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NOTICE TO USERS

- This manual provides a detailed introductions to the product. Please read this manual carefully ensure obtain the best state of the product.
- Do not use the instrument in flammable and explosive environments.
- Waste batteries and instruments cannot be disposed of together with household waste. Please dispose of them in accordance with relevant national or local laws and regulations.
- If there are any quality issues with the device or if you have any questions about using the device, please contact “FNIRSI” online customer service and we will solve it for you in the first time

1.PRODUCT INTRODUCTION

DMT-99 is FNIRSI's newly launched 10000 count intelligent digital multimeter, with a wider measurement range and higher resolution, helping you measure more accurate values. It can accurately measure AC/DC voltage, AC/DC current, 10A current, and can also be used to test conductivity, capacitance, frequency, resistance, diode, temperature, NCV, live wire, etc. Suitable for various fields of electronic maintenance such as engineering, laboratories, cars, and home appliances. And it is equipped with a 2.4 inch full color TFT display screen with a resolution of up to 240 * 320, a new UI interface design, and the first monitoring mode function, enriching your use experience and making operation more convenient in various scenarios.

2.BUTTONS & FUNCTIONS INTRODUCTION

Button	Function
V Ω ⊣⊢ / ⊣◂	Voltage gear, resistance gear, diode/buzzer gear, capacitance gear, selection key;Enter the menu is the right selection key.
HOLD / REL	HOLD/REL(date hold/ relative value)key: Short press this key to hold the date, and short press again to cancel;Long press this key for 2 seconds to enter the relative value measurement mode, long press again to cancel;Enter the menu is the up selection key.
AUTO / MENU	Auto/Menu key: Short press this key to switch to automatic gear; Long press and this key for 2 seconds to enter the menu, and long press again to exit the menu;Enter the menu is the confirm key.
Hz NCV / LIVE	Frequency, temperature, NCV, LIVE selection key; Enter the menu is the down selection key.
mA / A	Low current and high current selection key; Enter the menu is the left selection key.
⏻	On/Off key: Long press and hold for 2 seconds to turn on , and long press again to turn off when it is turned on.

3.MENU INTRODUCTION

Long press the AUTO / MENU for 2 seconds to enter the menu, and then use the up, down, left, right, and confirm keys to browse the menu and set functions.

①**Mode selection:**Normal mode, recording mode, and monitoring mode.

②**Threshold setting:** Set the minimum and maximum thresholds for voltage, current, and temperature in monitoring mode.

③**History:** Store the measurement values saved in the recording mode, with a maximum of 30 records, the latest saved data is in the first record, arranged in descending order, overwrite the oldest records after over 30 pieces of data.

④**System settings:** Set language, screen brightness, temperature gear, and automatic shutdown time.

⑤**Restore factory settings:** Restoring factory settings will clear all historical data and restore to factory time settings.

⑥**Regarding:** View manufacturer information, equipment model and version number.

4.TESTING METHODS

1. Normal Mode

In normal mode, it supports automatic, voltage, resistance, diode/buzzer, capacitor, high current, low current, frequency, temperature, NCV, and LIVE measurements.

Automatic measurement



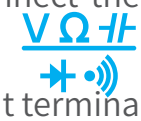
①Automatic gear is selected by default when starting in normal mode, short press the middle button to switch to automatic gear from other measurement gears. Connect the red test pen to the input terminal V Ω ⊣⊢ and the black test pen to the input terminal COM , the multimeter will automatically identify the current measured signal based on the voltage and resistance of the measured object.

②Automatic gear : Only voltage , resistance and continuity test gears are identified automatically.

③ When measuring voltage, AC/DC voltage is identified automatically.

④ When measuring, if the resistance at both ends is less than 50 Ω, the buzzer will ring.

Voltage measurement

①Switch to the voltage gear, connect the red test pen to the input terminal  and the black test pen to the input terminal **COM** .



Resistance measurement

①Switch to the resistance gear and connect the red test pen to the input terminal  aand the black test pen to the input terminal **COM**.

②During measurement, the range gear will be automatically identified.



Diode /Continuity test measurement

①Switch to diode/continuity test mode, connect the red test pen to the input terminal  and the black test pen to the input terminal **COM** .The multimeter will automatically identify the current measured signal based on the voltage and resistance of the measured object.



② Measuring continuity test, when the resistance is less than 50 Ω, the buzzer will ring.

③ When measuring the diode, the screen displays a forward bias voltage. If the polarity of the test wire is opposite to that of the diode, or the diode is damaged, the screen displays "OL".

Capacitance measurement

①Switch to the capacitor gear and connect the red test pen to the input terminal VΩ⊣⊢, while the black test pen to the input terminal **COM** .

② During measurement, the range gear will be automatically identified.



Frequency measurement

①Switch to the frequency gear and connect the red test pen to the input terminal VΩ⊣⊢, while the black test pen to the input terminal **COM** .

② During measurement, the range gear will be automatically identified.



Temperature measurement

Switch to the temperature gear and connect the red test pen to the input terminal VΩ⊣⊢, while the black test pen to the input terminal **COM** .



Current Measurement-low current

①Switch to the low current range, and the maximum measured current is 999.9mA, connect the red test pen to the input terminal **mA** , while the black test pen to the input terminal **COM** .



