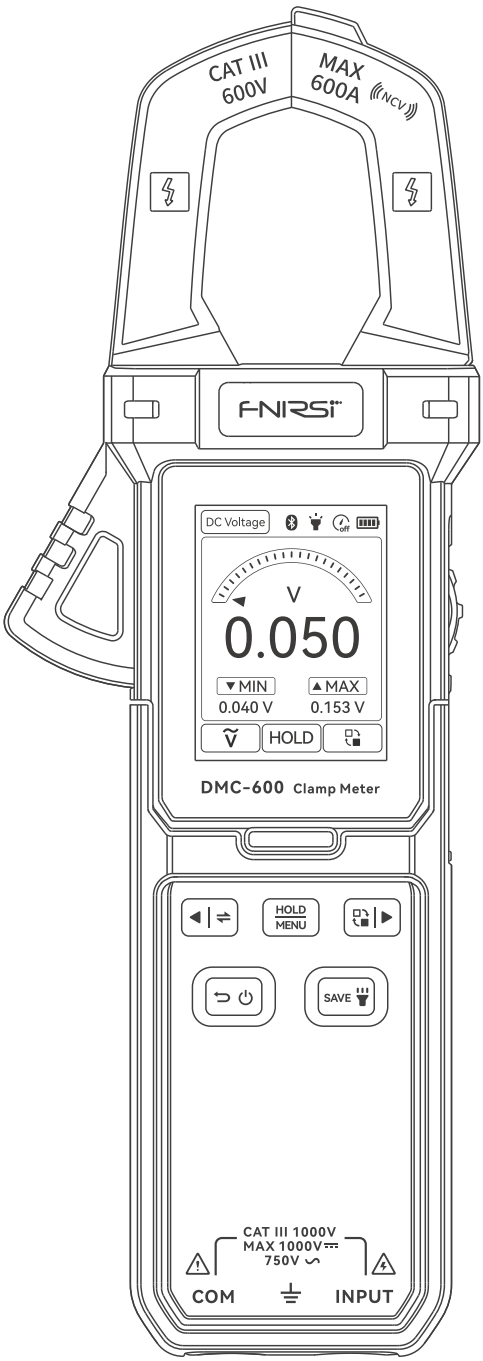
FNIRSI

DMC-600 / 600A

Smart Clamp Meter User Manual V1.2



※Please read this instruction manual carefully before using the product and keep it properly.

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1. Safety Requirements

1.1. Important Safety Information

Safety Warnings

- Avoid high temperatures, open flames, corrosive gases, humid or dusty environments to prevent device malfunction.
- Heater: Prevent overheating or fire risks.
- Water sources or chemical solvent leaks may damage the device or cause fire hazards.
- Strong magnetic devices: Prevent magnetic fields from interfering with the normal operation of the device.

Disposal

Do not dispose of used batteries or devices with household waste. Dispose of them in accordance with national or local regulations.

Caution

- The device should be used according to the specified measurement category, voltage, or current ratings.
- A low battery warning will pop up when the battery is low. Please charge it promptly to avoid affecting measurement performance. Do not use the device while charging.
- Do not attempt to disassemble the device. Repairs and maintenance should only be performed by qualified professionals.

Potential Misuse Risks

- Do not perform measurements under abnormal conditions, such as: damage to the device body, or exposure of metallic parts of the device or test leads.
- Do not use test probes intended for other products. Only use the probes provided with this product that meet relevant standards.
- Hold the test probes by the protective handles. Do not touch any input terminals while measuring the circuit.
- Maximum voltage between probe terminals: 1000V; Clamp jaw clamp lead: Voltage ≤ 600V.

· Do not knock the device during measurement, as this may cause abnormal measurement readings.

· Do not use the device on a wet surface or with wet hands, as this may result in electric shock.

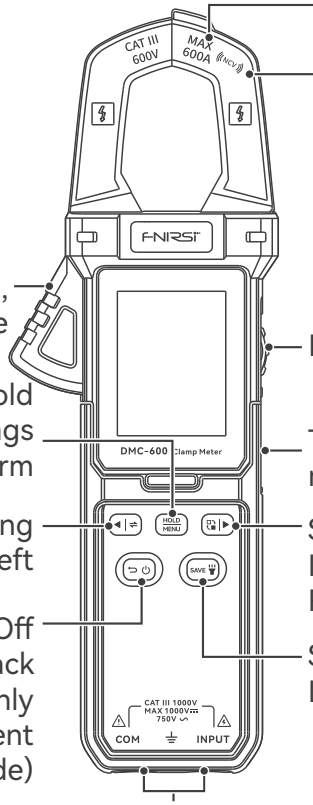
2. Product Overview

2.1 Product Introduction

The DMC-600 is the latest digital clamp meter launched by FNIRSI. With a wider measurement range and higher resolution, it helps you obtain more accurate readings. It can precisely measure AC/DC voltage and AC/DC current, and also supports continuity, capacitance, frequency, resistance, diode, temperature, NCV, and other tests. It is widely used in engineering, laboratories, automotive maintenance, household electrical inspection, and other electronic maintenance applications. Equipped with a 2.0-inch full-color TFT display, it also features Data Hold, Recording, Flashlight, and other practical functions, providing a better user experience and making reading and operation more convenient in various scenarios.

