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› Klein Tools ET910 USB Power Meter and Tester, USB-A Digital Meter for Voltage, Current, Capacity, Energy, Resistance, Max Current Electric Circuit Testing Device USB-A Tester and Meter

Klein Tools ET910

Klein Tools ET910 USB Power Meter and Tester

Model: ET910

1. INTRODUCTION AND OVERVIEW

The Klein Tools ET910 is a versatile USB digital meter and tester designed for common USB-A ports, including Qualcomm Quick Charge ports. This device accurately and reliably measures and displays USB port voltage, current, capacity, energy, and resistance simultaneously. It also features built-in fixed loads (0.5A, 1A, 2A, and 3A) to test the maximum current delivery capability of a USB port without requiring an external load. The ET910 operates without batteries, drawing power directly from the USB source it is testing.



Figure 1: Front view of the Klein Tools ET910 USB Power Meter and Tester, showing its compact orange and black design with a digital display and control buttons.

2. SAFETY INFORMATION

WARNING: To ensure safe operation and service of this meter, follow all instructions. Failure to observe warnings can result in severe injury or death.

- This meter will NOT display current below 50 milliamperes, even if it is allowing this to pass through. The display will show zero current.
- Do NOT use with ports that operate outside of the rated voltage and current.
- NEVER use on a circuit with voltage or current that exceeds the maximums specified for this device.
- Do NOT use during electrical storms or in wet weather.
- Do NOT use if the meter appears damaged.
- Use caution when working with voltages above 25V RMS or 24V DC. Such voltages pose a shock hazard.

3. WHAT'S IN THE BOX

Your Klein Tools ET910 package should contain the following item:

- 1 x USB Power Meter (ET910)

4. SETUP AND GETTING STARTED

The ET910 is designed for immediate use without complex setup. It draws power directly from the USB source, requiring no internal batteries.

1. **Connect Input:** Plug the USB-A input plug of the ET910 into the USB-A port you wish to test (e.g., wall charger, power bank, computer USB port).
2. **Connect Output (Optional):** If you wish to charge a device while monitoring, plug your device's USB cable into the USB-A output port of the ET910.
3. **Power On:** The device will automatically power on and display readings once connected to a powered USB port.



Figure 2: Diagram illustrating the USB-A Input and USB-A Output of the ET910, highlighting its monitoring capabilities for voltage, current, capacity, energy, and resistance.

5. OPERATING INSTRUCTIONS

5.1 Monitoring Mode

Once connected, the ET910 continuously monitors and displays the following parameters on its high-resolution LCD screen:

- **Voltage (V):** The electrical potential difference.
- **Current (A):** The flow of electrical charge.
- **Capacity (mAh):** The total charge delivered over time.
- **Energy (Wh):** The total power consumed over time.
- **Resistance (Ω):** Calculated resistance based on voltage and current.

Use the "Mode" button to cycle through different display screens or orientations for optimal viewing.



Figure 3: The ET910 in monitoring mode, showing its display while connected to a wall charger. The screen provides clear, real-time data.

5.2 Testing Loads

The ET910 features built-in fixed loads to test the maximum current delivery capability of a USB port. This eliminates the need for external load resistors.

1. **Select Load:** Press the "Test Load" button to cycle through the available built-in loads: 0.5A, 1A, 2A, and 3A.
2. **Observe Readings:** The device will apply the selected load to the USB port, and you can observe the voltage and current readings under that specific load. This helps identify if the port can deliver the advertised current.

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Video 1: Official product video demonstrating the Klein Tools ET910 USB Power Meter and Tester in action, showcasing its ability to measure various parameters and test USB port capabilities with built-in loads.

6. DISPLAY AND CONTROLS

The ET910 features a high-resolution LCD screen for clear visibility, even in low ambient lighting conditions. The device has two primary control buttons:

- **Mode Button:** Cycles through different display modes and screen orientations.
- **Test Load Button:** Activates and cycles through the built-in current loads (0.5A, 1A, 2A, 3A) for testing USB port capacity.

The device can store and recall up to 10 readings, allowing for comparison and analysis of different USB sources.

7. SPECIFICATIONS

Parameter	Value
Voltage Range	3 to 20V DC
Current Range (Monitoring)	0.05 to 3A
Built-in Test Loads	0.5A, 1A, 2A, 3A
Monitoring Duration	Up to 1000 hours
Data Storage	Up to 10 readings
Display Type	Hi-resolution LCD
Power Source	USB-powered (no batteries required)
Dimensions	11.21 x 2.13 x 0.98 inches
Weight	2.8 Ounces

8. MAINTENANCE AND CARE

The Klein Tools ET910 is designed for durability and requires minimal maintenance. Follow these guidelines to ensure its longevity:

- **Cleaning:** Wipe the device with a clean, dry cloth. Do not use abrasive cleaners or solvents.
- **Storage:** Store the meter in a cool, dry place away from direct sunlight and extreme temperatures.
- **Inspection:** Regularly inspect the device for any signs of damage, especially to the USB connectors and the casing. Do not use if damaged.

9. TROUBLESHOOTING

If you encounter issues with your ET910, consider the following common troubleshooting steps:

- **No Display/Power:** Ensure the USB source is active and providing power. The ET910 draws power directly from the source.
- **Inaccurate Readings:**
 - Verify the USB source is functioning correctly.
 - Ensure the connections are secure and free from debris.
 - Readings below 50mA will display as zero current. This is normal operation.
- **Overload Detection:** If the device indicates an overload, the connected USB port may not be able to supply the requested current. Disconnect and try a different port or reduce the load.

10. WARRANTY AND SUPPORT

For warranty information and customer support, please refer to the official Klein Tools website or contact their customer service directly. Keep your purchase receipt for warranty claims.

For additional resources, you may refer to the official [Instructions for Use \(IFU\) PDF](#).