

HTRC T240 Duo

HTRC T240 Duo AC/DC Dual Channel Balance Charger/Discharger User Manual

Model: T240 Duo

1. INTRODUCTION

The HTRC T240 Duo is a high-performance, dual-channel balance charger/discharger designed for various battery types used in RC models. It features a 3.2-inch color LCD touch screen for easy operation, supports both AC (100-240V) and DC (11-18V) power input, and can charge two different batteries simultaneously. This manual provides essential information for safe and efficient use of your T240 Duo charger.

2. SAFETY INSTRUCTIONS

- Always read the entire manual before operating the charger.
- Never leave the charger unattended during operation.
- Ensure the charger is placed on a heat-resistant, non-flammable, and non-conductive surface.
- Do not charge batteries near flammable materials or liquids.
- Verify battery type, cell count, and charging current settings match the battery specifications before starting a charge. Incorrect settings can cause fire or explosion.
- Keep the charger away from moisture, dust, and direct sunlight.
- Do not attempt to charge damaged or swollen batteries.
- Use only original or approved charging cables and connectors.
- Keep out of reach of children.

3. PACKAGE CONTENTS

Carefully unpack all items and check against the list below. If any items are missing or damaged, contact your retailer.

- HTRC T240 Duo Charger Unit
- AC Power Cord
- 2x Balance Boards

- Various Charging Cables (e.g., T-plug, Alligator Clips)
- User Manual (this document)

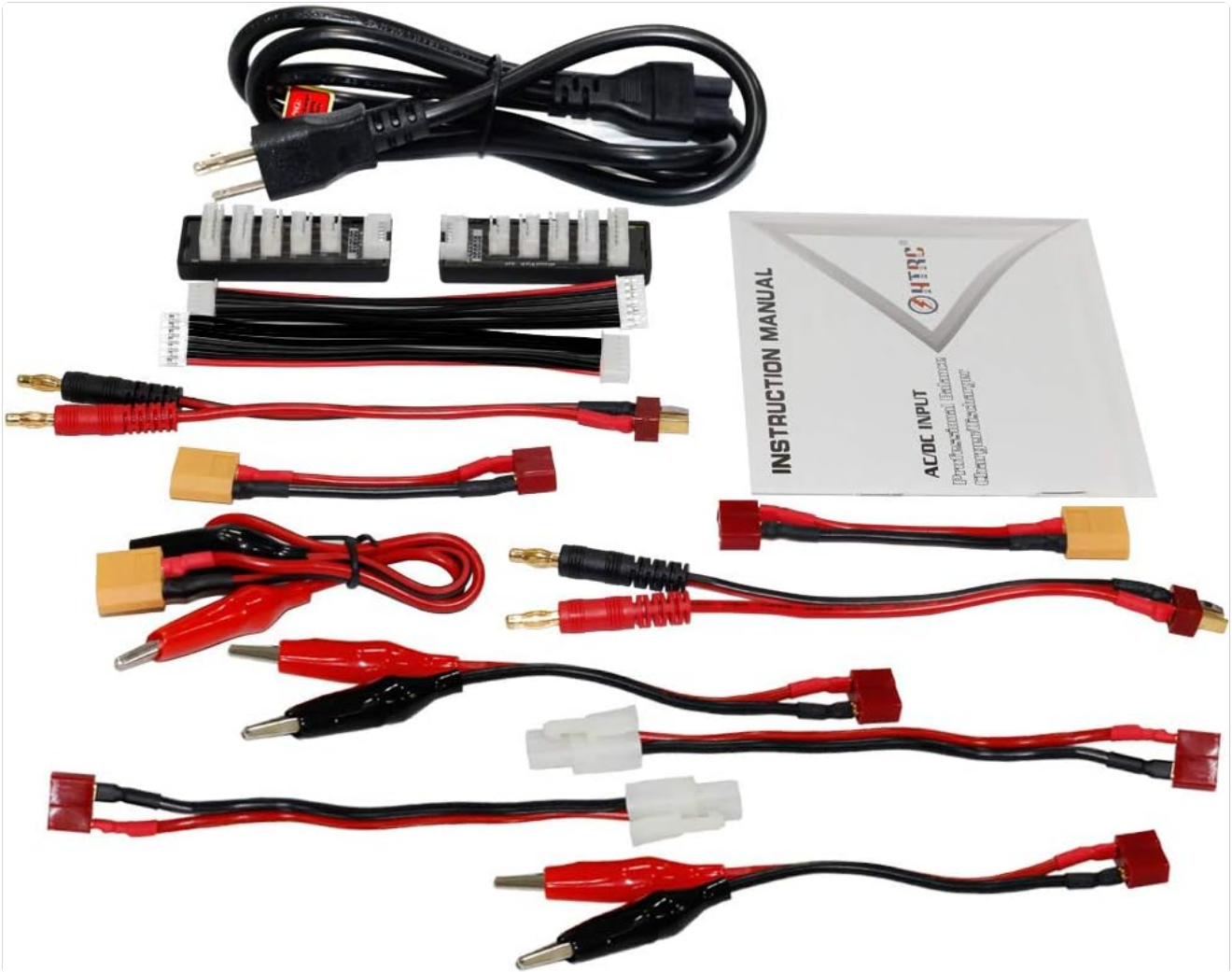


Image 3.1: Contents of the HTRC T240 Duo package, including the charger, various cables, balance boards, and power cord.

4. PRODUCT OVERVIEW

The HTRC T240 Duo features a compact design with a 3.2-inch color touch screen for intuitive control. It offers two independent charging channels, allowing simultaneous charging of different battery types.

