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> Klein Tools MM320KIT Digital Multimeter Electrical Test Kit Instruction Manual

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Model: MM320KIT

1. INTRODUCTION

The Klein Tools MM320KIT Digital Multimeter Electrical Test Kit is a comprehensive set designed for reliable and safe electrical measurements. This kit includes the MM320 Digital Multimeter, NCVT-3P Non-Contact Voltage Tester with Flashlight, ET45 Voltage Tester, RT210 GFCI Receptacle Tester, and a padded storage pouch.



Image: Overview of the Klein Tools MM320KIT, showing the digital multimeter, non-contact voltage tester, voltage tester, receptacle tester, and test leads.

2. SETUP

2.1. Battery Installation

The MM320 Digital Multimeter requires 2 AAAA batteries (included). The NCVT-3P Non-Contact Voltage Tester also requires batteries. The ET45 Voltage Tester does not require batteries for operation. Refer to individual product manuals for detailed battery installation instructions.

2.2. Test Lead Connection (MM320)

Connect the black test lead to the 'COM' (common) input jack and the red test lead to the appropriate input jack based on the desired measurement (e.g., 'VΩmA' for voltage, resistance, or current up to 200mA; '10A' for current up to 10A).

**KLEIN
TOOLS** 

Since 1857

MANUAL-RANGING

**AC/DC Voltage, Current,
and Resistance**

**Tests Batteries, Diodes,
and Continuity**

Auto Power-Off

600V 

10A 

2M Ω



**CAT III
600V**



Image: The MM320 Digital Multimeter, highlighting its manual-ranging capabilities for AC/DC voltage, current, and resistance, along with battery, diode, and continuity testing functions.

3. OPERATING INSTRUCTIONS

3.1. MM320 Digital Multimeter

The MM320 accurately measures up to 600V AC/DC voltage, 10A DC current, and 2 ohm resistance. It also tests batteries, diodes, and continuity. Select the desired function using the rotary dial. The 'HOLD' button allows you to freeze the displayed reading.



Image: The MM320 Digital Multimeter shown with its integrated kickstand extended for convenient viewing during use.

3.2. NCVT-3P Non-Contact Voltage Tester

This tester detects AC voltage from 12 to 1000V AC or 70 to 1000V AC. It features a bright flashlight for illuminating the work area, which can be used independently of the voltage detection function. Visual and audible alarms indicate the presence of voltage.

Video: Official Klein Tools video demonstrating the features and use of the Non-Contact Voltage Tester, including its dual-range detection, integrated flashlight, and safety features.



Image: The NCVT-3P Non-Contact Voltage Tester, highlighting its dual-range AC voltage detection (12-1000V AC or 70-1000V AC) and integrated flashlight.

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IP67



2 m

70 – 1000V AC

DUAL-RANGE

12 – 1000V AC

**CAT IV
1000V**



**TOUGH
METER**



**Easy-to-read
Dual Mode
LED Indicators**

Flashlight Can be used
independent of voltage detection

Image: A hand using the Klein Tools NCVT-3P Non-Contact Voltage Tester to check for voltage on a circuit breaker, demonstrating its non-contact functionality.

3.3. ET45 Voltage Tester

The ET45 tests AC voltages from 28V to 240V AC and DC voltages from 32V to 330V. It features a built-in test lead holder on the back, providing two positions for correctly spacing the leads for testing tamper-resistant outlets or for convenient storage.

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Test voltage at four
AC/DC LEVELS:

AC: 24V, 48V, 120V, 240V
DC: 32V, 64V, 160V, 330V

TEST LEAD HOLDERS
spaced for testing tamper-resistant US-style outlets



3 m

**CAT IV
600V**



IP44

**CAT III
350V**

NO BATTERIES REQUIRED!



Image: The Klein Tools ET45 Voltage Tester, showing its ability to test voltage at four AC/DC levels and its convenient test lead holders.



Image: A hand using the Klein Tools ET45 Voltage Tester to check an electrical outlet, demonstrating the use of its test leads.

3.4. RT210 GFCI Receptacle Tester

The RT210 detects the most common wiring problems in standard and GFCI receptacles, including open ground, reverse polarity, open hot, open neutral, and hot/ground reversed. It also confirms the operation of the ground fault protective device.

**KLEIN
TOOLS** 

Since 1857

**Detects the
most common
wiring problems
in standard and
GFCI receptacles**

**Confirms operation
of the ground fault
protective device**

**Nominal Voltage:
110/125V AC at 50/60Hz
in 3-wire outlet**



Image: The Klein Tools RT210 GFCI Receptacle Tester, illustrating its ability to detect common wiring problems and confirm GFCI operation.



Image: The Klein Tools RT210 GFCI Receptacle Tester plugged into an electrical outlet, showing its indicator lights for wiring status.

4. MAINTENANCE

Regularly inspect all components for any signs of damage, such as cracked casings or frayed leads. Clean the tools with a dry, lint-free cloth. Store the kit in its padded pouch in a dry environment to prevent damage.

Replace batteries in the MM320 and NCVT-3P as needed to ensure accurate readings and proper functionality. Refer to the specific manual for each tool for detailed battery replacement procedures.

5. TROUBLESHOOTING

5.1. Multimeter Not Powering On

- Check battery installation and ensure batteries are correctly oriented.
- Replace batteries with new ones if they are low or depleted.

5.2. Inaccurate Readings

- Ensure test leads are securely connected to the correct input jacks.
- Verify the rotary dial is set to the appropriate measurement function and range.
- Check battery levels; low batteries can affect accuracy.

5.3. Non-Contact Voltage Tester Not Detecting Voltage

- Ensure the tester is powered on.
- Check battery levels and replace if necessary.
- Confirm the voltage range setting is appropriate for the application.

6. SPECIFICATIONS

Feature	Specification
Brand	Klein Tools
Model Number	MM320KIT
Product Dimensions	12.4 x 7.91 x 2.24 inches
Item Weight	1.56 Pounds
Power Source	Battery Powered
Batteries	2 AAAA batteries required (included)
Country of Origin	China

7. WARRANTY AND SUPPORT

For over 160 years, Klein Tools has manufactured premium-quality, professional-grade hand tools that deliver the performance, durability, and precision needed to get the job done right. For detailed warranty information and customer support, please refer to the official Klein Tools website or the documentation included with your product. An official Instructions for Use (IFU) PDF document is available for download: [Instructions for Use \(PDF\)](#)