

Temtop
AIRING-2000 Handheld
Particle Counter
Particulate Monitor



TEMTOP AIRING-2000 Handheld Particle Counter Particulate Monitor Instruction Manual

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Temtop

TEMTOP AIRING-2000 Handheld Particle Counter Particulate Monitor



Specifications:

- **Model:** AIRING-2000
- **Dimensions:** 228x115x70mm (9x4.5x2.8 in)
- **Battery Capacity:** 3500mAh
- **Battery Life:** 4 hours
- **Charging Output:** DC5V, 2A
- **PM2.5 Detection Range:** 0-999 $\mu\text{g}/\text{m}^3$
- **PM10 Detection Range:** 0-999 $\mu\text{g}/\text{m}^3$
- **Humidity Detection Range:** 0-100%

Product Usage Instructions

1. Power ON

Press and hold the power button for 2 seconds to turn on the detector. After initialization, the instrument enters the default interface without starting the measurement to save power.

2. Start Detection

Press the measure/wait button to start detection, displaying real-time data of all parameters. The instrument defaults to continuous sampling. Press the same button to pause sampling.

3. Switch Measurement Items

The default PM2.5 data is displayed in the main view box. Use the up or down buttons to switch between measurement items displayed in the main view box.

4. Setting Menu

Press the menu button to enter the menu screen. Use the up or down buttons to toggle between options, and then press the OK button to confirm your choice for viewing or changing settings.

5. System Setting

In the system setting interface, navigate to MENU->Setting to set time, sample, backlight adjustment, and language preferences. Use the up or down buttons to switch options and press OK to enter.”

1. Time Setting

In the time setting interface, use the buttons to adjust time settings. Press OK to save the settings when finished.

2. Sample Setting

In the sample setting interface, set Temperature Unit, Storage Interval, and Warning Settings as needed.

Introduction

The AIRING-2000 is a small, lightweight, battery-powered, multi-functional handheld particulate mass monitor. Three channels output counts of 0.3µm, 0.5µm, and 1.0µm, particulate matter. It also features PM2.5, PM10, TSP, temperature and humidity, and historical data.

The large screen display and seven-button operation are simple and efficient, making it suitable for quick tests in various scenarios. The built-in high-performance lithium battery allows the instrument to run continuously for at least 4 hours. Meanwhile, the AIRING-2000 has 32GB of built-in storage so that test data can be viewed directly on the display or use a USB stick to export to a PC via the USB port for viewing and analysis.

Important!

- Do not expose the detector to heavily contaminated environments for long periods, as this can damage the sensor.
- Do not come into contact with organic solvents, which include silica gel and other adhesives, paintings, drugs, oil and high-concentration gases.
- Do not use the detector in a humid environment to maintain detection accuracy.
- Do not cover the air inlet/outlet when using the detector.
- Do not dismantle the unit yourself. In the event of a defect, contact your dealer instead, who will liaise with the service center and, if necessary, send the device in for repair.
- Children should only use this device under adult supervision. Keep packaging materials, such as plastic bags and plastic wrap, out of the reach of children as they present a choking hazard.

Overview



Fig.1

1. Temperature & Humidity Detection Channel
2. LCD Screen
3. Power Button
4. Back Button
5. OK Button
6. Intake Duct
7. USB Port
8. TYPE-C Port
9. Measure/Wait Button
10. Menu Button
11. Up Button
12. Down Button
13. Air Outlet
14. Bracket Hooks

Specifications

Model	AIRING-2000
Dimensions	228x115x70mm(9×4.5×2.8 in)
Battery Capacity	3500mAh
Battery Life	4h
Charging Output	DC5V, 2A
PM2.5	Range: 0-9999.9µg/m3 Resolution: 0.1µg/m3 Accuracy: ±10µg/m3 (0-100µg/m3), ±10% (>100µg/m3)
PM10	Range: 0-9999.9µg/m3 Resolution: 0.1µg/m3 Accuracy: ±10µg/m3 (0-100µg/m3), ±10% (>100µg/m3)
TSP	Range: 0-9999.9µg/m3 Resolution: 0.1µg/m3 Accuracy: ±10µg/m3 (0-100µg/m3), ±10% (>100µg/m3)
0.3µm, 0.5µm, 1.0µm	Range: 0-999999 P/L Resolution: 1 P/L Accuracy: ±30%
Temperature	Range: 0-50°C (32-122°F) Resolution: 0.1°C Accuracy: ±0.5°C (±0.9°F)
Humidity	Range: 0-90%RH Resolution: 0.1% Accuracy: ±5%RH


Note: The above data are from Temtop Laboratory.

- **Range:** 0-9999.9µg/m3 Resolution: 0.1µg/m3
- **Accuracy:** ±10µg/m3 (0-100µg/m3), ±10% (>100µg/m3)
- **Range:** 0-9999.9µg/m3 Resolution: 0.1µg/m3
- **Accuracy:** ±10µg/m3 (0-100µg/m3), ±10% (>100µg/m3)

Warning!

- Indoor use: Keep the room/area airtight for 10 minutes to obtain more accurate results.
- If battery level shows , please charge the detector promptly to avoid effects during use (also chargeable when turned off). 76.5 °F 54.4%RH

Power ON

- Press and hold  button for 2 seconds to turn on the detector.
- After initialization, the instrument enters the default interface.
- It will not start the measurement by default to save the power (Fig.2).

