

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

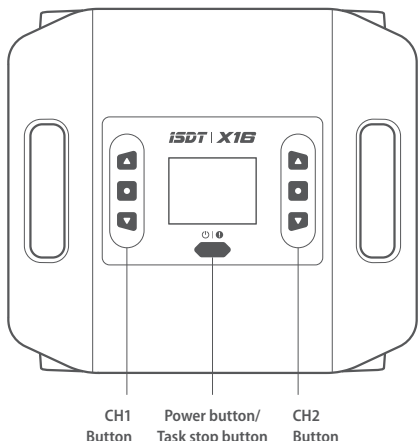
Working temperature: 0°C~40°C

Storage temperature: -20°C~60°C

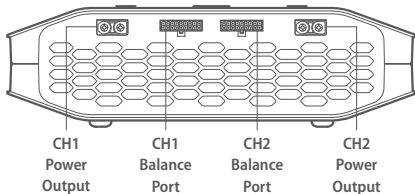
Dimension: 276x246x82mm

Weight: About 3450g

Port / Buttons

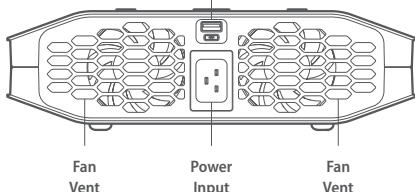


CH1 Button Power button/ Task stop button CH2 Button



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 $1000 \times 5 = 5000 \text{mA}$; 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 ≥ 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

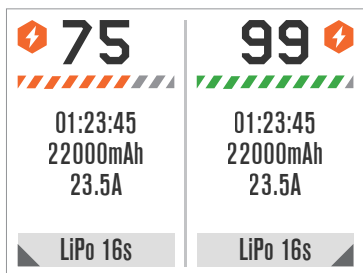
Balancing port is strongly recommended when charging lipo battery, which can make sure to monitor voltage on each cell battery and balance it when charging.

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

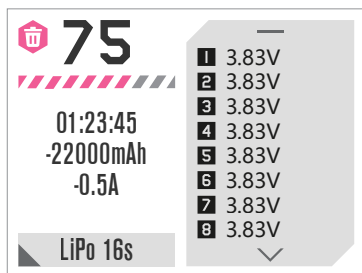
Charging Screen

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

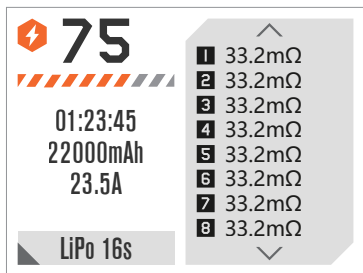
The cell voltage and internal resistance only on display in balancing charging mode.



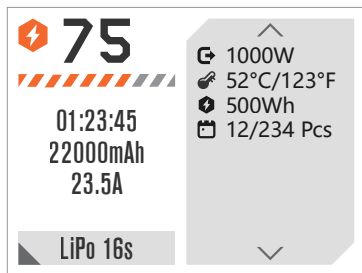
Main interface (Working)



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