

Keweisi KWS-V20 USB Volt Current Voltage Doctor Instruction Manual

Model: KWS-V20

1. Introduction

The Keweisi KWS-V20 is a compact and versatile USB tester designed to measure voltage, current, power, and charging capacity of USB devices and power sources. It provides clear, real-time data, making it an essential tool for testing PC USB ports, cell phone chargers, car chargers, power banks, and charging cables. This manual will guide you through its features, operation, and specifications.

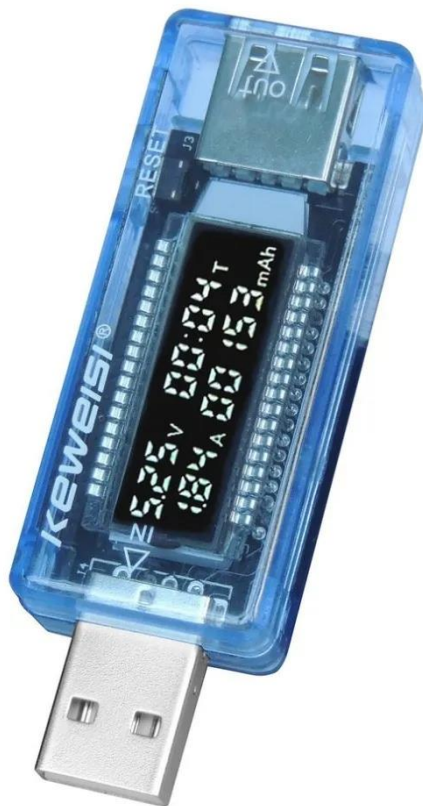


Figure 1: Keweisi KWS-V20 USB Tester

2. Product Features

- **Real-time Monitoring:** Displays voltage, current, time, and accumulated capacity (mAh).
- **Wide Compatibility:** Suitable for testing various USB power sources and devices, including PC USB ports, wall chargers, car chargers, and power banks.
- **Easy to Use:** Plug-and-play operation with no additional power supply required.

- **Compact Design:** Mini size and lightweight for portability.
- **Data Reset Function:** Features a reset button to clear accumulated capacity data.

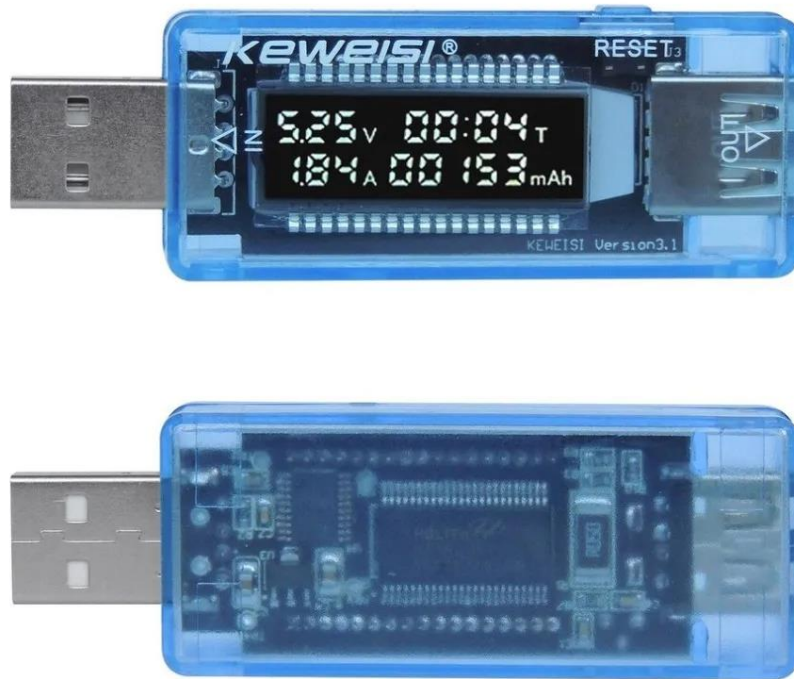


Figure 2: Front and Back View of the KWS-V20

3. Setup and Operation

3.1 Connecting the Tester

1. Locate the USB-A male connector (IN) on the KWS-V20 tester.
2. Plug the USB-A male connector (IN) into the USB power source you wish to test (e.g., wall charger, power bank, PC USB port).
3. Connect your device's charging cable to the USB-A female port (OUT) on the KWS-V20 tester.
4. Connect the other end of your device's charging cable to your device (e.g., smartphone, tablet).



Figure 3: Typical Connection Setup



Figure 4: KWS-V20 in use with a smartphone

3.2 Reading the Display

Once connected and power is flowing, the KWS-V20's display will illuminate and show the following parameters:

- **Voltage (V):** The current voltage being supplied by the USB power source.
- **Current (A):** The current being drawn by the connected device.
- **Time (T):** The elapsed time since the tester was connected or last reset.
- **Capacity (mAh):** The accumulated milliamp-hours (mAh) charged into the device, indicating the total capacity transferred.

