

K4

USER GUIDE

ISDT

K4

USER GUIDE

Thanks for purchasing the ISDT K4 Smart Charger

Please visit: 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.

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.

Specifications

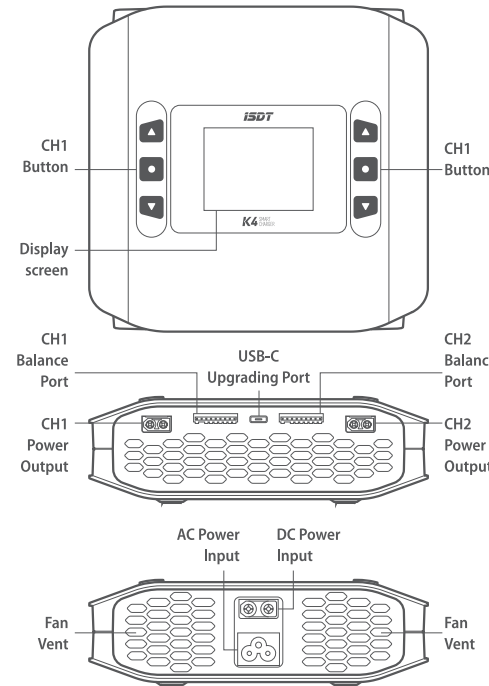
Model No.: K4
Input voltage: AC 100~240V / DC 10~34V
Output voltage: DC 1~34V
Max. input current: DC 45A
Charging current: 0.2~20A x2
Discharging current: 0.2~3.0A x2
Max. charging power: AC 400W / DC 600W x2
Max. Discharging power: 30W x2
Balance current: 1.5A/Cell Max
Supported battery types and cell count:
LiFe,LiIon,LiPo 1~8S; LiHv,ULiHv 1~7S; Pb 1~14S; NiMH/Cd 1~18S

Parallel charging power/current: 800W/35A
Parallel discharging power/current: 60W/3A
Abnormal voltage alarm: Support
Incorrect cell count setting alarm: Support
Support Working temperature: 0~40°C
Storage temperature: -20~60°C
Dimension: 176x183x57mm
Weight: About 1230g

Preset Battery Type of Charger and Task Parameters

	Rated Voltage	Full Charge Voltage	Storage Voltage	Discharge Voltage	Balance Charge	Unbalanced Charge	Supported Cell Count	Max. Charging Current
NiCd/MH	1.20V	1.40V	✗	0.90V	✗	✓	1~18S	20.0A
Pb	2.00V	2.40V	✗	1.90V	✗	✓	1~14S	20.0A
LiFe	3.20V	3.65V	3.30V	2.90V	✓	✓	1-8S	20.0A
LiIon	3.60V	4.10V	3.70V	3.20V	✓	✓	1-8S	20.0A
LiPo	3.70V	4.20V	3.80V	3.30V	✓	✓	1-8S	20.0A
LiHv	3.80V	4.35V	3.85V	3.40V	✓	✓	1-7S	20.0A
ULiHv	3.90V	4.45V	3.90V	3.50V	✓	✓	1-7S	20.0A

Port / Buttons



Key operation instructions (under standby interface)

CH1 Channel Middle key:
Short press to enter the CH1 detailed parameter interface,
Long press to enter the CH1 task setting menu.

CH2 Channel Middle key:
Short press to enter the CH2 detailed parameter interface,
Long press to enter the CH2 task setting menu.

Long press the CH1 and CH2 button at the same time:
Enter the advanced settings 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 1000mAh battery with a charging capacity of 5C, the maximum charging current would be 1000*5=5000mA; 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 ≥60 minutes/ charging C value (e.g. it needs around 60-70 minutes to complete charging with 1C).

Operating the Charger

Power on K4 smart charger, connect the battery, and short press the menu button to enter the task setting menu as follows:

Task	Charge, Discharge, Destroy, Storage
Battery	LiHv、LiPo、LiIon、LiFe、Pb、NiMH/Cd、ULiHv
Battery and cell count	LiFe,LiIon,LiPo (1~8S) ; LiHv,ULiHv (1~7S) ; Pb (1~14S) ; NiMH/Cd (1~18S)
Current	0.2~20.0A

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: 0.2~20.0A

Discharge

Current setting range: 0.2~3.0A
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: 0.2A~3.0A

Storage

Current setting range: 0.2A~20.0A

Charging Screen

Press the middle button to switch the information displayed in the lower half of the screen, as cell voltage, cell internal resistance, working parameter. The cell voltage and internal resistance only on display in balancing charging mode.

Advanced Settings

Under the standby interface, long press the CH1 and CH2 button at the same time to enter the advanced setting menu.

Dual task

Select this setting,the charger will charge/discharge/storage to the two channel batteries with the same parameters at the same time. Connect the charger with the power supply and power on, select this setting on the advanced setting menu to set the task parameters.

Paralled task

Select this setting, it could output Max Power to one battery. Find a power splitter or 1/2 power cord, one end connect with the battery, and the other two ends connect with the battery output port. The battery balance port could connect with any of the charger's balance port. Connect the charger with the power supply and power on, and connect your battery as required,select this setting on the advanced setting menu to set the task parameters.

DC power (CH1)

The charger CH1 is equivalent to a DC power supply when selecting this function, with output voltage adjustable from 2 to 30V, and current adjustable from 1.0 to 5.0A.

System Setting Menu

Under the advanced setting menu, select the system setting into the system setting menu as follows:

Dual task

Min. input voltage protection: 10~31V
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: 100~1300W

If the input power is smaller than the max working power(1200W), 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.

Volume

There are 4 options of High Mid Low and Off for volume setting.When the setting is OFF, it will turn off the operation sound,but not the warning error beep.

USB Charge

When this item is set to "Off", and TYPE-C is the upgrade port.
When this item is set to "On",TYPE-C acts as a USB charging port and outputs 5V/2A power.

Split screen

There are 3 options of 60 seconds,30 seconds and OFF for automatic split screen setting. You can choose to switch the display of the main interface from the single-channel parameter interface to Dual channel (split screen) parameter interface.
You can also select "Off" to turn off the automatic split screen function.

Wireless connection

Select this to put the charger into Bluetooth pairing mode. While selecting this, open the isdGO App on your phone and click on the "+" in the upper right corner to search, Select the corresponding device in the list for Bluetooth connection. After establishing a Bluetooth connection with a mobile phone, you can view detailed parameters or set tasks through the mobile phone. In the charger pairing mode, a 30-second countdown will be performed, and the pairing mode will automatically exit after the countdown ends.

Theme

Select this option to set the background color to bright/dark.

Keep Trickle

After charging is complete, choose whether to continue trickle charging. The trickle charge function is enabled to maintain the lithium battery voltage in a fully charged state, this function is enabled by default.

Self-test

When all batteries on CH1 and CH2 port are not connected, please select this option to self-test task manually.

Calibration

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



App download



Google Play



From ISDT



iOS