# Temtop

Model: M2000

Elitech Technology, Inc (US)

1551 McCarthy Blvd, Suite 11 Milpitas, CA 95035 www.elitechustore.com sales@elitechus.com Made in China

# Air Quality Detector User Manual

#### Overview

The hand-held air quality detector can accurately detect indoor air quality. By adopting high-precision electrochemical formaldehyde sesor and American "TEMTOP" laser particle sensor and carbon dioxide sensor based on NDIR detection theory, it can transform the concentration of air pollutants to visualized data directly, providing air quality warning to protect the health of your family effectively.

# **Application**

At home, cab or in public buildings etc.

## Appearance



- ① Buzzer status: "吖" indicates the buzzer is on. When measured polluant concentration exceeds the upper alarm limit, the buzzer beeps. "闷" indicates the buzzer is off. When an alarm is triggered, the buzzer will not beep.
- ② Display the two states of the detector: Pause or measuring. "Measuring" indicates data is being detected. "Pause" indicates measurement pauses.
- 3 Date and time: Current date and time is displayed.
- ④ Battery power: Display the remaining battery power and the charging status of the detector.
   ☐: Battery is empty, please charge.
   ☐: Battery is full.
   ☐: Charging.
- ⑤ Main display area: Display measured data, curve, menu options.
- (6) Menu button: Press to pop up the menu options or shift the cursor position.
- 7) Up button: Press to increase setting values or shift up to select menu option.
- ® Return button: Press to close current pop menu or return to the previous interface.
- ⓐ Power on/off or confirm: Press  $\frac{o\kappa}{U}$  for 2 seconds to turn on/off the instrument. It can also be used to confirm certain operation.
- Down or run/pause button: Press to decrease setting values or move down to select
   menu option. It can also be used to continue or suspend detection on the detection interface.

#### Notice

- The sensor adopts laser and NDIR (Non-Dispersive Infrared) detection theory, please keep the detector away from substances like fluff and hair to guarantee the accuracy of measured data.
- Please do not place the detector in the environment where particle concentration is more than 500ug/m3 and that of formaldehyde (HCHO) is over 1.0mg/m³ for long time. Long-time exposure to high-concentration air pollutants will damage the sensor and make it work improperly.
- Please do not bump, strike or drop the detector.
- Please do not cover the detection port or air outlet during use.
- Avoid contact with organic solvents which include silica gel and other adhesives, paintings, drugs, oil and high-concentration gases.
- Avoid using the detector in humid environment to ensure the accuracy of measured data.

# Operation

(1): Main menu interface



After the detector is turned on, it will display the main menu automatically including the following options:

- ① PM2.5
- ② CO2
- ③ HCHO
- ③ View all info
- ④ Settings



Press  $\triangle$  or  $\checkmark$  to choose an option and then press  $\frac{o\kappa}{U}$ , a window will popup, showing "Sensor preheating" if the detector is turned on for less than 3 minutes. After the sensor is preheated, the interface can be entered.





After switching from the main menu to PM2.5 concentration interface, the detector will display the real-time concentration of PM2.5, PM10 and particle numbers as well as the level of polluant concentration.

If the value goes out of the set concentration's upper limit, the buzzer will beep.





Paused □ 22:30 17-04-08 ■ PM2.5: ua/m³

Moderate

The functions of above menu items are as follows:

Press v to pause or start the measurement.

Press **5** to return to the interface of main

Press :≡, the following 5 options will show.

Press ox to enter corresponding functions:

① "Suspend/Continue measuring"

3 "Display/Not display the curve"

2 "Mute/Unmute the buzzer"

4 "Alarm settings"

⑤ "Exit"

menu.

Use ▲ or → to shift.

- ① "Suspend/Continue measuring": The detector pauses or starts measuring the concentration of PM2.5, PM10, etc.
- 2 "Mute/Unmute the buzzer": When the detected concentration is higher than the pre-set alarm limit, the buzzer will beep. Select this option to mute the beep.
- 3 "Display/Not display the curve": Select this option to display the curve of measured data visually. If you choose "Not display the curve", the curve will be shifted to data.



4 "Alarm settings":

A window showing "Alarm settings" will pop up to remind you of setting the upper-limit alarm value. Use :≡ to shift, ▲ or ✓ to adjust the value. Then press to select "Save" or "Cancel". Press $\frac{o\kappa}{U}$  to confirm the value.

