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› Heemol USB Cable Tester User Manual

Heemol Micro / Type A / Type B / Type C

Heemol USB Cable Tester User Manual

Model: Micro / Type A / Type B / Type C

INTRODUCTION

Thank you for choosing the Heemol USB Cable Tester. This device is designed to efficiently test the connection status and functionality of various USB cables, including USB-B 3.0, USB-B 2.0, USB-C 3.0/3.1/3.2, Micro-B 3.0, Micro-B 2.0, Mini-B 2.0, and Lightning cables. Its compact design ensures portability and ease of storage. This manual provides detailed instructions for setup, operation, and troubleshooting to help you get the most out of your cable tester.

SAFETY INFORMATION

- Read all instructions carefully before using the device.
- Keep the device away from water and other liquids.
- Do not attempt to disassemble or modify the device. This will void the warranty.
- Use only the specified power sources (CR2032 battery or DC3-12V external power).
- This device is for testing cables only. It does not test cable resistance.
- Store the device in a cool, dry place when not in use.

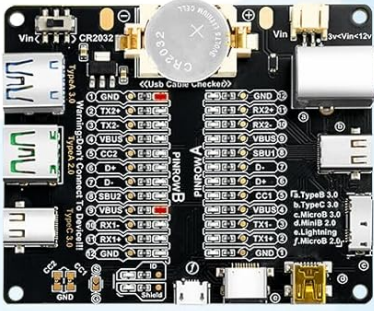
PRODUCT OVERVIEW

The Heemol USB Cable Tester features multiple ports for various USB cable types and 24 LED indicators to display the connection status of each pin. It supports two power modes for flexible use.

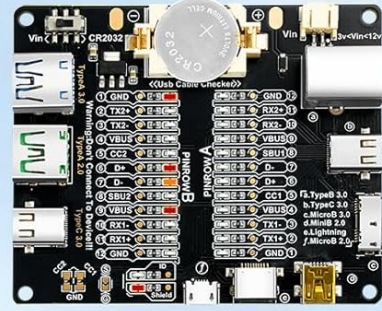
Key Features:

- **Universal Compatibility:** Tests USB-B 3.0, USB-B 2.0, USB-C 3.0/3.1/3.2, Micro-B 3.0, Micro-B 2.0, Mini-B 2.0, and Lightning cables.
- **LED Indicators:** 24 LEDs provide clear, pin-by-pin status of cable connections.
- **Dual Power Modes:** Operates with a CR2032 button cell battery or external DC3-12V power supply.
- **Intuitive Design:** Simple plug-and-play operation for quick cable diagnostics.
- **Compact and Portable:** Easy to carry and store for on-the-go testing.

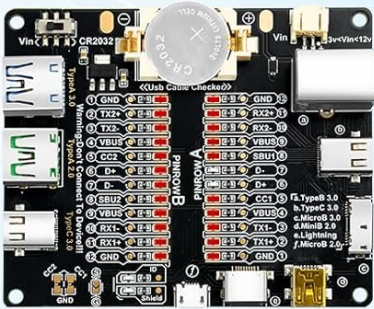
Components:



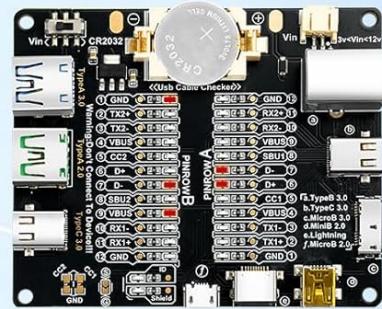
- 1 Wenn die GND und VBUS Lampen leuchten, bedeutet dies, dass das USB-Datenkabel nur die Ladefunktion hat.



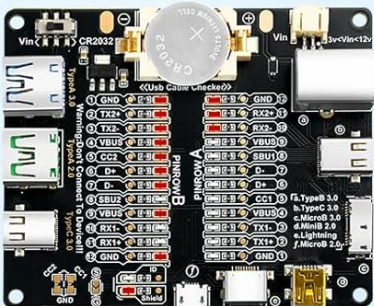
- 2 Wenn die Lampen GND, VBUS, D+ und D- leuchten, zeigt dies an, dass das USB-Datenkabel sowohl die Lade- als auch die Datenübertragungsfunktion hat.



