eversame ndfg-199

Eversame 35W USB Power Meter and Electronic Load Tester

Model: ndfg-199 Instruction Manual

1. Introduction

The Eversame 35W USB Power Meter and Electronic Load Tester is a versatile device designed for evaluating the performance of USB chargers, cables, and power banks. It provides real-time monitoring of various electrical parameters and offers adjustable constant current discharge testing. This manual provides detailed instructions for its setup, operation, and maintenance.

2. Product Features

- **Integrated USB Load and Multimeter:** Features an OLED screen to display current, charging voltage, discharge, resistance, capacitance, board temperature, and time. It can also calculate battery capacity in mAh and Wh. Data can be cleared and reset with a single button.
- **Dual-Potentiometer Current Adjustment:** Supports a wide voltage range (DC 3-21V) and current range (0-3A). Two knobs allow for precise current control: one for coarse adjustment (0-3A) and another for fine adjustment (±0.2A). Includes a screw terminal for external voltage measurements.
- **QC2.0/QC3.0 Fast Charging Trigger:** Equipped with a QC2.0/QC3.0 trigger to test fast charging voltages (5V/3A, 9V/2A, 12V/1.25A, 20V/1.5A). Note: This trigger is compatible only with QC 2.0/3.0 Quick Chargers.
- **Universal USB Compatibility:** Multiple USB-A ports support load testing for various USB cables, including those compatible with iPhone 5s/6s, Android micro-USB, mini USB, and USB-C 3.0 interfaces. This allows for measuring cable impedance and assessing cable quality.
- **Intelligent Temperature Management:** Incorporates a high-grade aluminum radiator with a copper roll fan for efficient heat dissipation, extending the device's lifespan. The cooling fan activates automatically when the temperature exceeds 55°C and stops when it drops below 45°C.

3. Product Overview

Familiarize yourself with the components of your Eversame USB Power Meter and Electronic Load Tester:

Image 1: Detailed diagram illustrating the various ports and controls of the Eversame 35W USB Power Meter, including USB input, output, current adjustment knobs, display, and cooling fan.

- **USB Input (1-25V 0.1-3A):** Main power input for testing.
- **USB Type-C for Reversed USB Connection:** Allows for flexible connection orientation.
- **Micro USB Cable Port:** For testing Micro USB cables.
- **iPhone 5s/6s Data Cable Port:** For testing specific Apple cables.
- **Independent Micro USB Power Supply Interface:** Used to power the unit independently of the device under test. This port is typically the one farthest to the left when facing the screen.
- **2-Pot Current Adjustment:** Two knobs for coarse (0.1-3A) and fine (±0.2A) current adjustment.
- **High Power Copper Roll Fan:** Integrated cooling fan for heat dissipation.
- **LED Light Indicator:** Provides visual status.
- **Data Reset and Function Interface Switch:** Button for navigating menus and resetting data.
- **Real-time Monitor (Tester):** OLED screen displaying various parameters.
- **DIY Screw Terminal:** For external voltage measurement, allowing connection to batteries or other load sources.

4. Setup and Initial Use

1. **Prepare for Testing:** Before connecting, ensure both current adjustment knobs are turned fully

counterclockwise to their lowest setting.

2. **Connect the Device:** Plug the USB Power Meter into the power source (e.g., charger, power bank). Then, connect the device you wish to test (e.g., phone, tablet) to the appropriate output port on the meter.
3. **Power On:** The meter will power on automatically once a device is connected at both ends (power source and load).
4. **Language Setting:** If the display is in Chinese, press the function button six times to switch the interface to English.

5. Operating Instructions

5.1 Display Interfaces and Navigation

The OLED screen displays various measurement parameters. Use the function button to cycle through different display interfaces and settings.

