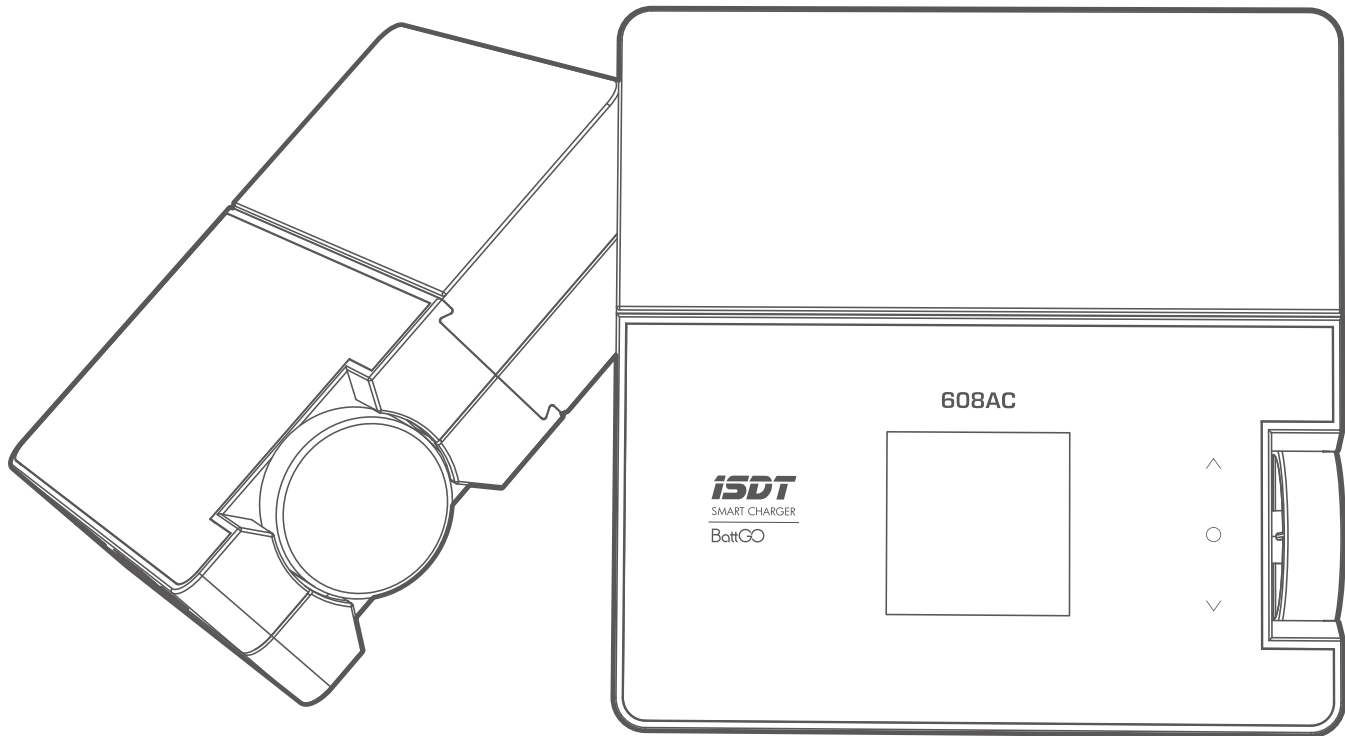


# 608AC

200W Smart Charger

## Instruction Manual



**ISDT**®

## **Thanks for purchasing the ISDT 608AC 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.

# **Table of Contents**

---

**Warnings and Safety Tips**

**Product Specifications**

**Function Buttons**

**How to Confirm Charging Current**

**Default battery type of charger and task parameters**

**Navigating the Charger**

**Operating the Charger**

**Charge Screen**

**System Setting Menu**

## **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.

## **Product Specifications**

Model : 608AC

Charge current : 0.1A ~ 8.0A

Discharge current : 0.1A ~ 1.0A

Balance current : MAX 1.5A

Max charge power : AC 50W / DC 200W

Max discharge power : 10W

Output voltage : 1.0V ~ 30.0V

Input voltage : AC 100V~240V / DC 10V~30V

Supported battery types : LiFe,Lilon,LiPo,LiHv 1-6S / Pb 1-12S / NiMH 1-16S

Abnormal voltage alarm : Support

Incorrect cell count setting alarm : Support

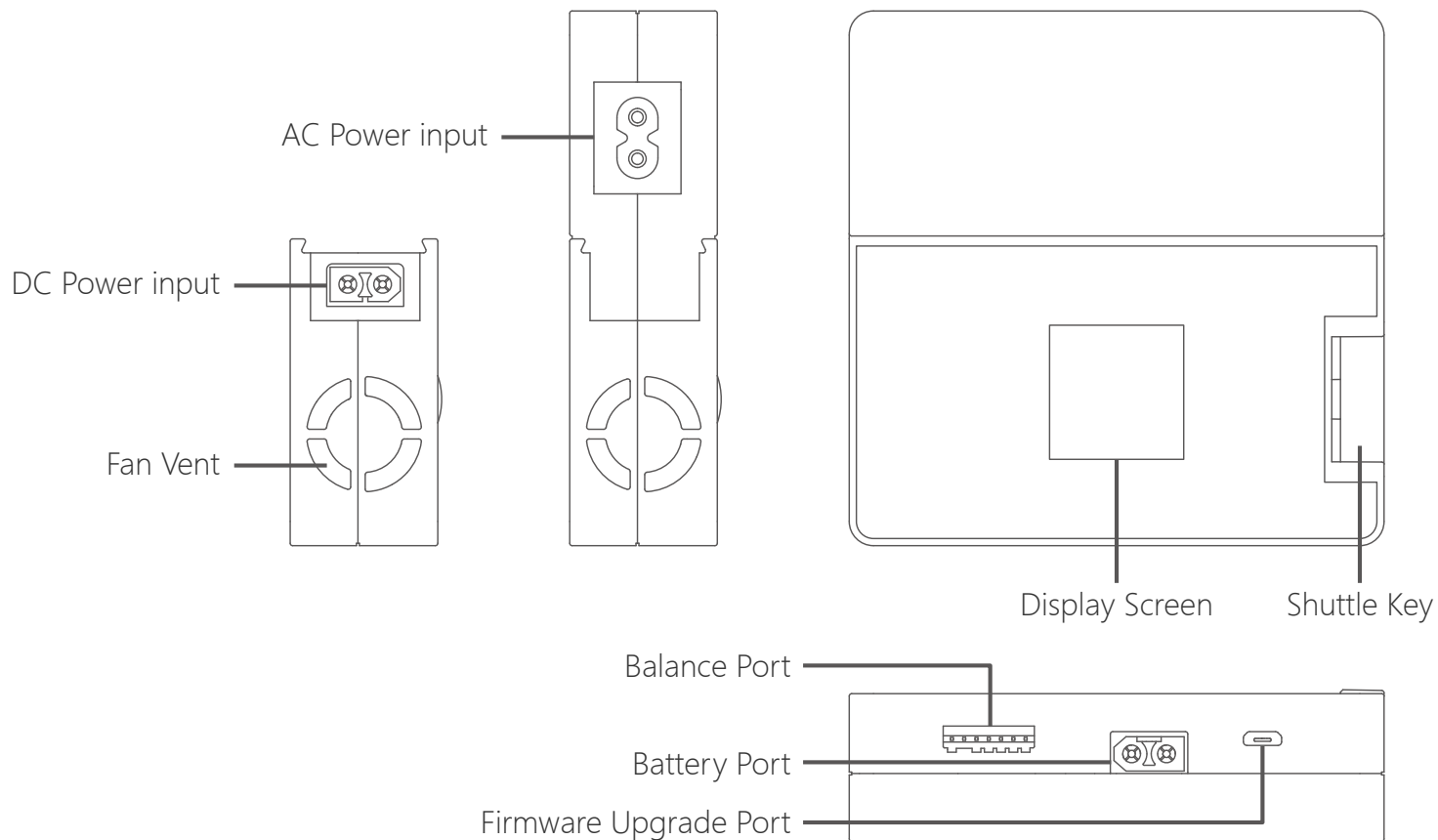