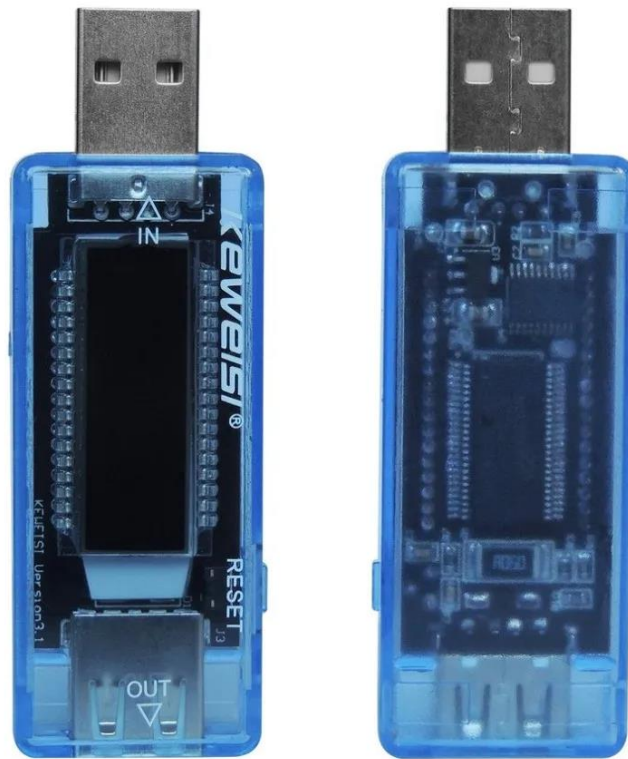


Figure 5: Display showing Voltage, Time, Current, and Capacity

3.3 Resetting Capacity Data

To reset the accumulated capacity (mAh) and time (T) readings, press the "RESET" button located on the side of the tester. This is useful for starting a new measurement cycle.

4. Maintenance and Care

- Keep the device dry. Moisture can damage the electronic components.
- Avoid extreme temperatures. Do not store in very hot or cold environments.
- Handle with care. Do not drop or subject the device to strong impacts.
- Clean with a soft, dry cloth. Do not use harsh chemicals or abrasive cleaners.
- Store in a safe place when not in use to prevent physical damage to the connectors or screen.

5. Troubleshooting

5.1 No Display / No Power

- Ensure the USB power source is active and providing power.
- Check that the tester is firmly plugged into the USB port.
- Verify that the connected device is drawing current. Some devices may not draw power if fully charged or not connected correctly.

5.2 Incorrect Readings

- Ensure all connections are secure and free from debris.
- Test with a different USB cable or power source to rule out external factors.
- The accuracy is $\pm 1\%$, so minor fluctuations are normal.

5.3 Capacity (mAh) Not Accumulating

- Confirm that the connected device is actively charging and drawing current.
- If the device is fully charged, it will stop drawing current, and mAh accumulation will cease.

6. Specifications

Parameter	Value
Model	KWS-V20
Material	Plastic
Color	Blue
Voltage Measurement Range	3-9V (Accuracy: +/-1%)
Current Measurement Range	0-3A (Accuracy: +/-1%)
Time Measurement Range	0-99H
Dimensions (L*W*H)	59mm * 23mm * 13.5mm
Net Weight	19g

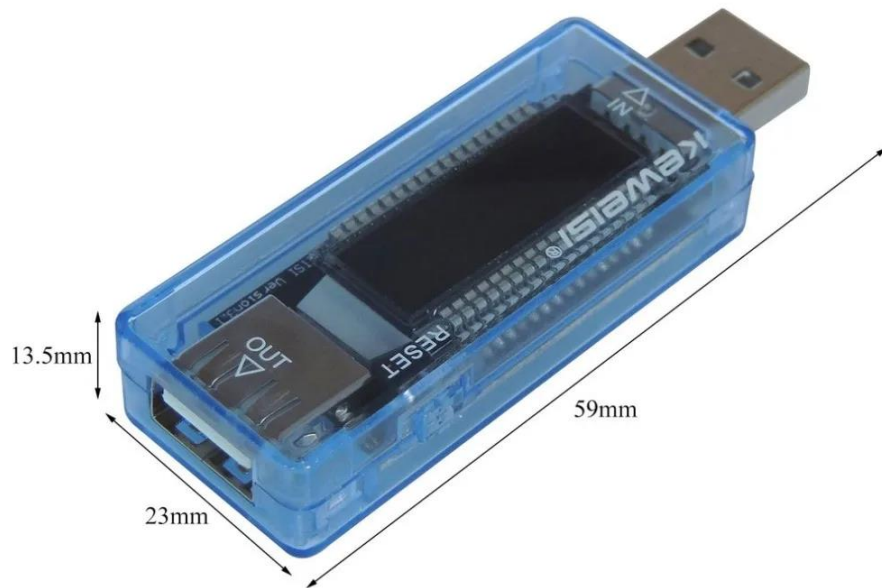


Figure 6: KWS-V20 Dimensions

7. User Tips

- **Cable Quality Check:** Use the tester to compare charging speeds and capacity delivery of different USB cables. A significant drop in current or voltage might indicate a poor-quality cable.
- **Power Bank Health:** Monitor the mAh output when charging a device from a power bank to estimate its real capacity and degradation over time.
- **Charger Performance:** Verify if your wall chargers or car chargers are delivering the advertised voltage and current.
- **Device Charging Behavior:** Observe how your device draws power. Some devices might draw less current as they approach full charge.
- **Reset for New Tests:** Always remember to press the "RESET" button before starting a new capacity test to ensure accurate accumulation.

8. Warranty and Support

For any issues or questions regarding your Keweisi KWS-V20 USB tester, please contact the seller or manufacturer's customer support. Keep your purchase receipt for warranty claims, if applicable.