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## KLEIN TOOLS NCVT6

# Klein Tools NCVT-6 Non-Contact Volt Tester

Model: NCVT6

## INTRODUCTION

The Klein Tools NCVT-6 is a versatile non-contact voltage tester (NCVT) with an integrated laser distance meter. This tool is designed for detecting AC voltage across a full range from 12 to 1000 VAC. It also accurately measures distances from 2 inches (51 mm) up to 66 feet (20 m). The laser distance meter operates independently from the NCVT function, offering an intuitive, single-button interface for seamless switching between voltage detection and distance measurements. This instrument provides both visual and audible indicators for clear feedback during operation.

## IMPORTANT SAFETY INFORMATION

**Read, understand, and follow all instructions, cautions and warnings attached to and/or packed with all test and measurement devices before each use.**

- Never assume neutral or ground wires are de-energized. Neutrals in multi-wire branch circuits may be energized when disconnected and must be retested before handling.
- **LASER RADIATION, Class II laser. DO NOT direct laser beam into eyes, DO NOT stare into the beam, or DO NOT view directly with optical instruments as this can cause severe and permanent eye damage.**
- Always adhere to local and national safety codes. Use personal protective equipment to prevent shock and arc blast injury where hazardous live conductors are exposed.
- Usage of this tester in any way other than that specified by the manufacturer can impair safe operation, resulting in severe injury or death.

## WHAT'S IN THE BOX

- Klein Tools NCVT-6 Non-Contact Volt Tester
- 2 x Alkaline 1.5V AAA Batteries (pre-installed or included separately)

## SETUP

### Battery Installation

The NCVT-6 requires two AAA batteries for operation. These are typically included with the device. To install or replace batteries:

1. Unscrew the battery cap located at the rear of the tester.

2. Insert two 1.5V AAA alkaline batteries, ensuring correct polarity (+/-) as indicated inside the compartment.
3. Securely screw the battery cap back into place. Ensure it is tightened to prevent accidental power-on or battery drain.



Figure 1: Battery compartment at the rear of the NCVT-6. Unscrew the cap to access the battery slot.

## OPERATING INSTRUCTIONS

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### Non-Contact Voltage (NCVT) Detection

The NCVT-6 can detect AC voltage from 12V to 1000V. To use the NCVT function:

1. Press the NCV button to activate the non-contact voltage detection mode. The display will show "NCV".
2. Hold the tip of the tester near the wire, outlet, or circuit you wish to test.
3. If AC voltage is detected, the LED light at the tip will illuminate red, and an audible alarm will sound. The frequency of the audible alarm increases with higher voltage or closer proximity to the voltage source.
4. Always test on a known live circuit before and after use to confirm proper operation.



Figure 2: Using the NCVT function on a standard electrical outlet.





Figure 3: The NCVT-6 detecting voltage on a heavy-duty power strip, indicated by the red light.

## Laser Distance Measurement

The integrated laser distance meter can measure distances up to 66 feet (20 meters) with high accuracy.

1. Press the Laser button to activate the laser distance meter. A red laser dot will project from the front of the tool.
2. Point the laser dot at the target surface from which you want to measure the distance.
3. The measured distance will be displayed on the screen in your selected units (inches, feet, or meters).
4. To change measurement units, press the "Ft/M" button.
5. The tool can measure from its front or rear. Use the appropriate button to select the measurement reference point.

**KLEIN  
TOOLS** 

Since 1857

**Full Range  
Voltage  
Detection  
12 – 1000V AC**

**66' (20m)  
Laser Distance  
Meter** measures  
in meters, inches  
or feet



**CAT IV  
1000V**



Figure 4: The NCVT-6 displaying its laser distance measurement capabilities.



# EXCELLENT ACCURACY

33' (10 m)  $\pm$  1/16" (0.16 cm)

66' (20 m)  $\pm$  1/8" (0.32 cm)



Figure 5: The NCVT-6 in use, demonstrating its accuracy in distance measurement.



Figure 6: The laser distance meter function being used to measure a distance on a flat surface.

## MAINTENANCE

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- **Cleaning:** Clean the tool with a dry, lint-free cloth. Do not use abrasive cleaners or solvents.
- **Battery Replacement:** Replace batteries when the low battery indicator appears on the display to ensure accurate readings.
- **Storage:** Store the tool in a cool, dry place away from direct sunlight and extreme temperatures. If storing for extended periods, remove the batteries.
- **Durability:** The NCVT-6 features a rugged housing designed to withstand drops from 6.6 feet (2 meters). It is also dust and water resistant with an IP40 rating.



Figure 7: The robust design of the Klein Tools NCVT-6.

## TROUBLESHOOTING

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If the NCVT-6 is not functioning as expected, consider the following common issues:

- **No Power/Display Off:**
  - Check battery level. Replace batteries if low or depleted.
  - Ensure batteries are installed with correct polarity.
  - Verify the battery cap is securely tightened. The tool has a lockout feature that disconnects battery contact if the cap is not fully engaged.
- **Inaccurate Voltage Readings:**
  - Ensure the tip of the tester is in close proximity to the voltage source.
  - Test on a known live circuit to confirm the tester's functionality.
  - Environmental factors or interference from other electrical devices might affect readings.



• **Laser Distance Meter Issues:**

- Ensure the laser is pointed at a solid, non-reflective surface.
- Check for obstructions between the tool and the target.
- Verify the measurement reference point (front or rear of the tool) is correctly selected.

For persistent issues, refer to the official Klein Tools support resources or contact customer service.

**SPECIFICATIONS**

Feature	Detail
Model Number	NCVT6
Brand	KLEIN TOOLS
Voltage Detection Range	12 - 1000V AC
Laser Distance Measure Range	2 inches (51 mm) to 66 feet (20 m)
Accuracy (Distance)	± 1/16 inch (0.16 cm) up to 33 feet (10 m); ± 1/8 inch (0.32 cm) up to 66 feet (20 m)
Power Source	2 x AAA Batteries (included)
Product Dimensions	6.45 x 1.21 x 1.32 inches
Item Weight	2.5 Ounces
Durability Rating	Dust IP40 Resistant, withstands 6.6ft (2m) drops
Safety Rating	CAT IV 1000V

**WARRANTY AND SUPPORT**

Klein Tools stands behind the quality of its products. For warranty information, product support, or to register your NCVT-6, please visit the official Klein Tools website or contact their customer service department. Keep your purchase receipt for warranty claims.

**Contact Information:**

- **Website:** [www.kleintools.com](http://www.kleintools.com)
- Refer to the product packaging or the Klein Tools website for specific contact numbers and addresses.