

X16

用 户 手 册

ISDT

感谢您购买ISDT X16 智能平衡充电器。

欢迎您登陆艾斯特官方网站www.isdt.co了解更多智能平衡充电器功能，购买丰富相关配件。

由于产品功能的不断更新，您手中的说明书可能会与实际操作有所出入。

请以实际智能平衡充电器功能为准。

警告与安全提示

为确保您的安全和良好的用户体验，请在使用本产品前阅读本说明和警告。

- 不要在无人值守的情况下使用充电器，如充电器出现任何功能异常，请立即终止使用并对照说明书查阅原因；
- 确保充电器远离灰尘、潮湿、雨和高温，避免阳光直射及强烈震动；
- 请将充电器放置于耐热、不易燃及绝缘的表面。不要放置在车座、地毯等类似的地方使用。请确保易燃、易爆物品远离充电器的操作区域；
- 确保您已充分了解所使用电池的充放电特性及规格，并在充电器中设置恰当的充电参数。如参数设定错误，可能对充电器及电池造成损坏，甚至发生火灾、爆炸等灾难性后果。

接入电池前请确保电池电压与本产品工作电压范围相符；
工作过程中请确保选择的串数与接入电池串数一致。

使用过程中确保本产品远离热源及潮湿环境，并注意通风散热；
本产品工作过程中将产生大量热量，切勿让儿童操作，以免烫伤；
使用结束后，应尽快断开及移除电池。



警告!



远离火源!

产品规格

型号: X16

输入电压范围: AC 100~240V

输出电压范围: DC 10~72V

充电电流: 1.0~20.0A

放电电流: 0.5~3.0A

最大充电功率: 1100W x2

最大放电功率: 50W x2

平衡电流: 1.5A/Cell

支持电池类型及串数: LiFe, LiPo, LiHv, ULiHv (2~16S)

电池电压异常报警: 支持

串数设定错误报警: 支持

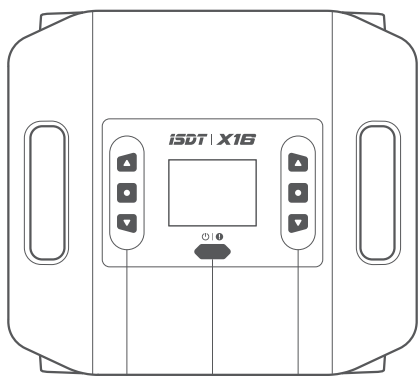
工作温度: 0°C~40°C

存储温度: -20°C~60°C

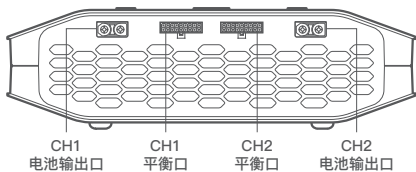
尺寸: 276x246x82mm

重量: 约3450g

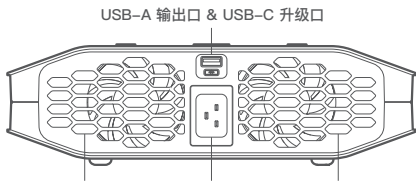
接口 / 按键



CH1 操作键 电源键/
任务停止键 CH2 操作键



CH1 电池输出口 CH1 平衡口 CH2 平衡口 CH2 电池输出口



USB-A 输出口 & USB-C 升级口 风扇散热口 电源输入口 风扇散热口

充电器预设电池类型及任务参数

	额定电压	满充电压	存储电压	放电电压	平衡充	非平衡充	支持串数	最大充电电流
LiFe	3.20V	3.65V	3.30V	2.90V	✓	✓	2~16S	20.0A
LiPo	3.70V	4.20V	3.80V	3.30V	✓	✓	2~16S	20.0A
LiHv	3.80V	4.35V	3.85V	3.40V	✓	✓	2~16S	20.0A
ULiHv	3.85V	4.45V	3.90V	3.50V	✓	✓	2~16S	20.0A

