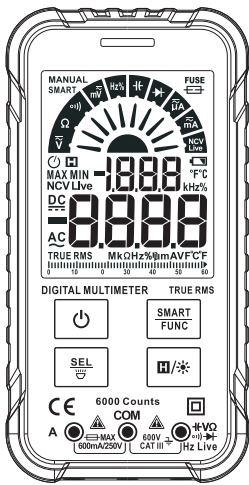
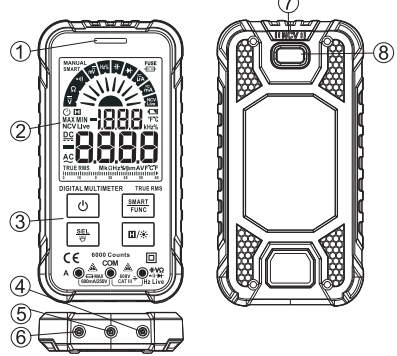
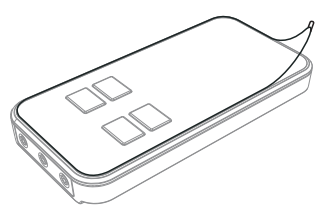


USERS MANUAL																																																																																																																																
DIGITAL MULTIMETER  Before using the instrument, please read this manual carefully, and save it well for future using.		Statement.....1 Safety Statement.....1 Safety Instructions.....2 Safety Operation Specifications.....3 Safety Symbols.....6 Overview.....7 Meter panel.....8 Auto power off.....10 Fuse burn out prompt.....10 The probe Wrong prompt.....10 Measurement operation.....11 SMART measurement.....11 DC/AC mV measurement.....13 Frequency/Duty measurement.....14 Capacitance measurement.....14 Diode test.....15 DC/AC current measurement.....16 NCV Detection.....17 Live test.....19 General technical.....20 Accuracy.....21		DC voltage.....21 AC voltage.....22 DC current.....22 AC current.....23 Diode & Continuity.....23 Resistance.....24 Capacitance.....24 Frequency/Duty.....25 Maintain.....27 Clean.....27 Replace battery or fuse.....28		Statement In accordance with the international copyright law, without permission and written consent, do not copy the contents of this manual in any form (including storage and retrieval or translation into languages of other countries or regions). Safety Statement "Caution" mark refers to the condition and operation which may cause damage to the instrument or equipment. It requires that you must be careful during the execution of the operation. If incorrectly perform the operation or do not follow the procedure, it may damage the instrument or equipment. In the circumstances that such conditions are not met or not fully understood, please do not continue to perform any operation indicated by the warning mark. Safety Instructions This meter conforms to IEC61010-1 international electrical safety standard. The design and manufacture of instruments shall strictly comply with IEC61010-1 CAT.III 600V safety standard and pollution level 2. 1 2																																																																																																																										
and ground. Check whether the meter works normally by measuring the known voltage. Do not use it again if it is abnormal or damaged. Before using the meter, please check whether the instrument shell is cracked or damaged by plastic parts. If any, please do not use it again. Before using the instrument, please check whether the probe is cracked or damaged. If so, please replace the probe of the same model and the same electrical specification. Please use the meter according to the measurement category, voltage or current rating specified on the instrument or manual. Please observe local and national safety regulations. Wear personal protective equipment (such as approved rubber gloves,		masks, flame-retardant clothing, etc.) to prevent injury caused by electric shock and electric arc when the dangerous live conductor is exposed. Do not work alone so that you can get help in an emergency. To avoid electric shock or injury due to wrong reading, please replace the battery in time when the indicator "CA" is displayed. Do not use the instrument around explosive gas or steam or in humid environment. When using the probe, hold your finger behind the probe finger guard. When measuring, please connect the neutral or ground wire first, and then connect the live wire; when disconnecting, please disconnect the live wire first, and then disconnect the neutral or ground wire. Remove the probe from the meter before		opening the case or battery cover Safety Symbols High voltage warning AC (Alternating current) DC (Direct current) AC or DC Warning Ground Fuse double insulation/reinforced insulation protection Low battery voltage Product complies with all relevant European laws The additional product label shows that do not discard this electronic product into household garbage. Class II measurements are suitable for testing and measuring circuits directly connected to power points (sockets and similarities) of low voltage power installations. Class II measurement is suitable for testing and measuring circuits connected to the distribution part of low voltage power supply devices in buildings. Class II measurements are suitable for testing and measuring circuits connected to the power supply of low voltage power installations in buildings. Overview This meter is an intelligent true effective value multimeter. Intelligent identification and manual function are integrated, which can measure AC and DC voltage, AC and DC current, resistance, capacitance, continuity, diode, NCV, etc. It is the best choice for professional electrician, engineer, electronic enthusiast or family use.		