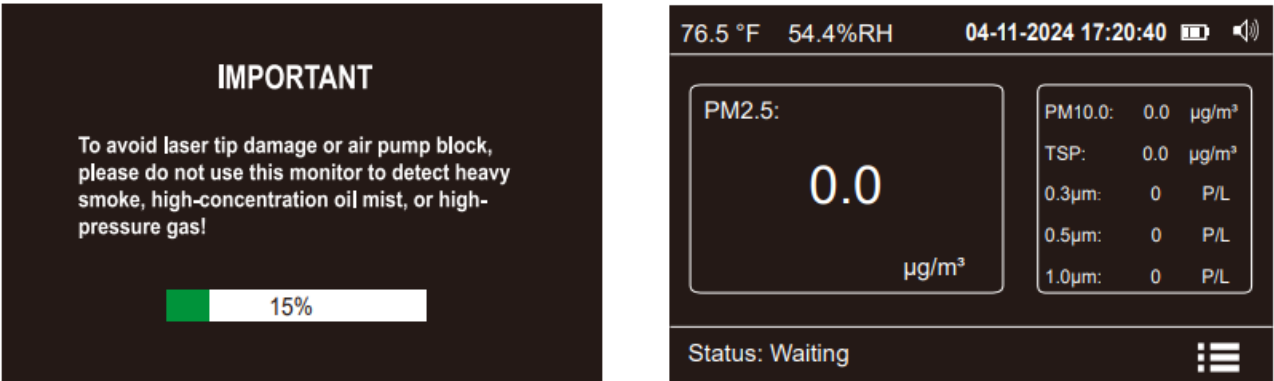


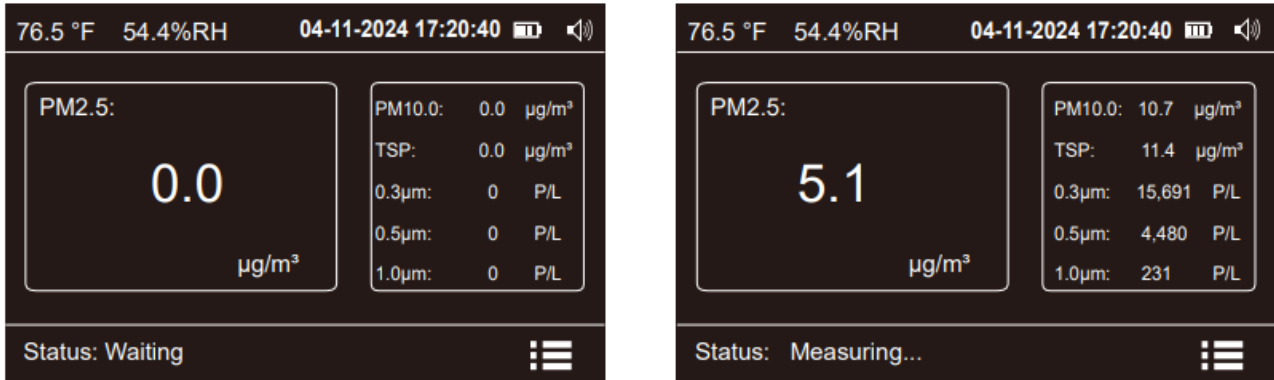






Fig.2

- Press  to start detection, and it will display the real-time data of all parameters. The instrument defaults to continuous sampling. During the sampling process, you can press  to pause sampling (Fig.3).



- Press  to enter the menu screen, then press  or  to toggle between options.
- Press  to confirm your choice to view or change settings (Fig.5).

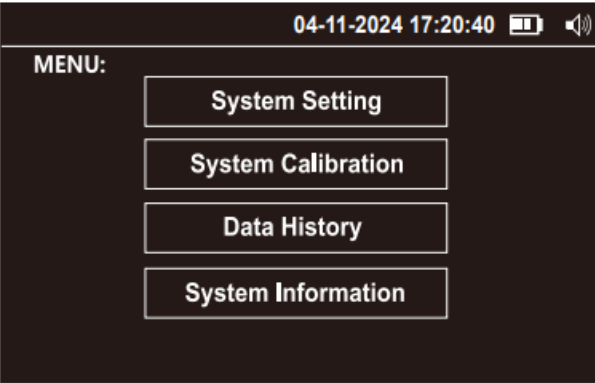


Fig.5

MENU options are as follows:

Menu	Display as...	Description
System Setting	Setting	Set system time, sampling, backlight, and language.
System Calibration	Calibration	Calibrate zero, and k-Factor.
Data History	History	Query, download and delete the data.
System Information	Information	Display system information.

System Setting

In the system setting interface MENU->Setting, you can set time, sample, backlight adjustment, and language.

Press  or  to switch the options (Fig.6) and press  to enter.

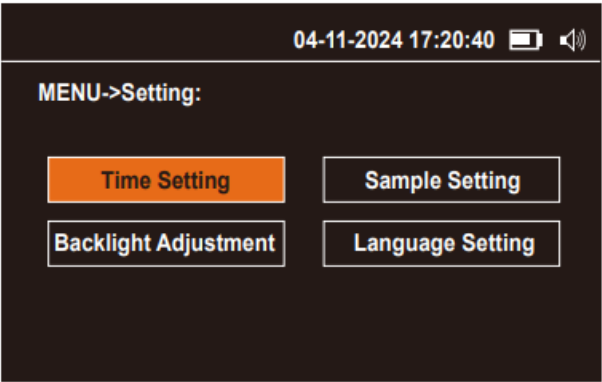
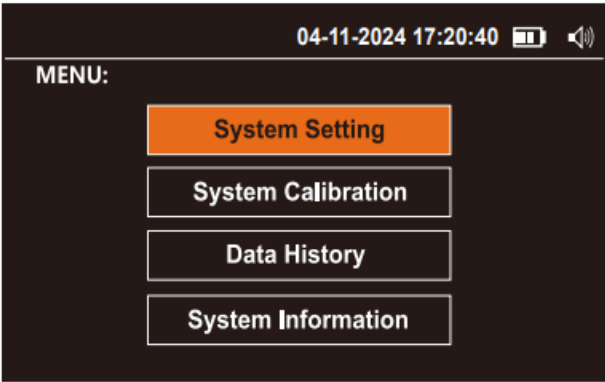







Fig.6

Time Setting

Press the  key to enter the time setting interface, press the  key to switch the option, press the  or  key to increase or decrease the value, switch to the Save option when the setting is completed, press the  key to save the setting (Fig. 7).

