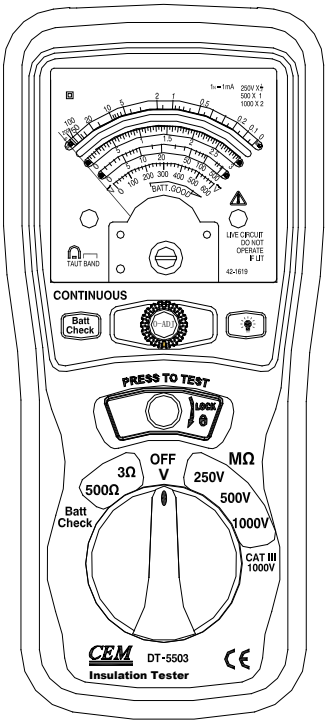
INSULATION TESTER
User Guide
CZ20055



CZ20055-DRW02-01

SAFETY INFORMATION

- Read the following safety information carefully before attempting to operate or service the meter.
- To avoid damage to the instrument do not apply voltages that exceed the maximum limits shown in the technical specifications tables.
- Do not use the meter or test leads if they look damaged. Use extreme caution when working around bare conductors or bus bars.
- Accidental contact with the conductor could result in electric shock.
- Use the meter only as specified in this manual; otherwise, the protection provided by the meter may be impaired.
- Read the operating instructions before use and follow all safety information.
- Caution when working with voltages above 60V DC or 30V AC RMS. Such voltages pose a shock hazard.
- Before taking resistance measurements or testing continuity, disconnect circuit from main power supply and all loads from the circuit.

Safety symbols:


Caution refer to this manual before using the meter.


Dangerous voltages.


Meter is protected throughout by double insulation or reinforced insulation.

CE Comply with EN-61010-1
When servicing, use only specified replacement parts.

1. SPECIFICATIONS

1-1 General Information

Environment conditions:

① Installation Categories II
② Pollution Degree 2
③ Altitude up to 2000 meters
④ Indoor use only
⑤ Relatively humidity 80% max.
⑥ Operation Ambient 0~40ºC

Maintenance & Cleaning:

① Repairs or servicing not covered in this manual should only be performed by qualified personnel.
② Periodically wipe the case with a dry cloth. Do not use abrasives or solvents on this instrument.

Measurement Range 3Ω, 500Ω, 20MΩ/50V,
40MΩ/100V,200MΩ/500V, 600V/ACV,

Operating Temperature: 0ºC to 40ºC (32ºF to 104ºF) and Humidity below 80% RH

Storage Temperature: -10ºC to 60ºC (14ºF to 140ºF) and Humidity below 70% RH

Power source: DC9V (6x1.5V Size "AA" battery or Equivalent)

Dimensions: 200(L) x 92(W) x 50(H) mm

Weight: Approx 700g include battery

Accessories: Test leads, 6pcs battery, Carrying case, manual.

1-2Electrical Specifications

Accuracies are specified as:
±(…% of reading +…digits) at 23ºC±5ºC,below 80% RH.

OHMS

Range	Resolution	Accuracy	MIN. open Circuit Voltage	MIN circuit current
3Ω	0.05Ω	±3%	4.1V	200mA
500Ω	1Ω		4.1V	

AC Voltage (40Hz~400Hz)

Range	Resolution	Accuracy	Input Impedance	Overload Protection
600V	20V	±5%	1.2MΩ	600Vrms

