

Product Specification

Model	HT - 1230L
Input Voltage	AC 180V- 240V 50Hz
Input Current	8A
Output current (max)	30A
Charging Voltage	Lithium Iron Phosphate Battery 14.4 ± 0.3VDC
	Lead Acid Battery 13.8 ± 0.05VDC
Battery Type	24AH:12V Capacity >24AH
Working Temperature	-10 °C to 40°C
Storage Temperature	-20 °C to 70°C
SIZE (length*width*height)mm	235 × 128 × 68
Weight (KG)	1.50 kg

Warning: This battery charger could not be able to connect lead acid battery and lithium iron phosphate battery at the same time, even though the charger does not connect to power.

HT 1230L 30 A Lithium Smart Charger INSTRUCTIONS



Please read this operating instruction carefully proper use.
 Please remember to read the "Safety Precautions" before you use to ensure the safety.

Output Current

When the charger is connected to the power supply, the output automatically will be in the default mode. The user also can manually select the charging current pressing the “Current” button within the range of 7Amp, 12Amp, 20Amp and 30Amp.

MODEL Number		HT 1230L
Automatic Selection	Maintenance Selection	12A
	Regular Selection	20A
	Fast Selection	30A
Constant current charging current		2A to 30A
Constant voltage charging floating current charging		2A to 5A
Floating current charging constant – voltage charging current		2.5A to 8A

Fan Control Function

In the normal charging process, the fan will automatically turn on when the current is more than 5A, the fan will automatically turn off when the current is less than 5A.

Minimum starting voltage

When connect the battery with the charger, the battery need to have a minimum voltage (or other dc power supply), in order to trigger the charger start operating; it needs minimum value 4.5V DC o battery voltage, therefore please make sure the battery voltage contain 4.5V DC or above.

Reverse polarity protection

When the charger clips connect with the reverse polarity during the charging, the charger will automatic active the inverse polarity protection; it won't cause any damage to the charge and battery during this process.

Short circuit protection

When the charger during the charging, if the output clips clamp touch each other, then the charger will automatically active the inverse polarity protection, it won't cause and damage to the charger and battery during this process.

Over-temperature protection

When the charger working in a closed environment of high temperature, after a period of continuing working to reach the set value, it will automatically enter over-temperature protection process and the output will reduce, it won't cause any damage to charger and battery during this process.

Cell repair

Improper use of the battery discharge will cause the battery internal resistance that lead to larger or smaller capacity. Battery repair functionality through battery charging current and voltage, to a certain extent reduce the battery internal resistance, so as to achieve the purpose of repairing the battery. When the charger is properly connected, the battery automatically repairs, routine automatically charged until the repair is complete.

1. Digital Display

This is four digit seven- segment and red digital display that can display the process of battery “charging voltage, charging current, battery capacity, charging time and charger temperature”. In automatic mode, the above parameters will be displayed sequentially cycle, the indicator on the left side of the digital content will also instruct displayed. During charging if the charger is abnormal, it will display the error code, error code meaning an appropriate treatment approach.

Display	Condition	Failure reason	Handling Method
111	Voltage of both clip	The clip voltage is too high	Check whether is 12V storage battery
222	Machine temperature is too much high	Work under the high temperature environment, will cause the temperature of the machine too high	Wait for the temperature of machine reduced can recovering charger automatic
333	Charging after 24 hour, still not into floating mode	Charging current is too low	Choose the larger charging current file
		The quality problem of the storage battery	Change new storage battery

2. Voltage display indicator

This indicator is a LED, when this light is lit, it shows the current battery charging voltage in digital display screen.

3. Current display indicator

this indicator is a red LED, when this light is lit, it shows the current battery charging current value in digital display screen

4. Battery level indicator

This indicator is a LED, when this light is lit, it shows the current capacity in display screen. This value is a percentage value, only as a reference value of the charging status, this value doesn't reflect the merits of the battery performance. When the battery is full displayed is 100%

5. Temperature/ time indicator

Indicator is a red LED; this is a dual status indicator light. When the digital display screen is digital – clock format, it indicates the current display contents “charging time”. When the digital display screen s double - digit format, it indicates the current display content “charging temperature”.

6. Display switching key

When the charger is powered mode, press this button to turn digital tube display the current charging voltage, charging current, battery power, charging time, and temperature of the charger

7. 7A charging gear indicator

This indicator is a red LED, when this light is lit, the charger automatically executed on behalf of the current charging process.

8. 12A shift indicator

This indicator is red LED, when the light is lit, it represents the charger is currently in maintenance charge mode.

