



P1 / P2
Air Quality Monitor
User Manual

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Factors Affecting Air Quality



PM2.5 (Particulate Matter 2.5) refers to fine particles with a diameter of 2.5 microns or less. Due to its tiny size, PM2.5 can get absorbed into the bloodstream and lungs, so long-term exposure to high levels of PM2.5 may cause eye and nose irritation, coughing, asthma, emphysema, lung disease, heart attacks, cancer, and more.



PM10 (Particulate Matter 10) relates to particulate matter with a diameter of 10 microns or less. Due to its larger particle size, PM10 can be inhaled and does not penetrate the bronchial tubes because larger particles can be made available by the cilia and mucus in the nose and throat. It is usually considered less of a health hazard than PM2.5.



Carbon dioxide(**CO₂**) is a colorless and odorless gas usually derived from the breath of humans and animals. High CO₂ concentration means that fresh air or ventilation is required; otherwise, it may cause problems such as drowsiness, dizziness, loss of attention, and cognitive impairment.



Temperature & Humidity may often be ignored however they do have a significant impact on individual's well-being, comfort, health and safety as well as your property. High humidity may lead to an increase in household air pollutants especially the biological contaminants such as molds, bacteria, viruses and dust mites; cold, low humidity may cause nosebleeds, skin and respiratory irritations, dyspnea, static electricity and etc.

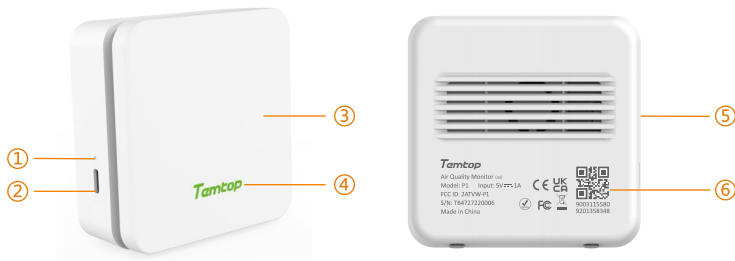


AQI (Air quality index) is a quick guide to air quality levels. It aims to indicate the cleanliness or pollution level of the air in an easy-to-understand way. It ranges from 0 to 500, with higher values indicating higher levels of air pollution and adverse health effects. AQI assessments can show PM2.5, PM10, O₃, SO₂, NO₂, CO, etc. Temtop calculates AQI according to EPA standards and focuses only on PM2.5 and PM10.

Important

- ★ Do not expose the detector to heavily contaminated environments for long periods, as this can damage the sensor.
- ★ Do not use the detector in wet conditions for extended periods to ensure accurate measurements.
- ★ Do not use the detector for long periods in environments with a strong, irritating smell to ensure accurate measurements.
- ★ Do not cover the vents of the detector and keep lint out of the detector, as the particle sensor may not work correctly.
- ★ Do not dismantle the unit yourself. In the event of a defect, contact your dealer instead, who will liaise with the service centre 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.
- ★ This product can help monitor the health of the indoor environment, but should not be used as a professional measurement tool.

Overview



① Battery Indicator

② USB Port

③ Power Button

④ Air Quality Indicator

⑤ Air Inlet/Outlet

⑥ GUID QR Code*

* GUID QR Code:

1) A unique GUID number for the product.

2) Scan the GUID QR code with the Tamtop app for Bluetooth connectivity.

Specifications

Model: P1/P2

Dimensions: 82x82x31mm (3.2x3.2x1.2 in)

Battery capacity: 2000mAh

Input: DC 5V 1A

Operation environment: -10-60°C
0-99.9%RH

PM2.5

Measuring range: 0-999.9 $\mu\text{g}/\text{m}^3$

Resolution: 0.1 $\mu\text{g}/\text{m}^3$

Accuracy: $\pm 10\mu\text{g}/\text{m}^3$ (0-100 $\mu\text{g}/\text{m}^3$)
 $\pm 10\%$ (100-500 $\mu\text{g}/\text{m}^3$)

PM10

Measuring range: 0-999.9 $\mu\text{g}/\text{m}^3$

Resolution: 0.1 $\mu\text{g}/\text{m}^3$

Accuracy: $\pm 15\mu\text{g}/\text{m}^3$ (0-100 $\mu\text{g}/\text{m}^3$)
 $\pm 15\%$ (100-500 $\mu\text{g}/\text{m}^3$)

AQI

Measuring range: 0-500

Resolution: 1

CO₂*

Measuring range: 400-5000ppm

Resolution: 1ppm

Accuracy: $\pm 40\text{ppm} \pm 3\%\text{reading}$

Temperature

Measuring range: -10-60°C (14-140°F)

Resolution: 0.1°C (0.1°F)

Accuracy: $\pm 1^\circ\text{C}$ ($\pm 1.8^\circ\text{F}$)

Humidity

Measuring range: 0-99.9%RH

Resolution: 0.1%RH

Accuracy: $\pm 5\%\text{RH}$

* For P2 only.

Note: The above data are from Temtop Laboratory.

Operations

Warning!

- For indoor use: Keep the room/area airtight for 10 minutes to obtain more accurate results.
- Please keep it ventilated. The product should be placed upright, not flat, so as not to cover the ventilation openings.

1. On/Off

Press and hold for 3 seconds to switch the detector on/off and the buzzer will sound once.



2. Energy saving mode detection

2.1 Power-on detection

When the product is switched on and starts to detect, the Temtop indicator will slowly flash green, yellow and red alternately. After the detection is stable, the indicator will slowly flash the colour corresponding to the detected value (displaying the colour corresponding to the worst parameter value (AQI/CO₂)), and remain on for 30s, after which it enters into the regular state.

