

## YOJOCK KWS-2302C

# YOJOCK USB C Tester Power Meter User Manual

Model: KWS-2302C

Brand: YOJOCK

## INTRODUCTION

This user manual provides detailed instructions for the YOJOCK 360W USB C Tester Power Meter (Model KWS-2302C). This device is designed to accurately measure and display various electrical parameters of USB-C power sources and devices, including voltage, current, power, capacity, and charging time. It supports multiple fast charging protocols and features a power-off storage function for data retention. Please read this manual thoroughly before using the product to ensure proper operation and longevity.

## SETUP

To begin using your USB C Tester, follow these steps:

1. **Connect the Tester:** Insert the male USB-C connector of the tester into the USB-C output port of your power source (e.g., charger, power bank, computer).
2. **Connect Your Device:** Insert the USB-C cable from your device (e.g., smartphone, laptop) into the female USB-C port on the tester.
3. **Power On:** The tester's screen will illuminate automatically once both the input and output ports are connected and power is detected.



Image: The YOJOCK USB C Tester Power Meter, a compact device with a USB-C male connector on one end and a female port on the other, displaying various electrical parameters on its screen.

# Bidirectional Current Test Function

- (A) Current 0-12A
- (V) Voltage 4-30V



Image: A diagram illustrating the bidirectional current test function, showing the USB C Tester connected inline between a wall charger and a smartphone, displaying real-time voltage and current measurements.



Image: The USB C Tester plugged into a wall charger, with a USB-C cable extending to a laptop, demonstrating its use for real-time voltage and current testing in a typical charging setup.



# Test The Real-Time Voltage and Current



Image: A visual explanation of the PD protocol limitation, showing that the USB-C tester screen only lights up when both the output (charger) and input (device) ports are connected, with examples of incorrect and correct connections.

## OPERATING INSTRUCTIONS

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### Display Modes and Navigation

The USB C Tester features a 0.96-inch TFT high-definition display. It cycles through different display screens to show various data points. A single button on the side of the tester allows you to navigate these screens and perform certain functions.

- **Short Press:** Short press the button to cycle through the different display screens.
- **Double Click:** Double-click the button to rotate the interface 180 degrees, which is useful for reading the display from different orientations.
- **Long Press:** Long press the button to reset accumulated data (capacity, energy, time). Note that maximum voltage, current, and wattage values are not reset by this action.

# 12A High Current Terminal

Please note that 12A is the peak current and cannot always be in that state.



Image: A graphic demonstrating the 180-degree screen rotation feature, activated by double-clicking the button, allowing for easier viewing of data regardless of the tester's orientation.

## Understanding Measurements

- **Voltage (V):** Displays the real-time voltage of the power supply. Range: 4V-30V.
- **Current (A):** Displays the real-time current being drawn by the connected device. Range: 0-12A.
- **Power (W):** Displays the real-time power (Wattage) being delivered. Calculated as Voltage x Current. Range: 0-360W.
- **Capacity (mAh):** Accumulates the total milliamp-hours transferred, useful for measuring battery capacity. Range: 0-99999mAh.
- **Electricity (Wh):** Accumulates the total watt-hours transferred, indicating energy consumption. Range: 0-99999Wh.
- **Time (T):** Displays the elapsed charging time. Range: 0-99 hours.
- **Max Values:** The tester records and displays the maximum voltage, current, and wattage observed during the test session. These values are not reset by a short or long press of the button.
- **Temperature (°C):** Displays the internal temperature of the tester.

## Fast Charging Protocol Detection

The tester supports various fast charging protocols, including PD2.0/3.0, QC2.0/3.0, FCP, SCP, AFC, PE, DASH VOOC, and Super VOOC. While the tester can detect these protocols, the specific type of fast charging protocol is not displayed on the screen.

