ToolkitRC M9

ToolkitRC M9 600W 20A Multi-Function DC Smart Balance Charger Instruction Manual

Model: M9 | Brand: ToolkitRC

1. Product Overview

The ToolkitRC M9 is a versatile multi-function DC smart balance charger designed for various battery types. It integrates advanced features such as high power output, dual USB fast charging, and a clear IPS wide-angle color display. The device also includes essential diagnostic tools like a signal tester, battery meter, and wattage meter, complemented by an integrated voice system for interactive operation.

Image 1: The ToolkitRC M9 Smart Balance Charger shown with its packaging, quick manual, and a USB cable. This image provides a general overview of the product and its included accessories.

2. Key Features

- Customizable Voice Alerts and Welcome Screen

- DC Output: 600W, 2-8S Capable
- 2.4" IPS Multi-Angle Color Display
- Dual USB Fast Charging (Max 65W USB-C/USB-A Output)
- Integrated Balance Charger
- Signal Source Functionality
- Battery Meter for voltage and capacity checks
- Signal Tester for various signal types
- Watt Meter for power measurement

3. Setup and Initial Configuration

3.1 Connecting the Charger

Connect the ToolkitRC M9 charger to a compatible DC power source (7-35V input). Ensure all connections are secure before proceeding.

Image 2: Rear view of the ToolkitRC M9 charger, highlighting the DC input port (7-35V) and the TF card slot for firmware updates or data logging.

3.2 BattAir Plugin Integration (Optional)

The M9 charger is compatible with ISDT BattAir Plugins, which convert standard LiPo batteries into "smart" batteries. These plugins store battery data and communicate wirelessly with a smartphone app and the charger, simplifying the charging process.

1. **Install the BattAir App:** Download the "BattAir" app from your smartphone's app store (Google Play Store for Android, Apple App Store for iOS).
2. **Connect BattAir Plugin:** Plug the BattAir Plugin into your battery's balance lead. Ensure the negative pin of the balance lead aligns with the negative pin on the BattAir Plugin for proper data transmission. The plugin will power on and indicate its status.
3. **Initialize Battery in App:** Open the BattAir app. The app will detect the "Unknown Battery" connected via the plugin. Select it to begin initialization.
4. **Enter Battery Information:** Input the battery's chemistry (e.g., LiPo 4.20V), cell count (e.g., 6S), charge rate (e.g., 1C), discharge rate (e.g., 30C), and capacity (e.g., 5200mAh). You can also add a manufacturer name and an optional password.
5. **Save Settings:** Press the "Save" button in the app and then press the physical button on the BattAir Plugin to save the settings to the plugin. This data will then be automatically recognized by the M9 charger when the battery is connected.

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Video 1: This video demonstrates the setup and use of the ISDT BattAir Plugins with a compatible charger. It shows how to connect the plugins to LiPo batteries, install the BattAir smartphone app, and initialize battery settings within the app. The video highlights the convenience of having battery parameters automatically transferred to the charger via the plugin.

4. Operating the Charger

4.1 Charging a Battery

Once the BattAir Plugin is configured (if used), connect the battery to the M9 charger. The charger will automatically detect the battery type and settings from the plugin. If not using a BattAir Plugin, manually select the battery type, cell count, and desired charge current via the charger's interface.

- Connect the main power lead of the battery to the charger's output port.
- Connect the balance lead of the battery to the corresponding balance port on the charger.
- Verify the displayed battery information (voltage, cell count, charge current).
- Select "Start" on the charger's display to begin the charging process.

Image 3: A close-up of the ToolkitRC M9's color display, showing the menu for setting up a LiPo 6S battery charge, including battery type, cell count, mode, end voltage, and charge current.

4.2 Meter Functions

The M9 charger includes several integrated meter functions:

- **Battery Meter:** Displays overall battery voltage and individual cell voltages.
- **Signal Tester:** Measures SBUS, PPM, and PWM signals.
- **Watt Meter:** Provides real-time power consumption readings.

Image 4: The ToolkitRC M9 charger's display showing detailed individual cell voltages for a multi-cell battery, along with total voltage, current, and temperature readings.

5. Maintenance

To ensure optimal performance and longevity of your ToolkitRC M9 charger, regular maintenance and software updates are recommended.

- **Firmware Updates:** Periodically check the ToolkitRC website for new firmware versions. Updates can enhance features, improve performance, and fix bugs. Instructions for updating firmware are typically provided with the download.
- **Sound Files:** Customizable voice alerts can be updated or changed by downloading new sound files from the ToolkitRC website.
- **General Care:** Keep the charger clean and free from dust and debris. Store it in a dry, cool place away from direct sunlight and extreme temperatures.

6. Troubleshooting

If you encounter issues with your ToolkitRC M9 charger, consider the following general troubleshooting steps:

- **No Power:** Ensure the DC input is correctly connected and providing the specified voltage (7-35V). Check the power supply for proper function.
- **Battery Not Detected:** Verify that the main power lead and balance lead are securely connected to the correct ports. If using a BattAir Plugin, ensure it is correctly plugged into the balance port and initialized in the app.
- **Incorrect Readings:** Double-check all battery settings (type, cell count, capacity) in the charger or BattAir app. Ensure balance leads are clean and undamaged.

- **Charger Overheating:** Ensure adequate ventilation around the charger. Reduce the charge current if overheating persists.

7. Specifications

Feature	Specification
Input Voltage	7-35V DC (Max 35A)
Output Voltage	33.6V DC
Charging Power	0.1-20A @ 600W
Discharging Power	0.1-20A @ 600W (Recycle External), 0.1-3A @ 20W (Normal Mode)
Balance Current	1000mA @ 4.2V
USB A+C Output	5-20V @ 65W (PD QC PPS AFC SCP)
Battery Types Supported	LiPo, LiHV, LiFe, Lion, LTO (1-8S); NiMh (1-20S); Pb (1-10S)
LCD Display	2.4" IPS RGB 320*240 Pixel
Item Weight	12.2 ounces (0.76 Pounds)

8. Warranty and Support

For warranty information, technical support, or to download the latest firmware and sound files, please visit the official ToolkitRC website. Protection plans may be available for purchase separately through authorized retailers.