- 3 Wenn alle Lichter leuchten (außer D+ und D-), bedeutet dies, dass das USB-Kabel alle Funktionen unterstützt, einschließlich Laden, Datenübertragung, Audio- und Videoübertragung.



- 4 Schema für die Erkennung von Lightning-Datenkabeln.



- 5 Wenn die Lampen GND, TX2+, TX2-, VBUS, CC2, D+ und D- leuchten, bedeutet dies, dass das USB-Kabel sowohl über eine Lade- als auch über eine Hochgeschwindigkeits-Datenübertragungsfunktion verfügt. Es handelt sich um ein USB 3.0, 3.1 oder 3.2 Kabel.

Figure 1: Heemol USB Cable Tester showing various USB ports and LED indicators. The left side features USB Port A (USB-A 3.0, USB-A 2.0, USB-C 3.0) and the right side features USB Port B (USB-B 3.0, USB-C 3.0, Micro-B 3.0, Mini-B 2.0, Lightning, Micro-B 2.0).

The device includes dedicated ports for different USB types, clearly labeled for ease of use. The central area features two rows of LED indicators, labeled "PINROW A" and "PINROW B", corresponding to the pins of the connected cables.

SETUP

1. Assembling the Tester (if applicable)

If your tester arrived unassembled, follow these steps to attach the transparent casing:

Zwei Stromversorgungsmethoden

1. nach rechts kippen, um die Batterie zu starten

2. nach links drehen, um USB-C anzuschließen

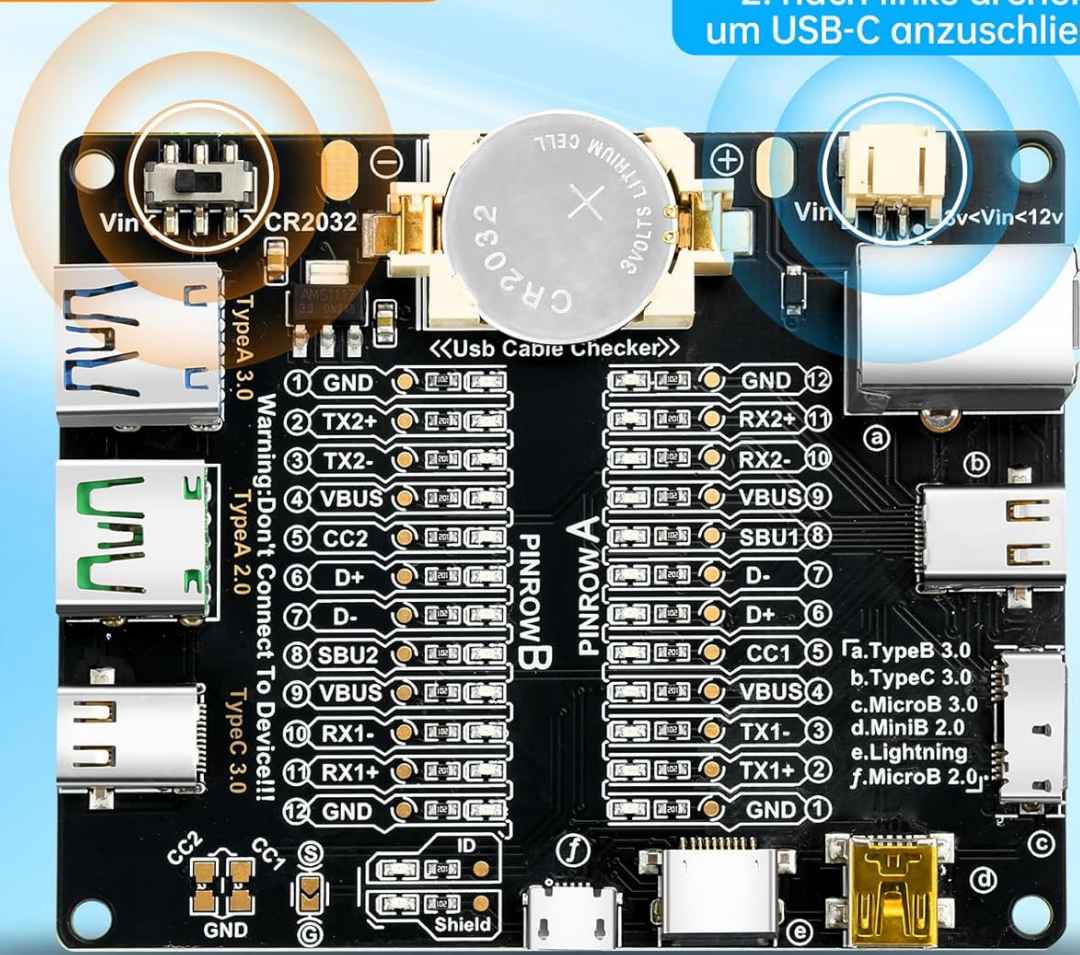


Figure 2: Assembly diagram. Step 1 shows screws and standoffs. Step 2 indicates peeling off the protective film from the transparent cover. Step 3 shows attaching the cover to the circuit board using the screws and standoffs.

1. Gather the provided screws and standoffs.
2. Carefully peel off the protective film from both sides of the transparent acrylic cover.
3. Align the cover with the circuit board and secure it using the screws and standoffs.

2. Powering the Device

The Heemol USB Cable Tester supports two power options:

Applicable equipment

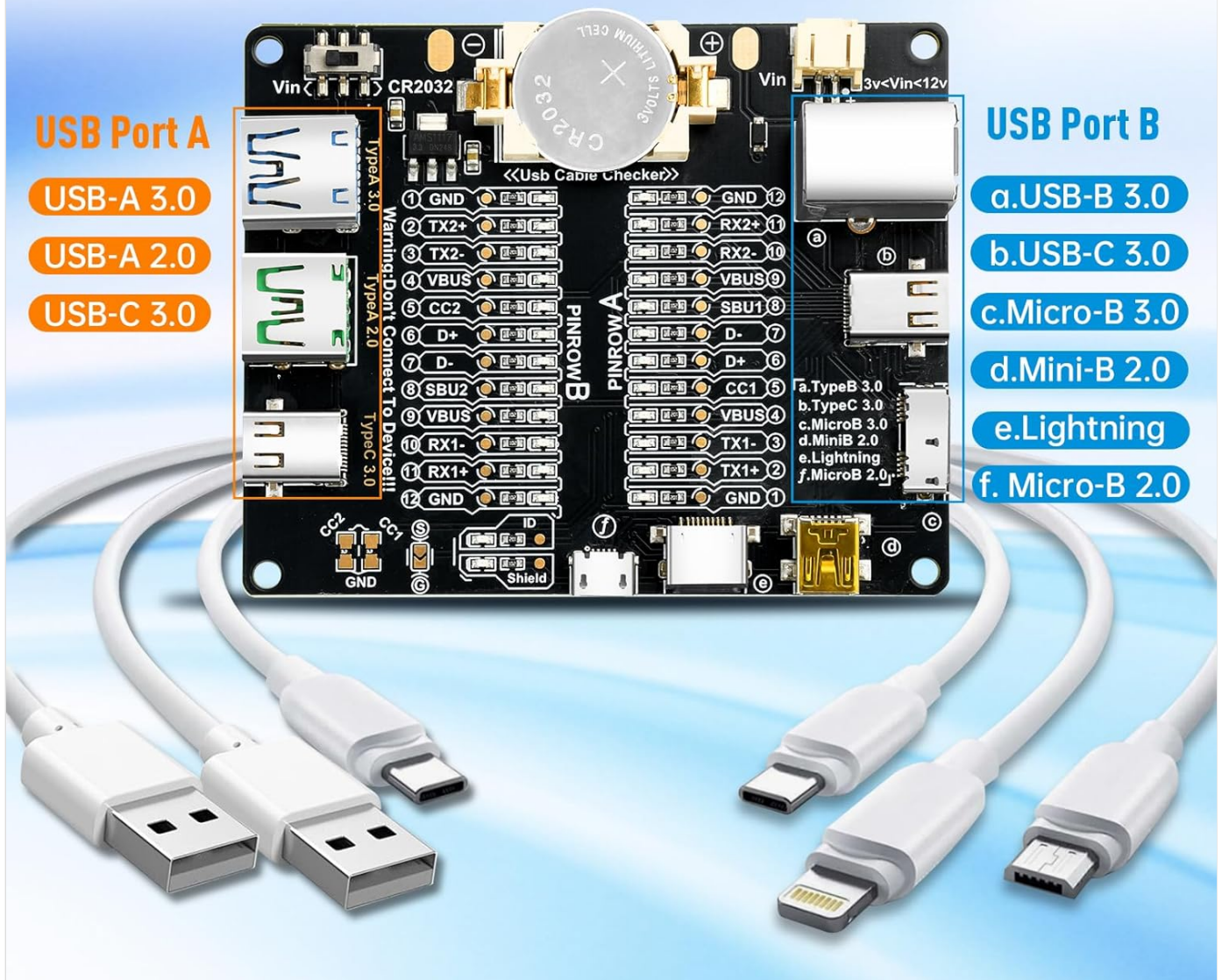


Figure 3: Powering the device. Method 1 shows inserting a CR2032 battery into its holder. Method 2 shows connecting an external power source via the USB-C port labeled "Vin".