# Support for Multiple Protocols

HUAWEI FCP/SCP

QC 2.0/3.0, PD 2.0/3.0

SAMSUNG AFC, PE, PPS

DASH VOOC, Super VOOC

# 12A



**Note:** The type of fast charging protocol is not displayed on screen.

Image: A graphic highlighting the tester's compatibility with various fast charging protocols such as HUAWEI FCP/SCP, QC 2.0/3.0, PD 2.0/3.0, SAMSUNG AFC, PE, PPS, DASH VOOC, and Super VOOC, with a note that the specific protocol is not displayed.

## Testing Power Bank Capacity

To calculate the capacity of a power bank using the tester, use the following formula:

**Capacity (mAh) = Energy (Wh) ÷ Battery Voltage (V) × 1000**

For example, if the power bank's nominal battery voltage is 3.7V and the tester shows 35Wh, the calculation would be:  
 $35\text{Wh} \div 3.7\text{V} = 9.46\text{Ah} = 9460\text{mAh}$ .

**Note:** After a full charge, a weak current may still accumulate. It is recommended to save the data promptly for accurate capacity measurement.



Due to PD protocol limitations, the USB-C tester screen will only light up if both the output and input ports are connected.

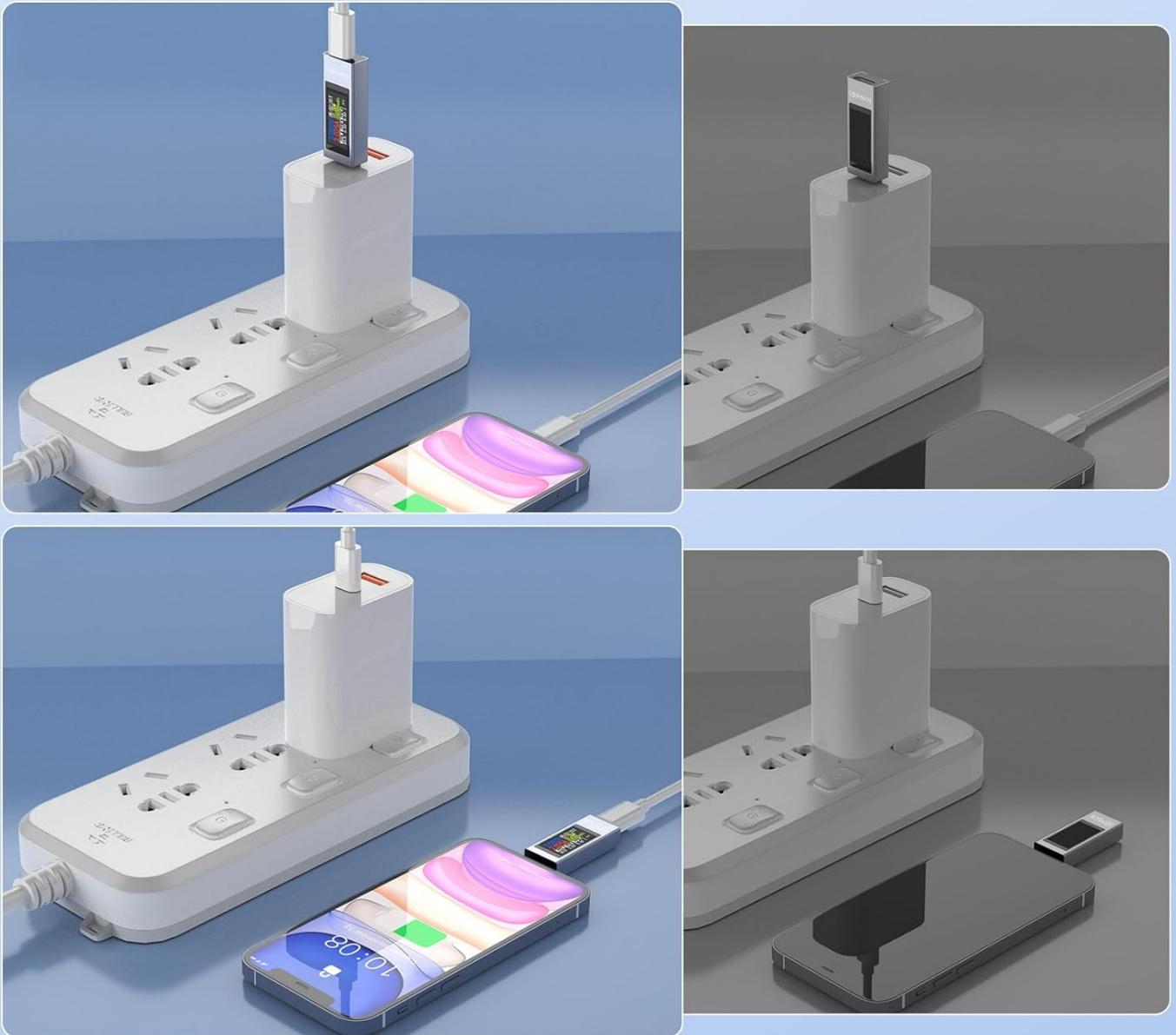


Image: The USB C Tester connected to a power bank and a smartphone, illustrating how to test power bank capacity by monitoring energy transfer. The image also shows the formula for calculating mAh from Wh and battery voltage.

## MAINTENANCE

- Keep the tester clean and free from dust and moisture.
- Avoid exposing the device to extreme temperatures or direct sunlight.
- Do not attempt to disassemble or repair the tester yourself, as this will void the warranty.
- Store the tester in a safe place when not in use to prevent physical damage.

## TROUBLESHOOTING

### • Display Not Lighting Up:

Ensure both the input (from charger/power source) and output (to device) ports are connected. Due to PD protocol limitations, the screen will only activate when both connections are established and power is flowing.



- **Inaccurate Readings:**  
Verify that the cables used are in good condition and properly seated. Ensure the power source and device are functioning correctly. If issues persist, try testing with different cables or devices to isolate the problem.
- **Max Values Not Resetting:**  
