Digital multimeter DT-9205A



Instructions for use

Translation of the original instructions

Dear customer!

Thank you for purchasing our product, we wish you satisfaction with its use. You have become the owner of a digital multimeter. This meter, which is characterized by maximum safety and ease of use, is a reliable, high-performance instrument with quick installation and readiness for use. Although it is
its ease of use, its operation must comply with the requirements contained in this manual and with the occupational health and safety regulations in force in the area where it is used.

First aid principles

Persons electrocuted - disconnect the power source or protect yourself with a dry insulator, move the affected person away from the power cord. Take care not to touch the electrocuted person with your bare hands until you have led them away from the power cord. Get help immediately in the form of qualified and trained personnel.

Explanation of the pictograms on the device.



-The product must not be disposed of in normal waste
The product must not be disposed of in normal waste containers. The user must take the used equipment to the designated waste recycling collection point for electrical and electronic equipment.



-Before starting
of operation, read the contents of the operating instructions.



-EU registration mark



-Second class insulation

Purpose

The multimeter is designed to measure the following electrical values.DC voltage, AC voltage, DC current, resistance, test and test diodes of NPN, PNP transistors. Use of the instrument for other purposes or in a manner that deviates from the operating instructions below may result in danger to life and damage to the measuring instrument.

GENERAL SAFETY CONDITIONS

ATTENTION: Read all of the following instructions. Failure to follow them may result in electric shock, fire, or personal injury. The term "power tool" as used in this manual refers to all power tools, both corded and cordless.

Follow these instructions

Keep the work area well lit and clean. Clutter and poor lighting can cause accidents. Do not work with power tools in environments with an increased risk of explosion that contain flammable liquids, gases or vapours. Power tools produce sparks that can produce sparks when in contact with flammable gases or vapours cause a fire.

Keep children and bystanders out of the work area. Loss of concentration may result in loss of control of the tool.

Electrical safety

Water and moisture increase the risk of electric shock.

Come to work in good physical and mental condition. Pay attention to what you are doing. Do not work when you are tired or under the influence of drugs or alcohol. Even a moment's inattention at work can lead to serious injury.

Wear personal protective equipment. Always wear safety glasses. Wearing personal protective equipment reduces the risk of serious injury.

Keep your balance. Maintain correct posture at all times. This will allow you to control the power tool more easily in the event of unexpected situations at work.

Wear protective clothing. Do not wear loose clothing or jewellery. Keep hair, clothing and work gloves away from moving parts of power tools. Loose clothing, jewellery or long hair can get caught on moving parts of the power tool.

Repairs

Only have your tools repaired by authorised service centres and use only genuine spare parts. This will ensure proper operational safety.

Further safety instructions

When using the tool, always follow the safety instructions in the instruction manual as well as other health and safety instructions.

The tool must not be exposed to precipitation or moisture. Always check that the existing supply voltage matches the voltage indicated on the tool's type plate. Make sure that the attachments used are not damaged before use. If damage is found, replace the attachments with new ones that are not damaged. Safety goggles should be worn when working, gloves and protective clothing are recommended.

Safe handling of the multimeter

Full compliance with safety standards is only guaranteed when using the supplied test cables. In the event of damage, the conductors should be replaced with the same model or with conductors having the same electrical characteristics.

Do not use damaged test leads. Do not touch the test terminals and sockets during measurement. Do not take measurements with wet hands or in areas of high humidity.
If the instructions are not followed, there is a risk of electric shock.

The limits of the electrical quantities specified for each measuring range shall not be exceeded. If not known the scale of the measured electrical quantity, the highest range must be selected for measurement. When measuring voltage with a probe, no electronic components [e.g. hFE, Cm, °C] must be present in the measuring sockets of the measuring instrument.
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There must be no electronic components in the measuring sockets of the measuring instrument [e.g. hFE, Cm, °C], when measuring voltage with the measuring probes, make sure that the measuring probes are disconnected from the other circuit to be measured before measuring the transistor. Discharge capacitances and disconnect all power sources before measuring resistance or circuit continuity. Be especially careful when measuring above 60 VDC or 30 VACrms.



1. LCD display

2. On/Off switch

3. Function controller

4. 20A socket (unprotected)

5. 20mA socket (protected)

6. COM socket (unprotected)

7. 750V AC socket

Description of measuring sockets

COM: Connect the black cable to the grounding socket.

20A : ***WARNING! The socket is not protected against overload measurement range.***

It is used to measure current up to a limit of 20 A.

VΩmA: overrange protected socket, used to measure the values selected by the selector.

DC current measurement A DC Use the selector dial to select the appropriate measurement range.

Gradually connect the tubes:
-Test socket 10A red wire
-socket COM black wire
Then connect the circuit in series.

AC/DC measurement

Use the selector to select the desired voltage range
Gradually connect the tubes:
-VΩmA test socket red wire
-COM socket black wire
Then connect in parallel to the circuit.

Transistor control

Set the knob to the hFE position and insert the transistor into the transistor measurement socket.

Diode test / conductivity test

Use the selector dial to select the position with the diode symbol.

Gradually connect the tubes:
-VΩmA test socket red wire
-COM socket black wire
Touch the red tube to the anode, touch the black tube to the cathode. Then reverse the order. If the diode has a "transition" in only one direction, it is functional. Any other result is considered a faulty diode.

Specification.

The accuracy of the measurement is given for a period of one year after calibration and for an operating temperature between 18 °C and 28 °C at a relative humidity of 75 %.

Over range indicator : "**1**" - on display Polarity
indicator : "**-** " for negative polarity
Operating temperature: 0°C - 40°C (32°F - 104°F)
Storage temperature : -10°C - 50°C (14°F - 122°F) Battery low indicator
: "**BAT** " on display

Replacing the battery and fuses

Before replacement, unplug the tubes from all sockets and remove the transistors from the tester socket. Unscrew the screw on the back of the instrument to allow removal of the back cover and access to the battery and fuse.