ISDT®

# F160

AC/DC Quad-Channel Smart Charger

# USER GUIDE

## Thank you for purchasing the ISDT F160 Quad Channel Smart Charger.

The ISDT F160 is our latest and first innovative Quad Charger equipped with GaN (Gallium Nitride) power supply for versatile and high-power density charging solution designed for various battery types. It's fully programmable with a simple connection from your mobile phone via our ISD Link APP which allows users to customize various parameters to ensure optimal performance tailored to your specific preferences.

Functions of products will keep on upgrading; the manual currently may be different as time passes. Please refer to our social media for the latest updates.

## Warnings and Safety Tips

### To ensure your safety and a good user experience, please read these instructions and warnings before using this product.

• 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 the charger unattended, if the charger has any abnormal function, please stop using it immediately and check the reason according to the manual.

• Make sure the charger is kept away from dust, moisture, rain and high temperatures, and avoid direct sunlight and strong vibrations; Place the charger on a heat-resistant, non-flammable, and insulated surface. Do not place it on car seats, carpets, or other similar places.

• Please ensure that flammable and explosive materials are kept away from the operating area of the charger; Make sure you have a full understanding of the charging and discharging characteristics and specifications of the battery you are using and set the appropriate charging parameters in the charger. If the parameters are set incorrectly, it may cause damage to the charger and battery, and even catastrophic consequences such as fire and explosion.

• Before connecting the battery, please ensure that the battery voltage is consistent with the working voltage range of this product; During the working process, please ensure that the number of cells selected is consistent with the number of connected battery cells. During use, ensure that the product is kept away from heat sources and humid environments, and pay attention to ventilation and heat dissipation; This product will generate a lot of heat during the working process, do not let children operate it, so as not to burn; Disconnect and remove the battery as soon as possible after use.