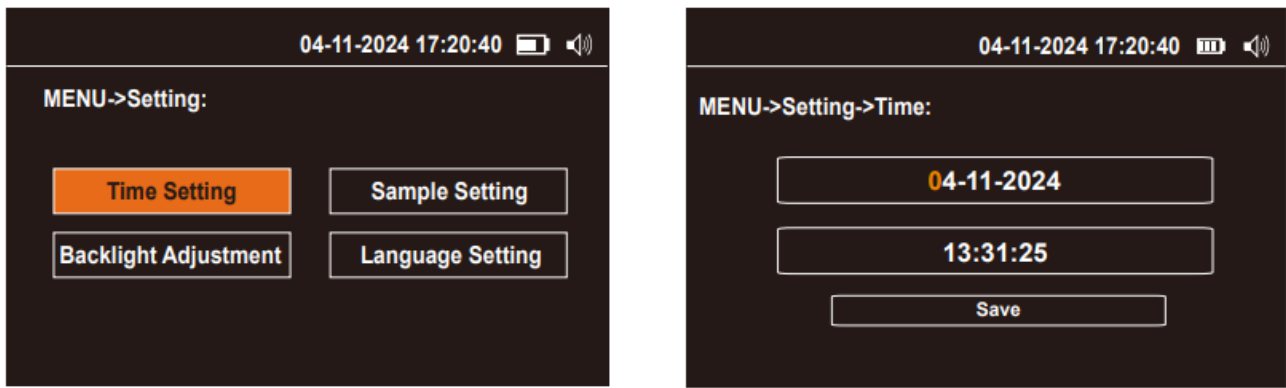





Fig. 7

Sample Setting

In the system setting interface MENU->Setting, press  or  to switch to the Sample Setting, and then press  to enter the sample setting interface (Fig.8). In the sample setting interface you can set the Temperature Unit, Storage Interval and Warning Setting.

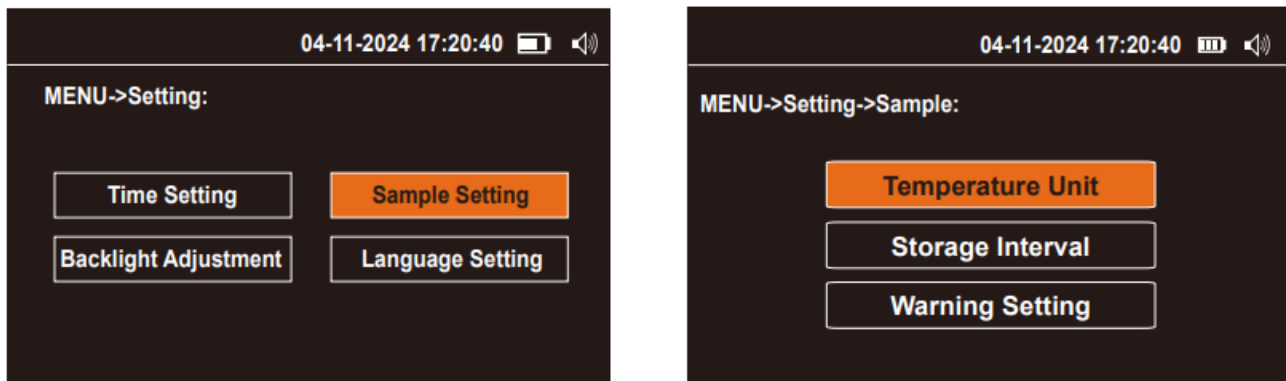







Fig.8

Temperature Unit

- In the system setting interface MENU->Setting->Sample.
- Press  to enter the Temperature Unit interface.
- Press  or  to select °C or °F.
- Then press  to switch to Save and press  to save (Fig.9).

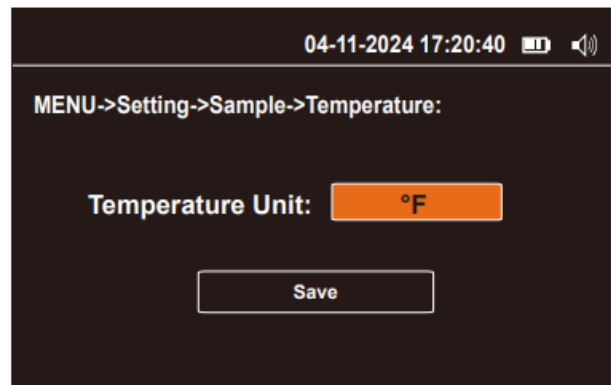
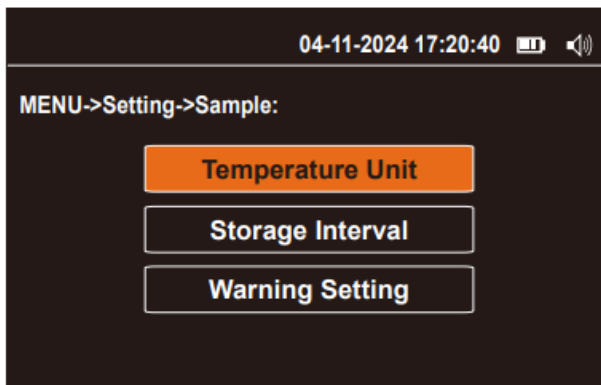









Fig.9

Storage Interval

- In the system setting interface MENU->Setting->Sample.
- Press  or  to switch to the Storage Interval, and Press  to enter.
- The storage interval 1min, 2min, 5min, 10min, 15min, 30min and 60min is optional.
- Press  or  key to switch the storage interval.
- Then press  to switch to Save and press  to save (Fig.10).

