EXTECH INSTRUMENTS User's Guide

Model ET34

Voltage and Continuity Tester

International Safety Symbols

This symbol, adjacent to another symbol or terminal, indicates that the user must refer to the manual for further information.

This symbol, adjacent to a terminal, indicates that, under normal use, hazardous voltages may be present

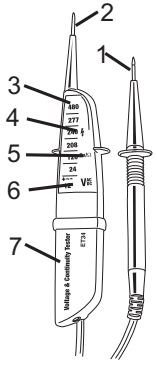
Double insulation

Safety Precautions

1. Improper use of this meter can cause damage, shock, injury or death. Read and understand this manual before use.
2. Ensure that any covers or battery doors are properly closed and secured before use.
3. Inspect the condition of the test leads and the meter itself for any damage before use.
4. Do not exceed the rated input limits.
5. Use great care when taking measurements greater than 25VAC rms or 35VDC. These voltages are considered a shock hazard.
6. Discharge capacitors and remove power from the DUT before Continuity tests.
7. Remove the batteries from the meter if the meter is to be stored for long periods.
8. Voltage measurement results on electrical outlets can be misleading because of the difficulty in making a proper connection to the electrical contacts.

Tester Description

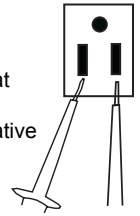
1. Negative lead (-)
2. Positive lead (+)
3. Voltage display
4. Voltage detect LED
5. Continuity LED
6. Polarity indication
7. Battery compartment



Operation

Always test the meter on a known live circuit before taking measurements

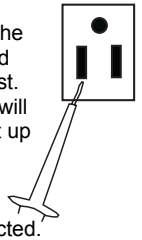
Voltage Measurement



1. Note that batteries are NOT needed in the tester to take voltage measurements.
2. Remove the plastic caps that cover the test lead tips.
3. Touch the positive and negative test leads to the device or circuit under test.
4. The LEDs will light on the tester's voltage scale. The number of LEDs that light depends upon the value of the measured signal. The LED trip point is 50% of the lower and higher value.
5. For AC voltage, both the plus and the minus sign LEDs will light. For DC, either the plus (for positive voltage) or the minus (for negative voltage) LED will light.
6. When voltage is detected, the meter sounds an audible alert.

Note: The test current for voltage measurements decays to approx. 4mA after 5 seconds of use. Measuring from hot to ground may trip any GFCI equipped circuits.

Single Lead AC Voltage Detection



To check for the presence of voltage (>100VAC) using only the positive test lead, touch the lead to the device or circuit under test. If voltage is present, the meter will sound an audible alert and light up the voltage detect LED.
Note: In this mode, the actual voltage is not displayed; only the presence of voltage is detected.

Continuity Test

The tester can measure resistance and alert the user if the resistance value is less than 200kΩ.

1. Before taking a continuity test, make sure that power to the device or circuit under test is off and that all capacitors are discharged.
2. Touch the test tips to the device under test.
3. If the resistance is less than 200kΩ, the tester will sound an audible alert and the Rx/Ω LED will light.

Maintenance

Battery replacement



1. Disconnect the meter from any test device or circuit before opening the tester.
2. Loosen the recessed flat head screw at the bottom of the tester. Do not remove the screw.
3. Hold the meter and pull the lower portion of the meter off until the batteries are exposed.
4. Replace the two 'AAA' batteries observing polarity and dispose of the old batteries properly.
5. Slide the meter back together and replace the screw.

Cleaning

6. Before cleaning the tester, ensure that the test leads are not connected to any circuit or device.
7. Dampen a cloth with a mild detergent and use it to clean the meter. Do not use abrasives or solvents.

WARRANTY

EXTECH INSTRUMENTS CORPORATION warrants this instrument to be free of defects in parts and workmanship for one year from date of shipment (a six month limited warranty applies on sensors and cables). If it should become necessary to return the instrument for service during or beyond the warranty period, contact the Customer Service Department at (781) 890-7440 ext. 210 for authorization or visit our website at www.extech.com (click on 'Contact Extech' and go to 'Service Department' to request an RA number). A Return Authorization (RA) number must be issued before any product is returned to Extech. The sender is responsible for shipping charges, freight, insurance and proper packaging to prevent damage in transit. This warranty does not apply to defects resulting from action of the user such as misuse, improper wiring, operation outside of specification, improper maintenance or repair, or unauthorized modification. Extech specifically disclaims any implied warranties or merchantability or fitness for a specific purpose and will not be liable for any direct, indirect, incidental or consequential damages. Extech's total liability is limited to repair or replacement of the product. The warranty set forth above is inclusive and no other warranty, whether written or oral, is expressed or implied.

Specifications

Voltage Test	
Voltage LED steps	± 12, 24, 120, 240, 277, 480V
AC/DC detection	Automatic
Audible signal	Voltage & continuity
Range selection	Automatic
Response time	< 0.1 seconds
Frequency range	0 to 65Hz
Test current	Approx. 4mA
Peak current	< 0.2A
Single Lead Volt Detector	
Voltage range	100 to 480V AC
Frequency range	50 to 400Hz
Continuity Test	
Resistance range	0 to 200kΩ
Test current	3 µA
Overvoltage protection	690V AC/DC
General	
Power supply	Two 1.5V AAA cells
Power consumption	30mA / approx. 250mW max.
Operating Temperature	14 to 131°F (-10°C to 55°C)
Relative Humidity	< 85% RH
Altitude	< 2000m
Overvoltage class	CAT III / 600V
Pollution degree	2
Type of protection	IP54
Weight	4.6 oz. (130g)
Dimensions	8.3 x 1.6 x 0.9" (210x40x22mm)

Support Hotline (781) 890-7440
Tech support: Ext. 200; Email: support@extech.com
Repair/Returns: Ext. 210; Email: repair@extech.com
Website: www.extech.com

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