: wet batteries, MF-batteries, AGM-batteries and most GEL-batteries.</p>
<p>LiFePO4</p>	<p>Mode 14.4V/15.0A This mode is normally used for 12V lithium batteries <300Ah: LiFePO4 only.</p>
	<p>Mode 14.7V/15.0A This setting is recommended for batteries at temperatures below 5°C. It is also recommended for many AGM batteries. This setting is not recommended for maintenance charging when the temperature at times exceeds +5°C. In this case, the 14.4V/15A mode is recommended.</p>

Charging a battery

The following recommendations should only be seen as guidelines. When in doubt, always consult the manufacturer for further instructions.

1. Connecting the charger to the battery.

The charger's output leads have color-coded battery clips: RED IS POSITIVE (+) and BLACK IS NEGATIVE (-). Connect these directly to the corresponding connectors on the battery posts.

2. Connect the charger to an AC power socket. The Power LED  will light on.
3. Press the  button to select the charging program. Settings are made by pressing the "MODE-button" and stepping forward by pressing the button one step at a time, releasing the button when the required mode is reached.
4. Stop charging at any time by disconnecting the mains cable from the wall socket.

Settings explained

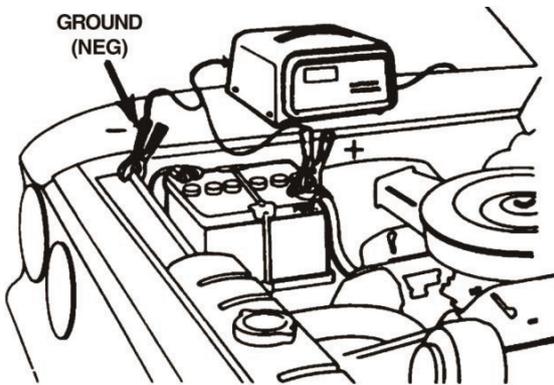
1. When you are sure the battery leads are correctly connected, plug the power cord to the power outlet to start charging. If the battery leads are wrongly connected, the fault lamp  lights up.
2. Set the proper charging mode for the battery by pushing the  button until the correct setting lights up.
3. The charging lamp  lights up indicating charging. The maintenance lamp  lights up when the battery is fully charged and turns into maintenance charge. If the voltage drops the charger sends current to the battery. The charger can be connected for months.
4. If the battery voltage is less than 10 volt, the battery charger will give impulse to arouse the battery, the repair lamp  lights up. The battery charger will turn to normal charging mode when the battery reaches 12 volt again.
5. If the battery is slightly sulphated, the battery charger will try to desulphate it and the repair lamp  lights up. Repairing may take 0,5-2hour. The battery charger will turn to normal charging mode when battery is recovered. If the battery can't be recovered, the fault lamp  will light and the charging stops.
6. Charging can be stopped at any time by disconnecting the supply cord or by pushing the .
7. If the fault lamp  lights up during charging, this can have several reasons:
 - Due to a loose connection or because the battery has ceased to work.
 - Due to a sever sulphated or dead battery that needs to be replaced.
 - Due to a high self-discharge rated battery that may need to be replaced.

Memory function

This battery charger has a memory function. The next time the battery charger is connected, it will return to the mode that was used the last time the battery charger was connected.

Charging batteries in a vehicle

1. Position the AC and DC cords such that damage by the hood, the door, or by moving engine parts is minimized.
2. Stay clear of fan blades, belts, pulleys, and other parts that can cause a personal injury.
3. Check the polarity of battery posts. The POSITIVE (POS, P, +) battery post usually has a larger diameter than the NEGATIVE (NEG, N,-) battery post.
4. Determine which battery post is grounded (connected) to the chassis. If the negative post is grounded to chassis (as in most vehicles), connect the POSITIVE (RED) clip from the battery charger to the POSITIVE(POS, P, +) post of battery. Connect the NEGATIVE (BLACK) clip to the vehicle chassis or the engine block, away from battery. Do not connect the clip to the carburetor, fuel lines, or sheet-metal body parts.



If and only if positive post is grounded to the chassis, connect the NEGATIVE (BLACK) clip from battery charger to the NEGATIVE (NEG, N, -) post of battery. Connect the POSITIVE (RED) clip to the vehicle chassis or the engine block, away from battery. Do not connect the clip to the carburetor, fuel lines, or sheet-metal body parts.

5. When disconnecting the battery charger, disconnect the AC cord first, remove the clip from vehicle chassis, and then remove the clip from battery terminal.
6. Do not charge the battery while the engine is operating.

Care and maintenance

With only minimal maintenance, this battery charger will deliver years of dependable service. Follow these simple steps to maintain the charger in optimum condition: after each use, clean the battery charger clamps - be sure to remove any battery fluid that will cause corrosion of the copper clamps. Clean the outside case of the battery charger with a soft cloth and, if necessary, mild soap solution. Keep the charger cords loosely coiled during storage to prevent damaging the cords. Do not use the charger if the cords or the clamps have been damaged in any way. If the power supply cord is damaged, it must be replaced by the manufacturer, its service agent or a qualified person in order to avoid accidents.

Warranty

Coverage duration

This limited warranty offers coverage for one or two years, depending on the specific parts for which warranty is requested (see the table on the next page). The only reference for the coverage period is the serial number of the device. The repair or replacement of parts or the provision of service under this warranty, do not extend the duration of the warranty compared to the original expiration date.

Conditions that must be met in order to obtain warranty coverage

Warranty coverage is only available from an authorized AMAREW® dealer in the country where the purchase is made. Routine maintenance, discussed in the "Care and maintenance" chapter in this manual, is mandatory to maintain warranty coverage.

How to obtain warranty coverage

Please return the product to an authorized AMAREW® dealer for inspection if the device is not working properly. A proof of purchase must be shown in order to obtain warranty. The dealer then takes care of inspection and any necessary repairs. In principle, the buyer has to pay for all related transportation and / or travel time. If the services provided are not covered by the limited warranty, the buyer must pay for all labor, all materials and all other expenses related to the provided service.

What is not covered

This limited warranty does not cover routine maintenance, adjustments, normal wear, damage due to misuse, abnormal use, use of the product that is not recommended as in this manual, renunciation, immersion, installation of the product that is not recommended as in this manual, improper handling, use of an accessory or part that is not made or sold by AMAREW®, or modification / removal of parts.

The following table provides information about which parts are covered by warranty and for which period.

Row	Warranty parts	Warranty period
1	Base of the device	2 Years
2	Cable cords, clamps and plugs	1 Year
3	All other parts not mentioned in row 1 and 2	No warranty

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