Walfront UT658 Dual

Walfront UT658 Dual USB Tester Instruction Manual
Model: UT658 Dual

1. INTRODUCTION

The Walfront UT658 Dual USB Tester is a versatile and portable device designed for accurate measurement and monitoring of USB charging parameters. It provides real-time data on voltage, current, energy, capacitance, and circuit equivalent resistance, making it an essential tool for verifying charging efficiency, testing USB chargers, power banks, and data cables, and for various engineering and DIY applications.

Image 1: Front view of the Walfront UT658 Dual USB Tester, displaying voltage, current, mAh, and time on its LCD screen, with 'Mode' and 'Read' buttons below.

2. KEY FEATURES

- **Accurate and Portable Design:** Engineered for precision, reliability, stability, and ease of transport.
- **Efficient Charging Monitoring:** Allows real-time monitoring of charging efficiency to safeguard connected devices.
- **Versatile Measurement Capabilities:** Measures output voltage, current, energy, capacitance, circuit equivalent resistance, and digital parameters of USB chargers and data cables.
- **Digital Power Capacity Tester:** Functions as a digital charger capacity meter, offering detailed insights into device power capacity.
- **Multi-Purpose Usage:** Suitable for production verification, engineering testing, and electronics DIY projects.
- **Dual Input/Output Interfaces:** Features both USB Type-A and Type-C input and output ports for broad compatibility.
- **Data Storage:** Capable of storing up to 10 groups of measurement data.

- **Fast Charge Protocol Support:** Supports USB 2.0 data transmission and QC1.0/2.0/3.0 quick charging protocols (Type-A and Type-C).
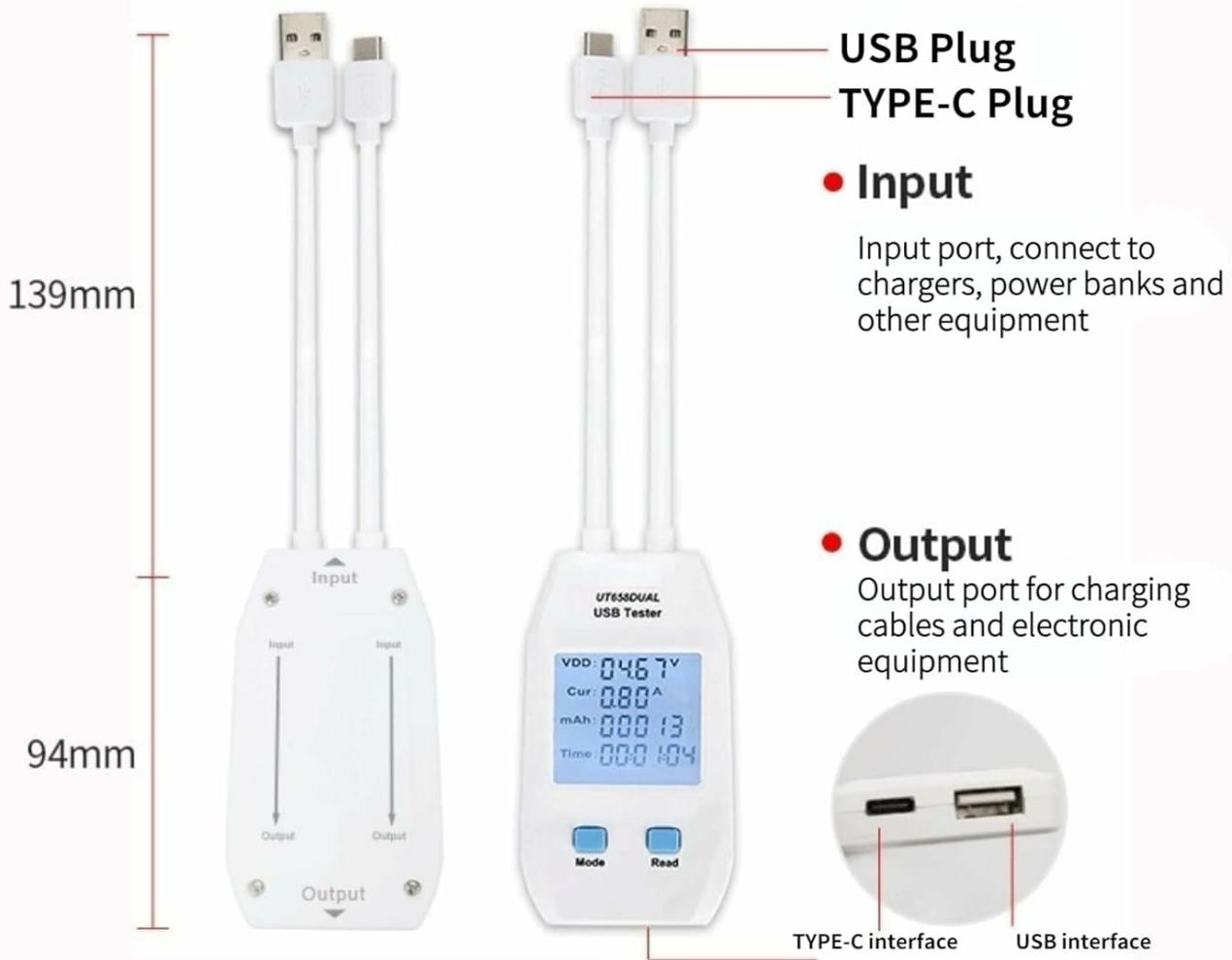

