

User Manual

Temperature recorder/temperature and humidity recorder (C3 Series)

Zhejiang WASON Cold Chain Science and Technology Co.,Ltd

This version of the user manual is a supporting manual for the C3 series intelligent temperature/humidity recorder under WASON, which is used for installing hardware and supporting data analysis software. Due to product upgrades or other reasons, if there are any differences between the pictures, mechanical dimensions, and the actual product in the manual, please refer to the actual product. Our company reserves the right of final interpretation.

Company: Zhejiang WASON Cold Chain Science and Technology Co., Ltd

Service hotline: 400-6988-571

Location: Hangzhou, China

Website: www.wason.cn

Catalogue

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Chapter 1 Product Overview

The Wason C3 series temperature and humidity recorder is a precision instrument with single machine and data storage. Built in or external high-precision analog or digital sensors can be used to directly download data without the need for upper computer software. Convenient functions such as parameter setting, data downloading, data analysis, and data uploading to the server can be achieved through the use of upper computer software. This instrument is widely used in fields such as food, medicine, chemical engineering, museums, and scientific research. The product quality is stable and well reflected.

Chapter 2 Equipment List

The Wason C3 series temperature and humidity recorder has multiple models, and the items packed in different models may vary. Please carefully check whether the corresponding components of each recorder are complete after opening the packaging box. If there are any omissions, please contact your supplier promptly.

Name	Picture	Quantity	Describe
host		1	standard configuration
data line		1	standard configuration
light disk		1	standard configuration
operation instructions		1	standard configuration
certificate of conformity		1	
warranty card		1	
calibration certificate		1	
sensor		1	1 external temperature sensor or 1 external temperature and humidity sensor
		2	2-channel external temperature sensor
		0	Built in sensor
audible and visual alarm		1	Optional
adapter		1	Optional

Chapter 3 Instrument Selection

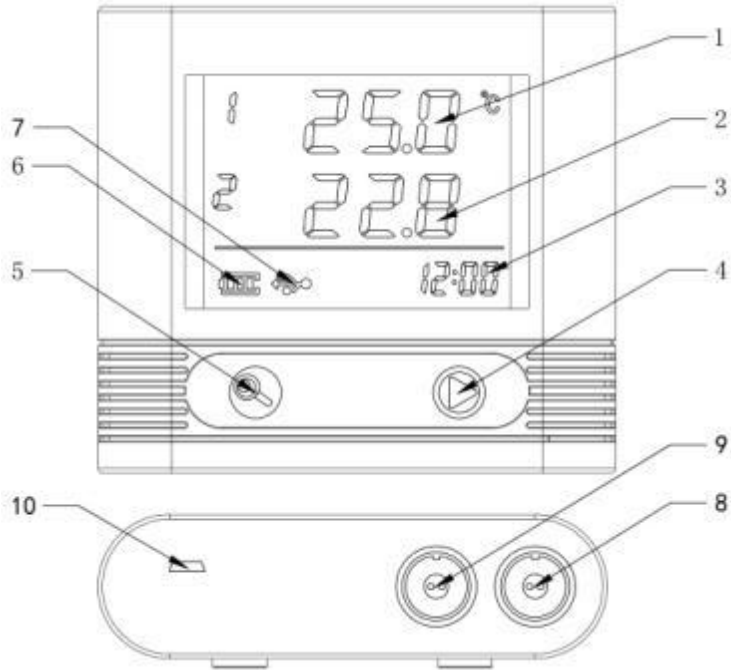
Ordinary series	Type	Describe
Temperature recorder	WS-T10C3	Built-in、single channel、normal temperature
Temperature recorder	WS-T11C3	External、single channel、normal temperature
Temperature recorder	WS-T21C3	External、dual channel、normal temperature
Temperature and humidity recorder	WS-TH20C3	Built-in、temperature and humidity
Temperature and humidity recorder	WS-TH23C3	External、Temperature and humidity
Low temperature recorder	WS-T11LC3	External、single channel、low temperature (L)
Low temperature recorder	WS-T21LC3	External、dual channel、low temperature (L)
Deep low temperature recorder	WS-T11SLC3	External、single channel、deep low temperature (SL)
Deep low temperature recorder	WS-T21SLC3	External、dual channel、deep low temperature (SL)
High temperature recorder	WS-T11HC3	External、single channel、high temperature (H)
High temperature recorder	WS-T21HC3	External、dual channel、high temperature (H)

External alarm series	Type	Describe
Temperature recorder	WS-T10AC3	Built-in、single channel、normal temperature
Temperature recorder	WS-T11AC3	External、single channel、normal temperature
Temperature recorder	WS-T21AC3	External、dual channel、normal temperature
Temperature and humidity recorder	WS-TH20AC3	Built-in、temperature and humidity
Temperature and humidity recorder	WS-TH23AC3	External、temperature and humidity
Low temperature recorder	WS-T11LAC3	External、single channel、low temperature (L)
Low temperature recorder	WS-T21LAC3	External、dual channel、low temperature (L)
Deep low temperature recorder	WS-T11SLAC3	External、single channel、deep low temperature (SL)
Deep low temperature recorder	WS-T21SLAC3	External、dual channel、deep low temperature (SL)
High temperature recorder	WS-T11HAC3	External、single channel、high temperature (H)
High temperature recorder	WS-T21HAC3	External、dual channel、high temperature (H)