**NEVER USE A 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!**

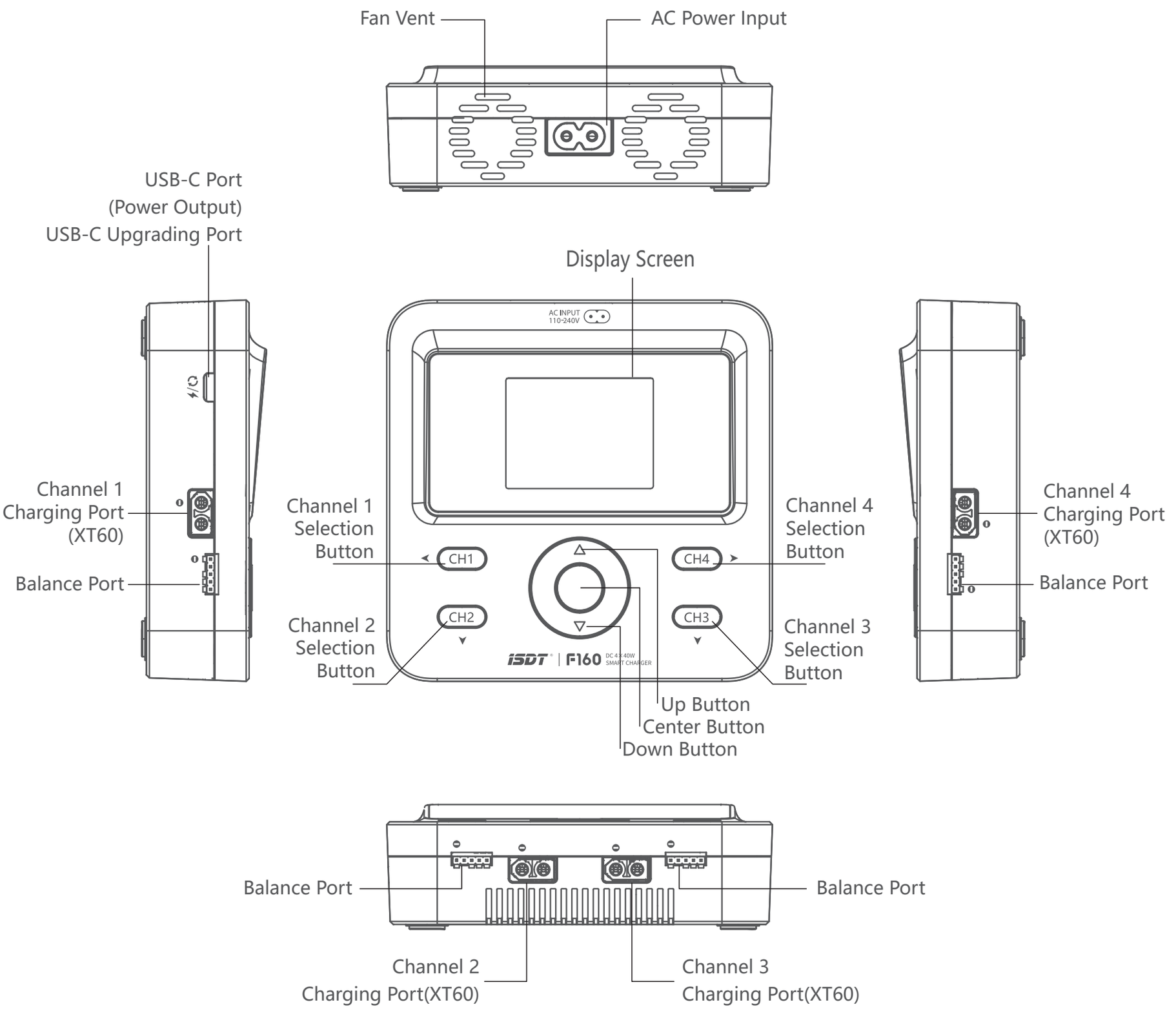
## Specifications

Input Voltage: AC 110~240V
Max. Charging Power: 40W×4
Charging Current: 0.2~5A ×4
Balance Current: 0.5A/Cell Max
Abnormal Voltage Alarm: Support
Support Working temperature: 0~40℃

Output Voltage: DC 2.5~18.5V (Channel 1@ 5~18.5V)
Discharging Current: 0.2~1A ×4
USB Output Power: 5V / 2A (Only Port 1 Idle)
Incorrect Cell Count Setting Alarm: Support
Storage temperature: -20~60℃
Dimension: 130×128×41mm

Supported battery types and cell count: LiFe, LiPo, LiHv 1~4S | Pb 2~7S | NiMH 4~12S
Weight: Approximately 380 g

# Port / Buttons



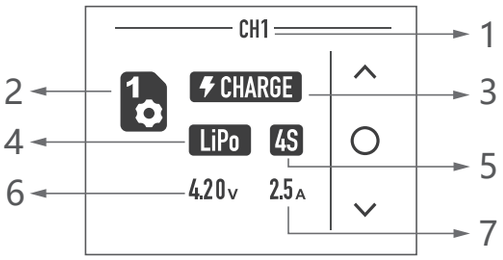
## Key Operation

• In the task selection interface, press the center button to enter the parameter modification mode, the modification parameters will begin flashing.
• Short press the center button to move towards different parameters.
• Within parameter modification mode, press the up & down buttons to modify the parameter value.
• Long press the center button to save and exit parameter modification mode.
• In the task selection interface, short press the center button to start the current task.
• Long press the down button to return to the main page.
• During the charging task, the charging current can be adjusted by short pressing the center button and long pressing the center button to end the current task.

## Operating the Charger

**Before operating the charger, ensure you know your batteries' specifications and any battery-specific safety warnings before operating.**

1.Connect your included AC cord to the charger or appropriate power source to power your charger.
2.Connect the battery to the port on front of your charger.
3.Connect the balance lead. Make sure the balance lead is connected directly into the balance port. (It is highly recommended not to use additional balance boards to avoid potential voltage misreadings.)
4.Press the select button once to display the setting menu.
5.Long press the select button to adjust your desired task and long press again to save.
6.Double check all connections from power sources to battery connections.
7.Press the select button again to begin charging.




1.Present Channel
2.Preset task sequence number
3.Task Type
4.Battery Type
5.Number of Cells
6.Target Voltage (Full Charge Voltage)
7.Charging Current

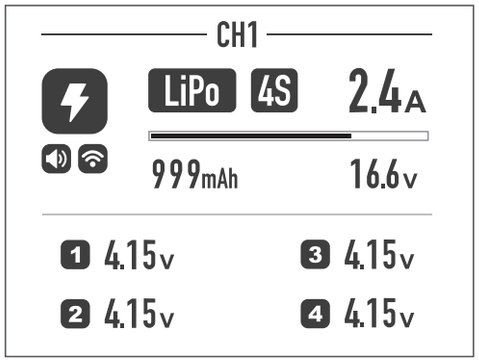
## Preset Battery Type of Charger and Task Parameters