Image 2: The UT658 Dual USB Tester, emphasizing its ability to protect charging equipment, monitor charging efficiency, and its portable design.

3. SETUP AND CONNECTION

The UT658 Dual USB Tester is designed for straightforward operation. Follow these steps to connect and begin testing:

1. **Identify Input and Output:** The tester features two input cables (USB-A and USB-C) and two output ports (USB-A and USB-C) on the main unit.
2. **Connect Input:** Plug either the USB-A or USB-C input cable from the tester into your power source (e.g., wall charger, power bank, computer USB port). *Note: Only one input cable (Type-A or Type-C) can be used at a time. Do not connect both simultaneously.*
3. **Connect Output:** Connect your device (e.g., smartphone, tablet, laptop) to the corresponding output port on the tester using a suitable USB cable. For example, if your device uses USB-C, connect it to the USB-C output port.
4. **Power On:** The tester will automatically power on and display measurements once a connection is established and power is supplied.

UT658Dual ⬇

139mm

94mm

Input

UT658DUAL
USB Tester

VDD: 0467ᵛ
Cur: 0.80ᴬ
mAh: 00013
Time: 000104

Mode   Read

Output

USB Plug
TYPE-C Plug

● **Input**

Input port, connect to chargers, power banks and other equipment

● **Output**

Output port for charging cables and electronic equipment

TYPE-C interface   USB interface

● When the UT658 DUAL is in use, only one input/output port of the same type can be used separately each time (that is, either the Type As input port or the Type C input port can be used, both ports cannot be used at the same time, and different types cannot be used interchangeably. port, there is a guide line on the back of the product for reference)

Image 3: Diagram illustrating the input (USB Plug, Type-C Plug) and output (Type-C interface, USB interface) connections of the UT658 Dual USB Tester, along with its dimensions.

Image 4: Rear view of the UT658 Dual USB Tester, indicating input and output sections with basic electrical specifications.

4. OPERATING INSTRUCTIONS

Once connected, the UT658 Dual USB Tester will immediately begin displaying real-time data on its LCD screen. The display typically shows:

- **VDD (Voltage):** Measured in Volts (V).
- **Cur (Current):** Measured in Amperes (A).
- **mAh (Milliampere-hour):** Accumulated charge capacity.
- **Time:** Duration of the test.

4.1. Button Functions

The tester features two buttons: "Mode" and "Read".

- **Mode Button:** Press this button to cycle through different display modes or data groups. The device can store up to

10 groups of data.

- **Read Button:** Use this button to confirm selections or to reset accumulated data for the current test. A long press typically resets the mAh and Time values.

4.2. Interpreting Readings

The displayed values provide insight into the performance of your charging setup:

- **Voltage (V):** Indicates the electrical potential difference. A stable voltage close to the expected output (e.g., 5V for standard USB) is ideal.
- **Current (A):** Shows the rate of electrical flow. Higher current generally means faster charging, provided the device can accept it.
- **mAh:** Represents the total charge delivered over time. Useful for determining the actual capacity delivered by a power bank or charger.
- **Time:** Tracks the duration of the charging or testing session.