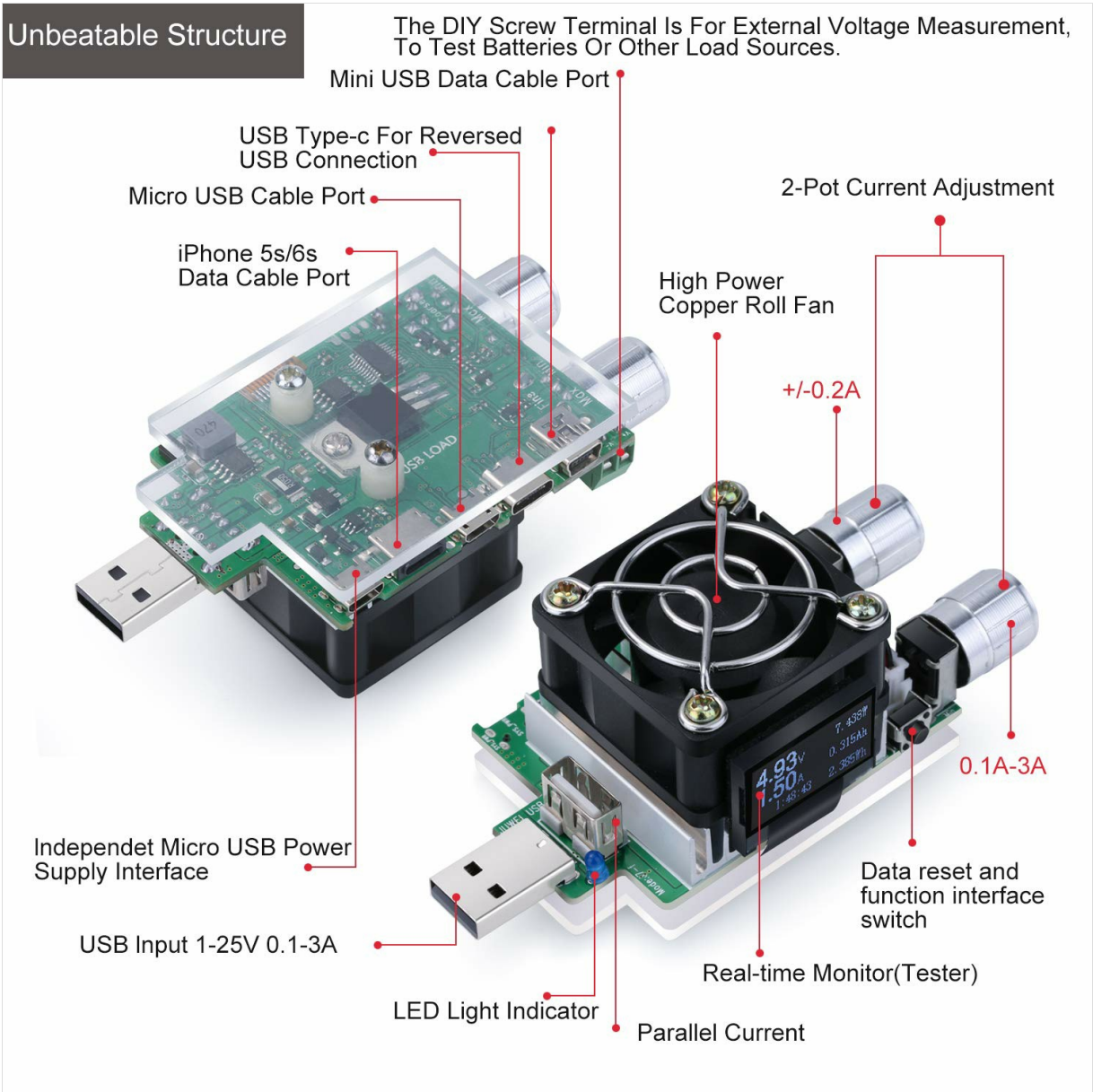

Image 2: Illustration of the three main LCD screen display interfaces and button press functions for language and time settings.

- **Six-Press Function:** Press the function button six times to toggle between Chinese and English display interfaces.