如何确定充电电流

在充电前必须先了解清楚所用电池允许的最大充电电流，使用过大的电流对电池充电会对电池的寿命造成影响甚至损坏，过大的电流也会造成充电过程中电池发热甚至爆炸。电池充放电能力一般以C数来标识，充电C数乘以电池容量就是电池所支持的最大充电电流，例如1000mAh的电池，标识充电能力是5C，那么最大充电电流为：1000*5=5000mA=5A，也就是最大支持5A充电。对于锂电池而言，如果无法确定电池充电C数，为了安全起见请将充电电流设定在不大于1C的值。充电C数与充电时间的参考关系：充电时间≥60分钟/充电C数（例如使用1C充电，充电完成时间大约需要60~70分钟），由于电池转换能效的差异，此时间有可能会有所延长。

任务设定

将充电器与电源连接上电，短按电源键开机，连接好电池，长按对应通道侧中间键进入任务设定菜单。

在任务设定界面中可以对任务进行预设，最多可设8个预设任务。除预设任务外，还可进行自定义任务设定，设定菜单如下：

任务	充电，放电，存储
电池类型	LiFe, LiPo, LiHv, ULiHv
电流设置	1.0~20.0A
电池串数	LiFe, LiPo, LiHv, ULiHv (2~16S)

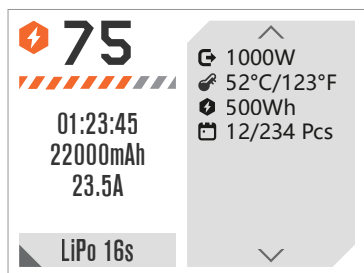
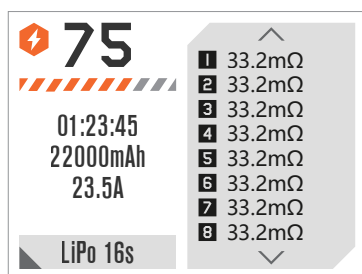
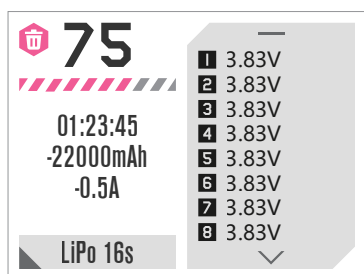
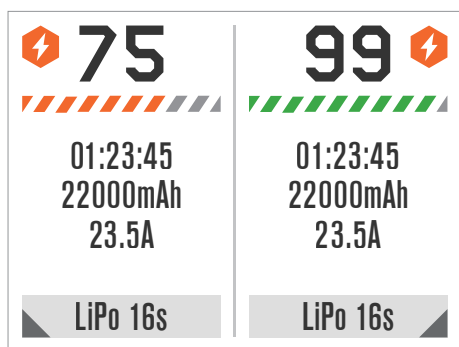
充电

充电电流设定范围为0.2~20.0A。

对于锂电池，强烈建议连接平衡端口均衡充电，以确保充电器能够准确监测每个电池的电压，并对不一致的电芯进行平衡操作。当使用非平衡模式（不连接到电池平衡口）充电时，充电器在开始任务前会有相应的报警提示。

工作参数显示

工作中可以通过上下键来切换详细的信息显示内容，信息内容依次为：各电芯电压、各电芯内阻、工作参数。其中电芯电压及内阻仅在平衡充电模式下才会显示。



系统设置

高级设置菜单下，选择系统设置进入系统设置菜单，菜单项如下：

音量

音量设置有高、中、低及关闭四个选项。当设定为“关”时，将关闭操作提示声，但不关闭错误提示声。

系统自检

在移除CH1及CH2所有电池连接后，选择该项进行系统自检操作。

校准

选择该项，可校准充电器的输入电压，输出电压和平衡口电压。



扫码获取更多详细信息

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Made in China

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X16

USER GUIDE

ISDT

Thanks for purchasing the ISDT X16 Charger.

Please visit: www.isdt.co for more details on the functions of this 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.



WARNING!



FIRE HAZARD!

Specifications

Model No.: X16

Input voltage: AC 100~240V

Output voltage: DC 10~72V

Max. input current: 20A

Charging current: 1~20A

Discharging current: 0.5~3.0A

Max. charging power: 1100W x2

Max. discharging power: 50W x2

Balance current: 1.5A/Cell

Supported battery types and cell count: LiFe, LiPo, LiHv, ULIHv (2~16S)

