



# Klein Tools ET45 Voltage Tester Instruction Manual

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Klein Tools ET45 Voltage Tester



# **PRODUCT OVERVIEW**

- 1. Test Leads
- 2. Test Lead Holders
- 3. Voltage Indicators
- 4. Pocket Clip

 $\ensuremath{\text{NOTE:}}$  There are no user-serviceable parts inside the tester.



## **SPECIFICATIONS**

#### Measurement

- AC Voltage
- DC Voltage 330V
- Battery-Free Operation

# Durability

- IP44 • Ingress Protection 9.8 ft. (3 m) Drop Protection CAT III 350V
- Safety Rating <!

## 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.

- Read instructions
- Double insulated
- AC Voltage
- DC Voltage
- COM Negative Lead Input
- Positive Lead Input

#### **GENERAL SPECIFICATIONS**

• Operating Altitude: Up to 6562 ft. (2000 m)

• Relative Humidity: <85% non-condensing

- Operating Temperature:  $5^{\circ}$  to  $113^{\circ}F$  (-15° to  $45^{\circ}C$ )

• Storage Temperature: -4° to 140°F (-20° to 60°C)

• **Dimensions:** 4.45" × 1.19" × 1.05" (113 × 30 × 27 mm)

• Weight: 1.8 oz. (52 g)

• Calibration: Accurate for one year

· Standards:

- EN61326-1:2013, EN61326-2:2013, EN61010-1:2010, EN61010-2-030:2010, EN61010-031:2015
- Conforms to UL STD. 61010-1, 61010-2-030 and 61010-031.
- Certified to CSA STD. C22.2 NO. 61010-1, 61010-2-030 and 61010-031.

• Pollution degree: 2

• Drop Protection: 9.8 ft. (3 m)

• Ingress Protection: IP44

- Safety Rating: CAT III 350V, Class 2, double insulation
  - CAT III: Measurement category III is applicable to test and measuring circuits connected to the distribution part of the building's low-voltage MAINS installation.
- Electromagnetic Environment: This equipment meets requirements for use in basic and controlled electromagnetic environments like residential properties, business premises, and light-industrial locations.

Specifications subject to change.

## **ELECTRICAL SPECIFICATIONS**

- Voltage Level Indicators:
  - AC: 24V, 48V, 120V, 240V
  - DC: 32V, 64V, 160V, 330V
- AC Frequency: 50Hz / 60Hz
- Maximum Measurable Voltage: 240V AC / 330V DC (displayed by indicator lights)
- Loop Current: <4.5mA at 240V AC / 330V DC
- Accuracy: Voltage level indicators typically illuminate at >90% of the indicated range (except for 24V AC / 32V DC, >95% of range)

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.

- Before each use verify tester operation by measuring a known voltage.
- Never use the tester on a circuit with voltages that exceed the category based rating of this tester.
- Do not use the tester during electrical storms or in wet weather.
- Do not use the tester or test leads if they appear to be damaged.
- Keep fingers behind the finger guards and away from the metal probe contacts when making measurements.
- Use caution when working with voltages above 25V AC RMS or 60V DC. Such voltages pose a shock hazard.
- 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.
- Tester is IP44 dust & water resistant. Following any contact with water, thoroughly dry tester prior to subsequent use.

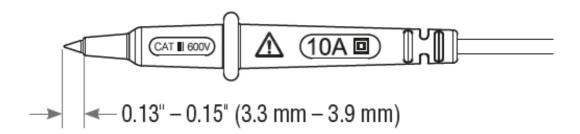
# A CAUTION

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

#### **OPERATING INSTRUCTIONS**

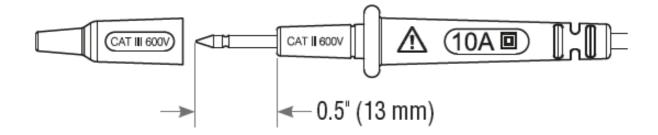
#### **TESTING IN CAT III / CAT IV MEASUREMENT LOCATIONS**

Ensure the test lead shield is pressed firmly in place. Failure to use the CATIII / CATIV shield increases arc-flash risk.