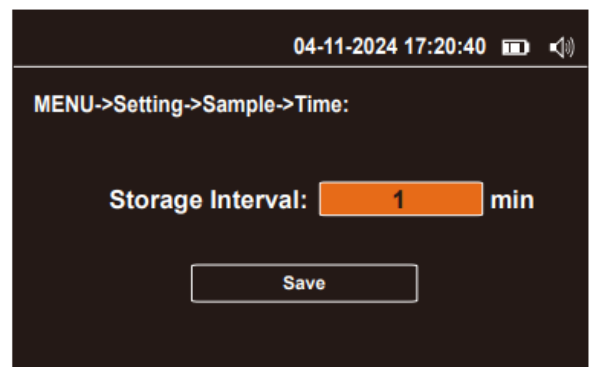
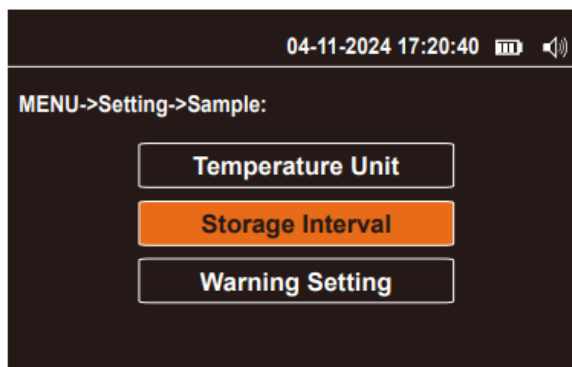















Fig.10

Warning Setting

- In the system setting interface MENU->Setting->Sample.
- Press  or  to switch to the Warning Setting, and Press  to enter. Press  to select the on or off alarm switch.
- Press  or  to select PM2.5, PM10, TSP, 0.3μm, 0.5μm, and 1.0μm, press  to select the modification item and press  to toggle the modified value, then press  or  to modify the alarm threshold.
- Press  or  to switch to Save when the setting is complete and press  to save (Fig.11).

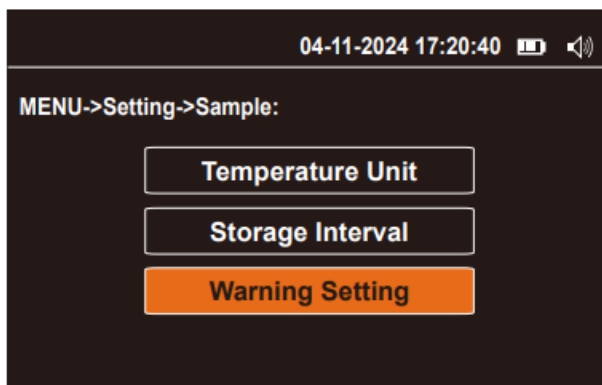


Fig.11

Note: The product factory default settings will be restored when the default settings are made.

Backlight Adjustment

- In the system setting interface MENU->Setting.
- Press or to switch to the Backlight Adjustment, and press to enter.
- Press or to select 1, 2 and 3.
- Then press to switch to Save and press to save (Fig.12).

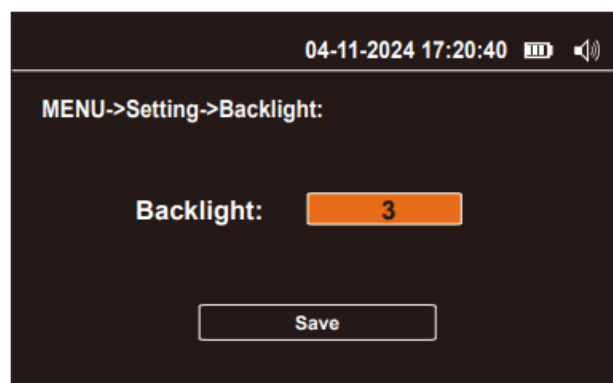
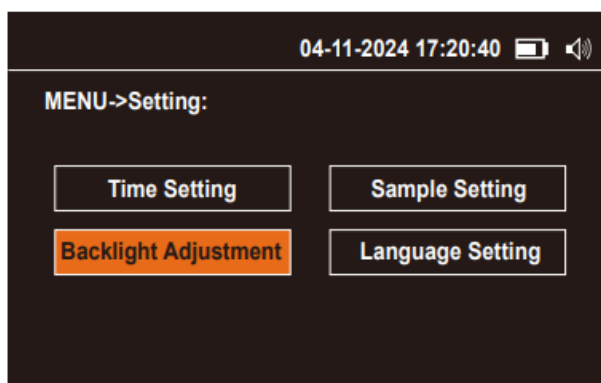


Fig.12

Note: The factory default screen backlight level is 3.

Language Setting

- In the system setting interface MENU->Setting.
- Press or to switch to the Language Setting, and press to enter.
- Press or to select English or .
- Then press to switch to Save and press to save (Fig.13).