Chapter 4 Technical Parameters

Sensor type	Temperature	Humidity
Temperature range	-40℃~+100℃ -90~+70℃ (L) -200~0℃ (SL) 0~+300℃ (H)	0~ 100%RH
Accuracy	-20℃~70℃: ±0.5℃ Other : ±1℃	±3%RH~±5%RH
Display resolution	0.1℃/0.1F	0.1%RH
Storage resolution	0.1℃	0.1%RH
Record capacity	60000 groups	
Record the sampling interval	The shortest interval is 1 second, which can be set in seconds, minutes, hours, or any other settings	
Start mode	Manual start, timed start	
Stop Mode	Manually stop until fully stored	
Alarm method	Internal power supply: The buzzer inside the device sounds an alarm; External power supply: external sound and light alarm, flashing prompt, internal buzzer alarm;	
Host Power	3.6V lithium battery, 2-year usage time (default setting)	
Communication interface	MICRO-USB	
External dimensions	109×102×30mm	
Weight	About 200 grams	

Chapter 5 Instrument Usage Instructions

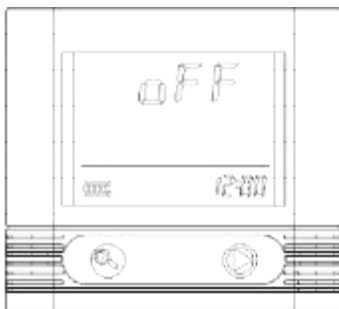


Number	Describe
1	First channel display value
2	Second channel display value
3	Date display, cyclically displaying year, month/day, hour/minute respectively
4	Power on/off
5	View maximum/minimum/current value
6	Battery level display
7	External power supply symbol/USB online communication symbol
8	First sensor interface
9	Second sensor interface
10	USB online interface/external power interface

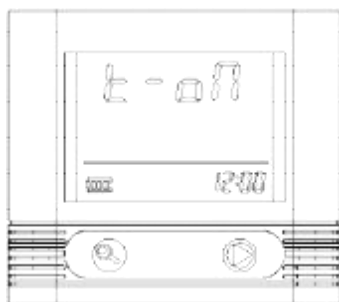
1. Please set the parameters of the product when using it for the first time (see Chapter 7 Software Installation and Operation for details);

2. Instrument status display instructions:

✧OFF: Indicates that the instrument is in a "stop" state.



✧T-ON: Indicates that the instrument is in the "timed start" standby state.



Explanation: C-Mi can be used for timed startup settings, placing the instrument in standby startup mode.

✧FULL: Indicates that the instrument record is full. Please perform a clear record operation.



3. Run key  : This key can be used to start or stop recording.

Explanation: Power on/off generates one file at a time, and the generated file format is CSV format.

4. Query maximum, minimum, and current values:

Query key  : This key can be used to query the maximum value, minimum value, and current value.

Chapter 6 Precautions for Use

1. The C3 series temperature and humidity recorder is a precision instrument. Unauthorized professional maintenance personnel are not allowed to repair, modify, replace batteries, disassemble the machine body, and perform other operations on their own. Please strictly follow the instructions in the manual. Our company shall not be held responsible for any abnormal operation, damage, data loss or indirect economic losses caused by human factors.

2. Our company guarantees the normal quality of the products during shipment. The warranty liability is limited to the following provisions: "This instrument is a monitoring device and cannot be controlled or adjusted. Therefore, if some instruments may have functional defects or malfunction, the manufacturer's liability is limited to repairing or replacing the product.

3. This recorder can be powered by internal and external power sources respectively. The external power supply range is 5V DC power supply, and the external power interface is standard Micro USB.

4. This instrument cannot use a regular No. 5 battery. It requires the use of one 3.6V dedicated lithium battery, which cannot be recharged, short circuited, placed near a fire source, or thrown into water. Discarded batteries should be disposed of in an environmentally friendly manner. The battery level is based on not connecting to an external power source.

5. The safe operating temperature of the host of this instrument is -20 °C~70 °C. When using an external sensor model, the working temperature range of the sensor can be higher than the safe operating temperature of the instrument. Please refer to the technical parameters of each model for the specific

temperature range. Please do not use this instrument outside the operating temperature range and do not use it in corrosive environments.

6. The body of this instrument is suitable for storage at a temperature of -20~70 °C and a relative humidity of 20%~80% (non condensing state). Please strictly follow the maximum storage temperature of this product and do not store beyond the limit, otherwise it will cause irreversible damage to the instrument

7. This product is not waterproof. If it falls into water with electricity, the external power supply should be immediately cut off. When using battery power, the battery should be removed immediately and the equipment should be returned to the dealer or original factory for testing and repair.

8. The default setting of this instrument at the factory is to record every 5 minutes and turn off the alarm.

9. If you need to read data, please shut down the machine.

10. Use a USB data cable with a shielding layer.

11. Low battery voltage can cause inaccurate measurements and abnormal instrument operation; When displaying the empty battery status, please replace the battery in a timely manner.

Chapter 7 Software Installation and Operation

1. Minimum environmental requirements for software operation

- ✧ P3 Central Processing Unit above 800MHz
- ✧ 64MB or more system memory
- ✧ 24X or above CD-ROM drive
- ✧ Free space on hard drives above 256MB
- ✧ Windows 98/2000/XP/WIN7 operating system

