USERS MANUAL

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MADE IN CHINA

M10100060

DIGITAL MULTIMETER

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1. OVERVIEW

This is a 6000 counts, handheld, hand-held digital multimeter with true RMS value and automatic/manual integration. It has a clear, double line and digital LCD display with embedded bars and illuminated lights which can be used in low light environments. The instrument can be used for strong interfere of measurement probes, overload protection and over voltage protection. It can be used in industrial and commercial fields such as professionals, technicians, schools, enthusiasts or families.

This manual contains information and warnings that must be followed for electrical measuring instruments and handheld digital multimeters specified in the international electrical safety standard IEC61010-2 to enable the instrument to operate safely and ensure the safety of the instrument. Please 1. Before using the instrument, please read the instruction manual carefully and pay attention to the following matters:

1.1 Safety Information

1. Please use the instrument with care.
When using the instrument, the user must observe all standard safety procedures for the following two aspects:
Protection against electric shock and misuse of the instrument.
2. Before using the instrument, please check the appearance of the instrument. If damage occurs, the instrument and the measurement probes may start with the instrument Check and make sure they are intact before use. Do not use if damaged.
3. Before using the instrument, make a device with large electromagnetic interference, the instrument will be unstable and may be affected. Keep away from noise.
4. Do not use the instrument in the environment prohibited by the manual or in a damaged
If the instrument is not used correctly,the safety functions provided by the instrument may be damaged.
5. Do not use the instrument in an environment with explosive gas, steam or dust.
6. Do not use the instrument when working around bare conductors or busbars.
7. The input value must not exceed the input limit specified for each range of measurement and measurement function.
When voltage and ground are measured, the input signal must not exceed 1000V DC or 1000V AC RMS. When measuring high voltage, avoid touching the exposed metal parts of the measurement probe, avoid touching the probe and the tester, and do not touch the metal parts of the tester when the tester is connected to the power source.
8. Do not use the instrument when the cover or part of the cover is missing or loosened. Do not use the instrument if the cover is not fastened.
9. Use only the specified standard or optional accessories.
10. Only use the instrument in the specified measurement range.
11. When it isn't used for a long time, please remove the batteries and avoid leaking or a glass with high temperature and humidity.
12. Do not use the instrument for medical purposes.
13. The maximum input voltage that can be withstood is 1000V DC voltage and 1000V AC voltage (sine wave) and 75V DC voltage and 50V AC voltage (sine wave) and 75V DC voltage and 50V AC voltage (sine wave) when the frequency is 400Hz.
14. Use the protection for a fuse 3a/a(F500V/A250V) when measuring current in current terminals.
15. Before measuring the resistance of the instrument, if the set continuous is pressed, the measuring circuit of the instrument will be in a short circuit. Please pay attention to the short circuit of the measurement circuit and the short circuit of the measurement circuit and the short circuit of the measurement circuit.
16. Before measuring the capacitance, the capacitor must be discharged and the power of the circuit under test must be cut off.
17. Before measuring the diode, the power of the circuit to be measured must be cut off and the capacitor in the power supply circuit must be discharged.
18. Before measuring the frequency, the power of the circuit to be measured must be cut off.
19. Before measuring the temperature, the temperature sensor must be connected to the instrument.
20. Before measuring the instrument power or removing the battery cover, first disconnect the measurement probe.
21. When replacing the instrument fuse or specified replacement parts must be replaced with the same specifications.
22. Before turning on the instrument, you must shut down all relevant power supplies and make sure that the fuse is not damaged. Do not use the instrument if the fuse is damaged.
23. Do not use the instrument in a wet environment.
24. When cleaning the housing of instrument, it must be noticed that some of the capacitors in the equipment will be discharged when voltage exceeds 60V DC or 30V AC RMS, please pay attention to safety.
25. If any abnormality is observed on the instrument, the instrument should be immediately stopped and sent to the repair center and make sure that it cannot be used until it passes the inspection.

