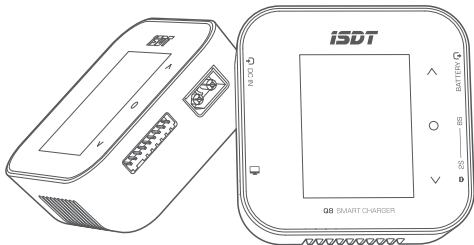


# Q8

500W SMART CHARGER

## Instruction Manual



**iSDT**®

## Thanks for purchasing the ISDT Q8 Smart Charger.

Please visit: [www.isdt.co](http://www.isdt.co) for more details on the functions of this smart charger, as well as purchase various accessories.

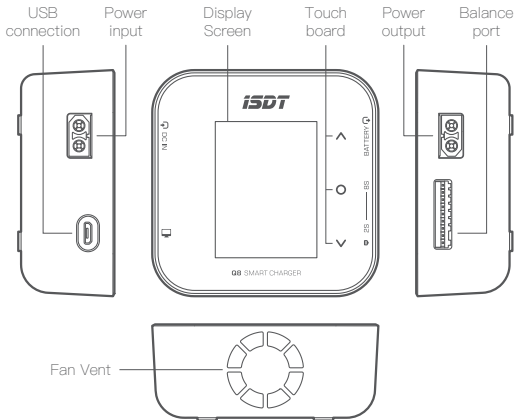
Functions of products will be kept on upgrading, the manual in your hand may be different from the actual operation, please refer to the actual functions.

### Warnings and Safety Tips

**For your safety and a better user experience, please read this manual and follow the instruction before using the new charger.**

- Never use the charger without supervision, please stop using the charger and refer to the manual for reasons if any functional abnormality.
- Keep the charger away from dust, humidity, rain and high temperature, as well as avoid direct exposure to the sunlight and intense vibration.
- Place the charger on a heat-resisting, non-flammable and insulating surface. Do not use it on the car's seats, carpet or other similar places. Keep inflammable and explosive objects away from operation areas of the charger.
- Read the instruction manual carefully to be familiar with the features of the charger, and set proper charging parameters before operating. Setting the parameters incorrectly will result in damage to the product, personal property and cause serious injury as well.

## Port / Buttons



Dimension: 80x80x33mm

Weight: 170g

## Product Specifications

Max. input current: 20A

Input voltage: DC 10~34V

Output voltage: DC 1~34V

Balance current: 1.5A/Cell Max

Abnormal voltage alarm: Support

Supported battery types and cell count:

LiFe,Lilon,LiPo 1~8S ; LiHv 1~7S ; Pb 1~12S ; NiMH/Cd 1~16S

Charging current: 0.1~20A

Discharging current: 0.1~1.5A

Max. charging power: 500W

Max. discharging power: 15W

## Preset Battery Type of Charger and Task Parameters

	NiCd/MH	Pb	LiFe	Lilon	LiPo	LiHv
Rated voltage	1.20V	2.00V	3.20V	3.60V	3.70V	3.80V
Full charge voltage	1.40V	2.40V	3.65V	4.10V	4.20V	4.35V
Storage voltage	✗	✗	3.30V	3.70V	3.80V	3.85V
Discharge voltage	0.90V	1.90V	2.90V	3.20V	3.30V	3.40V
Balance charge	✗	✗	✓	✓	✓	✓
Unbalanced charge	✓	✓	✓	✓	✓	✓
Supported cell count	1~16S	1~12S	1~8S	1~8S	1~8S	1~7S
Max. charging current	20A	20A	20A	20A	20A	20A

## How to Confirm Charging Current

Make sure to know the maximum charging current of the battery before charging, never use excessive current to charge to damage your battery, which will result in over heat even explosion during the charging process. The charging and discharging capacity of battery is usually marked with C value. Multiplying the charging C value and battery capacity equals to the maximum charging current supported by the battery. For example, for a 1000 mAh battery with a charging capacity of 5C, the maximum charging current would be  $1000 \times 5 = 5000\text{mA}$ ; therefore, the maximum charging current is 5A. For a lithium battery, if it is impossible to confirm the supported charging C value, please set the charging current below 1C, for the sake of its (lithium battery) safety.

