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› ISDT P20 800W 35A Dual Channel Smart Battery Balance Charger Discharger Instruction Manual

ISDT P20

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Model: P20 | Brand: ISDT

1. INTRODUCTION AND OVERVIEW

The ISDT P20 is a high-power, synchronous dual-channel smart battery balance charger and discharger designed for various battery chemistries including LiPo, Li-ion, LiFe, NiCd, NiMH, LiHV, and PB. It features smart charging capabilities with a high-speed processor, offering up to 500W per port and 800W in synchronous parallel charging mode. The device also includes an adjustable digital power supply function and a dark mode for improved visibility in low-light conditions.



Figure 1: Front view of the ISDT P20 Smart Charger, showing the display and control buttons.

2. KEY FEATURES

- **High Power Synchronous Dual Channel:** Smart High Speed Processor delivers parameter interference to each port. Hassle-free with maximum charging power up to 500W for a single port.
- **Synchronous Parallel Charging:** Built-in High Speed Processor Synchronous Balance two channel charging. Maximum Parallel Charging power up to 800W. P20 delivers charging current range from 20A ~ 35A.
- **Adjustable Digital Power Supply:** CH1 of the charger can become a DC power supply. In adjustable digital power supply mode, the Max. power is 150W. CC: 1.0~5.0A, CV: 2~30V.
- **Dark Mode:** scOS 2.0 new dark mode feature, suitable for low light scenarios. System will adjust the interface in dark tone, reducing light damage to user's eyes while maintaining the iconic and comfortable charging display style.
- **BattAir Plugin Compatibility:** Supports ISDT BattAir Plugins for smart battery management and automatic charger settings.

3. SETUP GUIDE

3.1 Power Connection

Connect the charger to a suitable power source. The ISDT P20 requires a DC input (power supply is NOT included). Ensure the power supply meets the charger's input voltage requirements (e.g., 10-34V DC).



Figure 2: Rear view of the ISDT P20 Smart Charger, showing the DC input port and cooling vents.

3.2 Battery Connection

Connect your battery's main discharge lead to the XT60 port on the charger (CHA or CHB). Connect the battery's balance lead to the corresponding balance port (2S-8S) next to the XT60 port. Ensure correct polarity and secure connections.



Figure 3: Top-down view of the ISDT P20 Smart Charger with a battery connected to one of the charging channels.

3.3 BattAir Plugin Setup (Optional)

For smart battery management, connect a BattAir Plugin to your battery's balance lead. Download the "BattAir" app on your smartphone (available for Android and iOS). Use the app to configure battery parameters (chemistry, cell count, charge rate, capacity, manufacturer, etc.). These settings will be stored on the BattAir Plugin and automatically recognized by compatible ISDT chargers like the P20.

Your browser does not support the video tag.

Video 1: This video demonstrates how to set up and use the ISDT BattAir Plugin with a compatible charger and smartphone app. It highlights the automatic recognition of battery parameters and the user interface for starting the charge.

4. OPERATING INSTRUCTIONS

4.1 Basic Charging

Once the battery is connected and the charger is powered on, the P20 will display battery information. If using a BattAir Plugin, the settings will be automatically loaded. Otherwise, manually select the battery type (LiPo, NiMH, etc.), cell count, and desired charge current using the charger's interface buttons. Press 'Start' to begin the charging process.

Your browser does not support the video tag.

Video 2: This video illustrates the process of connecting a BattAir-equipped battery to an ISDT K4 charger (similar to P20) and initiating the charging process. It

highlights the automatic recognition of battery parameters and the user interface for starting the charge.

4.2 Parallel Charging

The P20 supports synchronous parallel charging, allowing you to charge two batteries simultaneously with a combined power output of up to 800W. Ensure both batteries are of the same type and cell count for safe parallel charging. Refer to the on-screen menu for parallel charging options.

4.3 Adjustable Digital Power Supply

Channel 1 of the P20 can function as an adjustable DC power supply. Access this mode through the menu to set custom current (1.0-5.0A) and voltage (2-30V) outputs for powering external devices, with a maximum power of 150W.

4.4 Dark Mode

Activate Dark Mode via the system settings for comfortable viewing in low-light environments. This feature adjusts the display to a darker tone, reducing eye strain.

5. MAINTENANCE

- Keep the charger clean and free from dust and debris.
- Ensure proper ventilation around the charger to prevent overheating.
- Regularly inspect cables and connectors for any signs of wear or damage.
- Store the charger in a dry, cool place away from direct sunlight and moisture.
- For long-term battery storage, use the 'Storage' mode to bring batteries to an optimal voltage level.

6. TROUBLESHOOTING

- **Charger not powering on:** Check power connections and ensure the DC input voltage is within the specified range.
- **Battery not recognized:** Verify battery connections (main and balance leads). Ensure the BattAir Plugin (if used) is correctly attached and configured.
- **Charging error message:** Refer to the specific error code displayed on the screen and consult the ISDT support resources for detailed solutions.
- **Overheating:** Ensure adequate ventilation. Reduce charge current if necessary.

7. SPECIFICATIONS

Product Dimensions	4.13 x 4.13 x 1.97 inches
Item Weight	3.1 ounces (0.09 Kilograms)
Item Model Number	P20
Brand	ISDT
Color	Black
Output Voltage	25 Volts (DC)
Max Single Port Charging Power	500W
Max Parallel Charging Power	800W
Adjustable Digital Power Supply Max Power	150W
Battery Chemistries Supported	Li-ion, Life, NiCd, NiMH, LiHV, PB
Safety Certification	UL

8. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official ISDT website or contact your retailer. Keep your proof of purchase for warranty claims.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question