F6000 User Manual

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About F6000.

The F6000 represents the most innovative and advanced technologies on the market in battery chargers field, making charging more simple and effortless each time.This is probably the safest and most efficient charger you will ever use.The F6000 is designed for charging 6V and 12V lead-acid, AGM and lithium batteries and similar types batteries. Suitable for all battery sizes.

⚠ **Warning:**

Before using the product, please read and understand the following safety information carefully!

1.Please check the battery manufacturer's specifications before using this charger

Explosive gases may escape from the battery during charging.Provide ventilation to prevent flames and sparks.Do not expose the charger under sunlight or high temperature.

2.Battery acid is corrosive.If the acid comes into the skin or eyes, Please rinse immediately with water.

3.Do not charge for frozen or damaged batteries.-Do not charge the non-rechargeable battery.

4.Do not place the charger on the battery while charging.

5.Take speical care to reduce the risk of dropping metal tools to the battery.It may cause short circuit.

6.While using lead-acid batteries, please remove rings, bracelets, necklaces, watches and other personal metal items.

7.Do not smoke to avoide the sparks or flames while charging.

8.To reduce the risk of shock, please unplug the charger from the AC socket before performing any maintenance or cleaning.

9.Don't be used by children or anyone who does not follow the instructions in this manual unless they are supervised by an adult to ensure proper use of the charger.

What's in the box?

1. 1* F6000 Smart battery Charger.
2. 1*Battery clips connection cables.
3. 1* Terminal connection.
4. 1* user manual.

Start using

Before using a charger, Please read the comments of battery manufacturer's special notes and recommended battery types and voltages carefully.
Before charging, be sure to refer to the battery's manual to decide the battery's voltage and chemical properties.

The installation

F6000 is an intelligent multi-functional charger. Please pay attention to the distance between the charger and the battery, consider the length of the charger's DC cable, and the battery chips connecting cable or terminal cable.

Charging mode

F6000 is with 8 modes: Standby mode, 12V Lead-acid Battery mode, 12V AGM battery/winter mode, 12V Lead-acid battery low current mode, 12V AGM battery/winter low current mode, 6V Lead-acid battery, 6V Lithium battery mode, 6V AGM battery/ Winter mode, 12V lithium battery .
To change the charging mode, you must restart the charger and reconnect to battery. Use the MODE

button to switch the mode, to change the battery type. Before choosing, please be familar with the difference of each rechargeable battery mode. Do not operate the charger before confirming whether the battery charging mode is appropriate.

The following is a brief description:

Mode	Description
Standby	Under standby mode: 1. The charger does not charge or supply power to the battery. The LCD screen displays FO2; 2. Under the normal charging mode: after a period of time, the LCD screen backlight turns off due to the energy-saving function is activated.
6V	Used for 6V lead-acid battery. When selected, it is charged only for 6V lead-acid battery.
6V AGM	Used for 6V AGM battery. When selected, it is charged only for 6V AGM battery.
6V ❄	Used for the winter mode of 6V lead-acid battery. When selected, it is charged only for 6V lead-acid battery in winder period.
6V LITHIUM	Used for 6V lithium battery. When selected, it is charged only for 6V lithium battery
12V	Used for 12V lead-acid battery, When selected, it is charged only for 12V lead-acid battery .
12V AGM	Used for 12V AGM battery. When selected, it is charged only for 12V AGM battery.

Mode	Description
12V❄	Used for the winter mode of 12V lead-acid battery. When selected, it is charged only for 12V lead-acid battery in winder period.
12V LITHIUM	Used for 12V lithium battery. When selected, it is charged only for 12V lithium battery
ᛒ	Bluetooth Function: Customer can select this function (no selection,no Bluetooth).Bluetooth functions with APP software for customers using.
	An error in battery , causing the charger don't work.
	The positive and negative poles of the battery clips are reversed.
	Charging percentage display, indicating the charging status and charging power display

Connect to the battery

Before connecting the battery, confirm the polarity of the battery terminals on the battery is correct. The positive terminal of the battery is usually marked with these letters or symbols (POS, P +). The negative pole of the battery is usually marked with these letters or symbols (NEG, N-).

1) Insert the AC power plug of the battery charger into a suitable power socket. Select battery mode.

2) Connect the positive (red) battery clip or terminal to the positive (POS, P +) battery terminal of the battery.

3) Connect the negative (black) battery clip or terminal to the negative (NEG.N-) battery terminal.

4) Disconnect the power plug first and remove the

negative and positive poles of the battery cable before stopping charging.

Start charging

Long press 3S to turn on, short press to select battery type.

1) Confirm the voltage and chemical properties of the battery.

2) After the AC power plug was inserted into the power socket, press the mode button to switch to the charging mode, which is suitable for the battery voltage and chemistry.

3) Confirm that the positive and negative poles of the battery and the terminal connection wires or clips wires are connected correctly.

4) The battery voltage mode will light up the selected battery charging mode, and the charging power percentage will light up (depending on the health of the battery), it shows that the charging process has started.

malfunction	Reasons/Solutions
 E03	There is a reverse connection of the DC output. E03 The reverse connection icon is on. Solution: Check the positive and negative connections of the battery clip or connecting terminal, and correctly connect the positive and negative poles of the connection clip or terminal to the positive and negative poles of the battery. The icon disappears after the correct connection。
 E02	The output is floating E02 No battery is marked. Solution: Check whether the connecting clip or terminal is connected to the positive and negative poles of the battery. The icon disappears after the correct connection。
 E01	AC output short circuit, E01 Short circuit is on. After the error is eliminated, the icon disappears.

malfunction	Reasons/Solutions
E04	Over temperature protection, when the temperature drops, the icon disappears.
E05	Non-rechargeable battery
Charging percentage LED light	While the battery is charging, the charging bar icon of 20% or 40% or 60% or 80% will flash slowly. It shows the charging status and displays the current battery capacity. When the battery is about to be fully charged, the 100% charge icon will flash slowly. When the battery is fully charged, the 100% charge icon will become stable.

Battery charging time

The estimated battery charging time is below: The size of the battery (Ah) and its depth of discharge (DOD) greatly affect its charging time. The charging time is based on the average depth of discharge of a fully charged battery , it is for reference only. Actual data may vary depending on battery conditions.

Battery Capacity（Ah）	approximate charge time	
	6V	12V
8	1.5	1.5
12	2	2
18	3.5	3.5
24	4	4
30	5	5
40	7	7
50	9	9
60	11	11
70	12	12
80	14	14
100	18	18

Technical Specifications

Ac input voltage:	200V~240VAC 50Hz	100V-120VAC 60Hz
Ac rated work voltage:	220V AC 50Hz	110V AC 60Hz
Efficiency:	80%	
Power:	100W max	
Charge voltage:	Various	
Charge current:	6000mA(6V) 6000mA(12V)	
Low voltage detect:	2V(6V) 2V(12V)	
No-load current:	≦5mA	
Environment temperature:	0°C to+40°C	
Charge mode:	8-segment, smart charger	
Battery types:	6V & 12V	
Battery types Chemistries:	Wet, Gel, MF, CA, EFB.AGM, Lithium	
Battery capacity	Less than 100AH, can support all battery sizes	
Shell protection:	IP20	
Cool down:	Cooling fan	
Bluetooth function	options	
Measure (L x Wx H):	201.2*75.4*49.0mm	
Product net weight:	0.58kg	

Environmental characteristics:
Operating temperature range: 0'C to +45'C
Working humidity range: 0~70%RH Max