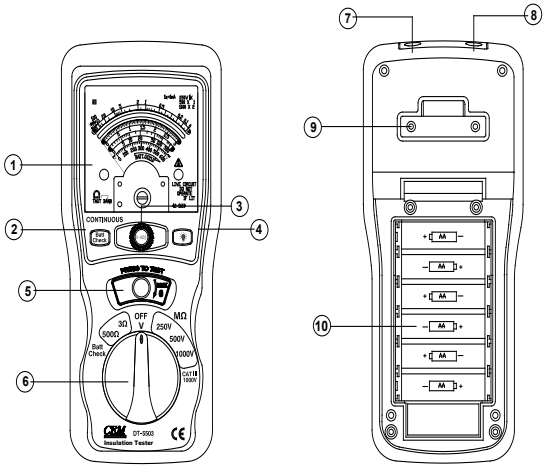
Meg OHMS

Range	±5%	±10%	Terminal Voltage
100MΩ/250V	250KΩ~5MΩ	5MΩ~100MΩ	250V+10%~-0%
200MΩ/500V	0.5MΩ~10MΩ	10MΩ~200MΩ	500V+10%~-0%
400MΩ/1000V	1MΩ~200MΩ	20MΩ~400MΩ	1000V+10%~-0%

Range	Test Current		Short circuit current
100MΩ/250V	1mA	250KΩ(load)	About 1.3mA
200MΩ/500V		500KΩ(load)	
400MΩ/1000V		1MΩ(load)	

2. PARTS & CONTROLS

① Point needle
② Battery check Button
③ 0-Adjust Button
④ Backlight Button
⑤ Test Button
⑥ Rotary Function switch
⑦ VΩ Jack
⑧ COM input jack
⑨ Belt hook
⑩ Battery Cover



3. Operational Guidelines

1. Before using this tester, always read the safety warnings and test methods described in the instruction manual thoroughly and completely.

1-1. Set the range selector switch to the “**BATT.CHECK**” position , press “TEST” Button and “Batt.check” Button make certain that the meter pointer stays in the “BATT. GOOD” area.

1-2. Without pressing the test button, connect the test leads to the instrument and set the range selector switch to the desired range position. When making continuity tests (3Ω and 500Ω ranges), short the test leads first, then press the test button and adjust the ohms ADJ dial to zero the reading.

2. Testing

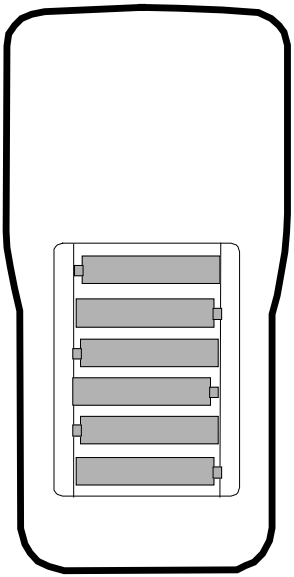
DANGER! Before testing, make certain that the circuit under test is **NOT** live. Testing on a live circuit may cause damage to the instrument and pose a shock hazard to the user

(1) Check for Dead Circuit (Voltage Warning)	Test Button OFF (Up position)	Live circuit warning lamp lights up and beeper sounds where the circuit is **LIVE.** Without pressing the test button connect the test leads to the circuit under test. If there is an AC voltage present the pointer will deflect to indicate the value in addition to the above warnings.
(2) Insulation & Continuity Testing	ON	Read insulation resistance and continuity on the Megohm and ohm scales appropriate for the range switch position selected (ohm zero adjust before continuity testing). Read directly for **500V** insulation range, multiply by 0.5 for **250V** range and multiply by 2 for **1000V** range.

(3) Discharging Capacitance in Circuit Tested	OFF	Be aware of any capacitance charged up in the circuit immediately after insulation testing. This is very dangerous. With the test leads connected to the circuit, release the test button. Any charge on the circuit will be discharged. This will be seen as the pointer on the volts scale moves to the zero position.

4. **Battery Replacement**

1, When the battery is low ,the six 1.5V ‘AA’ batteries must be replaced.
2, Turn the meter off and remove the test leads
3, Unsnap the tilt stand from the rear of the meter
4, Remove the four Phillips head screws holding the battery cover
5, Remove the battery compartment cover
6, Replace the batteries observing polarity
7, Attach the rear cover and secure the screws.
8, Reattach the tilt stand



5. Contact Details

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