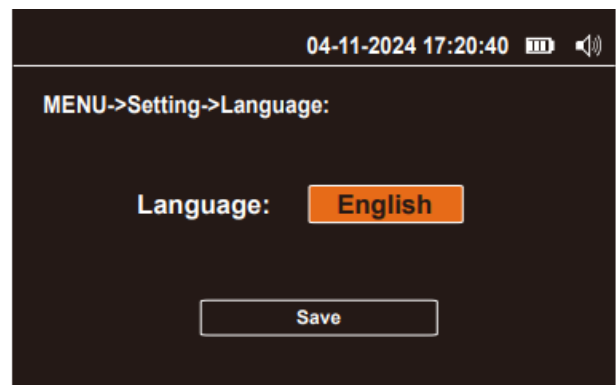
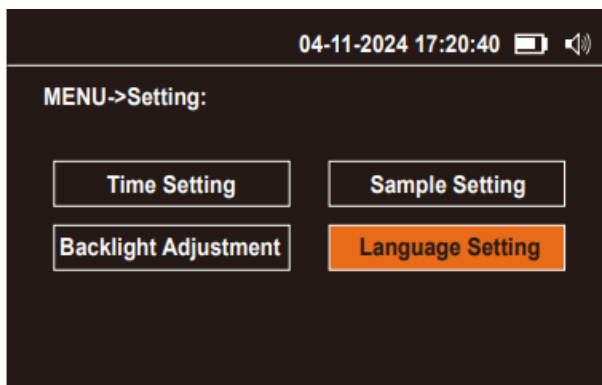





Fig.13

System Calibration

- In the system calibration interface MENU->Calibration, you can operate Zero Calibration and K-Factor Calibration.
- Press  or  to switch the option and press  to enter (Fig.14).

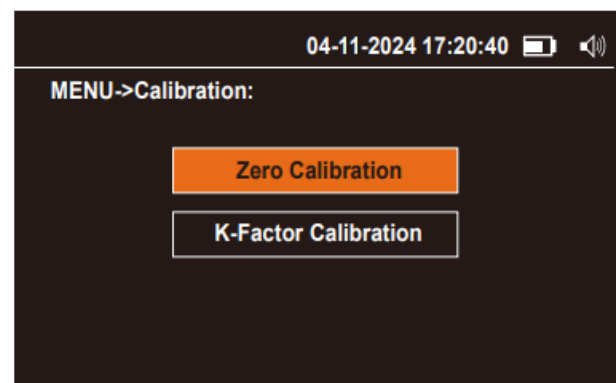
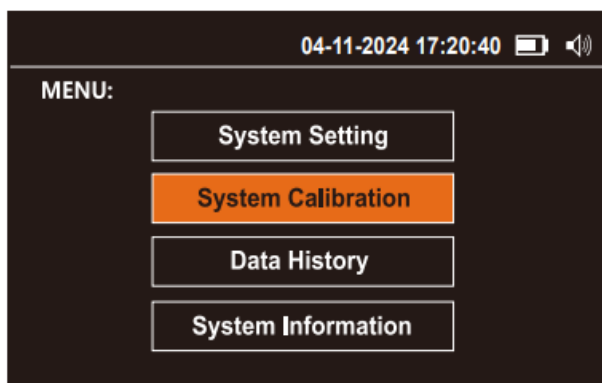



Fig.14

Zero Calibration

- Under the Zero Calibration interface, press  to start calibrating.
- It takes about 90 seconds countdown. After the countdown finishes, the display prompts a reminder to confirm the calibration finishes successfully and will return to the MENU-Calibration interface automatically (Fig. 15).

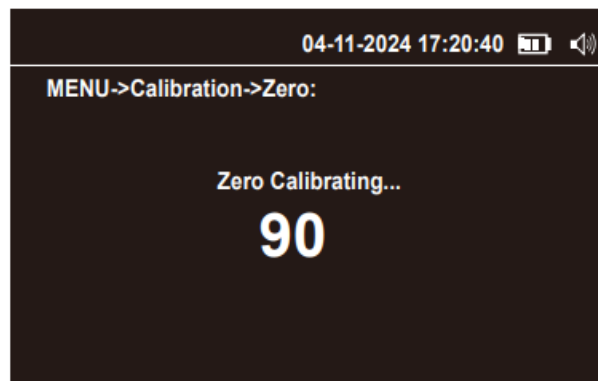
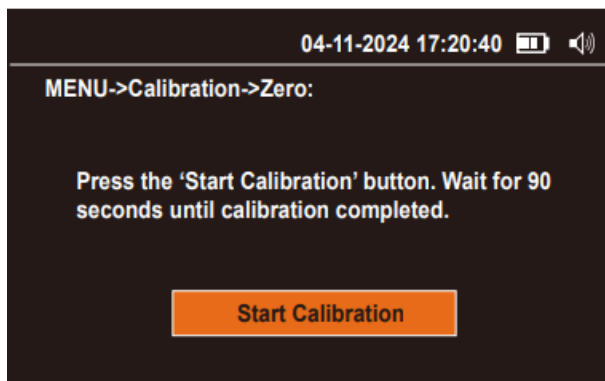
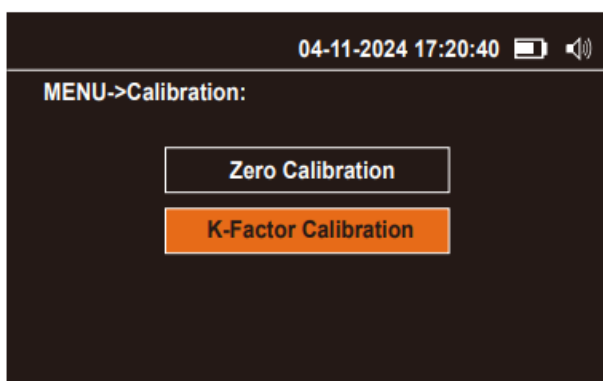