Working temperature : 0°C~40°C

Storage temperature : -20°C~60°C

Dimension : 110.5×110.5×31 mm

Weight : 350g

## Function Buttons



### **Functions of the shuttle key:**

Long press: enter the system setting/ Terminate current task

Short press: enter the task setting/ Confirm current task

Scroll: select the corresponding menu

## 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.

## Defalut battery type of charger and task parameters

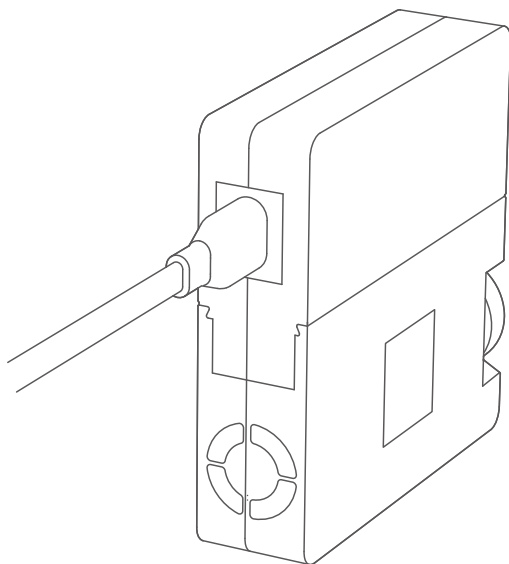
	NiCd/MH	Pb	LiFe	Lilon	LiPo	LiHv
<b>Rated voltage</b>	1.20V	2.00V	3.20V	3.60V	3.70V	3.80V
<b>Full charge voltage</b>	1.40V	2.46V	3.65V	4.10V	4.20V	4.35V
<b>Storage voltage</b>	✗	✗	3.30V	3.70V	3.80V	3.85V
<b>Discharge voltage</b>	1.10V	1.90V	2.90V	3.20V	3.30V	3.40V
<b>Pre-charge voltage</b>	0.90V	1.80V	2.60V	2.90V	3.00V	3.10V
<b>Balance charge</b>	✗	✗	✓	✓	✓	✓
<b>Unbalanced charge</b>	✓	✓	✓	✓	✓	✓
<b>Supported cell count</b>	1~16S	1~12S	1-6S	1~6S	1~6S	1~6S
<b>Max. charging current</b>	8.0A	8.0A	8.0A	8.0A	8.0A	8.0A