- **CR2032 Button Cell Battery:** Insert a CR2032 battery into the designated battery holder on the board. Ensure the positive (+) side faces upwards.
- **External Power (DC3-12V):** Connect a DC3-12V power source to the "Vin" port (typically a USB-C port) on the tester. This option provides protection against incorrect directional connections.

Important Note: If using the CR2032 battery, ensure the metal plate is correctly positioned on top of the battery, otherwise the product may not power on.



Figure 4: Correct CR2032 battery installation. The image highlights the CR2032 battery in its holder and a note stating that the metal plate must be placed on top of the battery for the device to power on.

OPERATING INSTRUCTIONS

The Heemol USB Cable Tester is designed for straightforward operation. Follow these steps to test your USB cables:

- Power On:** Ensure the device is powered on using either the CR2032 battery or an external DC3-12V power supply.
- Connect Cable:** Plug one end of the USB cable into the appropriate port on "USB Port A" (left side) and the other end into the corresponding port on "USB Port B" (right side). For example, if testing a USB-C to USB-C cable, plug one end into the USB-C 3.0 port on Port A and the other into the USB-C 3.0 port on Port B.
- Observe LEDs:** The 24 LED indicators will illuminate to show the connection status of each pin. A lit LED indicates a successful connection for that specific pin.
- Interpret Results:** Refer to the LED indication patterns below to understand the cable's functionality.

LED Indication Patterns:

Problem	Possible Cause	Solution
Device does not power on.	<p>CR2032 battery is dead or incorrectly installed.</p> <p>Metal plate on CR2032 battery is missing or misplaced.</p> <p>External power supply is not connected or faulty.</p>	<p>Replace CR2032 battery or ensure correct polarity and metal plate placement.</p> <p>Check external power connection and ensure it's within DC3-12V range.</p>
No LEDs light up when cable is connected.	<p>Cable is severely damaged or completely open circuit.</p> <p>Cable is not fully inserted into ports.</p> <p>Device is not powered on.</p>	<p>Ensure the device is powered on.</p> <p>Firmly insert both ends of the cable into the correct ports.</p> <p>Try testing with a known good cable to verify tester functionality.</p>
Only some LEDs light up (e.g., only charging).	<p>Cable is damaged, resulting in broken data lines.</p> <p>Cable is a charge-only cable.</p>	<p>This indicates the cable's actual functionality. If data transfer is expected, the cable is faulty.</p> <p>Replace the cable if full functionality is required.</p>
Inconsistent LED readings.	<p>Loose connection at the tester ports.</p> <p>Intermittent fault within the cable.</p>	<p>Ensure cables are securely plugged in.</p> <p>Gently wiggle the cable ends while connected to observe if LEDs flicker, indicating an intermittent fault.</p>

SPECIFICATIONS

Feature	Detail
Brand	Heemol
Model Number	Micro / Type A / Type B / Type C
Supported Cable Types	USB-B 3.0, USB-B 2.0, USB-C 3.0/3.1/3.2, Micro-B 3.0, Micro-B 2.0, Mini-B 2.0, Lightning
LED Indicators	24 LEDs (one for each pin)
Power Source	CR2032 button cell battery or External DC3-12V (Vin)
Minimum Operating Voltage	3 Volts (DC)
Product Dimensions	11 x 2.5 x 0.77 cm (approx. 4.33 x 0.98 x 0.30 inches)
Product Weight	0.07 grams (approx. 0.002 ounces)