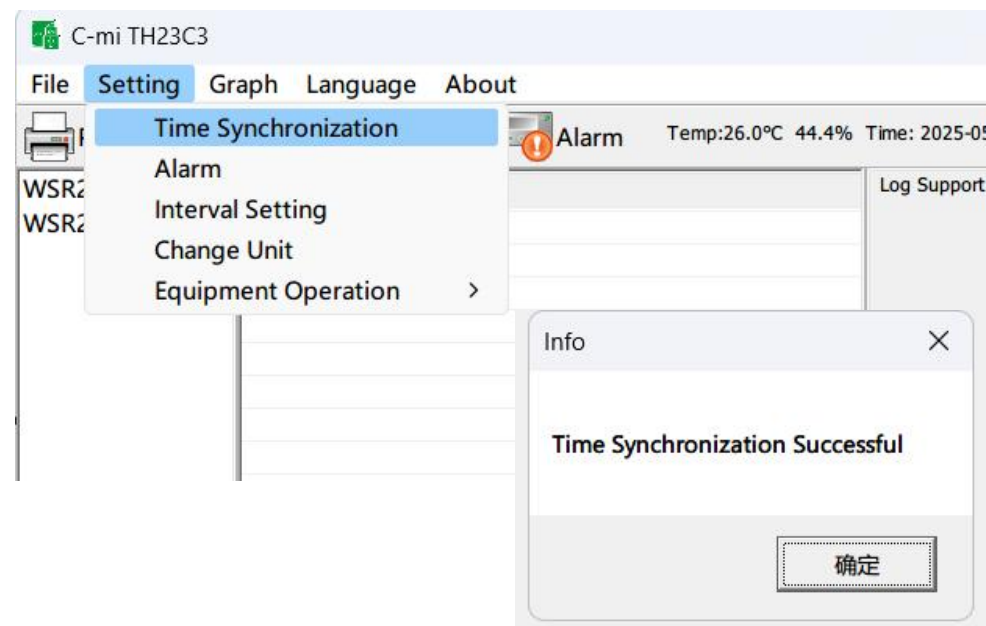
2. Software installation

- ✧ The upper computer software C-Mi that comes with this recorder is a green software that can be opened and used directly without installation.
- ✧ To open the software, please double-click icon  and directly use the C-Mi software.

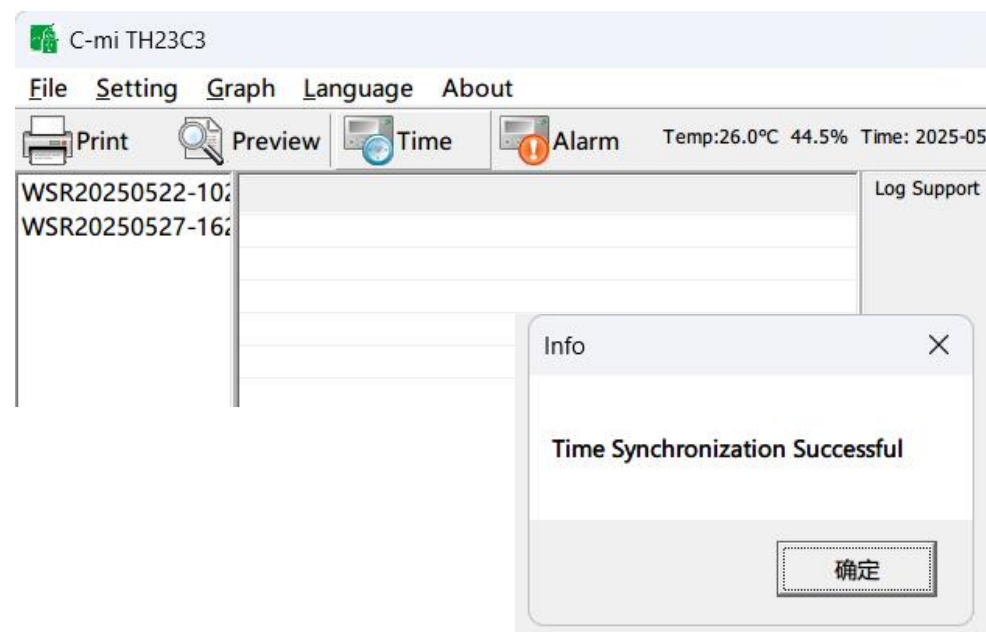
3. Software operation

- ✧ Time synchronization settings:

Click on **【 Setting 】** → **【 Time Synchronization 】** → **【 OK 】** in the menu bar

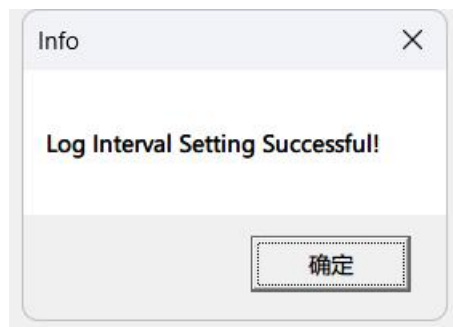
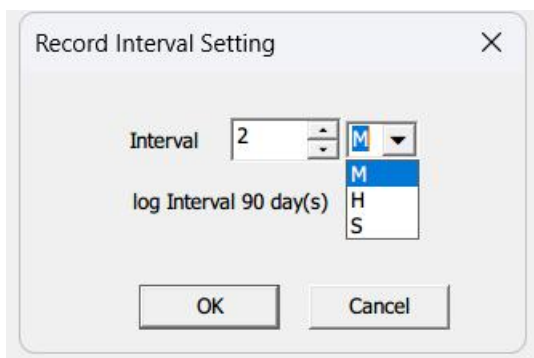
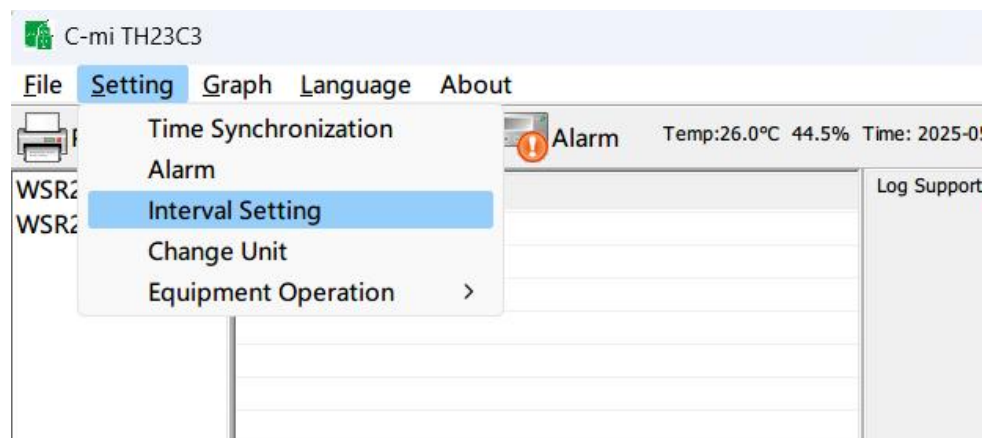