Function	Description	UT658A	UT658C	UT658Dual
Input-output interface	USB Type A	Yes		Yes
	USB Type C		Yes	Yes
Voltage measuring range	4.00-24.00VDC, resolution ratio:0.01V	Yes	Yes	Yes
Current measuring range	0.05-3.00ADC, resolution ratio: 0.01A（Type-A）	Yes		Yes
	0.05-5.00ADC,resolution ratio: 0.01A（Type-C）		Yes	Yes
Capacity	0-99999mAh,resolution ratio:1mAh	Yes	Yes	Yes
Electric quantity	0-1000Wh	Yes	Yes	Yes
Circuit equivalent resistance measurement	1-480Ω	Yes	Yes	Yes
USB data transmission line voltage (D+,D-)	0-3.30V	Yes	Yes	Yes
Storage	10 groups of data	Yes	Yes	Yes
Time	99 hours 59 minutes 59 seconds, resolution ratio:1s	Yes	Yes	Yes
Support fast charge protocol	Support USB2.0 data transmission function, support qc1.0/2.0/3.0 quick charging protocol (type-A)	Yes		Yes
	Support USB2.0 data transmission function, support qc1.0/2.0/3.0 quick charging protocol (type-C)		Yes	Yes

Image 5: Detailed view of the UT658 Dual USB Tester, labeling Type-A and Type-C interfaces, Mode and Read keys, and highlighting displayed parameters like voltage, current, electricity, and capacity.

Image 6: The UT658 Dual USB Tester in an application scenario, connected between a power source and various electronic devices such as a laptop, smartphone, and tablet, demonstrating its versatility.

5. Maintenance

To ensure the longevity and accurate performance of your Walfront UT658 Dual USB Tester, follow these simple maintenance guidelines:

- **Cleaning:** Wipe the device with a soft, dry cloth. Avoid using abrasive cleaners or solvents, which can damage the casing or screen.
- **Storage:** Store the tester in a cool, dry place away from direct sunlight and extreme temperatures.
- **Handling:** Handle the device with care. Avoid dropping it or subjecting it to strong impacts, which can damage internal components or the display.
- **Moisture:** Keep the tester away from water and high humidity to prevent electrical damage.

6. TROUBLESHOOTING

If you encounter issues with your UT658 Dual USB Tester, consider the following common problems and solutions:

- **No Display/Device Not Powering On:**

  - Ensure the input cable is securely connected to a functioning power source.
  - Verify that the power source itself is active and providing power.
  - Check if only one input cable (USB-A or USB-C) is connected at a time. Connecting both simultaneously is not supported.

- **Incorrect Readings:**

  - Ensure all connections (input and output) are firm and correct.
  - Test with a different USB cable and device to rule out issues with peripherals.
  - The accuracy of the tester is high, but extreme environmental conditions can affect readings. Ensure operation within specified temperature ranges.

- **Current Reading is Zero (especially with Type-C):**

  - Some devices or cables might not properly negotiate power delivery, leading to zero current. Try a different cable or power source.
  - Ensure the device connected to the output is actually drawing power. Some devices might enter a low-power state or be fully charged.

- **Data Not Resetting:**

  - Perform a long press on the "Read" button to reset the accumulated mAh and Time values for the current data group.

If problems persist, refer to the specifications section to ensure the device is being used within its operational limits.

7. TECHNICAL SPECIFICATIONS

Function	Description	UT658Dual
Input-output interface	USB Type A	Yes
	USB Type C	Yes
Voltage measuring range	4.00-24.00VDC, resolution ratio: 0.01V	Yes
Current measuring range	0.05-3.00ADC, resolution ratio: 0.01A (Type-A)	Yes
	0.05-5.00ADC, resolution ratio: 0.01A (Type-C)	Yes
Capacity	0-99999mAh, resolution ratio: 1mAh	Yes
Electric quantity	0-1000Wh	Yes
Circuit equivalent resistance measurement	1-480Ω	Yes
USB data transmission line voltage (D+, D-)	0-3.30V	Yes
Storage	10 groups of data	Yes
Time	99 hours 59 minutes 59 seconds, resolution ratio: 1s	Yes
Support fast charge protocol	Support USB2.0 data transmission function, support qc1.0/2.0/3.0 quick charging protocol (Type-A)	Yes
	Support USB2.0 data transmission function, support qc1.0/2.0/3.0 quick charging protocol (Type-C)	Yes