Meter panel  Indicator light Display Keys Power key SMART FUNC : Function select key. After the meter		is powered on, it defaults to smart function. Press this key once to switch to manual function. Press this key again to switch to other functions. Press this key for more than 2 seconds to restore smart function : Function selection / flashlight key. When a position has multiple functions, press this key to switch; press this key for more than 2 seconds to turn on or off the flashlight : Backlight / data hold key. Press this key to turn on or off the data holding function; press this key for more than 2 seconds to turn on or off the backlight Measuring input terminals except current COM input terminals Current input terminals																																																																																																																								
NCV sensor Flashlight Auto power off No operation within 15 minutes, the meter will auto power off. Press and hold the "SMART FUNC" key and turn on the power, the auto power off function will be cancelled. When the " " symbol is displayed, it means that the auto power off function is on Fuse burn out prompt When the " " symbol is displayed, it indicates that the fuse is burnt out. Please replace the fuse The probe Wrong prompt When the current measurement function is used, 10		If the probe is not inserted into the current input terminal, "LEAD" will be displayed. Measurement operation WARNING Voltage higher than 600V cannot be measured; otherwise the meter may be damaged. Pay special attention to safety when measuring high voltage to avoid electric shock or personal injury. Before use, use the meter to test the known voltage and confirm that the meter is in good condition. SMART measurement It can measure DC voltage, AC voltage, resistance, continuity. The meter can measure 11		automatically without user selection function. This measurement function is default when power on. Press " " key to turn on the power, and the meter displays "Fluor" to enter the smart measurement function. Insert the red probe into the "VΩΩ" input terminal and the black probe into the "COM" input terminal. Connect the probe with voltage source or resistor in parallel for measurement, and the meter will automatically recognize the currently measured signal. When measuring AC voltage, the frequency will be displayed at the same time. When measuring the resistance, when the resistance is less than about 500, the buzzer will sound and the indicator light will be on. 12		6) Read the results on the display. Note: Minimum measurable voltage: AC0.5V; DC0.8V DC/AC mV measurement Press " " key to turn on the power, press "SMART FUNC" key to Switch to "DCV" function. Insert the red probe into the "VΩΩ" input terminal and the black probe into the "COM" input terminal. Connect the probe with voltage source or both ends of load in parallel for measurement. When measuring AC voltage, the frequency will be displayed at the same time. Read the results on the display. Note: When the probe is not connected with the measuring circuit, the meter display reading may not be zero, which is normal and will not 13		affect the normal measurement. Frequency/Duty measurement Press " " key to turn on the power, press "SMART FUNC" key to Switch to "Hz" function. Insert the red probe into the "VΩΩ" input terminal and the black probe into the "COM" input terminal. Connect the probe with voltage source or both ends of load in parallel for measurement. Read the results on the display. Capacitance measurement Press " " key to turn on the power, press "SMART FUNC" key to Switch to " " function. Insert the red probe into the "VΩΩ" input terminal and the black probe into the "COM" input terminal. Connect the probe with both ends of capacitor		in parallel for measurement. 4) Read the results on the display. WARNING When measuring capacitance, please disconnect the power supply and discharge capacitors, otherwise the instrument may be damaged and may suffer electric shock. Diode test Press " " key to turn on the power, press "SMART FUNC" key to Switch to " " function. Insert the red probe into the "VΩΩ" input terminal and the black probe into the "COM" input terminal. Connect the red probe to diode anode and connect the black probe to diode cathode. Read the results on the display. Note 1: The meter shows is approximation of 15																																																																																																																						