Notice

If the measured current is greater than 1A, it will burn out the fuse.

Please preliminarily evaluate the current before measuring.

Current Measurement-high current

①Switch to the high current range, and the maximum measured current is 9.999A, connect the red test pen to the input terminal **10A** , while the black test pen to the input terminal **COM** .



Notice

if the measured current is greater than 10A, it will burn out the fuse.
Please preliminarily evaluate the current before measuring.

NCV measurement

①Switch to NCV gear.

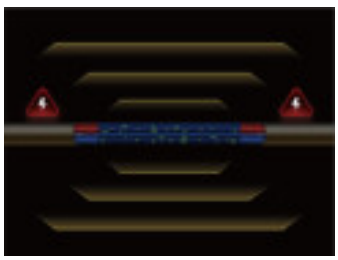
②At this point, slowly approach the NCV area on the top of the multimeter to the test point. If the built-in sensor senses an AC electromagnetic field, the buzzer will emit a "DiDi" sound. The stronger the electromagnetic field, the faster the "drip" sound, and the screen display will change synchronously, as shown in the following figure:



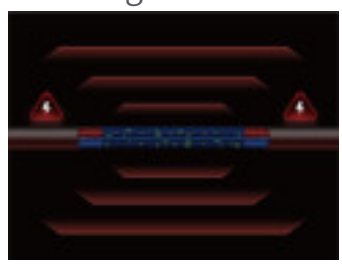
No magnetic field detected



Low magnetic field



Medium magnetic field



High magnetic field



LIVE measurement

① Press the down to switch to the LIVE gear, connect the red teat pen to the input terminal , and remove the black test pen.

② Contact the red test pen with the mains power plug, if the buzzer ring as either a live line or a neutral line or ground line , and screen display will change synchronously, as shown in the following figure:



Detected zero or ground wire



Detected a live wire



2. Recording Mode

In recording mode, it supports voltage, resistance, diode/buzzer, capacitor, high current, low current, frequency, and temperature gears.



①The measurement methods for recording mode is the same as that for normal mode. Please read the measurement methods for normal mode.

②The recording mode adds real-time measurement curves, records the minimum and maximum values during measurement, and saves measurement data on top of the regular mode.

③When measuring, press the middle button briefly. The record box on the right side of the screen will record the measured values at this time and save them to the historical record. The record box can display up to 8 sets of measured values, when it' s over 8 sets, the first set of data is overwritten and the cycle follows. The data on the yellow down line represents the latest recorded measurement value.

3. Monitoring Mode

In the monitoring mode, it supports voltage, current, and temperature gears.

①The measurement methods for monitoring mode is the same as that for normal mode. Please read the measurement methods for normal mode

②The monitoring mode adds threshold monitoring to the normal mode, when the measured value is within the set threshold range, the buzzer will ring, and the screen display will change depending on whether the measured value is less than the set minimum threshold, or greater than the maximum threshold within the minimum and maximum thresholds, as shown in the following figure.



Less than minimum threshold



Within the minimum and maximum thresholds



Greater than maximum threshold

5.PARAMETERS

Function	Range	Accuracy
DC Voltage	9.999V/99.99V/999.9V	±(0.5%+3)
AC voltage	9.999V/99.99V/750.0V	±(1%+3)
DC current	9999uA/99.99mA/999.9mA/9.999A	±(1.2%+3)
AC current	9999uA/99.99mA/999.9mA/9.999A	±(1.5%+3)
Resistance	9.999MΩ/999.9KΩ/99.99KΩ/9.999KΩ/999.9Ω	±(0.5%+3)
	99.99MΩ	±(1.5%+3)

Function	Range	Accuracy
Capacitance	999.9μF/99.99μF/9.999μF/999.9nF/99.99nF/9.999nF	±(2.0%+5)
	9.999mF/99.99mF	±(5.0%+20)
Frequency	9.999MHz/999.9KHz/99.99KHz/9.999KHz/999.99Hz/ 99.99Hz/9.999Hz	±(0.1%+2)
Temperature	(-55~1300°C)/(-67~2372°F)	±(2.5%+5)
Diode	Yes	
Continuity test	Yes	
NCV	Yes	
LIVE	Yes	

Working conditions	temperature	0~40°C
	humidity	<75%
Storage conditions	temperature	-20~60°C
	humidity	<80%
Weight	185g	
Battery capacity	1500mAh	

6.NOTICE

- Before using the product, please check whether the insulation near the shell and interface is damaged.
- Please hold your fingers behind the protective device of the pen.
- When measuring the circuit to be tested, do not touch all input ports.
- Please disconnect the test probe and circuit connection before changing the gear position.
- When the DC voltage to be tested is higher than 36V and the AC voltage is higher than 25V, users should pay attention to prevention and avoid electric shock.
- Please select the correct gear for measurement to avoid damage to the instrument. When all measurements exceed the range, the screen will display "OL".
- When the battery level is too low, a pop-up prompt will pop up. Please charge it in a timely manner to avoid affecting the measurement performance. Do not use the device while charging.

7.CONTACT US

Any FNIRSI's users with any questions who comes to contact us will have our promise to get a satisfactory solution +an extra 6 months warranty to thanks for your support!

By the way, we have created an interesting community, welcome to contact FNIRSI staff to join our community.

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