Function	Description	UT658Dual

Function	Description	UT658A	UT658C	UT658Dual
Input-output interface	USB Type A	Yes		Yes
	USB Type C		Yes	Yes
Voltage measuring range	4.00-24.00VDC, resolution ratio:0.01V	Yes	Yes	Yes
Current measuring range	0.05-3.00ADC, resolution ratio: 0.01A（Type-A)	Yes		Yes
	0.05-5.00ADC,resolution ratio: 0.01A（Type-C)		Yes	Yes
Capacity	0-99999mAh,resolution ratio:1mAh	Yes	Yes	Yes
Electric quantity	0-1000Wh	Yes	Yes	Yes
Circuit equivalent resistance measurement	1-480Ω	Yes	Yes	Yes
USB data transmission line voltage (D+,D-)	0-3.30V	Yes	Yes	Yes
Storage	10 groups of data	Yes	Yes	Yes
Time	99 hours 59 minutes 59 seconds, resolution ratio:1s	Yes	Yes	Yes
Support fast charge protocol	Support USB2.0 data transmission function, support qc1.0/2.0/3.0 quick charging protocol (type-A)	Yes		Yes
	Support USB2.0 data transmission function, support qc1.0/2.0/3.0 quick charging protocol (type-C)		Yes	Yes

Image 7: A detailed table outlining the functions and specifications of the UT658 series USB testers, including input/output interfaces, measurement ranges, and supported protocols.

General Specifications:

- **Product Dimensions:** 5.12 x 2.56 x 0.79 inches
- **Item Weight:** 0.63 ounces
- **Color:** White
- **Style:** Digital
- **Manufacturer:** Walfront

8. WARRANTY INFORMATION

Specific warranty details for the Walfront UT658 Dual USB Tester are not provided in the product information. Please refer to the retailer or manufacturer's official website for the most current warranty policy.

9. Customer Support

For further assistance, technical support, or inquiries regarding the Walfront UT658 Dual USB Tester, please contact Walfront customer service through their official channels. You may find contact information on the Walfront brand store page or the retailer's website where the product was purchased.

Visit the Walfront Store on Amazon for more information.

Related Documents - UT658 Dual

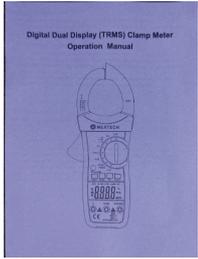|	
	Diymore 0.28-inch Dual Display DC Voltmeter Ammeter 100V 10A - User Guide Concise guide to wiring and using the Diymore 0.28-inch dual display DC voltmeter and ammeter, capable of measuring up to 100V and 10A. Includes wiring diagrams for different power supply configurations. Supports DC 4-30V power input and DC 0-100V measurement range.
	Cable Matters 201073 Dual-Input USB-C Docking Station User Manual User manual for the Cable Matters 201073 Dual-Input USB-C Docking Station with Dual Video and 80W Power Delivery, detailing features, system requirements, connection instructions, and troubleshooting.
	UEi DL389B TRMS Dual Display Clamp Meter Instruction Manual Comprehensive instruction manual for the UEi DL389B TRMS Dual Display Clamp Meter, covering functions, features, specifications, safety warnings, and operating instructions for various measurements including voltage, current, resistance, capacitance, temperature, frequency, and non-contact voltage detection.
	Horizont Ranger Voltmeter DUAL Digital Type 14589 Instruction Manual This instruction manual provides essential information for the Horizont Ranger Voltmeter DUAL Digital (Type 14589). It covers application notes for measuring fence and battery voltages, explains the device's display indicators, and provides manufacturer contact details.

	[Anker 364 USB-C Hub (10-in-1, Dual 4K HDMI) User Manual and Specifications](#) Comprehensive user manual and specifications for the Anker 364 USB-C Hub (10-in-1, Dual 4K HDMI), detailing its ports, features, data transfer speeds, safety instructions, and compliance information.
	[MEXTECH Digital Dual Display TRMS Clamp Meter Operation Manual](#) Comprehensive operation manual for the MEXTECH Digital Dual Display TRMS Clamp Meter (DT-3600), detailing safety precautions, component identification, technical specifications, and step-by-step operating instructions for various electrical measurements.