The "Max Watt," "Max Current," and "Max Voltage" displays are designed to show the peak values recorded during the entire test session and do not reset with a button press. Only the time, capacity, and energy data can be reset by a long press of the button.
- **Device Not Charging Through Tester:**  
Check if the power source is active and providing power. Ensure the device being charged is compatible with the power source. The tester itself consumes a minimal amount of power, which should not significantly affect charging.

SPECIFICATIONS

Parameter	Value
Input Voltage Range	4V-30V
Input Current Range	0-12A
Power Measurement Range	0-360W
Capacity Measurement Range	0-99999mAh
Electricity Measurement Range	0-99999Wh
Time Measurement Range	0-99 hours
Voltage Measurement Resolution	0.01V
Current Measurement Resolution	0.001A
Maximum Recorded Power	360W
Maximum Recorded Current	12A
Maximum Recorded Voltage	30V
Current Direction Indicator	Bi-direction
Display Type	0.96 inch TFT High-Definition
Dimensions	3.31 x 2.83 x 0.75 inches
Weight	1.06 ounces

# Testing Power Bank Capacity

Calculate capacity:  $Wh \div \text{battery voltage}$ . For example, if the battery voltage is 3.7V and the test shows 35Wh, the formula is:  $35Wh \div 3.7V = 9.46Ah = 9460mAh$ .  
Note: After full charge, a weak current may still accumulate, so save the data promptly.



Image: A visual representation of the detailed technical parameters of the USB C Tester, including input voltage, current, power, capacity, electricity, time measurement ranges, and measurement resolutions.

## WARRANTY AND SUPPORT

YOJOCK provides the following support for your product:

- **18-Month Warranty:** Your product is covered by an 18-month warranty from the date of purchase.
- **30-Day Return Policy:** You may return the product for any reason within 30 days of purchase.
- **24-Hour Customer Support:** For any inquiries or assistance, please contact YOJOCK customer support.

### Our Commitment



Image: An icon representing an 18-month warranty, indicating product coverage.



Image: An icon representing a 30-day return policy, allowing returns for any reason within that period.



Image: An icon representing 24-hour customer support, indicating continuous assistance availability.