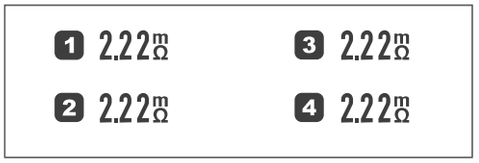
| | Rated Voltage | Full Charge Voltage | Storage Voltage | Discharge Voltage | Balance Charge | Unbalanced Charge | Supported Cell Count | Max. Charging Current |
|---|---|---|---|---|---|---|---|---|
| NiCd/MH | 1.20V | 1.40V | ✗ | 0.90V | ✗ | ✓ | 4–12S | 5A |
| Pb | 2.00V | 2.40V | ✗ | 1.90V | ✗ | ✓ | 2–7S | 5A |
| LiFe | 3.20V | 3.65V | 3.30V | 2.90V | ✓ | ✓ | 1–4S | 5A |
| LiIon | 3.60V | 4.10V | 3.70V | 3.20V | ✓ | ✓ | 1–4S | 5A |
| LiPo | 3.70V | 4.20V | 3.80V | 3.30V | ✓ | ✓ | 1–4S | 5A |
| LiHv | 3.80V | 4.35V | 3.85V | 3.40V | ✓ | ✓ | 1–4S | 5A |
| ULiHv | 3.90V | 4.45V | 3.90V | 3.50V | ✓ | ✓ | 1–4S | 5A |

## Working Parameter Display

**During charging, you can read the battery information simply by pressing the channel buttons. It will provide:**

1.Present Channel 2.Charging mode 3.Charging Current 4.Battery Voltage
5.Battery Charged Capacity 6.Total Charge power 7.Internal Resistance of Each Cell
8.Temperature 9.Buzzer status 10.Bluetooth Connection Status
Note: Cell voltage and internal resistance are displayed only in balanced charging mode.




## Wireless connection

Scan the QR code at the bottom to download and install ISD Link APP

1.Please turn on wireless communication and Bluetooth before open the APP.

2.Open the APP and click the top right "+" sign to begin searching for your running device. (Bring your phone close to the device for best connections)

3.The device will beep to indicate the connection.

4.Confirm the connection on your device.

App Download

*All product photos, statements and literature are for reference only. For up-to-date information, please visit our official web www.isdt.co

SHENZHEN ISD TECHNOLOGY CO. LTD

ISDT®

# F160

AC/DC四通道智能充电器

# 用户手册

## 感谢您购买ISDT F160 四通道智能充电器

ISDT F160 是我们最新推出的首款创新型四通道充电器，采用 氮化镓（GaN）电源技术，提供多功能、高功率密度的充电解决方案，适用于多种电池类型。
通过 ISD Link APP，您只需用手机简单连接即可进行全功能编程，自定义各项参数，从而获得完全符合个人需求的优化性能。
产品功能将持续升级，说明书内容可能随版本更新而调整，请关注我们的社交媒体获取最新信息。

## 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。**

• 请仔细阅读说明手册，熟悉充电器的功能，并在操作前设置正确的充电参数。参数设置不正确可能会导致产品损坏、从而造成您的财产损失，并有可能造成其他严重伤害。
• 切勿在无人看管的情况下使用充电器，若充电器出现任何功能异常，请立即停止使用并根据说明书检查原因。
• 确保充电器远离灰尘、潮湿、雨水和高温，避免阳光直射和强烈震动；
• 将充电器放置在耐热、不易燃和绝缘的表面上，请勿放置在汽车座椅、地毯或其他类似地方；
• 请确保易燃易爆物品远离充电器的操作区域；
• 请确保您对所用电池的充放电特性和规格有充分的了解，并在充电器中设置合适的充电参数。如果参数设置不正确，可能会造成充电器和电池的损坏，甚至引起火灾、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。