⑤ "Exit": Exit from the settings and back to the interface of concentration display.

(3): Interface: CO2 concentration



After switching from the main menu to CO2 interface, the detector will display the real-time concentration of CO2 and its level; if the value is beyond the set concentration's upper limit, the buzzer will beep.



④ "Alarm settings": Press ▲ or  $\checkmark$ " to select this option and then press  $\frac{\omega}{U}$  to enter the interface. Press ▲ or  $\checkmark$ " to adjust the upper-limit alarm value of CO2 concentration. Press  $\equiv$  to shift. After switching to "Save" or "Cancel", press  $\frac{\omega}{U}$  to confirm the settings and back to the interface of settings.



Press v to suspend or continue measurement.

Press 5 to return to the interface of main menu.

Press :≡ to pop up the 6 options below.

Press  $\frac{OK}{U}$  to enter corresponding functions.

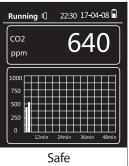
- ① "Suspend/Continue measuring"
- 2 "Mute/Unmute the buzzer"
- ③ "Display/Not display the curve"
- 4 "Alarm settings"
- (5) "Zero calibration"
- 6 "Exit"



(4): Interface: formaldehyde(HCHO) concentration

⑤ "Zero calibration": It pops up a window showing "Calibrating sensor". Please place the detector outdoors for 30 minutes until Zero point calibration of CO2 sensor is finished. Press **▼**or % to exit.

(6) "Exit": Exit the menu options and then return to the interface of CO2 concentration.



The functions of above menu items are as follows:

- ① "Suspend/Continue measuring": The detector pauses or continues measuring CO2 concentration and its level.
- ② "Mute/Unmute the buzzer": When the detected concentration is higher than the pre-set value, the buzzer will beep. Select this option to mute the beep.
- ③ "Display/Not display the curve": Select this option to display the curve of measured data visually. If you choose "Not display the curve", the curve will be shifted to data.

HCHO

0.068

mg/m³

After switching from the main menu to HCHO interface, the detector will display the real-time concentration of HCHO and its level; if the value is beyond the set concentration's upper limit, the buzzer will beep.

tas,CA 95035,US

Made In China

— 5 —



Press  $\P$  to return to the interface of main menu.

Press **:**■ to pop up the 6 options below.

Press  $\frac{OK}{U}$  to enter corresponding functions.

- "Suspend/Continue measuring"
- ② "Mute/Unmute the buzzer"
- ③ "Display/Not display the curve"
- "Alarm settings"
- ⑤ "Zero calibration"
- ⑥ "Exit"



The functions of above menu items are as follows:

- ① "Suspend/Continue measuring": The detector pauses or continues measuring HCHO concentration and its level.
- ② "Mute/Unmute the buzzer": When the detected concentration is higher than the pre-set value, the buzzer will beep. Select this option to mute the beep.
- ③ "Display/Not display the curve" : Select this option to display the curve of measured data visually. If you choose "Not display the curve", the curve will be shifted to data.

508 Topham Court, Milpitas, CA 95035, USA.

Tel: 1-408-898-2866

sales@elitechus.com



④ "Alarm settings": Press ▲ or 

then press 

to select this option and then press 

to to enter the interface. Press ▲ or 

to adjust the upper-limit alarm of HCHO concentration. Press 

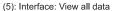
to shift. After switching to "Save" or "Cancel", press 

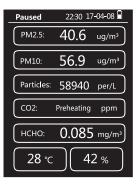
to confirm the settings and back to the interface of settings.



⑤ "Zero calibration": It pops up a window showing "Calibrating sensor". Please place the detector outdoors for 30 minutes until Zero point calibration of the sensor is finished. Press  $\P$  or  $\frac{\kappa}{\omega}$  to exit.

(6) "Exit": Exit from calibration and return to the interface of CO2 concentration.





In the main menu, select "view all data" and press  $\frac{\sigma K}{U}$  to enter this interface, it will display the concentration of PM2.5, PM10, CO2 and HCHO, particle numbers, as well as the temperature and humidity.

Press v to suspend or continue measurement.

Press **5** to return to the interface of main menu.

#### (6): Interface: Settings



In the main menu, select "Settings" to and press  $\frac{oc}{U}$  to enter this interface, it will display the 5 options below. Press  $\triangle$  or  $\checkmark$  to select a desired option. Then Press  $\frac{oc}{U}$  to enter the corresponding interface or press  $\P$  to return to the main menu.