USB-Kabel-Testplatine

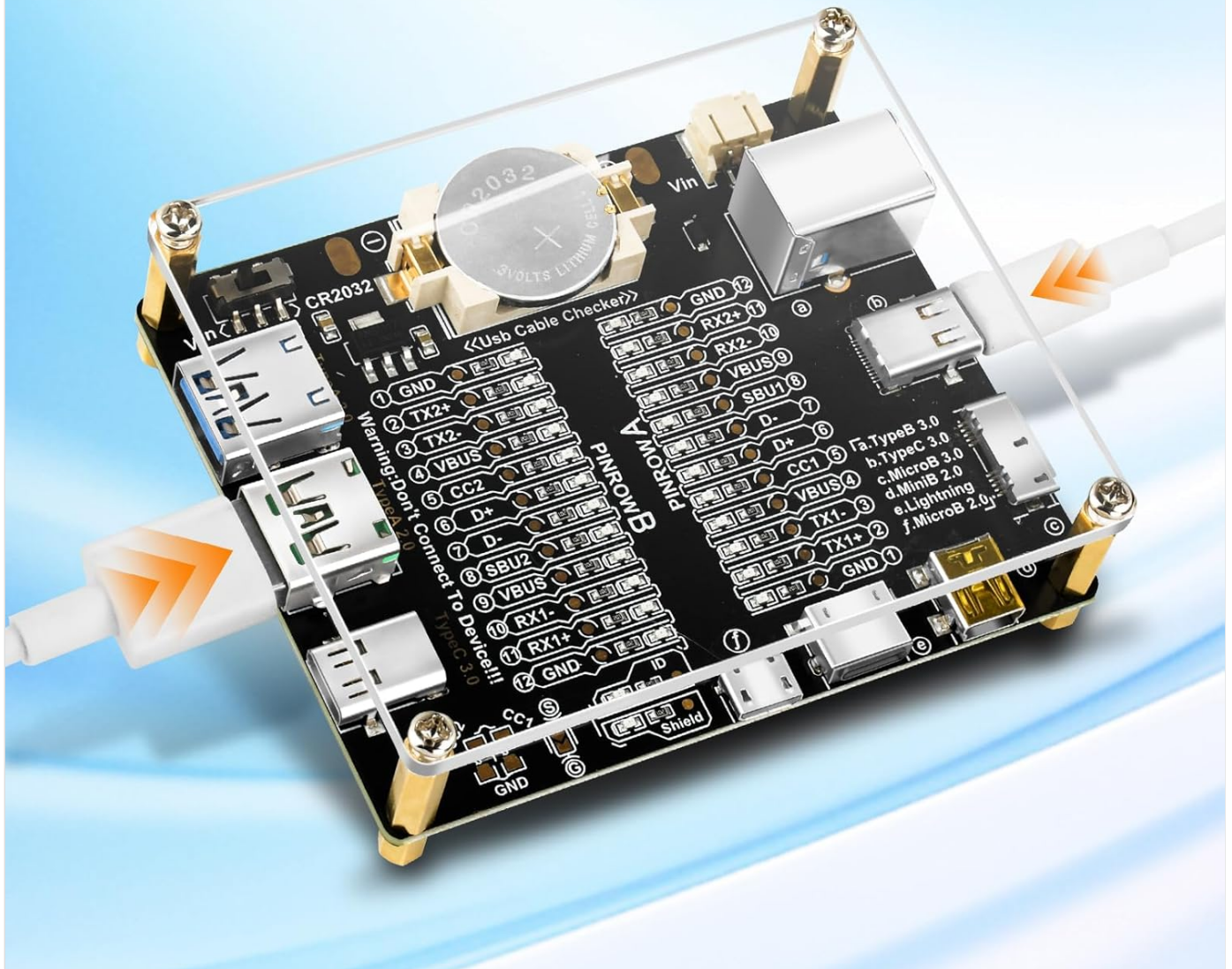


Figure 6: Dimensions of the Heemol USB Cable Tester, showing approximate measurements of 7cm by 8.5cm.

MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the device. Do not use abrasive cleaners or solvents.
- **Storage:** Store the cable tester in a clean, dry environment, away from direct sunlight and extreme temperatures.
- **Battery Replacement:** If using the CR2032 battery, replace it when the LEDs become dim or the device fails to power on. Ensure proper disposal of old batteries according to local regulations.

WARRANTY AND SUPPORT

Heemol products are designed for reliability and performance. For warranty information or technical support, please refer to the contact details provided with your purchase or visit the official Heemol website. Please have your product model number (Micro / Type A / Type B / Type C) and purchase date ready when contacting support.

Manufacturer: Heemol