## Navigating the Charger

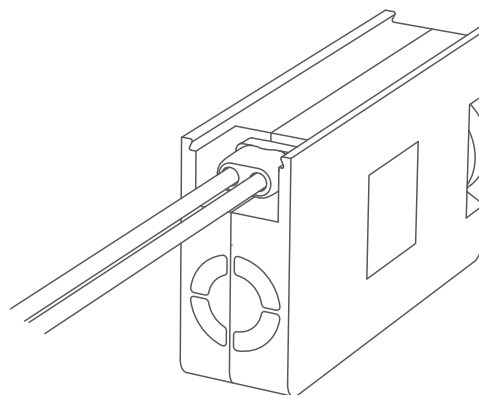
AC&DC dual input.

Connecting DC power port with DC power supply, for DC input mode.

Connecting the AC power cord for AC input mode.



AC mode



DC mode

## Operating the Charger

Power on 608AC smart charger, connect the battery, and short press the shuttle key to enter the task setting menu as follows :

- **Scrapped function**

Connect the battery to be scrapped, select the scrapped function in the task options, able to discharge the battery to 0V.

- **DC Power**

The charger is equivalent to a DC power in this function, with adjustable output voltage 2-30V, output current 0.2-5.0A. No options for the battery type, parameters and current in this menu.

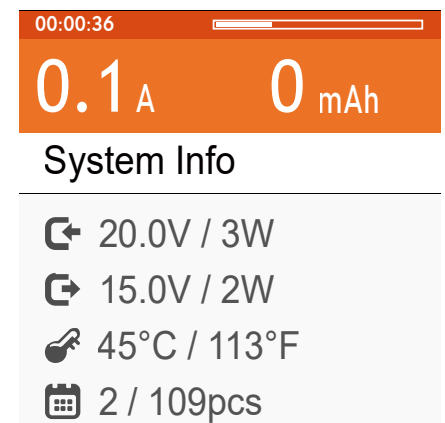
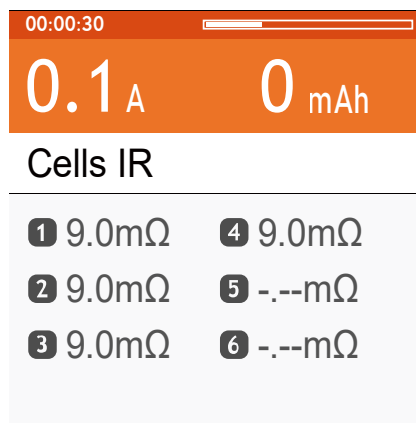
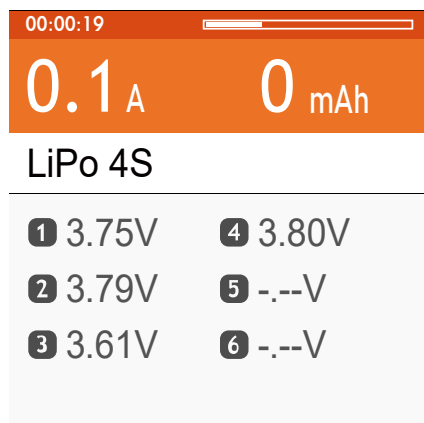
- **Buzzer volume:**

When off the volume, the operation sound will be blocked, except the warning error beep.

\* For the lithium battery, it's strongly recommended to charge connecting with balance port, to supervise the voltage of every battery accurately, and balancing operation for the battery cell. While charge in the unbalanced mode(unconnected to the battery balance port), the charger will alarm before operation.

## Charging Screen

Scrolling the shuttle key to shift the charging information, as cell voltages, cell internal resistance and working parameter. The cell voltage and internal resistance only on display in balancing charging mode.



## System Setting Menu

Under the standby interface, long press the shuttle key to enter the system setting menu :

- **Min. input voltage protection : 10-24V**

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. It's not adjustable in AC mode.

- **Max. input power setting : 30-230W**

In DC mode, if the input power is smaller than the max working power(230W), 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.

In DC mode, change the range to 30-230W. It's not adjustable in AC mode.

- **Buzzer volume:**

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

### 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!