KLEIN TOOLS VDV500-705

Klein Tools VDV500-705 Wire Tracer Tone Generator and Probe Kit User Manual

Model: VDV500-705

Introduction

This manual provides instructions for the safe and effective operation of the Klein Tools VDV500-705 Wire Tracer Tone Generator and Probe Kit. This kit is designed for toning and tracing non-energized wires, performing continuity tests, and conducting pin-to-pin wire map tests on various cable types including Ethernet, telephone, speaker, coax, video, and data cables (RJ45, RJ11, RJ12).
For additional information, please refer to the officialInstructions for Use (IFU) PDF.

Safety Information

WARNING: Read all instructions and safety information carefully before using this instrument.

- Do NOT use on energized circuits.
- Do not use instruments if wet, as this could pose a shock hazard.
- Do not use instruments if damaged in any way.
- Turn off instrument and disconnect all test leads before attempting to replace batteries.
- Do not open the case, other than the battery compartment.
- Battery door must be in place and secure before you operate.

Package Contents

The Klein Tools VDV500-705 kit includes the following items:

- Tone Generator (VDV500-705T)
- Tracing Probe (VDV500-705P)
- Alligator Clip Test Leads
- RJ45 to RJ45 Test Cable
- 4 AAA Batteries (pre-installed or included separately)



Image: The complete Klein Tools VDV500-705 kit, showing the tone generator, tracing probe, alligator clip leads, and RJ45 cable.

Key Features

- **Easy Wire Tracing:** Simple analog tone generator and wire tracing probe for open-ended, non-active wire runs.
- **Durable and Responsive Probe:** Features a non-metallic, conductive tip for accurate and reliable wire tracing.
- **Alligator Clips:** Included for convenient connection to unterminated wires.
- **RJ45 to RJ45 Test Cable:** For seamless connectivity during testing and wire mapping.
- **Comprehensive Wire Mapping:** The toner and probe together perform a pin-to-pin wire map test.
- **Work Light Functionality:** Probe tip includes an LED work light for use in dark spaces.
- **Adjustable Volume Control:** Allows for customized audio output on the probe.
- **Headphone Jack:** For use in noisy environments (headphones not included).



Image: Close-up of the VDV500-705T Tone Generator, highlighting RJ11/12 and RJ45 ports, analog toning, pin-to-pin wire mapping, and continuity testing capabilities.



Image: Close-up of the VDV500-705P Tracing Probe, highlighting its durable non-metallic tip, LED work light, headphone jack, and RJ45 port for wire mapping.

Setup

Battery Installation

Both the Tone Generator and the Tracing Probe require AAA batteries for operation. Ensure batteries are installed correctly before use.

1. Locate the battery compartment on the back of each device.
2. Open the battery compartment cover.
3. Insert the required AAA batteries, observing correct polarity (+/-).
4. Securely close the battery compartment cover.

Note: 4 AAA batteries are included with the kit.

Operating Instructions

1. Wire Tracing (Toning)

This function helps identify a specific wire within a bundle or locate the termination point of an open-ended, non-energized wire.

1. **Connect the Tone Generator:**
    - For unterminated wires: Use the included alligator clips to connect the tone generator to the wire pair you wish to trace. Connect one clip to one conductor and the other clip to the second conductor (or ground, if applicable).
    - For RJ45/RJ11/RJ12 jacks: Plug the appropriate end of the RJ45 to RJ45 test cable (or other suitable cable) into the tone generator's port and the other end into the jack connected to the wire you want to trace.



Image: The tone generator connected to an unterminated cable using alligator clips, ready for tracing.

2. **Activate the Tone Generator:** Turn the dial on the tone generator to the "TONE" position. The power indicator LED should illuminate.
3. **Use the Tracing Probe:**

- Turn on the tracing probe by pressing the power button.
- Adjust the volume control on the probe to a comfortable level.
- Scan the probe's tip along the suspected wire path or cable bundle. The probe will emit an audible tone when it detects the signal from the tone generator.
- The work light on the probe can be activated for use in dimly lit areas.
- For noisy environments, connect headphones (not included) to the probe's headphone jack.



Image: A hand holding the tracing probe, with its work light illuminated, scanning a bundle of wires to locate a specific cable.

4. **Identify the Wire:** Follow the strongest tone to identify the target wire.

2. Continuity Testing

This function checks for an electrical connection between two points, indicating if a circuit is complete or broken.

1. **Connect the Tone Generator:** Use the alligator clips to connect the tone generator to the two points you want to test for continuity.
2. **Activate Continuity Test:** Turn the dial on the tone generator to the "CONT" position.
3. **Interpret Results:**

- If continuity exists, the "CONT" LED on the tone generator will illuminate.
- If there is no continuity (an open circuit), the LED will remain off.

3. Pin-to-Pin Wire Map Test

This test verifies the correct wiring configuration of network or telephone cables (e.g., RJ45, RJ11/12).

1. **Connect the Tone Generator:** Plug one end of the RJ45 to RJ45 test cable into the tone generator's RJ45 port.
2. **Connect the Tracing Probe:** Plug the other end of the RJ45 to RJ45 test cable into the tracing probe's RJ45 port.
3. **Activate Wire Map Test:** Turn the dial on the tone generator to the "TEST" position.
4. **Interpret Results:**
    - The LEDs on both the tone generator and the tracing probe will sequentially illuminate, indicating the pin-to-pin connection status.
    - If the wiring is correct, the LEDs on both devices will light up in the same sequence (1-8).
    - Any discrepancies (e.g., open circuits, shorts, crossed pairs, split pairs) will be indicated by non-illuminated LEDs or incorrect sequencing.