9. 20A gear indicator

This indicator is a red LED, when the light is lit, it represents the current conventional charger is in charging mode

10. 30A shift indicator

This indicator is a red LED, when this light is lit, it represents the current convention charger is in charging mode

11. Current section key

Press this button to choose 7A, 12A, 20A and 30A adaptor mode or charging, relate to recommended charge current battery capacity is shown in table below; selecting too much current to charge the battery of small capacity may affect battery life; and the choice of too small current to the high -capacity battery charging will affect the charging efficiency.

Select current files	7A	12A	20A	30A
Recommended the Battery capacity	24AH ~ 100AH	32AH ~ 120AH	60AH ~ 200AH	80AH ~ 240AH

12. Function Switch

When the charging the lead acid battery, please turn the switch to “Lead Acid Battery” mode, and then connect the battery to positive and negative port that below the switch. When charging the lithium iron phosphate battery, please turn the switch to “Lithium Iron Phosphate” mode, and then connect the battery to positive and negative port that above the switch. This battery charger could not be able to connect lead acid battery and lithium iron phosphate battery at the same time, even though the charger does not connect to power.

13. Repair status indicator

This indicator is a green LED, when the light is flashing, it represents of the current in the battery charger repair status

14. Charging status indicator

This indicator is a green LED, when the indicator flashing, it represents the current state of the charger in constant current charging or constant voltage charging state; when this light is lit, it represents the current state of the charger is in the floating charge.

Solutions of the problem

PROBLEM	REASON	SOLUTION	
When charging clamp and battery properly connected. It doesn't charge	The electrode is reversed	Use correct method to wiring	
	Battery charging voltage less than DC 4.5V	Try to repair the battery, If repair doesn't work, you will need to replace the battery	
Charging error	Battery error	Connection Is Not Fastness	Check and repair the wiring
		Battery Cannot Charge	Try to repair if it maintain battery
	Current error	Charging select current too low	Choose high charge current
		Connect the electrical equipment	Check the battery voltage, the charger is only suitable for DC 12V battery
	Over voltage	Connect the electrical equipment	Disconnect all the electronic equipment which connected the battery
	Over heat	The charger of overheating protection	Clear the dust in the air vents or remove the charger cover; put the charger in a cool place, when the temperature drops after the charger automatically start
	Over-charger protection	The time of charging over 24 hours	Check the battery charging status
Charging select current too low		Choose a suitable charging current	
A battery unit was damaged		Replace the battery, correctly handle the battery that has been damaged	

HiTech Battery Charger - HT1230L



Press this button to see charging status (voltage / Amp / Percentage Charged /Temperature)

Press this button to change the Current (7Amp / 12Amp / 20Amp / 30Amp)



Charging Terminals for Lithium Batteries

Charging Terminals for AGM or Lead Acid Batteries

You can use HT1230L Battery charger as a Lithium Battery Chager by placing this small switch towards up arrow. (Now the battery charger is set as a Lithium Battery Charger)

***Make sure this switch is towards down arrow if you are using this as a AGM battery charger.**



240V Input

Power Overload Fuse (250V)

Power On/Off Switch

***Check your 240V plug time to time, Some times 240V plug maybe loose due to vibrations when you travel, if the unit is fitted in a RV.**

Safety Precautions

Pay attention to the following safety precautions to avoid electric shock, fire and personal injury, when using the Charger

- Check the voltage supply and plate name on the charger indicate the same voltage.
- Make sure that there are no short circuits.
- The Red and Black clips should not touch each other when connected to the charger
- Put all cables in place after using and disconnect all cables during cleaning and maintenance.
- Keep the charger where children cannot reach
- If the product got damaged due to over voltage or any other means, do not re- use it for battery charging.
- Avoid touching the DC side and AC side when the conductor is exposed.
- Make sure the charger and cables are dry before using and do not keep /store the charger in corrosive, salty or humid environments.
- Ensure there is good ventilation and that the charger is at least 5 cm away from the objects around.
- Do not use the charger in flammable or explosive gas containing environment such as the gasoline powered ship's bilge or propane stored tanks.
- Keep the charger disconnected from power when not in use.
- This charger cannot recharge disposable batteries; it might cause the battery to explode.**
- Do not use this charger to recharge lithium batteries without a BMS in them (Battery Management System) and Non-rechargeable batteries, as it might cause the battery charger to explode.**
- This battery charger could not be able to connect lead acid battery and lithium iron phosphate battery at the same time, even though the charger does not connect to power.**