diode forward voltage drop. The forward voltage drop of the diode is generally in the range of 0.3V to 0.8V. Note 2: If the probe has reverse connection or the probe is open, the meter will show "OL". DC/AC current measurement Press " " key to turn on the power. Press "SMART FUNC" key to Switch to "A" or "mA" function; or directly insert the red probe into "A" Current input terminal and automatically switch to the "A" or "mA" function. The black probe into the "COM" input terminal. Press " " key to switch to AC or DC current Disconnect the power supply, connect the meter in series to the circuit under test, and then turn on the power supply. When measuring AC current, the frequency is 18		displayed at the same time. 7) Read the results on the display WARNING Pay special attention to safety when measuring high voltage to avoid electric shock or personal injury. Before use, use the meter to test the known voltage or current and confirm that the meter is in good condition. Caution To avoid damaging meter or equipment, and ensure that the measured current does not exceed the rated maximum current of 600mA. And use the correct input terminal. NCV Detection Press " " key to turn on the power, press		"SMART FUNC" key to Switch to "NCV" function. The meter shows "NCV". Detection with the meter of NCV sensing area. When the meter senses weak AC signal, the green indicator light will be on, and the buzzer will beep slowly, displaying "— L". When the meter senses strong AC signal, the red indicator light will be on, and the buzzer will beep fast, displaying "— H". WARNING When using the NCV function, please remove the probe, otherwise the detection accuracy will be affected. NCV function is affected by many factors, even if there is no alarm prompt, there may still be high voltage		Live test Press " " key to turn on the power, press "SMART FUNC" key to Switch to "DCV" function. Then press " " key to switch to live function, the meter shows "Live". Insert the red probe into the "VΩΩ" input terminal and remove the black probe from the "COM" input terminal. When the meter detected weak AC signal, the green indicator light will be on, and the buzzer will beep slowly, displaying "— L". When the meter detected strong AC signal, the red indicator light will be on, and the buzzer will beep fast, displaying "— H". In general, what is detected is the live at this time WARNING Please remove the black probe; otherwise the 19		detection accuracy will be affected. General technical Environmental conditions: CAT. III 600V; Pollution: 2 Altitude < 2000m. Working temperature and humidity: 0~40°C (<80% RH, <10°C non-condensing) Storage temperature and humidity: -10~60°C (<70% RH, without batteries). Temperature coefficient: 0.1%Accuracy / °C (<18°C or >28°C). Maximum voltage allowed between input terminals: 600V Current protection: F600mA/250V fuse Sampling: approx. 3 times / second. Display: maximum 6000 count.		Over range indication: display "OL". Low battery: Display "CA". Polarity indication: display "+/-" sign. Power: 2 x 3V CR2032 batteries. Accuracy Accuracy is applicable within one year after calibration Reference conditions: ambient temperature 18°C to 28°C, relative humidity no more than 80% Accuracy: ± (% reading + word) DC voltage <table><tr><th>Range</th><th>Resolution</th><th>Accuracy</th></tr><tr><td>60mV</td><td>0.01mV</td><td>±(0.5%+3)</td></tr><tr><td>600mV</td><td>0.1mV</td><td></td></tr><tr><td>6V</td><td>0.001V</td><td></td></tr><tr><td>60V</td><td>0.01V</td><td></td></tr></table> 21		Range	Resolution	Accuracy	60mV	0.01mV	±(0.5%+3)	600mV	0.1mV		6V	0.001V		60V	0.01V																																																																																																							
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Replace battery or fuse Replace battery Turn off the meter power and remove the test probe. Using a screwdriver, remove the screws that secure the battery cover and remove the battery cover. Remove the old battery and replace it with a new battery of the same specification. Please pay attention to the polarity of the battery. Replace the battery cover in its original position, and fix and lock the battery cover with screws. WARNING In order to avoid electric shock or personal injury caused by wrong reading, please replace the battery immediately when the		battery power is low. Do not discharge the battery by shorting it or reversing its polarity. In order to ensure the safe operation and maintenance of the meter, please take out the battery when it is not used for a long time, so as to prevent the battery leakage from damaging the meter. Replace fuse Turn off the meter power and remove the test probe. Use a screwdriver to unscrew the screws that fix the back cover and remove the back cover. Remove the burned fuse tube, replace it with a new one of the same specification, and make sure that the fuse tube is installed in the fuse clip and clamped tightly.		4) Install the back cover and lock it with screws. WARNING To prevent possible electric shock, personal injury or damage to the meter, use fuses of the same specification or specified specification.		Removable Screen Protector on the Screen  EMC&LVD RoHS CE SGS																																																																																																																										

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