Click **【 Time 】** → **【 OK 】** on the shortcut menu bar



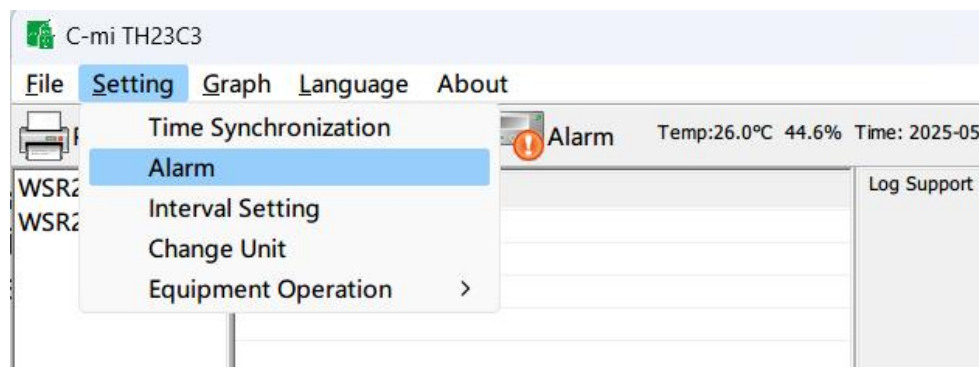
✧Record interval setting:

Click on **【 Setting 】** → **【 Interval Setting 】** → Select Record Interval Unit
→ Set Parameters → **【 OK 】** in the menu bar

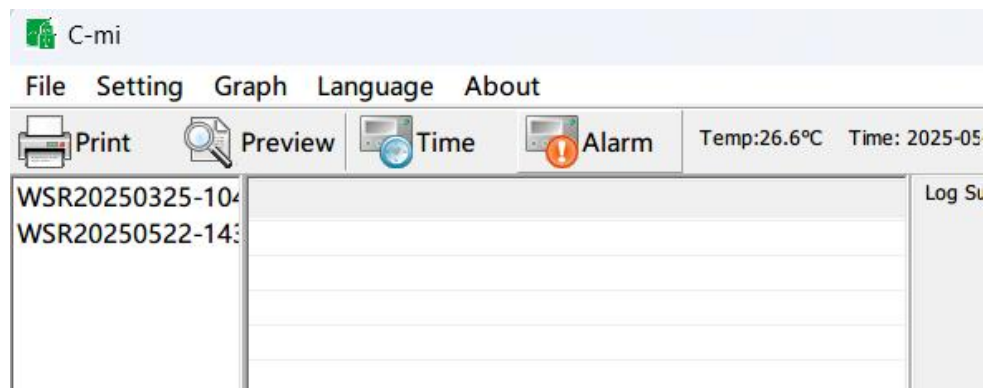


✧Alarm upper and lower limit settings

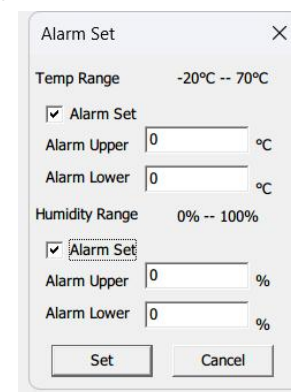
Click on **【 Setting 】** → **【 Alarm 】** in the menu bar



Click on 'Alarm' in the shortcut menu bar



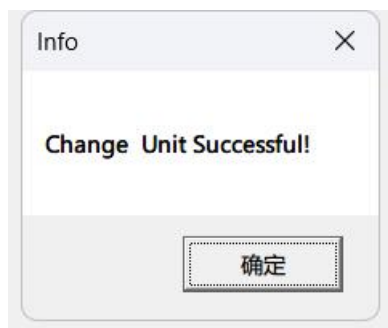
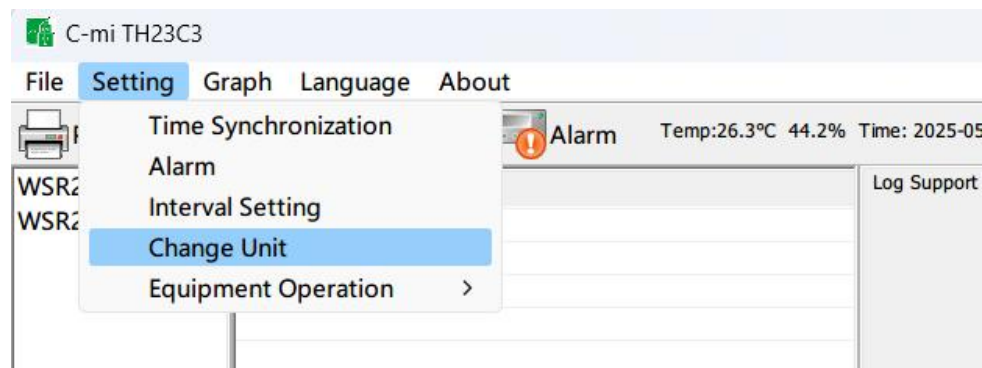
Check **【 Alarm Set 】** (Single Channel or Dual Channel) → Set Parameters (Upper and Lower Limits) → **【 Set 】**



Alarm method description: After the alarm is triggered, it will sound continuously 30 times at intervals of 10 seconds. If the measured value remains in an over limit state for about 10 minutes plus the recording interval time, it will sound continuously 30 times at intervals of 10 seconds and repeat this cycle. If the measurement value returns to normal and the alarm is not completed 30 times, it is necessary to manually cancel the alarm by pressing any button.