#### **TESTING IN CAT II MEASUREMENT LOCATIONS**

CAT III / CAT IV shields may be removed for CAT II locations. This will allow testing on recessed conductors such as standard care not to lose the shields.



#### **OPERATING INSTRUCTIONS**

Apply test leads 1 to the system under test to measure AC or DC voltage; the voltage level indicators 3 will light up indicating the magnitude of the voltage present.

**NOTE:** Test-leads seated in the lead holders 2 on the back of the unit are spaced correctly to test tamper-resistant US-style outlets.

DO NOT attempt to measure voltages in excess of 240V AC or 330V DC. Voltages in excess of 240V AC or 330V DC will illuminate the 240V AC / 330V DC indicator. No other warnings will be delivered for voltages above 240V AC or 330V DC.

#### **CLEANING**

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

#### **STORAGE**

 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.

### **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">www.epa.gov</a> or <a href="https://wwww.epa.gov">www.epa.gov</a> or <a href="https://www.epa.gov">www.epa.gov<

#### **CUSTOMER SERVICE**

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## FREQUENTLY ASKED QUESTIONS

What is the primary function of the Klein Tools ET45 Voltage Tester?

The Klein Tools ET45 Voltage Tester is designed to check, verify, and troubleshoot AC and DC voltages in electrical outlets, light fixtures, and other common residential wiring applications.

What voltage ranges can the Klein Tools ET45 detect?

The Klein Tools ET45 can detect AC voltages from 24V to 240V and DC voltages from 32V to 330V.

What safety ratings does the Klein Tools ET45 have?

The Klein Tools ET45 is rated for CAT III 350V, providing a level of safety for use in residential electrical systems.

How does the Klein Tools ET45 indicate the presence of voltage?

The Klein Tools ET45 uses an analog LED display to show voltage levels and an audible alert to indicate when voltage is present.

What is the drop protection rating for the Klein Tools ET45?

The Klein Tools ET45 is built to withstand drops from heights of up to 9.8 feet (3 meters).

What is the ingress protection rating of the Klein Tools ET45?

The Klein Tools ET45 has an IP44 rating, meaning it is resistant to dust and water splashes.

What should I do if my Klein Tools ET45 does not light up when testing an outlet?

If the Klein Tools ET45 does not light up, ensure you are testing a live outlet within its voltage range. If it still does not activate, inspect the tester for damage.

How can I verify that my Klein Tools ET45 is functioning properly before use?

To verify functionality, test the Klein Tools ET45 on a known live circuit. If it indicates voltage correctly, it is functioning properly.

What types of applications can I use my Klein Tools ET45 for?

The Klein Tools ET45 is suitable for checking outlets, circuit breakers, light fixtures, doorbells, and other electrical installations.

How does one operate the Klein Tools ET45 effectively?

To use the Klein Tools ET45, simply connect the leads to the circuit or outlet being tested; if voltage is present, the LED will light up and an audible alert will sound.

How can I tell if my Klein Tools ET45 needs servicing or replacement?

If you notice inconsistent readings or failure to indicate voltage when testing known live circuits, it may be time to service or replace your Klein Tools ET45.

Does the Klein Tools ET45 come with a warranty?

Klein Tools ET45 typically comes with a limited warranty against defects in materials and workmanship; check specific retailer details for warranty duration.

What frequency does the Klein Tools ET45 operate at?

The Klein Tools ET45 operates at standard frequencies of 50/60 Hz, which covers typical residential electrical systems.

What should I do if my Klein Tools ET45 Voltage Tester does not light up when testing an outlet?

If the Klein Tools ET45 Voltage Tester does not light up, ensure you are testing a live outlet within its voltage range of 24V to 240V AC. If it still does not activate, check for any visible damage to the tester.

How can I verify that my Klein Tools ET45 is functioning properly before use?

To verify functionality, test the Klein Tools ET45 on a known live circuit. If it indicates voltage correctly, the tester is operational.

DOWNLOAD THE PDF LINK: Klein Tools ET45 Voltage Tester Instruction Manual

REFERENCE: Klein Tools ET45 Voltage Tester Instruction Manual - Device. Report

#### References

• User Manual

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