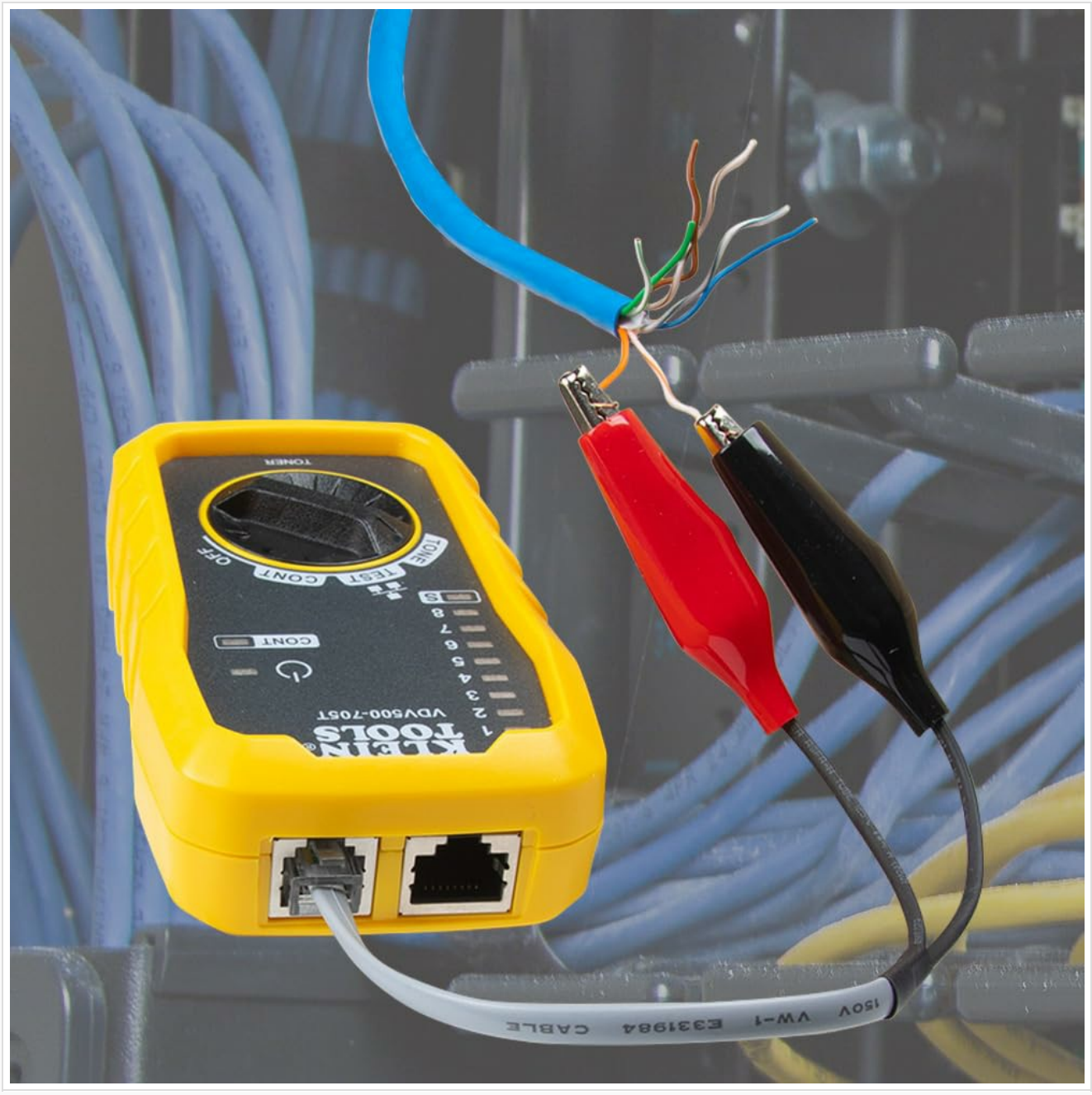


Image: The tone generator and tracing probe connected via an RJ45 cable, demonstrating a pin-to-pin wire map test.

Maintenance

Cleaning

Wipe the instrument with a clean, dry, lint-free cloth. Do not use abrasive cleaners or solvents.

Battery Replacement

Replace batteries when the low battery indicator illuminates or when the device performance degrades. Refer to the "Battery Installation" section under "Setup" for instructions.
WARNING: Turn off the instrument and disconnect all test leads before replacing batteries.

Troubleshooting

Problem	Possible Cause	Solution
No tone detected by probe.	Tone generator not powered on or low battery. Probe not powered on or low battery. Incorrect connection to the wire. Wire is energized. Excessive noise in environment.	Check tone generator power and battery. Check probe power and battery. Ensure proper connection to the target wire. Verify wire is non-energized. Use headphones with the probe.
Inaccurate wire map test results.	Faulty test cable. Poor connection. Damaged cable under test.	Try a different RJ45 test cable. Ensure cables are fully seated in ports. Inspect the cable for visible damage.
Continuity LED does not light up.	Open circuit. Poor connection.	Verify the circuit is complete. Ensure alligator clips have good contact.

Specifications

- **Model Number:** VDV500-705
- **Power Source:** Battery Powered (4 AAA batteries required, included)
- **Product Dimensions:** 10.5 x 7.2 x 1.5 inches (26.7 x 18.3 x 3.8 cm)
- **Item Weight:** 10.1 ounces (286 grams)
- **Manufacturer:** Klein Tools
- **Date First Available:** January 29, 2020
- **Connectivity:** RJ45, RJ11, RJ12, Alligator Clips
- **Functions:** Tone Generation, Wire Tracing, Continuity Testing, Pin-to-Pin Wire Mapping

Warranty and Support

For warranty information or technical support, please contact Klein Tools directly or visit their official website. Keep your purchase receipt as proof of purchase.
Manufacturer: Klein Tools
Website: www.kleintools.com

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