Fig.15

K-Factor Calibration

- Make sure the instrument is in a stable environment.
- Press **OK** to perform a K-factor mass concentration calibration. The product will turn on the pump and collect data for 60 seconds, then proceed to the K Factor Mass Concentration Calibration screen.
- Press **▲** or **▼** to switch the cursor, press **OK** to select the modification item, and press **☰** to toggle the modified value, then press **▲** or **▼** to increase or decrease the value.
- Press **▲** or **▼** to switch to calibrate after the setting is completed, press **OK** to calibrate (Fig.16).



	Current	Target	Unit	
PM2.5:	4.5	0004.5	µg/m³	
PM10:	10.6	0010.6	µg/m³	
TSP:	12.7	0012.7	µg/m³	
0.3µm:	12102	012102	P/L	
0.5µm:	4074	004074	P/L	Calibrate
1.0µm:	253	000253	P/L	Default

Fig.16

Note: The product factory default settings will be restored when the default settings are made.

Data History

- In the data history interface MENU->History, you can operate Data Query, History Download and History Deletion.
- Press **▲** or **▼** to switch the option and press **OK** to enter (Fig.17).

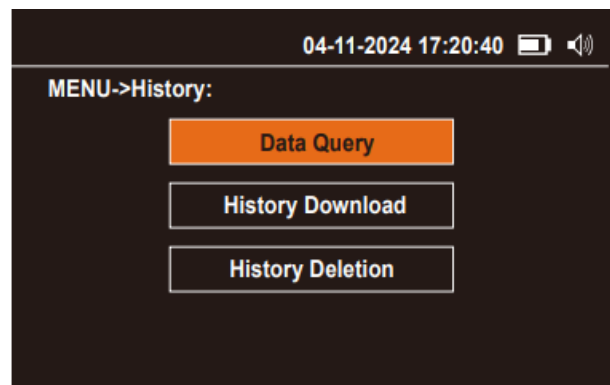
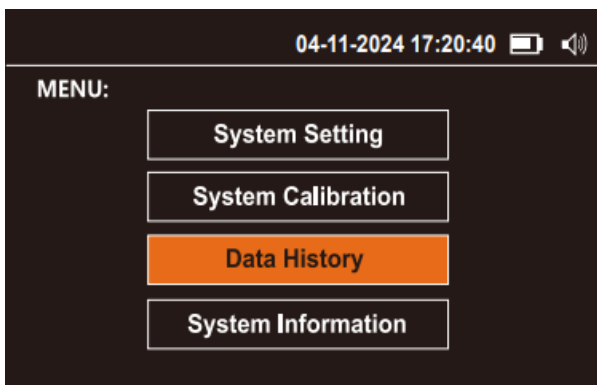







Fig.17

Data Query

- In the query interface, you can press month data. Press  to enter the month selection interface, by default the system will automatically recommend the current month.
- If you need data for other months, you can press  or  to increase or decrease the value. When finished, press  to switch to the query and press  to enter the query (Fig.18).

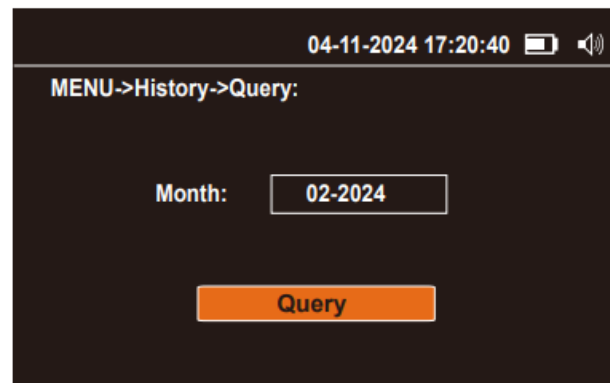
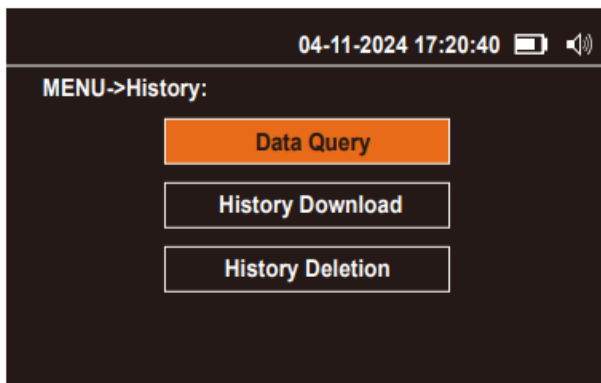



Fig.18

History Download

In the History Download interface, insert a USB device such as a USB flash drive or card reader into the USB port of the monitor. If the USB device is successfully connected, press  to download the data (Fig. 19).

