

# KLEIN TOOLS NCVT3P Contact Voltage Tester with Flashlight Instructions

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KLEIN TOOLS NCVT3P Contact Voltage Tester with Flashlight



# **Specifications**

• Product Name: Klein Tools NCVT3P

• Type: Dual-range non-contact voltage tester with flashlight

• Voltage Detection Range:

Mode 1: 70 to 1000V ACMode 2: 12 to 1000V AC

• Operating Mode: Silent Operation available

• Standards Compliance: EN61326-1, EN61326-2-2, UL STD. 61010-1, 61010-2-030

# **Product Usage Instructions**

# **Operating Instructions:**

Refer to the other side of the tester for detailed operating instructions.

# Using the NCVT3P:

- 1. To activate silent operation, press the NCV button for voltage testing.
- 2. For Mode 1 (70-1000V AC), the red LED at the tip blinks with a continuous audible signal.
- 3. For Mode 2 (12-1000V AC), the blue LED at the tip blinks with a pulsating audible signal.

# **Maintenance and Battery Replacement:**

- 1. To replace batteries:
  - Turn the battery cap counterclockwise to remove it.
  - Take out the empty batteries for recycling.
  - Insert new batteries and screw the cap back on securely.

- Q: What is the voltage detection range of the NCVT3P?
  - A: The NCVT3P can detect voltage from 70 to 1000V AC in Mode 1 and from 12 to 1000V AC in Mode 2.
- Q: How do I activate silent operation on the NCVT3P?
  - A: Press the NCV button to enable silent operation for voltage testing.
- Q: How can I replace the batteries in the NCVT3P?

A: Turn the battery cap counterclockwise to access the batteries, remove the old ones for recycling, insert new batteries, and securely screw the cap back on.

#### **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 multi-wire 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 in Mode 1, or above 12V AC in Mode 2 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.

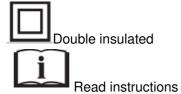
#### **CAUTION**

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

## **SYMBOLS ON TESTER**



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.



Conformité Européenne:

Conforms with European Economic Area directives.

AUKCA: UK Conformity Assessment



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.

#### **FEATURE DETAILS**

- 1. NCV Power On/Off Button
- 2. Flashlight Power On/Off Button
- 3. Power On/Mode LEDs
- 4. Voltage Detection LEDs (Inside Tip)

- 5. Non-Contact Tip
- 6. Flashlight
- 7. Pocket Clip
- 8. O-ring Seal
- 9. Battery Cap
- 10. 2× AAA Batteries (Included)

#### **OPERATING INSTRUCTIONS: SEE OTHER SIDE**



## **GENERAL SPECIFICATIONS**

The Klein Tools NCVT3P is a dual-range non-contact voltage tester (NCVT) with flashlight. It can detect voltage from 70 to 1000V AC (Mode 1), or from 12 to 1000V AC (Mode 2) for low voltage and higher sensitivity.

· Environment: Indoor

Measurement Range: Mode 1: 70 to 1000V AC Mode 2: 12 to 1000V AC

Frequency Range: 50 to 500 Hz
Batteries: 2× AAA 1.5V Alkaline

• Operating and Storage Altitude: 6562 ft. (2000 m)

Operating and Storage Temp: 14° to 122°F (-10° to 50°C)

• Relative Humidity: <95% non-condensing

• Dimensions: 6.0" × 0.96" × 1.16" (152 × 24 × 29 mm)

• Weight: 2.5 oz. (72 g) including batteries

• Pollution degree: 2

· Safety Rating: CAT IV 1000V AC

• Drop Protection: 6.6 ft. (2 m)

• Ingress Protection: IP67

Standards: EN61010-1, EN61010-2-030,

EN61326-1, EN61326-2-2.

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.

## **FUNCTION BUTTONS**

# **NCV POWER ON/OFF BUTTON 1**

To activate the Non-Contact Voltage Testing feature, press and release the NCV Power button 1 . All LEDs will illuminate during self-test, then the tester will emit a single beep, one of the Power ON LEDs 3 will illuminate 3 indicating which NCVT mode is active (see OPERATING INSTRUCTIONS), and a green light will illuminate in the tip 4 . To power-OFF the tester, press and hold the NCV Power 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. FLASHLIGHT ON/OFF BUTTON 2

Press the Flashlight Power Button 2 to turn on the flashlight. Press again to turn off the flashlight. NOTE: The flashlight will automatically power-off after 20 minutes to conserve battery life.

#### **OPERATING INSTRUCTIONS**

## **SELECTING VOLTAGE TESTING MODE 2**

NCVT3P can detect voltage in two distinct modes, defined by the voltage ranges to which the tester is sensitive. Mode 1 detects 70 to 1000V AC, Mode 2 detects 12 to 1000V AC. With the tester powered-ON, successive presses of the NCV Power-ON button 1 will switch the tester between modes 1 and 2. The Power-ON indicator LED's 3 will indicate the currently active mode. The tester will power-ON in the mode that was most recently used.

#### CHECKING FOR THE PRESENCE OF AC VOLTAGE

- 1. Press NCV Power On/Off button. After performing a self-test, a green light 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 5 near AC voltage. If voltage is present, the unit will emit audible beeps and the LEDs in the tip 4 will illuminate:

Mode	Power-On LED C olor	12 to 70V AC	>70 to 1000V AC
Mode 1 70 – 1000V R ange	Red	No illumination, no sound	Red LED in tip 4 illuminated, cont inuous audible beep
Mode 2 12 – 1000V R ange	Blue	Blue LED in tip 4 blinking, pulsi ng audible beep	Red LED in tip 4 illuminated, cont inuous audible beep

**NOTE**: In Mode 2, the tester is more sensitive to high voltage sources and electrically noisy environments. It is recommended to set the tester to operate in Mode 1 when expected voltages are above 70V AC.

## **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 3; at this point the NCVT3P will disable the flashlight functionality to conserve battery function for voltage detection.

- 1. Unscrew the battery cap 9 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 8.

#### **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 batteries when not in use for 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 & IC COMPLIANCE**

See this product's page at <a href="https://www.kleintools.com">www.kleintools.com</a> 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 <a href="https://www.epa.gov/recycle">www.epa.gov/recycle</a> for additional information.

customerservice@kleintools.com www.kleintools.com

# **Documents / Resources**



KLEIN TOOLS NCVT3P Contact Voltage Tester with Flashlight [pdf] Instructions NCVT3P Contact Voltage Tester with Flashlight, NCVT3P, Contact Voltage Tester with Flashlight, Voltage Tester with Flashlight, Tester with Flashlight

# References

- Reduce, Reuse, Recycle | US EPA
- Wilein Tools For Professionals since 1857 | Klein Tools
- User Manual

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