2.2 Regular state

Without active operation, it will be collected according to the regular algorithm.

After each non-active triggered acquisition and detection, according to the level, light up different colours (the colour corresponding to the value of the worst parameter), light up for 30s, and then go out.

2.3 Proactive detection

Click on the panel, Temtop indicator light several colours alternately (green-yellow-red) blinking (slow flash), until the test is completed (no limit to the number of tests, in order to get accurate and stable values counted as a test is completed), display the corresponding value of the light colour (display the worst parameter (AQI/CO₂) value corresponding to the colour), and continue to be constantly lit for 30s, into the regular state.

3. Real-time detection mode (USB powered on)

3.1 Power-on detection

When the product is switched on and a test is started, the Temtop light flashes (slowly) in several colours alternately (green-yellow-red), and when the test is stabilised, the colour of the light corresponding to the value is displayed (the colour of the worst parameter (AQI/CO₂) is displayed), and this continues until the next test is completed.

3.2 Regular state

No active operation, USB power-on real-time detection.

After the detection is stable, the colour of the lamp corresponding to the value is displayed (the colour corresponding to the value of the worst parameter (AQI/CO₂) is displayed).

3.3 Proactive detection

Click on the panel, the Temtop indicator flashes (slowly) in several colours (green-yellow-red) until the test is completed (there is no limit to the number of times the sensor can be tested, a test is considered completed when a stable and accurate value is obtained), and the colour of the lamp corresponding to the value is displayed (the colour of the lamp corresponding to the value of the parameter that is the worst (AQI/CO₂) is displayed).

4. Buzzer

On/Off	Buzzer sounds once
Deterioration of parameter level grades	Buzzer sounds once
Fully charged	Buzzer sounds once
Networking success	Buzzer sounds once
Successful calibration	Buzzer sounds once
Firmware upgrade successful	Buzzer sounds once

Note: The Default 21:00-7:00 is sleep time, when the buzzer will not alarm. The alarm interval can be set in the app.

5. Charging

When the battery level is low, please charge it by connecting it to the USB cable and power supply. The charging indicator light flashes red when charging, and the green light is always on when fully charged.

6. Bluetooth Connection

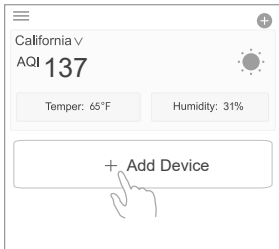
6.1 Temtop App

Please search Temtop on App Store or Google Play,
or simply scan the QR code below to download the app:



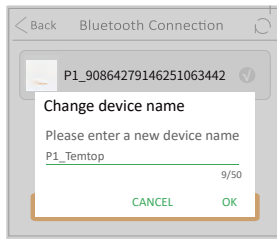
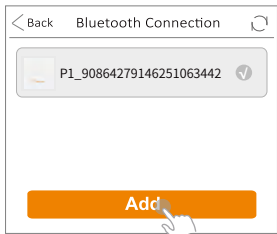
6.2 Add Device

- a. Start adding devices by clicking the '+' sign on the home page of the Temtop application.



- b. Enable your phone's Bluetooth with the app, which will automatically detect Temtop devices in range of Bluetooth. Please select the Temtop device you wish to add and click the Add button.

If you have problems connecting your device, bring the device close to your mobile phone and make sure they are close enough to make a successful Bluetooth connection.



6.3 APP Main Functions

- Access real-time measurement data.
- View historical data curves.
- Data storage and export.
- Calibrate the device.
- Change device parameter preferences and much more...

Note: 1)When using the app, make sure your device is within the Bluetooth range.
Please avoid moving too far away from the device.

2)Due to the upgrading and updating of Temtop APP, the actual operation may be slightly different from the above description, please follow the current guidelines within Temtop APP.

FAQ

Q: Why can't I receive the verification code when I sign up for an APP account?

- A: ① Please check the advertisement mails and spam mails, your mailbox may automatically classify the CAPTCHA mails into advertisement mails and spam mails.
② Google Mail, Outlook, and other major mailboxes are recommended.

Q: Why can't the APP connect to the device?

- A: ① Make sure your phone and device are in the same room and as close to the device as possible.
② Try restarting the device or connecting with another phone.
③ If the issue is still not resolved, please contact our customer service for further support.

Q: Why is the PM2.5 reading constantly changing?

A: As PM2.5 concentration in the environment is changing all the time not only due to environmental factors like changes in airflow, humidity, wind direction, etc. but also due to common pollutant sources like smoking, cooking; exhaust emissions from vehicles, smoke from burning coal/chimneys/ furnaces, etc. All these may influence the PM2.5 concentrations and give differences in the readings.

Q: Is it true that AQI calculations are not scientific?

A: We calculate the AQI based on PM2.5/PM10, which is MAX (AQI-PM2.5, AQI-PM10), and there are corresponding AQIs for O₃, CO, SO₂, NO₂, and so on, and the official one is released with the maximum of these AQI-PM2.5, AQI-PM10 and other 6 AQIs. The main source of indoor pollution is particulate matter so AQI-Particulate Matter can respond well to indoor AQI.

FAQ

Q: AQI/ PM2.5 and other values, why the measured value is inconsistent with the official announcement?

A: The AQI/PM2.5 shown on the display is a measurement of the space where the device is located. The measured value published on the Internet or official websites is the average value of several monitoring points, and each measurement point will be different. At the same time, according to the regulations of EPA and WHO, the AQI value is calculated based on the highest value among the five pollutants in the atmosphere on that day. In the past ten years, the local AQI in the United States has basically been calculated with the value of PM2.5/PM10, and sometimes with the value of O₃.

Q: Why is the test result abnormal ?

- A: ① