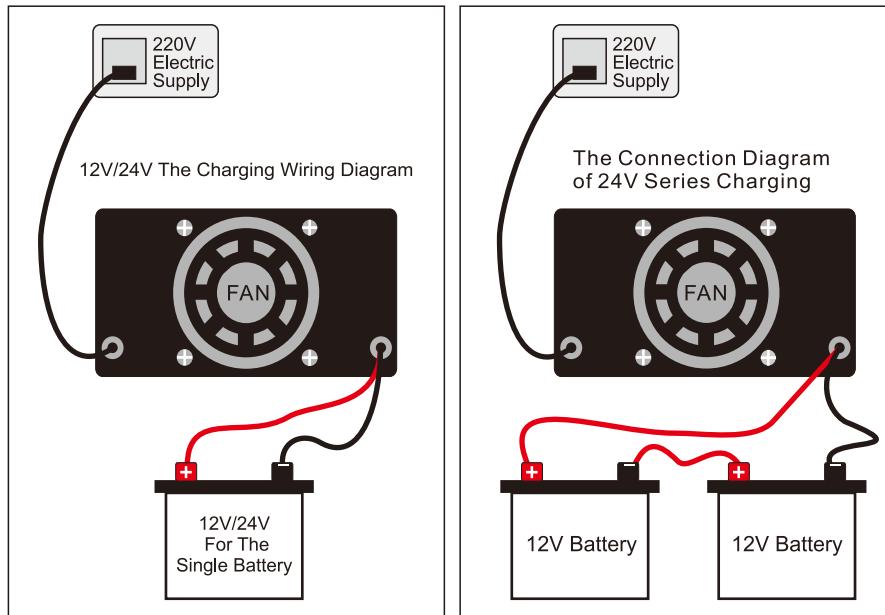


IX.The Usage Installation



X. Warnings

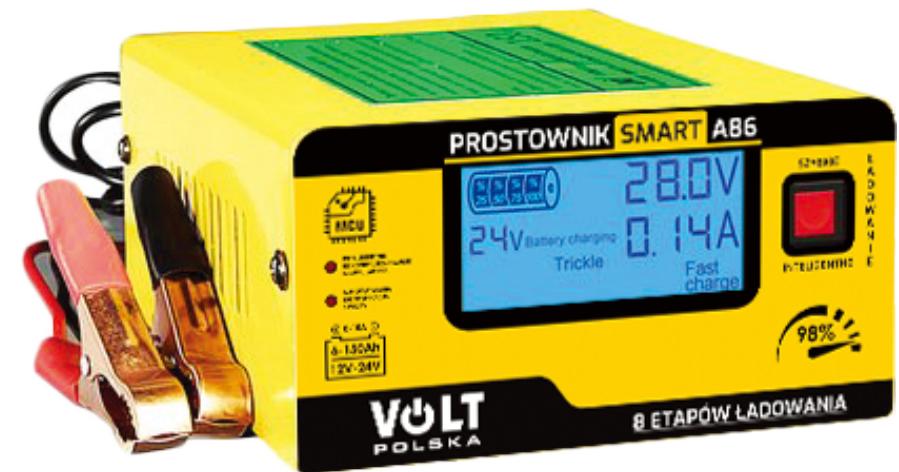
- A. The charger inside has high-voltage and dangers, if the charger has trouble or failure , please contact the seller or manufacturer.
- B. Forbid that using this product in the humid, hot, flammable and combustible environment.
- C. Forbid that using this product in the place where will block the radiator holes or when the fan has stopped working.
- D. Forbid to put water into this product to avoid a damage.
- E. Forbid that the unprofessional staff separate this product,or you pay for the consequence.

XI.Warm Tips

For best maintenance your batteries, please don't charge the battery when your battery is exhausted , the lead acid battery don't belong memory battery, its suitable to multi-charge and multi-release current. If the 12V battery exhausted the capacity under 10V, firstly the battery will have a large damage, moreover our charger will make an over-current protection easily. At the moment you should turn off the power for 10 minutes, after, you can use it again. And it means your battery has reduced under 10V,it already lost power terribly, next time you use your battery please notice it. Other , we have the professional protecting device for the battery releasing current can multi-protect your batteries ,if you need to require for it ,you can contact the seller or manufacturer.



The battery charger
SMART 6V/12V 15A A86



I.Features

- 1.This product is applicable to the 12V or 24V lead acid batteries,including added-water storage batteries ,starting batteries and maintenance-free batteries.
- 2.It uses the advanced microcomputer management system to multi-protect your batteries.
- 3.It uses the pulse width modulation(PWM) technology to automatically charge the batteries through a 4-stage charging cycle.
- 4.Guarantee that the batteries won't damage even if the batteries sulfided, stored gas,or lost water.

II.Parameters

The battery charger SMART 6V/12V 15AA86
Input Voltage:AC110V-250V
Output Voltage:12V/24V
Working Current:0-10A Adjustable automatically
Suitable Capacity:3AH-200AH
Frequency:50-60HZ
Work Efficiency:98%
Voltage Identification: 12V Peak (8-14.5V); 24V Peak (18-29V)
Work Temperature: -30°C to +50°C
Dimension:17.5(L)cm*13.5(W)cm*7.5(H)cm
Gross Weight:0.95kg
Warranty:1 year

III.The Working Mode

Constant Voltage:Use the constant voltage to charge batteries,whether the current will start largely, but as it is working will decrease less.

Constant Current:It means the storage battery voltage is lower than the set voltage of this charger, but this charger will supply constant charging current to your batteries so that it can maintenance both the battery and the battery charger.

Trickle Charge Modulation:When the battery voltage is approaching the set voltage and the charging current is lowing to the set current,it will turn to the floating charge mode from trickle charge mode automatically,it means full-charge, but it will keep on floating charge mode.

Floating Charge Modulation:It will keep maintenance-method charging your battery ,but the charging current will be small a bit.

IV.Multi-protection

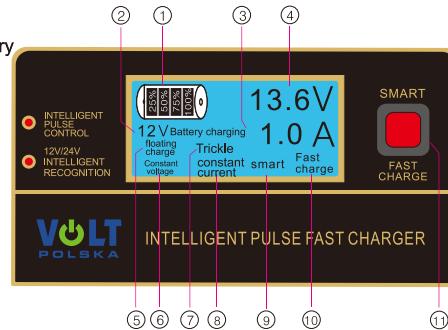
Overheating protection:When the temperature of the charger is over 150°C ,our charger will stop working ,when the temperature reduce to 80°C or turn off the power ,after 10 minutes, the charger can work again.

Short-circuit protection:When the charger output has short-circuit and automatical stop working will have the long beep alertness. Just connect it exactly, it will be automatically recharging again .

Reverse-connecting protection:When you put the reverse-connection, the charger will automatically close the output and alarm with the long beeps, after exactly to connet it will be automatically recharging again.

V.The Pannel Functional Introduction

- ①The charging rate display of the battery charger
- ②The display of the voltage species of the charging battery
- ③The current display of the charging battery
- ④The real battery voltage display
- ⑤Floating charge display
- ⑥Constant voltage charge display
- ⑦Trickle current charge display
- ⑧Constant current charge display
- ⑨Intelligent charge modulation display
- ⑩Fast charge modulation display
- ⑪The press-switch for the conversion of the intelligent or fast modulation



VI.The Functional Description

When the charging rate displays 25%、50%、75%、100% ,it shows the charging rate of power.This product use the full-microcomputer screen display, And it can display the real charging voltage and current of your batteries.It has one switch which can convert the intelligent or fast charge modulation,while you convert the modulation ,it will has the alertness .When the battery capacity is going to over-low ,it will alert for the over-low voltage, and the battery circle which has the four-cells within 25%、50%、75%、100% are flashing simultaneously indicates that your battery voltage is over-low.After the battery is repaired by the charger,it will display the normal recharging rate again.While the battery is full-charged,it will have a voice indication, and the beep device will make a sound each one minute shows that your battery has full-charged already.it is so intelligenter and intelligenter for usage. When the battery is full-charged, the screen displays 14V to 14.5V mean your batter is good, if it displays 13.5V mean your battery is common, if it displays lower than 13V mean your battery is weak. Anyways your weak batteries need to add battery oil to Maintenance by handwork.

VII.Troubleshooting Procedure

Trouble	Analyzation For Trouble
The charging time only has some minutes, even its shorter than some minutes ,the screen already display full-charged.	1.Check if the battery voltage reference match your battery or not, and survey about the radiator fan is working or not. 2.It means the battery has no capacity or the battery was full-charged before (We suggest that retest it after to release down the power, or use other batteries which less power to test the charger). 3.Check if neither the battery capacity is over-small nor the battery has damaged.
While the battery is charging ,the surface of the battery is hot, or although it has already charged in a long time, the screen won't display full-charged.	1.Your battery has a leakage $\geq 0.3A$ current 2.Because the technics of your battery is failure ,or the material of your battery is failure.(We suggest that you should buy the battery with a good quality.) 3.Check if the connection which the battery to the charger is correct or not as the reference.
Even if the battery is full-charged, it can't use durably	Because your battery has been burn-in or already has damaged, we suggest that maintenance or change your battery.
While the charger has already normally connected the battery, the beep device alarm, even its not working totally.	Because the battery has been a long time not to use, the battery can give up to the ghost , or the battery on a terrible of short-circuit.

To charging the batteries for car or motorcycle which has been for a long time not to use will display the circle which has the four-cells within 25%、50%、75%、100% are flashing simultaneously ,it means the voltage is over-low.Because the battery has left working for a long time or has given up, the block power is big .we can use the fast repairing switch of this product to repair it.

VIII. The Specification About The Charging Mode.

A.Intelligent Charge Mode: While you start the charger ,it will be defaulted into the intelligent charge mode.Each one time that you charge ,this product will scan and test the battery. As test the battery, the screen will display the circle which has the four-cells will be scanning twice. After test the status of the battery ,it will module into charging (repair ,maintenance or maintain.)

B.Fast Charge Mode:Press the modulation switch will come into the fast charge mode, it will display the real charging status.

Attention:

In the normal circumstance, we suggest that you use the intelligent mode to charge or maintenance the batteries. For at the low temperature or the batteries which has given up to charge ,we suggest that you use the fast mode to repair and charge the batteries ,it can recovery the youth life of the batteries. This product use the advanced microcomputer full-automatic management system, then however you convert intelligent or fast charge mode , you won't need to look after it as its working ,please don't worry about how to use.