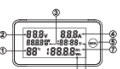


Related Documents - KWS-2302C

	<p><a href="#">YOJOCK USB Power Meter User Manual</a></p> <p>User manual for the YOJOCK USB Power Meter, detailing product parameters, operating instructions, and testing procedures for charging speed, quality, and power bank capacity.</p>
	<p><a href="#">KWS-066C USB Tester User Manual and Specifications</a></p> <p>User manual for the KWS-066C USB Tester, detailing product parameters, functional instructions, calibration methods, and customer support information. Learn how to measure voltage, current, power, capacity, resistance, timing, energy, and temperature for various USB devices, including bidirectional charging.</p>
	<p><a href="#">KWS-2303C Testeur USB C Manuel de l'utilisateur</a></p> <p>Manuel de l'utilisateur pour le testeur USB C KWS-2303C, détaillant les paramètres du produit, les instructions d'utilisation et les questions fréquemment posées. Apprenez à mesurer la tension, le courant, la puissance et la capacité des appareils USB-C.</p>
	<p><a href="#">KWS-306 Series Smart Energy Meter User Manual and Specifications</a></p> <p>Comprehensive user manual and technical specifications for the KWS-306 series smart energy meters, including models KWS-306WF, KWS-306L, and KWS-306. This guide details device features, protection settings, operational procedures, and technical data for accurate installation and use.</p>

Instruction manual of KWS-DC200 DC power meter

1. Temperature  
2. Voltage  
3. Power  
4. Current  
5. Button  
6. Timing  
7. Electricity  
8. Electricity quantity



**Product Model**  
KWS-DC200-10A / With internal shunt  
KWS-DC200-50A / With external shunt  
KWS-DC200-100A / With external shunt

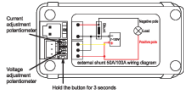
**Product Function**  
1. Voltage, current, power, timing, temperature, electricity, electric quantity  
2. Electricity, electric quantity and timing can be reset  
3. Electricity, electric quantity and timing have power-down memory function  
4. The direct power supply of this product can measure 0-100V, and the external power supply can measure 0-200V

**Product Parameter**

Model: KWS-DC200-10A	Model: KWS-DC200-50A	Model: KWS-DC200-100A
Supply voltage: 0-100V	Supply voltage: 0-100V	Supply voltage: 0-100V
Max voltage: 0-200V	Max voltage: 0-200V	Max voltage: 0-200V
Current: 0-10A	Current: 0-50A	Current: 0-100A
Power: 0-100W	Power: 0-1000W	Power: 0-10000W
Max 0-10000Wh	Max 0-10000Wh	Max 0-100000Wh
Max 0-10000h	Max 0-10000h	Max 0-100000h
Timing: 0-999h	Timing: 0-999h	Timing: 0-999h
Temperature: -55~105℃	Temperature: -55~105℃	Temperature: -55~105℃

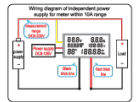
**Operating Instructions**  
Click the MENU button to view the electricity and electric quantity.  
Hold the MENU button for 3 seconds to reset the timing, Wh, and Wh.  
The direct power supply of this product can measure 0-100V, and the external power supply can measure 0-200V.  
The current and voltage can be calibrated manually.  
The calibration method is shown in the figure below.  
Please refer to the following wiring diagram for test parameters.

**Current adjustment potentiometer**  
**Voltage adjustment potentiometer**

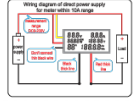


Hold the button for 3 seconds to reset the display

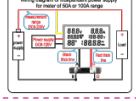
**Wiring diagram of independent power supply for meter within 100V range**




**Wiring diagram of direct power supply for meter within 100V range**



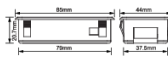
**Wiring diagram of independent power supply for meter of 100V-200V range**



**Wiring diagram of direct power supply for meter of 100V-200V range**



**Product size chart**



[KWS-DC200 DC Power Meter: Voltage, Current, and Power Measurement Manual](#)

Comprehensive instruction manual for the KWS-DC200 series DC power meter. Learn how to measure voltage, current, power, energy, and time. Includes wiring diagrams and specifications for 10A, 50A, and 100A models.