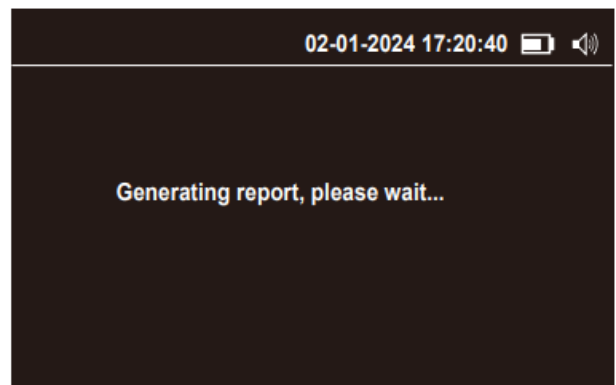
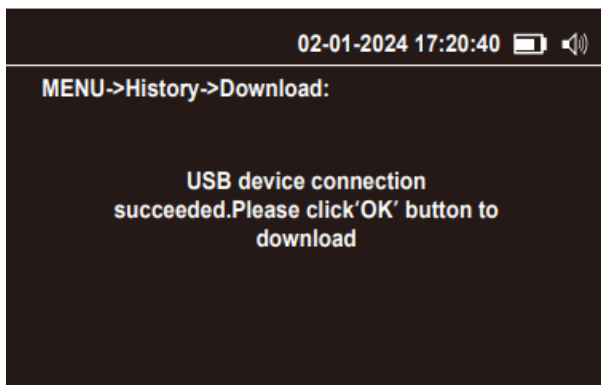





Fig.19

After downloading the data, unplug the USB device and insert it into the computer to find a folder prefixed with the product serial number, for example, “TT1246070001-062120241754”. You can view and analyze the data now. If the USB device fails to connect or there is no USB device connected, the display will prompt a reminder. Please reconnect it or try again later (Fig. 20).



Fig.20

History Deletion

In the History Deletion interface, data can be deleted by month or all. Press  or  to switch options and press  to enter (Fig. 21).

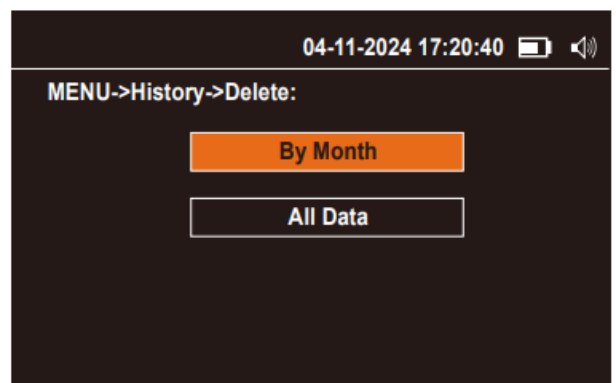
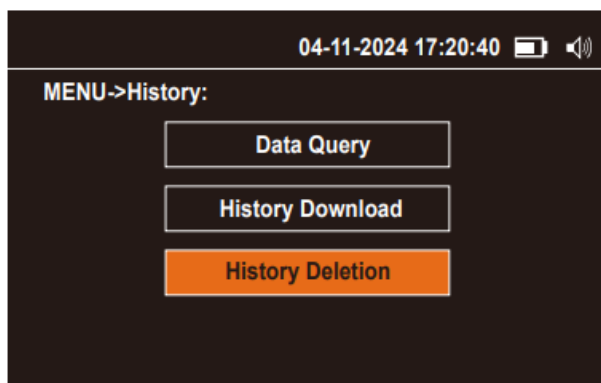







Fig.21

By Month

For the Monthly Data interface, the current month will auto display by default. If you need to delete other months, please press  switching to the year and month options, then press  or  to increase or decrease the value. After complete, press  to switch to Delete and press  to complete the delete(Fig.22).

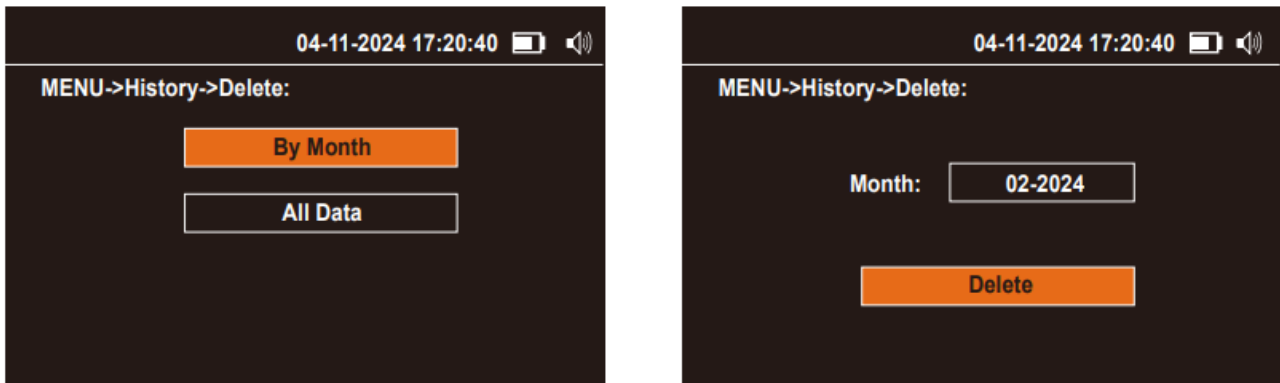



Fig.22

All Data

For the All Data screen, the display will prompt 'Are you sure you want to delete the data?' Press  to confirm the deletion (Fig. 23). Wait for the deletion to complete, if the data has been successfully deleted the display will prompt a reminder and automatically return to the Menu-History screen.