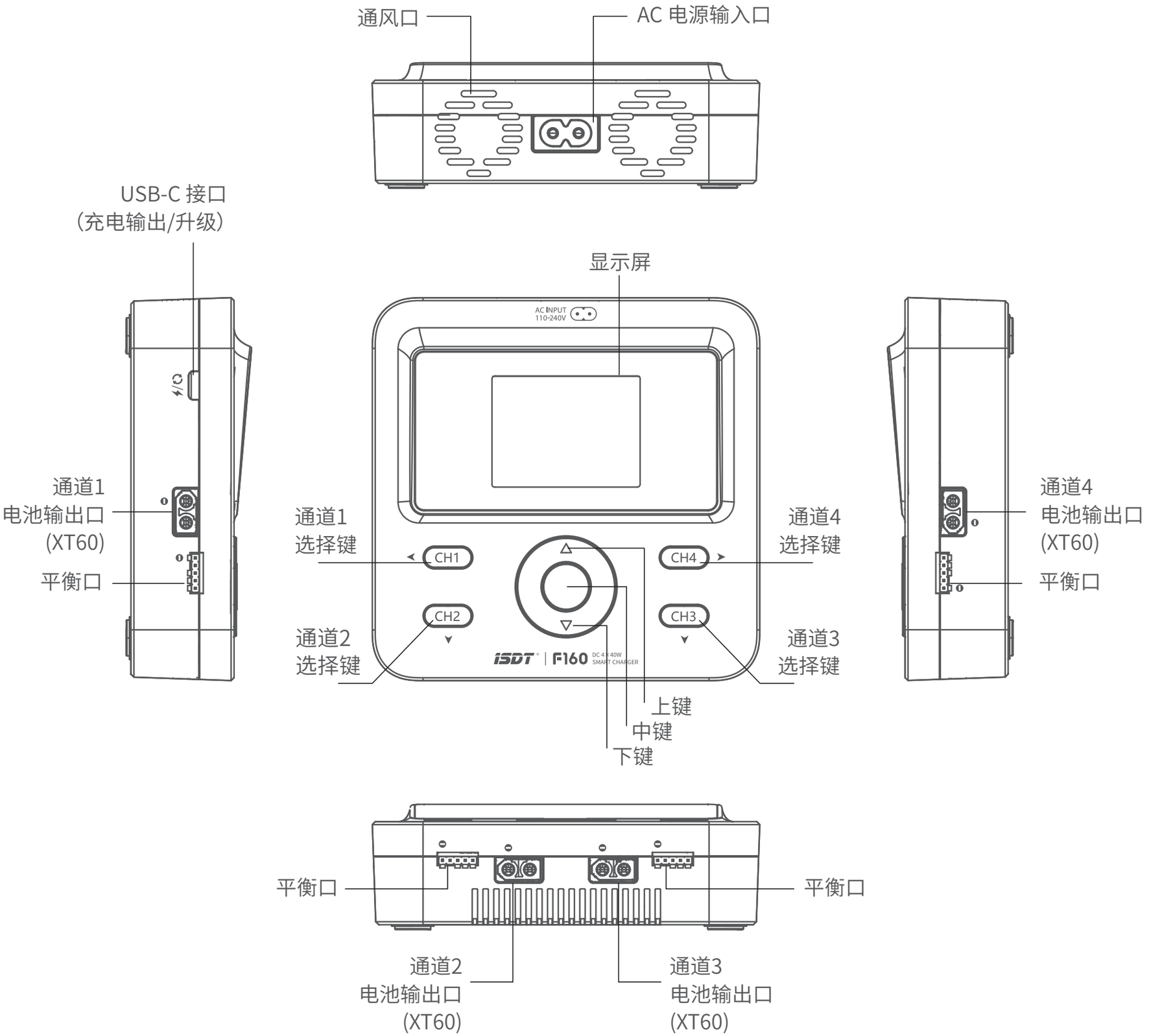
警告!

远离火源!

## 产品规格

输入电压：AC 110~240V
输出电压：DC 2.5~18.5V（通道1@5~18.5V）
最大充电功率：40W×4
放电电流：0.2~1A ×4
充电电流：0.2~5A ×4
USB输出功率：5V/2A（仅限通道1空闲时）
平衡电流：0.5A/Cell Max
错误电池串数设置报警：支持
异常电压报警：支持
存储温度：-20~60°C
工作温度：0~40°C
尺寸：130×128×41mm
支持电池类型及串数：LiFe, LiPo, LiHv 1~4S | Pb 2~7S | NiMH 4~12S
重量：约380g

# 接口/按键


通风口
AC 电源输入口
USB-C 接口
（充电输出/升级）
显示屏
通道1
电池输出口
(XT60)
平衡口
通道1
选择键
CH1
CH2
通道2
选择键
CH4
通道4
选择键
CH3
通道3
选择键
上键
中键
下键
通道4
电池输出口
(XT60)
平衡口
AC INPUT
110-240V
iSDT | F160
DC 4×40W
SMART CHARGER
平衡口
平衡口
通道2
电池输出口
(XT60)
通道3
电池输出口
(XT60)

