



# KLEIN TOOLS NCVT-1XT Non-Contact Voltage Tester Instructions

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## KLEIN TOOLS

NCVT-1XT Non-Contact Voltage  
Tester Instructions

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### NCVT-1XT Non-Contact Voltage Tester






1. Power On / Off Button

2. Power On / Low Battery Indicator
3. Voltage Detection LEDs (Inside Tip)
4. Non-Contact Tip
5. Pocket Clip
6. O-ring Seal
7. Battery Cap
8. 2x AAA Batteries (Included)
9. Keep hand and fingers below this line while using tester

**NOTE:** There are no user-serviceable parts inside tester.

- Non-contact detection of 70 to 1000V AC in cables, cords, circuit breakers, lighting fixtures, switches, outlets, and wires

#### **DURABILITY**

<b>Ingress Protection</b>		IP67
<b>Drop Protection</b>		9.8 ft. (3 m)
<b>Safety Rating</b>		CAT IV 1000V



#### **SYMBOLS ON TESTER**



Warning – Risk of electric shock




Risk of danger. **Important information:** It is important that users of this tester read, understand, and follow all warnings, cautions, safety information, and instructions in this manual before operating or servicing this tester. Failure to follow instructions could result in death or serious injury.



Double insulate



Read instructions

 Conforms with European Economic Area directives.

 UK Conformity Assessment



Intertek This product has been independently tested by Intertek and meets applicable published standards.

**CAT IV** For measurements performed at the source of low-voltage installation and outside lines.

## GENERAL SPECIFICATIONS

The Klein Tools NCVT-1XT is a durable 70 to 1000V AC non-contact voltage tester with IP67 rating and a 3m (9.8') drop protection.

- Environment: Indoor
- Measurement Range: 70 to 1000V AC
- Frequency Range: 50 to 500 Hz
- Batteries: 2x AAA 1.5V Alkaline
- Operating and Storage Altitude: Up to 6562 ft. (2000 m)
- Operating and Storage Temp: 14° to 122°F (-10° to 50°C)
- Relative Humidity: <95% non-condensing
- Dimensions: 5.34" x 1.08" x 0.97" (135.6 x 27.4 x 22.1 mm)
- Weight: 1.65 oz (46.7 g) with batteries
- Pollution degree: 2
- Safety Rating: CAT IV 1000V AC
- Drop Protection: 9.8 ft. (3 m)
- Ingress Protection: IP67
- Standards: EN61010-1:2010+A1: 2019,



Intertek  
5001748

EN IEC 61010-2-030:2021+A11:2021.

**Conforms to** UL STD. 61010-1, 61010-2-030

**Certified to** CSA STD. C22.2 No. 61010-1, 61010-2-030.

Specifications subject to change.



## WARNINGS

To ensure safe operation and service of the tester, follow these instructions. Failure to observe these warnings can result in severe injury or death.

- Risk of electric shock and burn. Contact with live circuits could result in death or serious injury.
- Use caution with voltages above 25V AC as a shock hazard may exist.
- A blinking LED or a steadily illuminated LED in the tip and audible beeps indicate presence of voltage. If no indication, voltage could still be present.
- Before and after each use, verify operation by testing a known working circuit that is within the rating of this unit.
- Never assume neutral or ground wires are de-energized. Neutrals in multiwire branch circuits may be energized when disconnected and must be retested before handling.