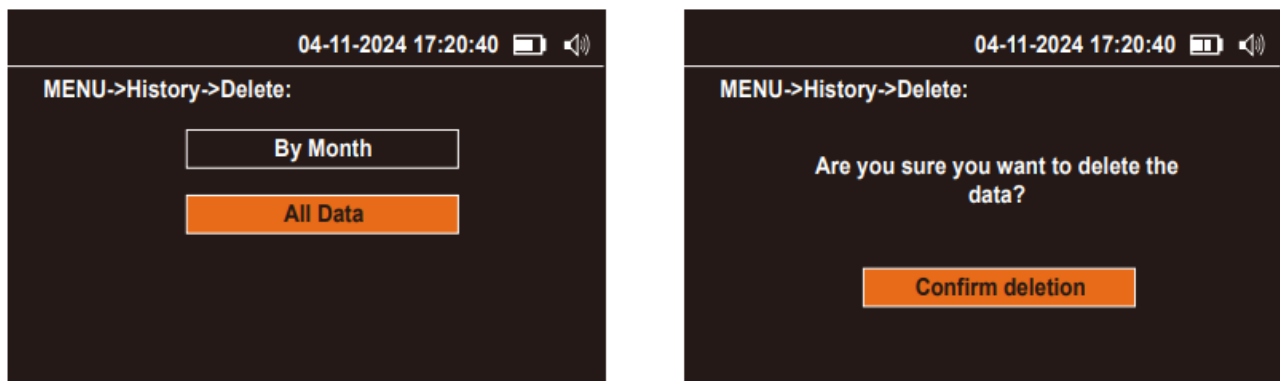


Fig.23

System Infomation

The System Infomation interface shows the following information (Fig.24)

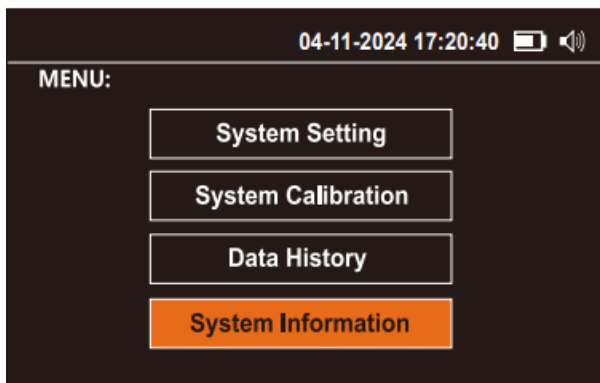



Fig.24

Power OFF

Press and hold  for 2 seconds to turn off the monitor (Fig.25).

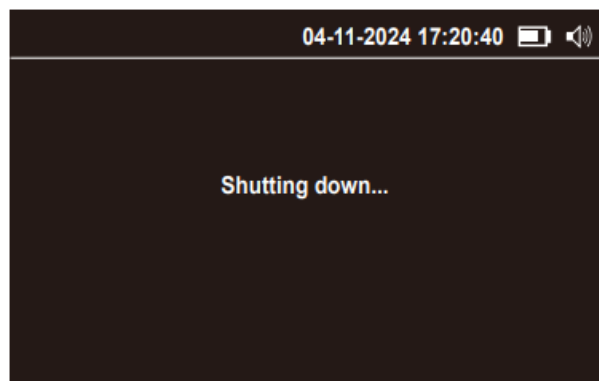


Fig.25

What's Included

- Detector x 1
- USB Cable x 1
- User Manual x 1
- Calibration Certificate x 1
- Battery Charger (Includes 4 adapters)* x 1

Battery Charger Schematic and Operation Example:



Example:



1. Installation:

Hold the “Snap Switch” in your left hand and turn it in the “**LOCK**” direction with your right hand.

2. Removal:

Hold the “Snap Switch” in your left hand and turn it in the “**OPEN**” direction with your right hand.

Troubleshooting

Failure	Possible Causes	Solution
Noise	The flow is excessive	Flow calibration
	The pump is faulty	Send to the service center
Cannot be turned on, no display	Battery discharged	Charge the battery for 3.5 h
	The battery is faulty	Send to the service center
Display is on, but pump does not run	Low battery level	Charge the battery for 3.5 h
	The pump is faulty	Send to the service center
Detected value is not reliable	Flow deviation	Flow calibration
	Inlet screen clogged	Check the inlet screen
	Contamination inside the monitor	Replace the filter element
		Send to the service center
Unable to charge the battery	The battery is faulty	Send to the service center
	Charger failure	Contact the service center

Warranty

Temtop warrants the included detector for 1 year from the date of original purchase. The item can be exchanged or returned within 30 days if the defect is not caused by artificial damage.

Item	Warranty Period
Detector	1 year included
Accessories	N/A

Before return or delivery for repair, please check if the following ✓ items are ready:

	Detector & Accessories	Complete Package	Proof of Purchase*	Gift (if any)
Return	✓	✓	✓	✓
Exchange	✓	✓	✓	
Repair	✓		✓	

* Including invoice, order number and etc.

Temtop warranty does NOT include:

- Malfunction or damages caused by artificial damage or modification.
- Other deliberate damages.
- Damage caused by natural events.

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- **Sales:** sales@elitecheu.com
- **Website:** www.temtop.co.uk

Made In China

FAQ


Q: How do I charge the AIRING-2000?

A: The AIRING-2000 can be charged when turned off using a DC5V, 2A charger via the TYPE-C port.

Q: What is the battery life of the AIRING-2000?

A: The battery capacity of AIRING-2000 is 3500mAh, providing a battery life of approximately 4 hours.

Documents / Resources

	<p>TEMTOP AIRING-2000 Handheld Particle Counter Particulate Monitor [pdf] Instruction Manual</p> <p>AIRING-2000 Handheld Particle Counter Particulate Monitor, AIRING-2000, Handheld Particle Counter Particulate Monitor, Particle Counter Particulate Monitor, Counter Particulate Monitor, Particulate Monitor, Monitor</p>
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References

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