✧Display Unit Switching:

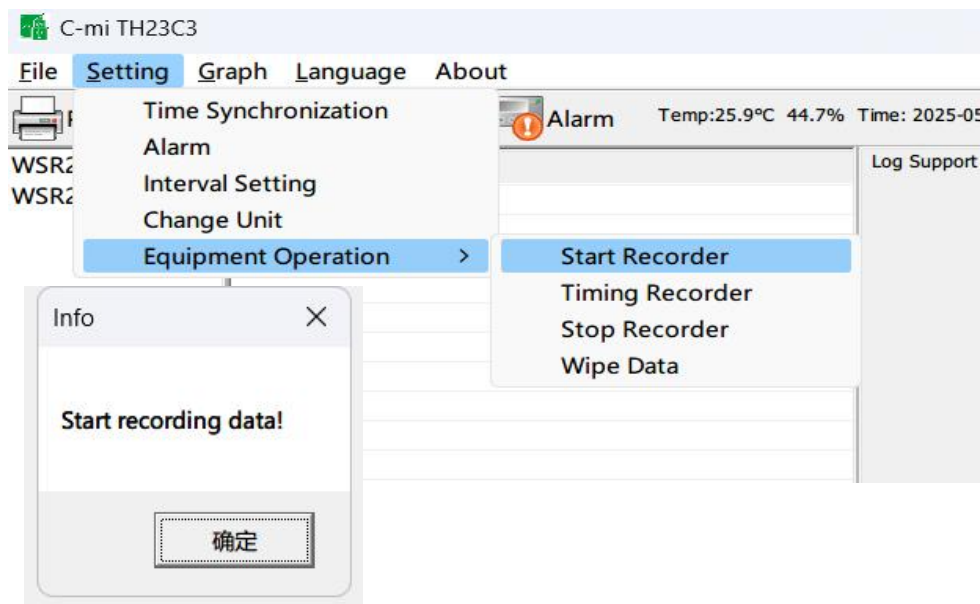
Click on 【 Setting 】 → 【 Change Unit 】 → 【 OK 】 in the menu bar



✧Equipment Operation

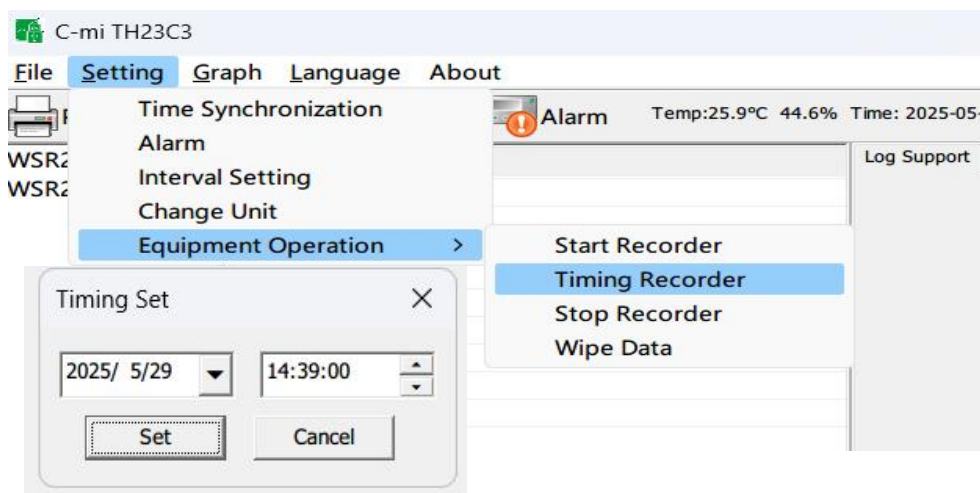
Start recording:

Click on 【 Setting 】 → 【 Equipment Operation 】 → 【 Start Recorder 】 in the menu bar



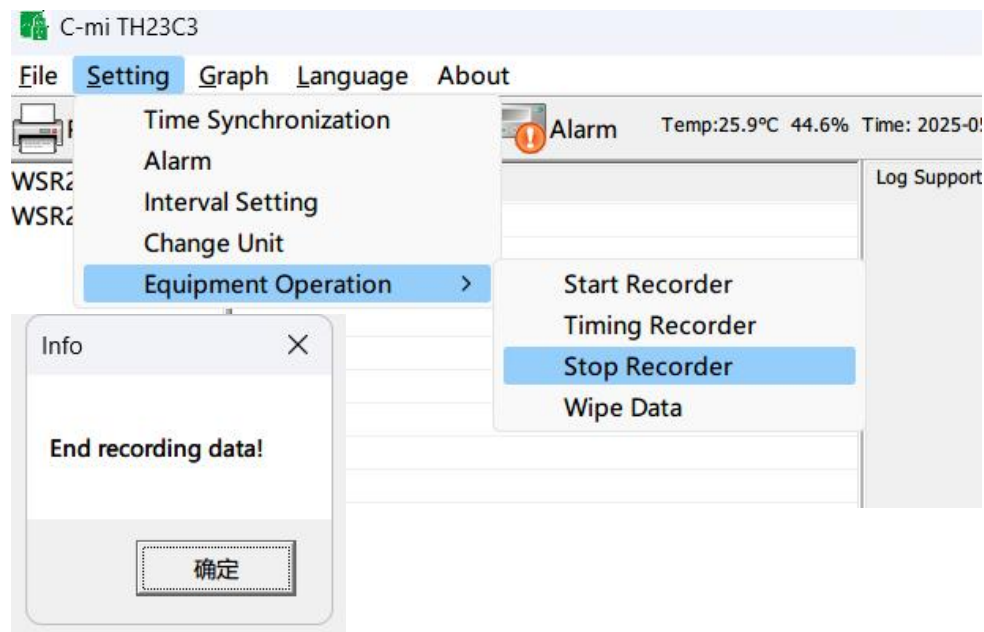
Timed recording:

Click on 【 Setting 】 → 【 Equipment Operation 】 → 【 Timer Recorder 】 → 【 Timing Set 】 → 【 Set 】 in the menu bar



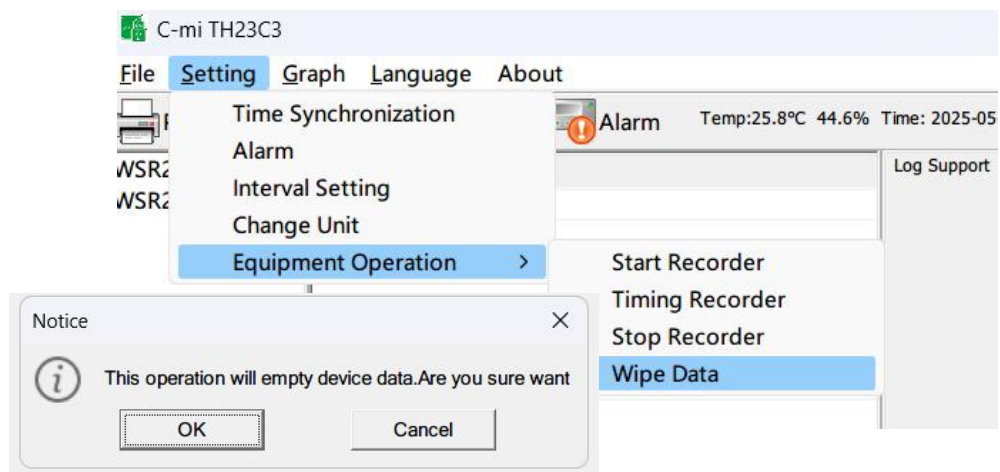
Stop recording:

Click on **【 Setting 】** → **【 Equipment Operation 】** → **【 Stop Recorder 】** in the menu bar



Clear records:

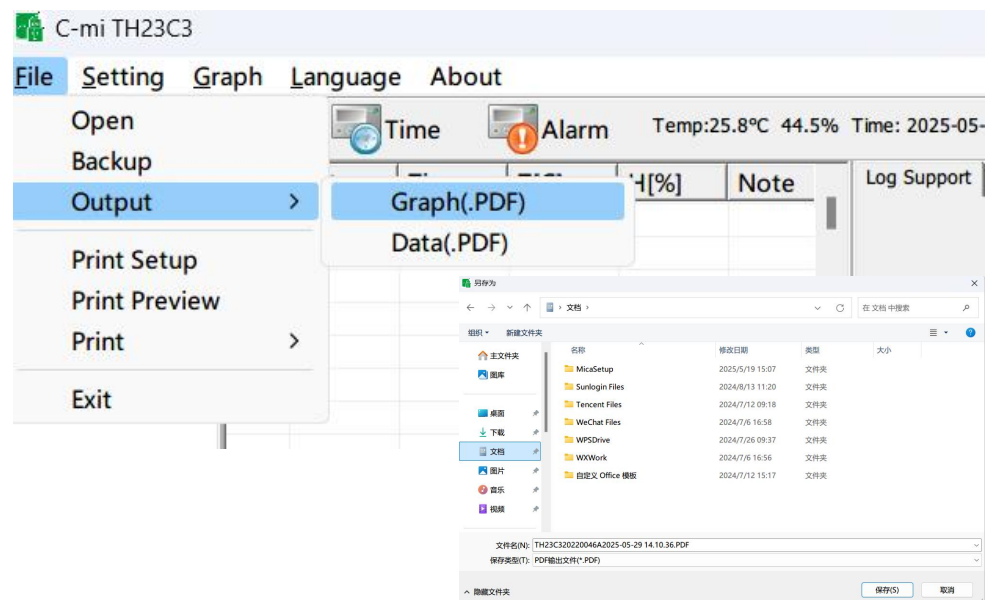
Click on **【 Setting 】** → **【 Equipment Operation 】** → **【 Wipe Data 】** → **【 OK 】** in the menu bar



✧Data processing

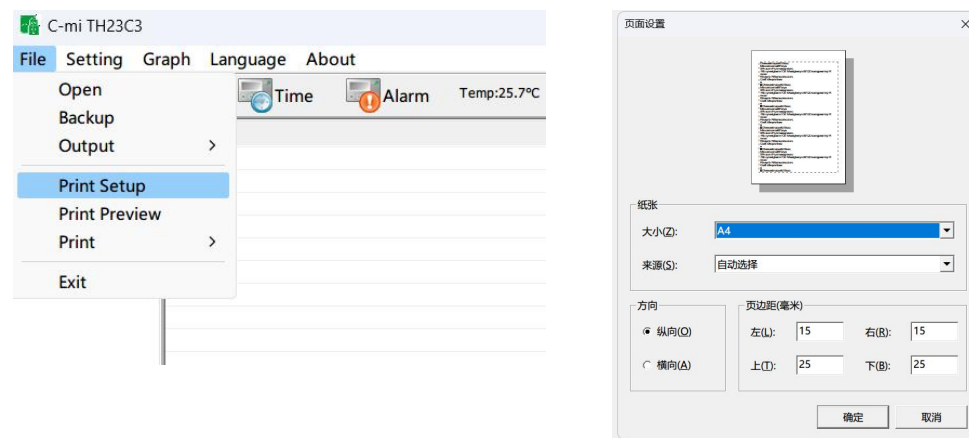
➤Output PDF:

Click on **【 Output 】** → **【 Graph (.PDF) 】** → **【 Chart (PDF) 】** / **【 Data (PDF) 】** → **【 Save 】** in the menu bar



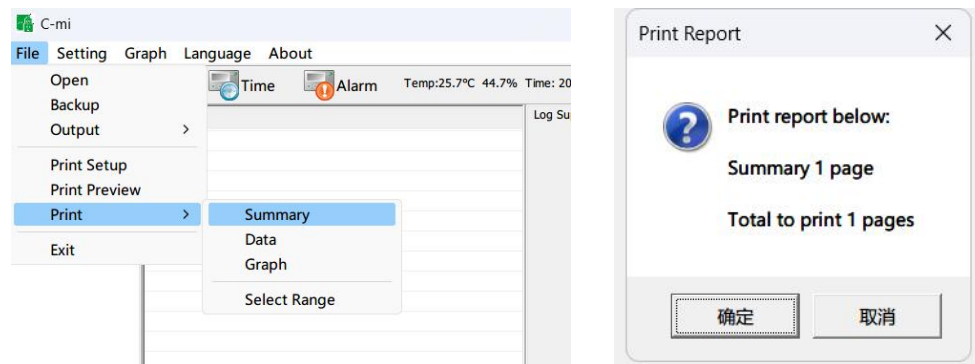
➤Print Settings:

Click on **【 File 】** → **【 Print Setup 】** → Set Parameters → **【 OK 】** in the menu bar



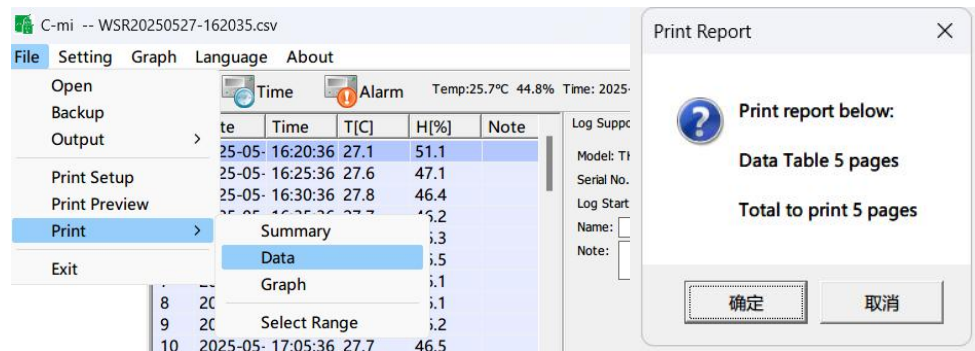
➤Print "Overview (U)":

Click on **【 File 】** → **【 Print 】** → **【 Summary 】** → **【 OK 】** in the menu bar



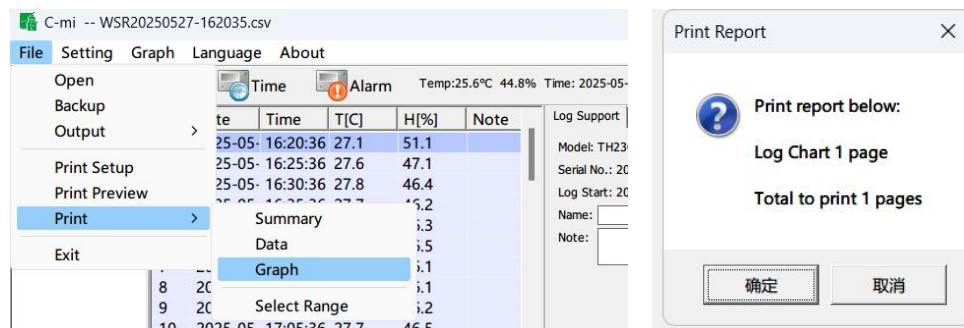
➤Print "Data (D)":

Click on **【 File 】** → **【 Print 】** → **【 Data 】** → **【 OK 】** in the menu bar



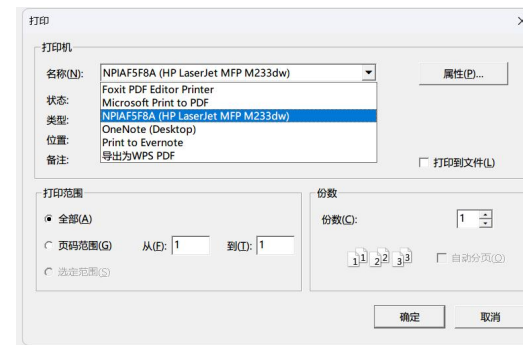
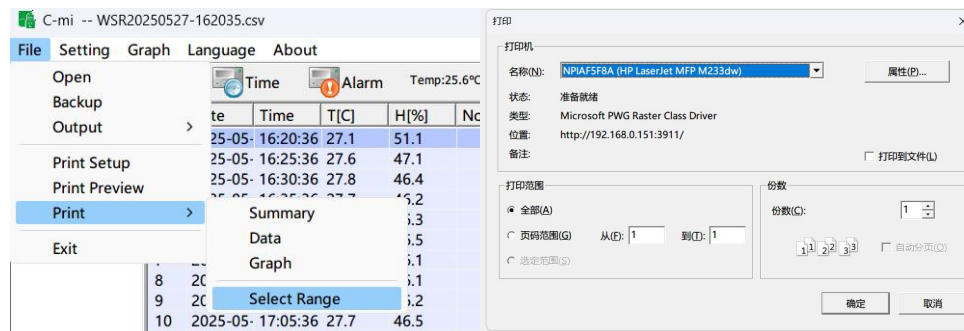
➤Print "Chart (C)":