4.1. Key Features

- **Dual-Channel Operation:** Charge two batteries independently and simultaneously.
- **Touch Screen Interface:** 3.2-inch color LCD for easy navigation and settings adjustment.
- **AC/DC Dual Power Input:** Supports AC 100-240V and DC 11-18V power sources.
- **Multi-Chemistry Support:** Compatible with LiPo, LiFe, Lilon, LiHV, NiCd, NiMh, and Pb batteries.
- **High Power Output:** AC 150W (total), DC 2x120W. Max 10A charge current per port.
- **Integrated Cooling Fan:** Ensures efficient heat dissipation during operation.
- **Power Distribution:** Intelligent power management in AC mode.
- **Advanced Functions:** Battery Meter, Terminal Voltage Control (TVC), Internal Resistance Check, Calibration, Data Storage, and Smart Battery support.



Image 4.1: Front view of the HTRC T240 Duo charger with its dimensions and examples of included charging cables.

AC 150W DC 240W



Image 4.2: Close-up of the HTRC T240 Duo's front panel, highlighting the touch screen interface and the dual charging ports.

5. SETUP

5.1. Connecting Power

1. **AC Power (Household Outlet):** Connect the supplied AC power cord to the AC input port on the side of the charger. Plug the other end into a suitable wall outlet (100-240V AC).
2. **DC Power (External Power Supply/Battery):** Connect a DC power source (11-18V DC) to the DC input ports on the side of the charger. Ensure correct polarity (+ to + and - to -).

5.2. Connecting Batteries

1. Identify the correct main charging cable for your battery (e.g., T-plug, XT60).
2. Connect the main charging cable to either Channel 1 (CH1) or Channel 2 (CH2) output port on the front of the charger.
3. For Lithium batteries (LiPo, LiFe, Lilon, LiHV), connect the battery's balance lead to the corresponding balance port on the balance board, then connect the balance board to the charger's balance port for the selected channel. This is crucial for safe and balanced charging.

- **Balance Charge:** Recommended for Lithium batteries. Charges and balances individual cell voltages.
 - **Charge:** Charges the battery without balancing individual cells. Use with caution.
 - **Storage:** Charges or discharges the battery to a safe storage voltage.
 - **Discharge:** Discharges the battery to a set voltage.
- **NiMH/NiCd:**
 - **Charge:** Charges the battery.
 - **Discharge:** Discharges the battery.
 - **Cycle:** Charges and discharges the battery multiple times to optimize performance.
- **PB (Lead-Acid):**
 - **Charge:** Charges the battery.
 - **Discharge:** Discharges the battery.
 - **Trickle:** Maintains the battery at full charge.

7. ADVANCED FUNCTIONS

The T240 Duo offers several advanced features accessible through the main menu.



Image 7.1: Visual representation of the HTRC T240 Duo's multi-charger capabilities and advanced functions.

- **Battery Meter:** Displays lithium battery cell counts, capacity percentage, and individual cell voltages (does not support 1S batteries).
- **Terminal Voltage Control (TVC):** Allows users to set the charge/discharge end voltage for specific battery types.
- **Lithium Battery Internal Resistance Check:** Displays the internal resistance of each cell (does not support 1S batteries).

- **Calibration:** Provides cell voltage monitoring and calibration functions (for 6S lithium batteries only).
- **Smart Battery:** Supports Smart Battery I, II, and III with an optional DJI charging cable.
- **Data Storage and Loading:** Save and recall up to 6 sets of charging parameters for convenience.
- **NiMH/NiCd Re-peak and Cycling:** Specific functions to optimize NiMH/NiCd battery performance.
- **Settings:** Adjust various charger parameters such as safety timers, temperature cut-off, and system settings.

8. MAINTENANCE

- Keep the charger clean and free from dust. Use a soft, dry cloth for cleaning.
- Do not use solvents or abrasive cleaners.
- Ensure ventilation openings are clear and unobstructed.
- Store the charger in a cool, dry place when not in use.
- Regularly inspect cables and connectors for damage. Replace any worn or damaged components immediately.

9. TROUBLESHOOTING

- **Charger does not power on:** Check AC/DC power connections. Ensure the power switch (if present) is in the 'ON' position. Verify the power source is active.
- **Charging error message:** Review battery type, cell count, and current settings. Check all battery connections, including balance leads. Ensure the battery is not damaged.
- **Battery not charging:** Confirm the charging process has been initiated on the screen. Check for proper connection of main and balance leads. Verify battery health.
- **Overheating:** Ensure the charger is in a well-ventilated area. Check that the cooling fan is operating correctly and not obstructed. Reduce charging current if necessary.
- **Touch screen unresponsive:** Try restarting the charger by disconnecting and reconnecting power. If the issue persists, contact support.

10. SPECIFICATIONS

Feature	Specification
Brand	HTRC
Model	T240 Duo
Input Voltage	AC 100-240V / DC 11-18V
Charge Power	AC Mode: 150W (CH1+CH2) / DC Mode: 2x120W
Discharge Power	2x10W
Charge Current Range	0.1-10A x2
Discharge Current Range	0.1-2A x2
LiPo/LiFe/Lilon/LiHV Cell Count	1-6S
NiMH/NiCd Cell Count	1-15S
Pb Battery Voltage	2-20V

Display	3.2-inch Color LCD Touch Screen
Dimensions	Approximately 145 x 105 x 64 mm (5.71 x 4.13 x 2.52 inches)

11. WARRANTY AND SUPPORT

This product is covered by a manufacturer's warranty. Please refer to the warranty card included in your package or contact your retailer for specific warranty terms and conditions. For technical support or service inquiries, please visit the official HTRC website or contact their customer service department.