2.2 Product Description

Front Panel and Button Functions:



Maximum measurable current capacity

Non-contact AC voltage sensing (NCV)

Clamp Trigger: Press to open, release to close

Range selection

Short press: Hold
Long press: Enter/Exit Settings
In Settings: Short press – Confirm

Type-C power port / multifunction input terminal

Short press: Range Switching
In Settings: Short press – Move Left

Short press: Mode switching
In Settings: Short press – Move Right

Long press: Power On/Off
In Settings: Short press – Back
Short press: Zero Adjustment (only in DC current/power measurement mode)

Short press: Save
Long press: Flashlight

Measurement Input Terminal: Input for measurement signals

3. Technical Specifications

Function	Range	Accuracy
DC Voltage	9.999 V / 99.99 V / 999.9 V	±(0.5 % + 3)
AC Voltage	9.999 V / 99.99 V / 750.0 V	±(1 % + 3)
DC Current	99.99 A / 600.0 A	±(2.5 % + 10)
AC Current		
Resistance	9.999 MΩ / 999.9 KΩ / 99.99 KΩ / 9.999 KΩ / 999.9 Ω	±(1.5 % + 3)
	99.99 MΩ	±(1.5 % + 3)
Capacitance	999.9 µF / 99.99 µF / 9.999 µF / 999.9 nF / 99.99 nF / 9.999 nF	±(2.0 % + 5)
	9.999 mF / 99.99 mF	±(5.0 % + 20)
Frequency	9.999 MHz / 999.9 KHz / 99.99 KHz / 9.999 KHz / 999.99 Hz / 99.99 Hz / 9.999 Hz	±(0.1 % + 2)
Temperature	(-55~1300 ℃) / (-67~2372 ℉)	±(2.5 % + 5)
Diode Test	✓	
Continuity Test	✓	
Non-Contact Voltage Detection (NCV)	✓	
Single-Probe AC Voltage Detection (LIVE)	✓	
Bluetooth Module	✓ (DMC-600 Model Only)	
Data Hold	Press the Record button to retain the measured value	
Auto Off	Auto power off after 5/15/30 minutes of inactivity	
Operating Temperature	-10 ℃ - 60 ℃	
Operating Humidity	Humidity < 75 % RH	
Storage Temperature	-20 ℃-60 ℃	

Storage Humidity	Humidity < 80% RH
Weight	250 g
Battery Capacity	1500 mAh

4. Operating Instructions

4.1 Multimeter Measurement Interface Description

Normal Mode:



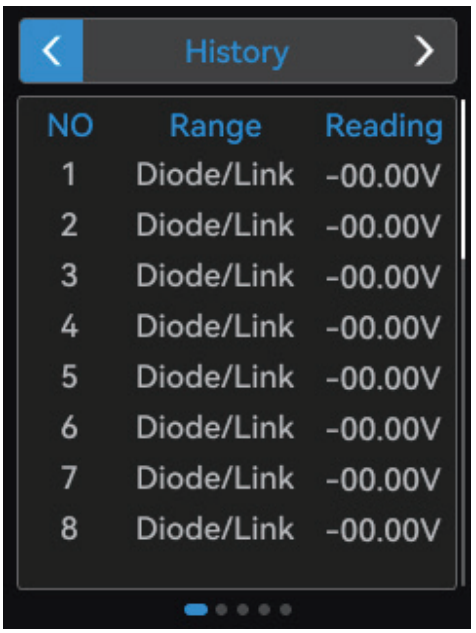
1. Displays current measurement range
2. Displays Bluetooth status
3. Displays backlight status
4. Displays preset auto power-off timer
5. Displays battery level
6. Displays current measured value
7. Displays minimum measured value
8. Displays maximum measured value
9. Displays current measurement mode
10. HOLD function, locks current measured value
11. Display mode switching function, used to switch between display modes and view measurement data

Waveform Mode:

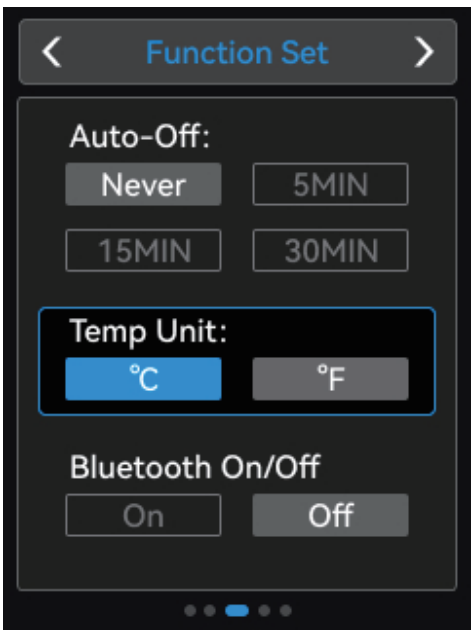


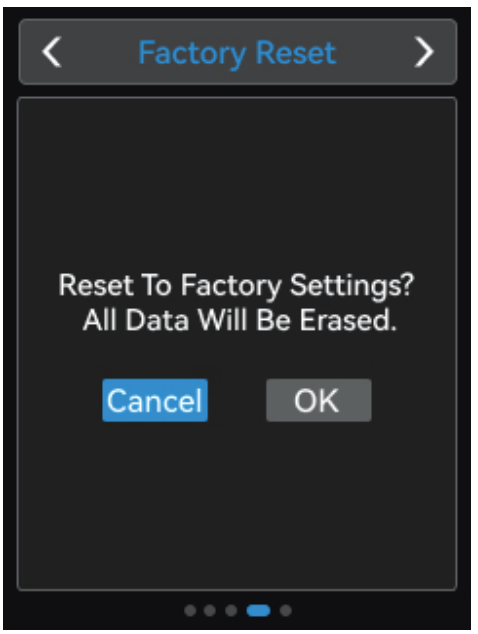
1. Real-time waveform display
2. Displays saved data records, allowing users to view historical measurement data

4.2 Function Settings









Settings Item	Function	Options
History	Store and view historical measurement data	/
Language	Switch system display language	Chinese / English

Theme	Switch UI display style	Dark Black / Pure White
Brightness	Adjust screen brightness	10 % ~ 100 %
Sound	Enable or disable sound	On / Off
Auto Off	Auto off after inactivity	Never / 5 min / 15 min / 30 min
Temperature Unit	Switch temperature unit display	℃ / ℉
Bluetooth	Enable or disable Bluetooth function	On / Off
Factory Reset	Restore system to factory settings	Cancel / Confirm
About	Displays basic device information and manufacturer details	/

5. Quick Start Guide

5.1 General Inspection

① Check for any damage caused during transportation

If the packaging carton or foam protective padding is found to be severely damaged, please retain it until both the instrument and accessories pass electrical and mechanical testing.

② Check the accessories

The list of supplied accessories is provided in this user manual. Please refer to it to verify whether any items are missing. If any accessories are missing or damaged, please contact the distributor responsible for this product or your local office.

③ Inspect the instrument

If the instrument housing is damaged, the device does not operate properly, or it fails performance testing, please contact the distributor responsible for this product or your local office. If the instrument is

damaged during transportation, please retain the packaging. Notify the shipping carrier and the distributor responsible for this product. The company will arrange repair or replacement.

5.2 Power On/Off

The device can be powered on in the following way:

Press the ⮌ ⏻ button located at the lower-left corner of the main unit.

The device can be powered off in the following ways:

Manual power off: Long press ⮌ ⏻ button.

Automatic power off: A short beep will sound when the device is shutting down.

Low battery auto shutdown: When the battery is low, the device will automatically power off after a 10-second countdown.

5.3 Bluetooth Connection

① APP Download

APP Download: Android users can scan the QR code below to install the [FNIRSI] APP. IOS users should go to the APP Store and search for [FNIRSI] to download.

② Enter Settings

Long press the [HOLD/MENU] button on the device panel, select "Settings" to enter the system settings interface.