The reference relation between C value and charging time:  
charging time  $\geq 60$  minutes/ charging C value (e.g. it needs around 60~70 minutes to complete charging with 1C). Due to differences in battery conversion efficiency, the time to complete the charging might be extended.

## Operating the Charger

Power on Q8 smart charger, connect the battery, and short touch the middle key of the touch board to enter the task setting menu as follows:

## **Charge**

Balancing port is strongly recommended when charging lipo battery, which can make sure to monitor voltage on each cell battery and balance it when charging. Warning beeper will yell before start charging lipo if in non-balance mode(no connecting with balance port).

Current setting range: 0.1~20A

The battery type, cell count and charging current are auto set accordingly when connecting with BattGo battery.

## **Discharge**

Current setting range: 0.1~1.5A

The battery type, cell count and discharging current are auto set accordingly when connecting with BattGo battery.

## **Storage**

Current setting range: 0.1~20A

The battery type, cell count and storage current are auto set accordingly when connecting with BattGo battery.

## **DC Power supply**

The charger can be used as a DC power supply when choosing this function, with adjustable voltage 2~30V, and current 0.5~10A.

The battery type, parameter and current are not optional in this task.

## Destroy

Connect the battery to be scrapped, and select the scrap function in task options, which capable to discharge the battery to 0V.

Current setting range: 0.1~1.5A

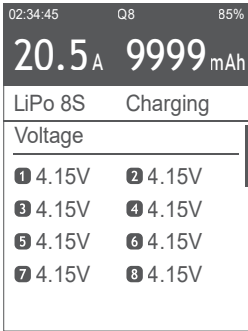
The battery type and cell count are auto set accordingly when connecting with BattGo battery.

<b>Task</b>	Charge/Discharge/Storage/DC power supply/Destroy
<b>Battery</b>	LiHv、LiPo、Lilon、LiFe、Pb、NiMh/Cd
<b>Battery and cell count</b>	LiFe,Lilon,LiPo (1~8S) , LiHv (1~7S), Pb (1~12S) , NiMH/Cd (1~16S)
<b>Current</b>	0.1~20A

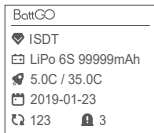
## Charging Screen

Touching the touch board to shift the charging information, as cell voltage, cell internal resistance, BattGo information, working parameter.

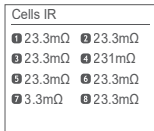
The cell voltage and internal resistance only on display in balancing charging mode. The BattGo information will display only when connected to the BattGo battery, and the cell voltage is able to display without connected to the balance port.



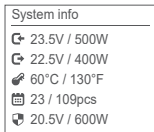
Cell voltage



BattGo information



cell internal resistance



working parameter

## System Setting Menu

Under the standby interface,  
long touch the touch board to enter the system setting menu:



**Min. input voltage protection 10~30V:** all tasks in operation will be stopped at once and hint warning of low voltage, when the input voltage is lower than the input voltage as set up. It will protect the battery from being discharged when using battery pack as power supply.

**Max. input power setting 30~550W:** if the input power is smaller than the max working power(550W), please set up the parameter as the actual output power as max input, to protect the input power and enable the charger to work stable.

**Buzzer volume:** The operation sound will be shielded when the volume is off, except the warning error beep.

**Self-test:** Enter system setting. select self-test task

**Calibration:** the input voltage, output voltage and balance voltage of the charger can be calibrated with this task.

#### NEVER USE CHARGER UNSUPERVISED

- Never attempt to charge primary (non-rechargeable) batteries.
- Batteries pose a severe risk of fire if not properly handled.
- Read entire operation manual before using charger.
- This unit may emit heat during use.
- Only operate this device in a cool ventilated area away from flammable objects.
- Failure to observe safety procedures may cause damages to property or injury.



WARNING!



FIRE HAZARD!

\*All product photos, statements and literature are for reference only. For up-to-date information, please visit our official web [www.isdt.co](http://www.isdt.co)  
ISDT reserves the right of final explanation and revision for the terms.