Abnormal voltage alarm: Support

Incorrect cell count setting alarm: Support

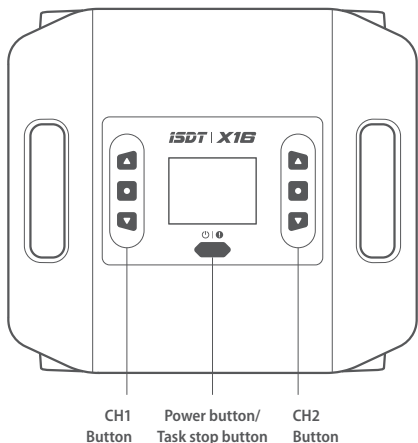
Working temperature: 0°C~40°C

Storage temperature: -20°C~60°C

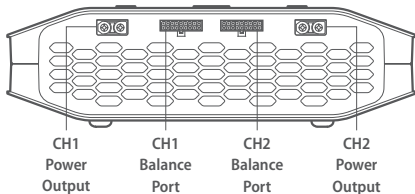
Dimension: 276x246x82mm

Weight: About 3450g

Port / Buttons

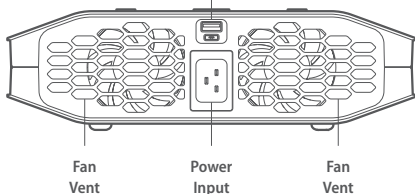


CH1 Button Power button/ Task stop button CH2 Button



CH1 Power Output CH1 Balance Port CH2 Balance Port CH2 Power Output

USB-A Power Output & USB-C Upgrading Port



Fan Vent Power Input Fan Vent

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
LiFe	3.20V	3.65V	3.30V	2.90V	✓	✓	2~16S	20.0A
LiPo	3.70V	4.20V	3.80V	3.30V	✓	✓	2~16S	20.0A
LiHv	3.80V	4.35V	3.85V	3.40V	✓	✓	2~16S	20.0A
ULiHv	3.85V	4.45V	3.90V	3.50V	✓	✓	2~16S	20.0A

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 $1000 * 5 = 5000 \text{mA}$; 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 ≥ 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

Connect the charger to the power supply, short press the power button to start the machine, connect the battery, long press the middle button on the corresponding channel side to enter the task setting menu.

In the task setting interface, tasks can be preset. Up to 8 preset tasks can be set.

In addition to preset tasks, custom task Settings can also be carried out. The setting menu is as follows:

Task	Charge, Discharge, Storage
Battery	LiFe, LiPo, LiHv, ULiHv
Current	1.0~20.0A
Battery and cell count	LiFe, LiPo, LiHv, ULiHv (2~16S)

Charge

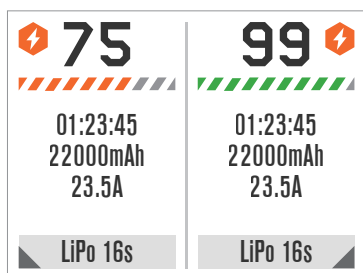
Balancing port is strongly recommended when charging lipo battery, which can make sure to monitor voltage on each cell battery and balance it when charging.

Warning beeper will yell before start charging lipo if in non-balance mode (no connecting with balance port).

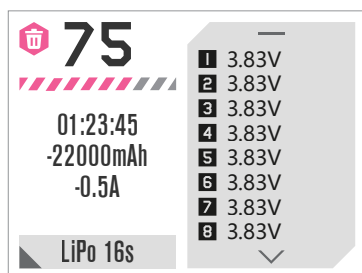
Charging Screen

Press the up and down button to switch the detailed information display content, as cell voltage, cell internal resistance, working parameter.

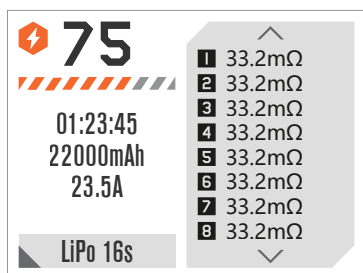
The cell voltage and internal resistance only on display in balancing charging mode.



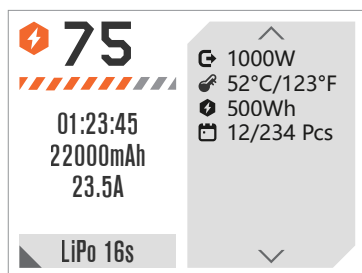
Main interface (Working)



Cell voltage



Cell internal resistance



Working parameter

System Setting Menu

On the standby interface, long press the left and right middle keys at the same time to enter the system setting menu.

The menu items are as follows:

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.

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.



Scan the code for more information