- **Five-Press Function:** Press the function button five times to access the default time setting menu (1:00-24:00) or switch to automatic mode.

5.2 Current Adjustment

The two knobs on the device allow for precise control over the discharge current:

- The larger knob provides **coarse current adjustment**, ranging from 0A to 3A.
- The smaller knob offers **fine current adjustment**, allowing for increments of approximately ±0.2A.

Adjust these knobs to set the desired load for your testing scenario.

5.3 QC2.0/QC3.0 Trigger Usage

To test Quick Charge compatible devices:

1. Connect the QC2.0/QC3.0 trigger (included) to the USB Power Meter.
2. Connect a QC2.0/QC3.0 Quick Charger to the input of the trigger.
3. Use the trigger's controls to select the desired voltage (e.g., 5V, 9V, 12V, 20V). For QC3.0, voltage changes in small increments; observe the meter's display carefully as you adjust.
4. The meter will display the voltage and current being delivered by the Quick Charger under the selected load.

6. Applications

6.1 Testing Capacity and Energy of Power Supplies/Power Banks

The meter can accurately measure the capacity and energy output of power banks and power supplies.

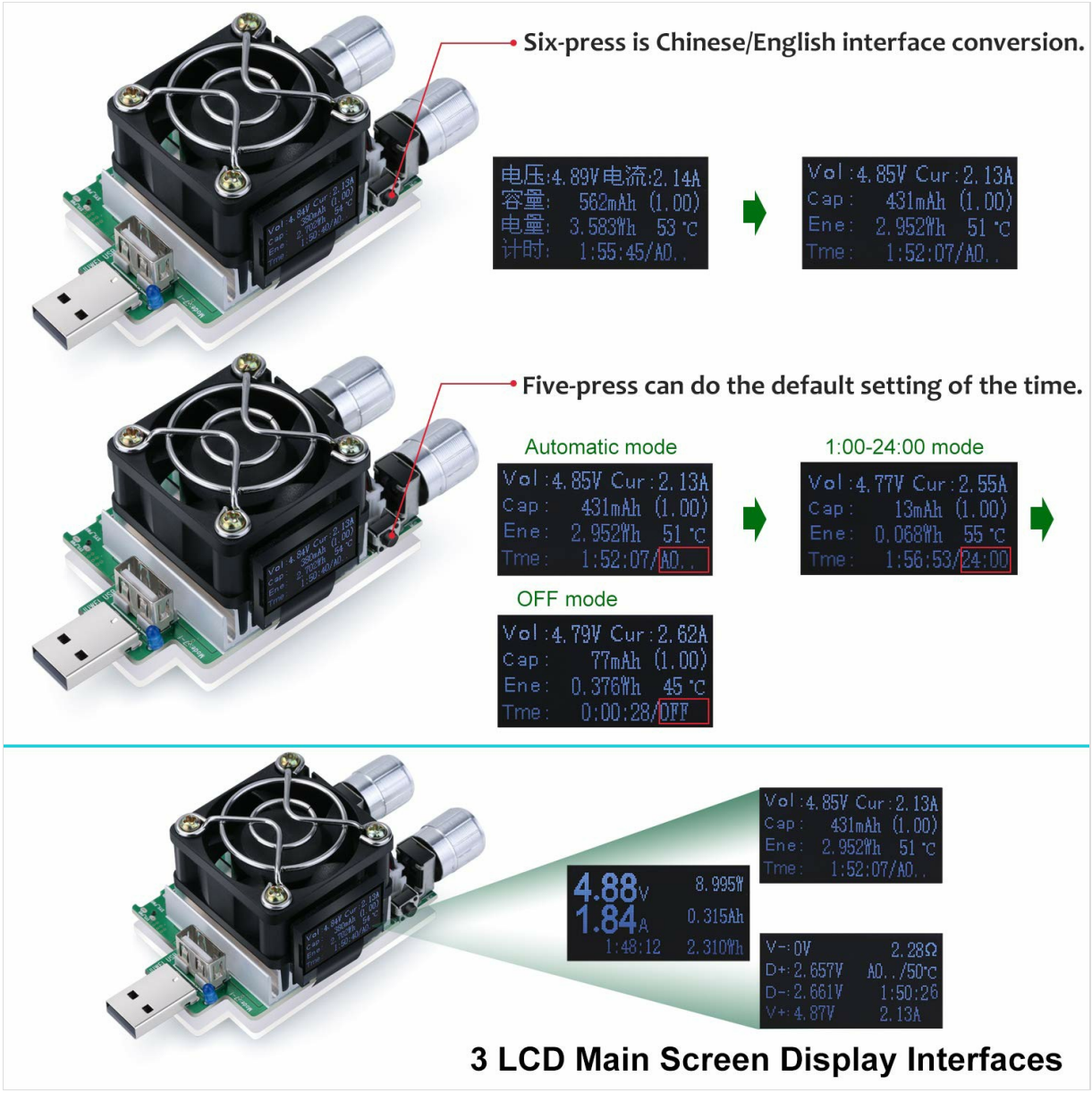

Image 3: The USB Power Meter connected to a power bank to test its capacity and energy, and connected in-line with a charging cable to assess its quality.

Connect the power bank or power supply to the meter's input, and then connect a load (e.g., a device or the electronic load function) to the meter's output. The display will show the accumulated mAh (milliamp-hours) and Wh (watt-hours), allowing you to determine the actual capacity.

6.2 Monitoring Charging Speed and Cable Quality

Use the meter to evaluate the efficiency of charging cables and the actual charging speed of your devices.

Image 4: The USB Power Meter connected between a charger and a smartphone, displaying real-time voltage and current during charging.