- The tester WILL NOT detect voltage if:
  - The wire is shielded.
  - The operator is not grounded or is otherwise isolated from an effective earth ground.
  - The voltage is DC.
- The tester MAY NOT detect voltage if:
  - The user is not holding the tester.
  - The user is insulated from the tester with a glove or other materials.
  - The wire is partially buried or in a grounded metal conduit.
  - The tester is at a distance from the voltage source.
  - The field created by the voltage source is being blocked, dampened, or otherwise interfered with.
  - The frequency of the voltage is not a perfect sine wave between 50 and 500Hz.
  - The tester is outside of operating conditions (listed in Specifications section).
- Operation may be affected by differences in socket design and insulation thickness and type; tester may not be compatible with some types of standard or tamper resistant (TR) electrical outlets.
- In bright light conditions, the LED visual indicators will be less visible.
- When powered-ON, one of the “power-ON” LED’s will be illuminated, and a green light will illuminate the tip.  
DO NOT USE TESTER UNLESS ONE OF THE “POWER-ON” LEDs IS ILLUMINATED.
- Do not use if tester appears damaged or is not operating properly. If in doubt, replace the tester.
- Do not apply more than the rated voltage as marked on the tester (1000V).
- Do not apply to uninsulated hazardous live conductors.
- Detection above 70V AC is specified under “normal” conditions as detailed below. The tester may detect at a different threshold at different conditions, or may not detect at all unless:
  - The tip of the tester is within 0.25" (6 mm) of an AC voltage source radiating unimpeded.
  - The user is holding the body of the tester with his or her bare hand.
  - The user is standing on or connected to earth ground.
  - The air humidity is nominal (50% relative humidity – non-condensing).
  - The tester is held still.
- Always wear approved eye protection.
- Comply with local and national safety requirements.
- If this product is used in a manner not specified by the manufacturer, protection provided by the product may be affected.



- **DO NOT** attempt to repair this tester. It contains no serviceable parts.
- **DO NOT** expose tester to extremes in temperature or high humidity.

## FUNCTION BUTTONS

### NCV POWER ON/OFF BUTTON 1

Press and release the NCV Power button **1** . The tester will emit a single beep, the Power On Indicator **2** and green LED **3** in the tip will illuminate. To power-OFF the tester, press and release the Power On / Off button **1** . The tester will emit a double beep.

**NOTE:** The tester will automatically power-OFF following 4 minutes of inactivity to conserve battery life.

## OPERATING INSTRUCTIONS

### CHECKING FOR THE PRESENCE OF AC VOLTAGE

1. Press the Power On / Off button. After performing a self-test, a green LED **3** will illuminate the tip when no voltage is detected.
2. Prior to use, test on a known live circuit to verify tester functionality.
3. Place tip of the tester **4** near AC voltage. If voltage is present, the unit will emit audible beeps and the red LED **3** in the tip will illuminate.

### SILENT OPERATION

To activate silent operation, power-ON by pressing and holding the NCV Power-ON button **1** for more than **2** seconds. Power-ON in this manner each time silent operation is desired.

### MAINTENANCE

#### BATTERY REPLACEMENT

When the battery is low, the unit will power-on with a blinking red LED **2** . When this happens, the batteries must be replaced:

1. Unscrew the battery cap **7** and remove/recycle spent batteries.
2. Install two new AAA batteries. Note proper polarity.
3. Screw battery cap tightly to ensure a tight seal with the O-Ring **6** .

### CLEANING

Be sure tester is turned off and wipe with a clean, dry lint-free cloth. Do not use abrasive cleaners or solvents.

### STORAGE

Remove the batteries when not in use for a prolonged period of time. Do not expose to high temperatures or humidity. After a period of storage in extreme conditions exceeding the limits mentioned in the General Specifications section, allow the tester to return to normal operating conditions before using.

### FCC AND IC COMPLIANCE

See this product's page at [www.kleintools.com](http://www.kleintools.com) for FCC compliance information.

Canada ICES-003 (B) / NMB-003 (B)

### DISPOSAL / RECYCLE



Do not place equipment and its accessories in the trash.

Items must be properly disposed of in accordance with local regulations. Please see [www.epa.gov/recycle](http://www.epa.gov/recycle) for additional information.

### CUSTOMER SERVICE

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[www.kleintools.com](http://www.kleintools.com)

### Documents / Resources



[KLEIN TOOLS NCVT-1XT Non-Contact Voltage Tester](#) [pdf] Instructions  
NCVT-1XT, Non-Contact Voltage Tester, Voltage Tester, Non-Contact Tester, Tester

## References

-  [Reduce, Reuse, Recycle | US EPA](#)
-  [Klein Tools - For Professionals since 1857 | Klein Tools](#)