1.2 Electrical Specifications

1. Accuracy: Accuracy is the reading accuracy, including the accuracy of the calibrated standard and the accuracy of the instrument, and the accuracy is expressed as a percentage of the reading.
2. Overvoltage Protection: The ability of the instrument to withstand the specified overvoltage when the protection circuit is not damaged.
3. Overvoltage Class: Overvoltage Class II is applicable to equipment powered by the power distribution network in the building.
4. Pollution Level: Pollution level 2 means that only non-conductive pollution occurs in the environment, but temporary conductivity may be caused by condensation.
5. Altitude: The instrument can be used at altitudes up to 2000 meters.
6. Environmental conditions: The instrument can be used in an environment with a relative humidity of 0-80% RH and a temperature of 0°C-40°C.
7. Storage environment: The instrument can be stored in an environment with a relative humidity of 0-80% RH and a temperature of -10°C-60°C. If the battery is removed, the storage temperature and humidity range of the instrument are the same as the operating temperature and humidity range.
8. Power supply: 9V battery
9. Low battery indicator: When the battery voltage is lower than the working voltage, the low battery indicator will be displayed on the screen.
10. Sampling rate: 2 times/second
11. Overload indicator: "OL" will be displayed on the screen.
12. Polarity indicator: Automatic display of "-" polarity.
13. Temperature coefficient: 0.1x accuracy / °C (less than 18°C or greater than 28°C)
14. Electromagnetic compatibility: EN61326-1
15. Safety standard: IEC61010-2-033

1.3 Security Symbol

⚠	Warning: warnings about dangerous conditions and actions that may cause injury or damage to the instrument. Please read the instructions carefully before using the instrument and pay attention to the warnings in the manual before using the instrument.
CE	CE: Conforms to the European Union standards
DC	DC (direct current)
AC	AC (alternating current)
⏚	Ground
⧈	Double insulation protection
UK	UK: Conforms to the directives of European Union
⚡	High voltage warning
⚡	High voltage warning
⧈	Double insulation protection
UK	UK: Conforms to the directives of European Union

1.4 Security Precautions

1. Please read the "Safety Information" section carefully before using the instrument.
2. Do not use the instrument in a damaged or modified state. If the instrument is damaged, please contact the nearest authorized service center for inspection and repair.
3. Do not use the instrument in an environment with explosive gas, steam or dust.
4. Do not use the instrument when the battery cover is not closed.
5. Please use the correct jack and function button for measurement.
6. When it isn't used for a long time, please remove the batteries and avoid leaking or a glass with high temperature and humidity.
7. The maximum input voltage that can be withstood is 1000V DC voltage and 1000V AC voltage (sine wave) and 75V DC voltage and 50V AC voltage (sine wave) and 75V DC voltage and 50V AC voltage (sine wave) when the frequency is 400Hz.
8. Use the protection for a fuse 3a/a(F500V/A250V) when measuring current in current terminals.
9. Before measuring the resistance of the instrument, if the set continuous is pressed, the measuring circuit of the instrument will be in a short circuit. Please pay attention to the short circuit of the measurement circuit and the short circuit of the measurement circuit and the short circuit of the measurement circuit.
10. Before measuring the capacitance, the capacitor must be discharged and the power of the circuit under test must be cut off.
11. Before measuring the diode, the power of the circuit to be measured must be cut off and the capacitor in the power supply circuit must be discharged.
12. Before measuring the frequency, the power of the circuit to be measured must be cut off.
13. Before measuring the temperature, the temperature sensor must be connected to the instrument.
14. Before measuring the instrument power or removing the battery cover, first disconnect the measurement probe.
15. When replacing the instrument fuse or specified replacement parts must be replaced with the same specifications.
16. Before turning on the instrument, you must shut down all relevant power supplies and make sure that the fuse is not damaged. Do not use the instrument if the fuse is damaged.
17. Do not use the instrument in a wet environment.
18. When cleaning the housing of instrument, it must be noticed that some of the capacitors in the equipment will be discharged when voltage exceeds 60V DC or 30V AC RMS, please pay attention to safety.
19. If any abnormality is observed on the instrument, the instrument should immediately stopped and sent to the repair center and make sure that it cannot be used until it passes the inspection.

2. INSTRUMENT INDICATION

2.1 Schematic diagram of the instrument