



# 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°C

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

Weight: Approximately 380 g

Output Voltage: DC 2.5~18.5V (Channel 1@ 5~18.5V)

Discharging Current: 0.2~1A ×4

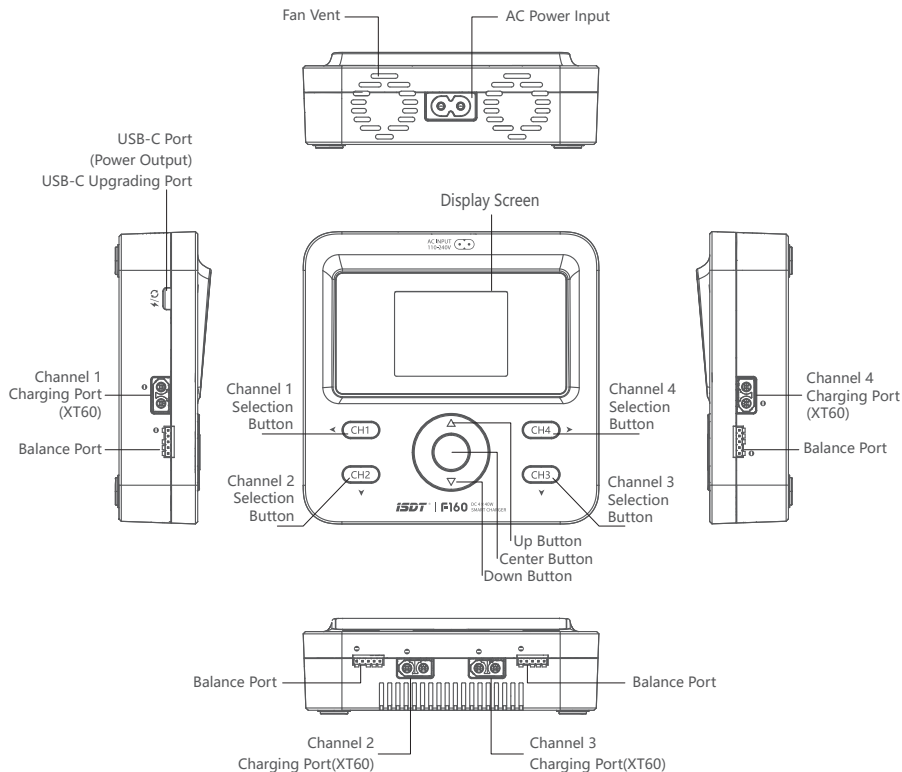
USB Output Power: 5V / 2A (Only Port 1 Idle)

Incorrect Cell Count Setting Alarm: Support

Storage temperature: -20~60°C

Dimension: 130×128×41mm

## Port / Buttons



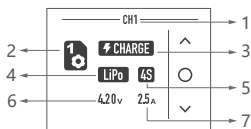
## Key Operation

- 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

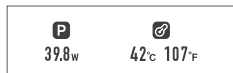
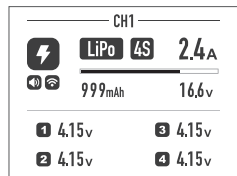
	Rated Voltage	Full Charge Voltage	Storage Voltage	Discharge Voltage	Balance Charge	Unbalanced Charge	Supported Cell Count	Max. Charging Current
NiCd/MH	1.20V	1.40V	✗	0.90V	✗	✓	4-12S	5A
Pb	2.00V	2.40V	✗	1.90V	✗	✓	2-7S	5A
LiFe	3.20V	3.65V	3.30V	2.90V	✓	✓	1-4S	5A
Lilon	3.60V	4.10V	3.70V	3.20V	✓	✓	1-4S	5A
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](http://www.isdt.co)

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ISDT reserves the right of final explanation and revision for the terms.