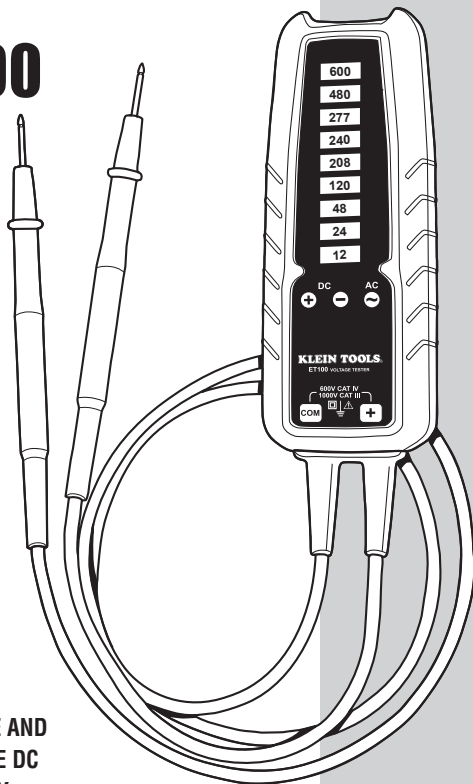


Instruction Manual

ET100

ENGLISH



- AC/DC VOLTAGE TO 600V
- POSITIVE AND NEGATIVE DC POLARITY
- LIGHT, VIBRATION, SOUND INDICATORS
- CAT IV 600V SAFETY RATING
- MODERN SOLID-STATE DESIGN



KLEIN TOOLS®

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ENGLISH

ET100 Instruction Manual

GENERAL SPECIFICATIONS

The Klein Tools ET100 is a solid-state electrical tester. It measures AC/DC voltage to 600V.






- **Voltage Level Indicators:** 12, 24, 48, 120, 208, 240, 277, 480, 600
- **Voltage Type Indicators:** AC, DC Positive, DC Negative
- **AC Frequency:** 45Hz to 66Hz
- **Maximum Voltage To Earth Ground:** 600V RMS
- **Maximum Measurable Voltage:** 600V RMS (displayed by LEDs)
- **Input Impedance:** 15k Ω on connection, up to 150k Ω steady-state.
- **Usage Duty Cycle (Above 277V):** 1 minute on, 5 minutes off
- **Accuracy:** 70% to 100% of indicated voltage
- **Battery Type:** 3 x AAA
- **Operating Altitude:** 2000m
- **Relative Humidity:** 0°C to 30°C (32°F to 86°F) 90%
30°C to 40°C (86°F to 104°F) 75%
40°C to 55°C (104°F to 131°F) 45%
- **Operating Temperature:** 0°C to 55°C (32°F to 131°F)
- **Storage Temperature:** 0°C to 55°C (32°F to 131°F)
- **Dimensions:** 7.375 x 2.375 x 1.25"
- **Weight:** 8.1oz.
- **Safety:** CSA C22.2-1010.1, IEC 61010-1, Pollution Degree II
- **CAT rating:** CAT IV 600V, CAT III 1000V

⚠ 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 meter operation by measuring a known voltage or current.
- Never use the meter on a circuit with voltages that exceed the category based rating of this meter.
- Do not use the meter during electrical storms, or in wet weather.
- Do not use the meter or test leads if they appear to be damaged.
- Ensure meter leads are fully seated, and keep fingers away from the metal probe contacts when making measurements.
- Do not open the meter to replace batteries while the probes are connected to a voltage source.
- Use caution when working with voltages above 60V DC, or 25V AC RMS. Such voltages pose a shock hazard.
- Always adhere to local and national safety codes. Use individual protective equipment to prevent shock and arc blast injury where hazardous live conductors are exposed.

SYMBOLS

- | | |
|--|---|
| + Positive DC Voltage |  Warning or Caution |
| - Negative DC Voltage |  Dangerous levels |
| ~ AC Voltage |  Double Insulated Class II |
|  Earth Ground |  ETL Certification |

CAT III

Designed for transient protection on indoor measurements at installations connected directly to the primary source. Examples include distribution panels and lighting systems in large buildings.

CAT IV

Designed for transient protection on outdoor measurements taken at the primary supply voltage source. Examples include outdoor overhead or underground utility service and electricity meter.

FEATURE DETAILS

Indicators

Lights

- LEDs light up numerical voltage level indicators, as well as AC and DC + or DC - indicators.
- Voltage detection will function without batteries installed.

Vibration

- Instrument will vibrate in the presence of voltage measurements greater than 48V.
- Vibration will function only with batteries installed.

Sound

- Instrument will emit a tone in the presence of voltage measurements greater than 48V.
- Sound will function only with batteries installed.

Accuracy

Accuracy of indicator lights is 70% to 100% of the voltage displayed to account for normal variations in supply voltage.

Ghost Voltages

The approximate input resistance of 15kΩ will reduce the possibility of false readings due to ghost voltages on de-energized lines.