- ① "Date and time"
- ② "Alarm"
- ③ "Help"
- (4) "Reset to default"
- ⑤ "Language"

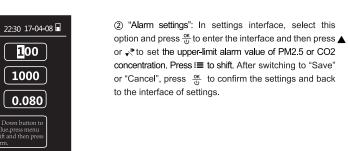


100

Don't save

The functions of above menu items are as follows:

① "Date and time": In settings interface, select this option and press  $\frac{o\kappa}{\upsilon}$  to enter the interface and then press ▲ or √to set the date. Press : to shift. After switching to "Save" or "Cancel", press  $\frac{o\kappa}{U}$  to confirm the settings and back to the interface of settings.



Alarm

PM2.5

CO2

нсно

Save



3 "Help": Press  $\frac{o\kappa}{\psi}$  to enter the interface and then press "▲ or → to view instructions and notices, then press 🤻 to back to the interface of settings.



4 "Reset to default": Press  $\frac{o\kappa}{dt}$ , a window will pop up, showing "Reset to default" Press :≡to shift between "Yes" or "No", press  $\frac{OK}{U}$  to confirm whether to reset or not, and then return to the interface of settings. If reset, settings like the upper-limit alarm values of polluants' concentration and language are recovered to factory default.



(5) "Language": Select "Language" and press ox to enter this interface and then press := to shift. Press  $\frac{o\kappa}{U}$  to confirm the language option. Usei≡to shift between "Save" or "Cancel". Press ok (1) and return to the interface of settings.

#### Note:

In the curve display interface, the data updates every 2s if the abscissa is 0-96s; it updates every 1 min if the abscissa is 0-48min; it updates every 5 min if the abscissa is 0-4h; it updates every 30 min if the abscissa is 0-24h.

#### **Specifications**

- Name: Hand-Held Air Quality Detector
- Model: M2000
- Display: TFT color LCD screen
- Battery voltage: 3.7VDC
- Overall dimension: 73.5 x 139 x 37.5 mm
- Power adapter:

Output voltage: 5VDC Output current: 1A

Operating environment:

Temperature range: 0~50 ℃

Humidity range: 0~90%RH Atmospheric pressure: 1atm

- Measurement specification and range:
- o PM2.5 measurement technical specification

Measurement range: 0-999ug/m³

Resolution: 0.1ug/m³

o PM10 measurement technical specification

Measurement range: 0-999ug/m<sup>3</sup>

Resolution: 0.1ug/m3

 $\circ$  CO2 measurement technical specification

Measurement range: 0-5000PPM

Resolution: 1PPM

o Formaldehyde measurement technical specification

Measurement range: 0-5mg/m³ Resolution: 0.001mg/m³

#### Health Standard Index

Level	vvBetter	Good	Bad
PM2.5 (China )	<75	75~150	>150
PM2.5 (USA)	<35	35~150	>150
CO2	<1000	1000~2000	>2000
нсно	<0.08	0.08~0.3	>0.3

Note: PM2.5(USA) is the USA standard calibration value.

## **Warranty Agreement**

The validity period is dated from the day when the user purchases the product. The valid purchase invoice is the certificate. It is customers who need send products back to repair. Manufacturer provides warranty services within the scope of the national regulations.

- 1. Since the date of purchasing the product, customers can return or exchange the product for any problem of quality within 7 days.
- 2. Since the date of purchasing the product, customers can exchange the product for any problem of quality within 30 days.
- 3.Remark
- Since the date of purchasing the product, it will be provided with one year's warranty.
- After-sales guarantee card and invoice are the certifications of enjoying after-sales service.
- 4. No warranty service in the following cases
- After-sales support card is altered or the information is not consistent with the actual product.
- Damaged by self-dismantling or self-modification.
- Damaged deliberately by other human behaviors.
- Not included in the scope of the national regulations.

<del>-----</del> 12-----

Clean Rooms | Pharma | Hospital | HVAC | BulkDrugs | Chemicals | Heavy Machinery Hydraulics & Vacuum Industry | Green House | Server Room | Confined Space | Cold Storage

# **Instrukart Holdings**

India Toll Free: 1800-121-0506 | Ph: +91 (40)40262020

Mob +91 7331110506 | Email: info@instrukart.com

#18, Street-1A, Czech Colony, Sanath Nagar, Hyderabad -500018, INDIA.

— 11 —