By connecting the meter in-line with your charging cable and device, you can observe the voltage and current. This helps identify if a cable is causing a significant voltage drop or limiting the current, indicating poor quality or damage. Different cables can be compared to find the most efficient ones.

7. Advanced Features

7.1 Intelligent Temperature Control System

The integrated cooling fan ensures optimal performance and longevity of the device. It operates automatically based on temperature:

- The fan will start working when the internal temperature exceeds 55°C.
- The fan will automatically stop when the temperature drops below 45°C.

8. Technical Specifications

Specification	Value
Brand	eversame
Model Number	ndfg-199
ASIN	B07RKQBKL8
UPC	600978580605
Dimensions	13.97 x 8.89 x 5.08 cm
Weight	113 g
Power Source	USB powered (or independent Micro USB)
Style	Electronic Load Tester
Color	Black
Minimum Operating Voltage	3V DC
Maximum Operating Voltage	21V
Current Range	0-3A (Adjustable)
Power Range	0-35W (Continuous Discharge)
Measurement Type	Multimeter (Voltage, Current, Resistance, Capacitance, Temperature, Time)
Cooling Fan Activation Temperature	>55°C
Cooling Fan Deactivation Temperature	<45°C

9. Troubleshooting

- **Meter Does Not Power On:** Ensure a power source is connected to one end and a load device to the other. The meter requires both connections to activate.
- **Display is in Chinese:** Press the function button six times to switch the display language to English.
- **Inaccurate Readings:** Verify that all connections are secure. Ensure the current adjustment knobs are set appropriately for your test. For external voltage measurements, confirm the screw terminal connections are correct.
- **QC Trigger Not Working:** The QC trigger is only compatible with QC 2.0/3.0 Quick Chargers. Ensure your charger supports these protocols.

10. Warranty and Support

This Eversame USB Power Meter and Electronic Load Tester comes with a**24-Month hassle-free warranty**. For any technical assistance, troubleshooting beyond this manual, or warranty claims, please contact Eversame customer support through your purchase platform or the official Eversame website. Please have your model number (ndfg-199) and purchase details ready.