Click on **【 File 】** → **【 Print 】** → **【 Graph 】** → **【 OK 】** in the menu bar

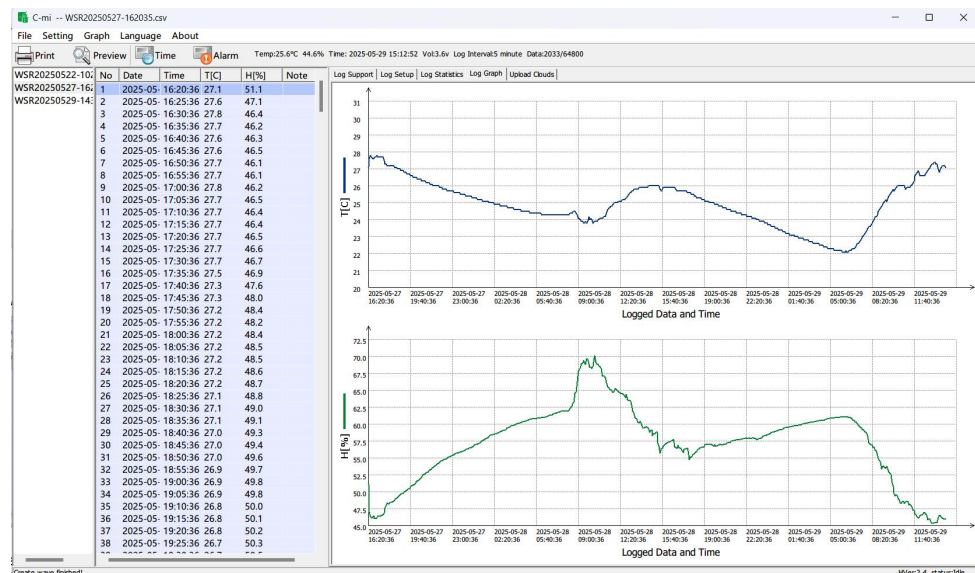


➤Print "Selection Range (R)":

Click on **【 File 】** → **【 Print 】** → **【 Select Range 】** → **【 OK 】** in the menu bar



➤Data file preview:



➤Upload data files to the cloud:

Select the data file → Enter the server address (as shown in the figure below) → Fill in the 8-digit serial number (located on the back of the instrument) → 【 Upload 】 (requires activation of the Cold Chain Cloud service)

No	Date	Time	T[°C]	H[%]	Note
1	2025-05	16:20:36	27.1	51.1	
2	2025-05	16:25:36	27.6	47.1	
3	2025-05	16:30:36	27.8	46.4	
4	2025-05	16:35:36	27.7	46.2	
5	2025-05	16:40:36	27.6	46.3	
6	2025-05	16:45:36	27.6	46.5	

服务器地址: 123 . 207 . 237 . 174

设备编号: 20220046

上传

Appendix 1: Common Fault Handling

1. Recording a large amount of data at once may cause the computer to not recognize the USB.

Handling method:

➤Disconnect the device from the computer, close the C-Mi software, wait for a period of time, and then connect the computer again.

➤Disconnect the device from the computer, restart the computer, and then reconnect the computer. During the process of scanning the USB flash drive, do not take any action on the computer.

2. Unable to connect to the computer and the device does not display an online icon; The computer does not prompt or cannot detect any USB peripheral devices.

Handling method:

➤Check if the data cable is functioning properly.

➤Check if the USB interface of the device is fully inserted.

➤Check if the computer USB interface can connect to other peripherals normally.

3. C-Mi has no data, but data can be read from the USB drive.

Handling method:

➤Please turn off C-Mi and then turn it back on.

➤Restart the computer.

4. The instrument is an electronic product that may experience a crash state due to severe external interference, mainly manifested as:

➤The button has no sound.

➤In the LCD screen, the year/month/day cannot be switched automatically.

➤The LCD screen is black with no display.

➤Unable to turn on/off the device.

Solution: Please reset the product by inserting a fine needle into the small hole on the back of the device, pressing the reset button for 2-5 seconds, and then releasing it. After restarting the device and configuring the parameters, it can be used normally.

5. The temperature display is abnormal, showing "----".

Reason:

- The sensor is not connected or connected incorrectly.
- The sensor is damaged.
- The connection interface between the sensor and the device is damaged, resulting in the inability to detect the sensor.

Handling method:

- Correctly connect the sensor.
- Replaced sensor.
- Repair the connection interface between sensors and equipment.

6. The humidity display is abnormal, showing "----". Please check the sensor.

Reason:

- The sensor is not connected or connected incorrectly.
- Sensor damage.
- The connection interface between the sensor and the device is damaged, resulting in the inability to detect the sensor.

Handling method:

- Correctly connect the sensor.
- Replaced sensor.
- Repair the connection interface between sensors and equipment.

7. The time recorded in the stored data is incorrect.

Reason: Incorrect initial time before opening the record.

Handling method:

Connect C-Mi, synchronize the device's time, and then start recording.

8. When the recorder alarms, the backlight does not light up

Reason:

- There is no external power adapter, and the backlight flashes when an alarm occurs. An external power adapter must be connected.

Handling method:

- AC Adapter.

9. When the recorder alarms, the external alarm light will not sound.

Reason:

- Abnormal connection of external alarm light.
- External alarm light damaged.
- External power adapter not connected or connected abnormally.

Handling method:

- Correctly connect the alarm light.
- Correctly connect the power adapter.
- Replaced alarm light.