## 按键操作指南

- 请任务选择界面：短按中键进入参数修改模式，可修改的参数将闪烁显示。
- 短按中键：切换不同参数项。
- 参数修改模式：按上/下键调整参数值。
- 长按中键：保存并退出参数修改模式。
- 任务选择界面：短按中键开始当前任务。
- 长按下键：返回主页面。
- 充电过程中：短按中键可调整充电电流，长按中键可终止当前任务。

## 充电器操作步骤

**操作前，请确保已了解电池规格及相关安全警告。**

1.将配套的电源线连接至充电器或合适的电源。

2.将电池接入充电器前端接口。

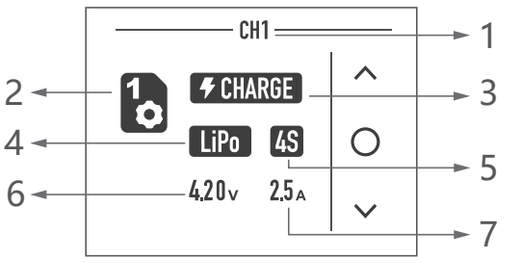
3.连接平衡头，确保直接插入平衡端口（强烈建议不要使用额外平衡板，以免误读电池电压）。

4.按一次选择键进入设置菜单。

5.长按选择键调整所需任务，再次长按保存。

6.仔细检查电源连接及电池接线是否正确。

7.再次按下选择键开始充电。




1.当前通道　　2.预设任务序号
3.任务类型　　4.电池类型
5.电池串数　　6.充电结束条件
7.充电电流

## 充电器预设电池类型及任务参数

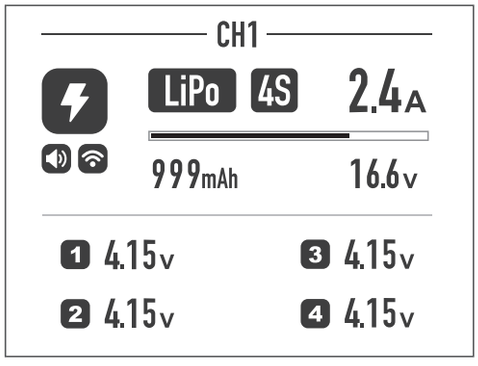
| | 额定电压 | 满充电压 | 存储电压 | 放电电压 | 平衡充 | 非平衡充 | 支持串数 | 最大充电电流 |
|---|---|---|---|---|---|---|---|---|
| NiCd/MH | 1.20V | 1.40V | ✗ | 0.90V | ✗ | ✓ | 4–12S | 5A |
| Pb | 2.00V | 2.40V | ✗ | 1.90V | ✗ | ✓ | 2–7S | 5A |
| LiFe | 3.20V | 3.65V | 3.30V | 2.90V | ✓ | ✓ | 1–4S | 5A |
| LiIon | 3.60V | 4.10V | 3.70V | 3.20V | ✓ | ✓ | 1–4S | 5A |
| LiPo | 3.70V | 4.20V | 3.80V | 3.30V | ✓ | ✓ | 1–4S | 5A |
| LiHv | 3.80V | 4.35V | 3.85V | 3.40V | ✓ | ✓ | 1–4S | 5A |
| ULiHv | 3.90V | 4.45V | 3.90V | 3.50V | ✓ | ✓ | 1–4S | 5A |

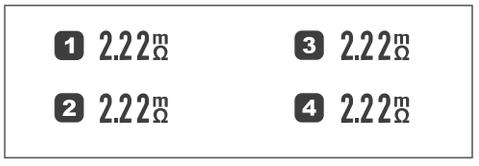
## 充电器预设电池类型及任务参数

**充电过程中，按下通道按钮可查看以下电池信息：**

1.当前通道 2.充电模式 3.充电电流 4.电池电压 5.充电充入容量 6.总充电功率
7.每节电芯内阻 8.温度 9.蜂鸣器状态 10.蓝牙连接状态

注意：仅在平衡充电模式下显示电池电压和内阻




## 无线连接

应用程序连接，扫描底部的二维码下载并安装ISD Link APP

1.打开APP前，请打开无线通信和蓝牙。

2.打开APP并点击右上角的“+”符号开始搜索正在运行的设备。(将手机靠近设备以获得最佳连接)

3.设备将发出哔哔声以指示连接。

4.确认设备上的连接。

ISD Link

App下载

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