③ Enable Bluetooth

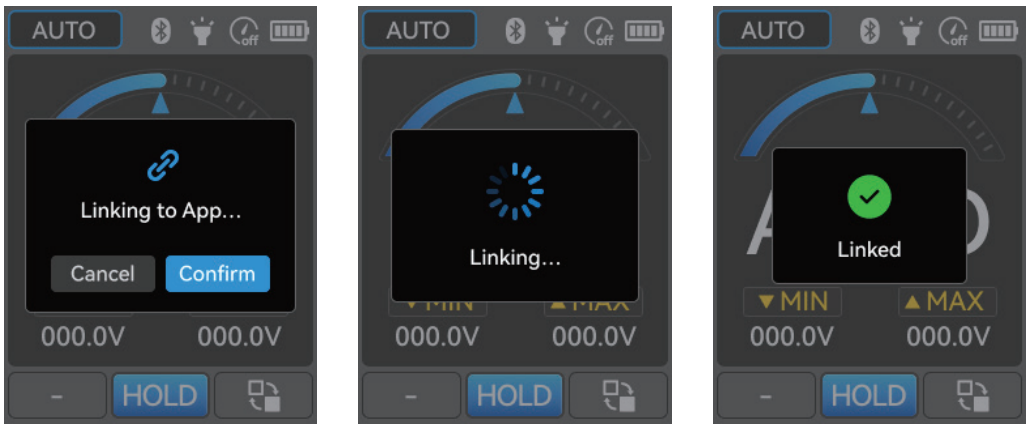
In the system settings interface, switch the Bluetooth function to ON.

④ Device Connection

Open the installed [FNIRSI] APP, scan and select the target device to complete pairing and enter the binding process.

During the binding process, a confirmation pop-up window will appear automatically. The user can switch between [Cancel] and [Confirm] using the left/right keys, and press the [HOLD/MENU] button to confirm the operation.

After selecting [Confirm], the device enters the binding state with a loading animation. Once completed, a [Binding Successful] message is displayed. Selecting [Cancel] exits the binding process and returns to the previous interface. After successful connection, the Bluetooth status icon on the device will be lit.



5.4 Firmware Upgrade

① Enter Upgrade Mode

When the device is powered off, press and hold the [HOLD/MENU] button, then press the power button.

② Establish Connection

Use a USB Type-C data cable to connect the device to your computer.

③ Firmware Import

The computer will automatically recognize the device in USB drive mode. Drag the latest firmware file into the USB drive directory and wait for the transfer to complete.

④ Complete Upgrade

Once the firmware transfer is complete, restart the device to finish the firmware upgrade process.

6. Troubleshooting

Device Cannot Be Powered On

Possible Causes:

· Loose or damaged battery connection

· Battery power exhausted

Solutions:

①Try connecting the device via USB and check whether the screen lights up. Charge the device if necessary.

②If the device still cannot be powered on, it is recommended to replace the battery.

7. Maintenance

7.1 Cleaning the Exterior

· Frequency: Clean once a week, depending on the operating environment.

· Method: Gently wipe the surface of the device with a soft cloth. (Avoid using chemical cleaners, especially those containing alcohol, strong acids, or strong alkalis, to prevent damage to the housing or screen.)

7.2 Storage and Handling

· Storage Environment: The instrument should be stored in a dry and well-ventilated environment. Avoid high temperature, high humidity, or drastic temperature changes. Do not place it in direct sunlight.

· Handling: Handle the device carefully to avoid dropping it, especially during transportation.

8. Contact Us

Product Name: Smart Clamp Meter

Model: FNIRSI/DMC-600 / DMC-600A

Manufacturer: Shenzhen FNIRSI Technology Co., Ltd.

Address: 8th Floor, West Side, Building C, Weihua Da Industrial Park, Dalang Street, Longhua District, Shenzhen, Guangdong, China

Tel: 0755-28020752

Service Email: support@fnirsi.com

Business Email: business@fnirsi.com

Website: www.fnirsi.com

Standard Implemented: GB/T 13978-2008

9. Warranty Information

※This page is the basic warranty card. Please keep it.

Thank you for choosing our company's products. The warranty period of this product starts from the date of sale. During the product warranty period, if the product is installed and used in accordance with the product manual and used in normal environment and conditions, and the fault is caused by defects in the original materials and processing, you can enjoy free repair services according to the content of this warranty clause. Please keep this warranty card properly as a warranty certificate. No reissue will be issued if it is lost.

The following situations will incur paid repair services:

1. Unable to present the original valid warranty card.
2. Damage caused by improper installation not meeting product requirements, standards, or relevant regulations.
3. Damage caused by accessories in the installation environment not meeting product requirements, standards, or relevant specifications.
4. Damage caused by improper use, improper storage, unauthorized disassembly, or unauthorized repairs by the user.
5. Expiration of the warranty period.

Warranty Card

Product Model	☐ DMC-600 ☐ DMC-600A	**Qty.**	
Distributor Name (Where to buy)		**Contact**	
Distributor Address		**Invoice Number** (Order Number)	
Purchase Date	**Year**	**Month**	**Day**
User Name:		**Address:**	
Contact:		**Fault Description:**	



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