Lead Spacing

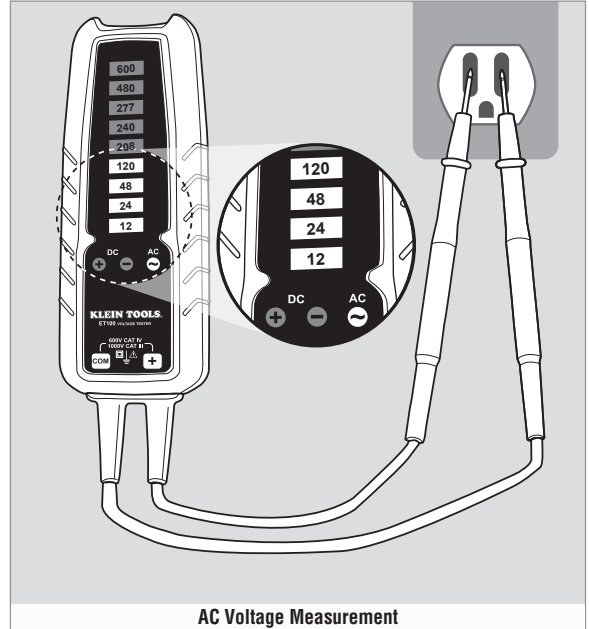
Molded lead holders on the back of the ET100 are spaced correctly to test tamper-resistant outlets.

OPERATING INSTRUCTIONS

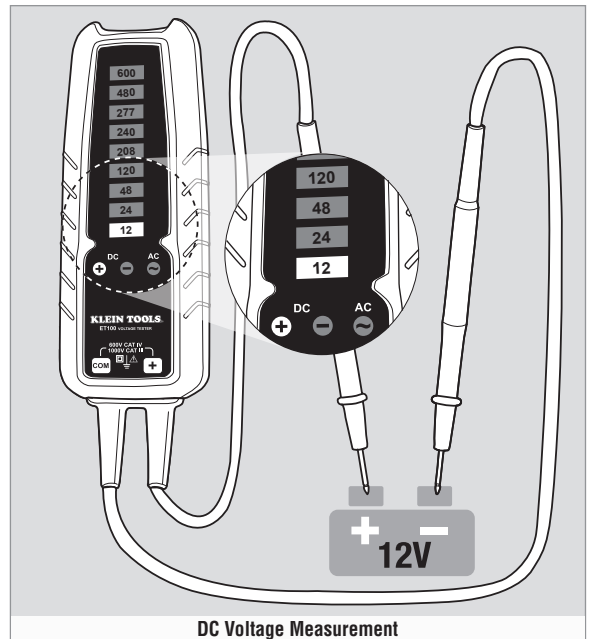
Measuring Voltages

 Time spent operational at voltages above 277V must be less than 60 seconds, with a cool-off time of at least 5 minutes.

Tester will turn on automatically when voltage is applied.



AC Voltage Measurement



DC Voltage Measurement

GFCI Testing

- ⚠ Check the GFCI Receptacle user manual for more information.
- ⚠ Always contact a qualified electrician to resolve wiring problems.
- ⚠ Operate the Push Button on the GFCI Receptacle. If the GFCI circuit does not trip, the receptacle is not operating properly.

To test the functionality of a Ground Fault Circuit Interrupter receptacle, apply leads to the hot and ground terminals for 7 seconds.

- If the GFCI receptacle is wired properly, power to the circuit will go out and the ET100 will stop indicating voltage.
- If the GFCI receptacle is wired improperly, power to the circuit will remain and the ET100 will continue to indicate voltage. To resolve an issue, contact a qualified electrician.

Battery Replacement

Batteries are not required for visual voltage indication.

1. Remove test leads from voltage source.
2. Unscrew battery cover and replace 3xAAA batteries.

WARRANTY

This product is warranted to be free from defects in materials and workmanship for a period of two years from the date of purchase. During this warranty period, Klein Tools has the option to repair or replace or refund the purchase price of any unit which fails to conform to this warranty under normal use and service. This warranty does not cover damage which occurs in shipment or failure which results from alteration, tampering, accident, misuse, abuse, neglect, or improper maintenance. Batteries and damage resulting from failed batteries are not covered by warranty. A purchase receipt or other proof of original purchase date will be required before warranty repairs will be rendered.

Any implied warranties, including but not limited to implied warranties of merchantability and fitness for a particular purpose, are limited to the express warranty. Klein Tools shall not be liable for loss of use of the instrument or other incidental or consequential damages, expenses, or economic loss, or for any claim or claims for such damage, expenses or economic loss.

Some states or countries laws vary, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. If your Klein product requires repair or for information on how to exercise your rights under the terms of this warranty, please contact Klein Tools at 1-800-553-4676.

CLEANING

Clean the instrument by using a damp cloth. Do not use abrasive cleaners or solvents.

STORAGE

Remove the batteries when instrument is 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 Specifications section, allow the instrument to return to normal operating conditions before using it.

DISPOSAL / RECYCLE

Caution: This symbol indicates that equipment and its accessories shall be subject to a separate collection and correct disposal.

CUSTOMER SERVICE

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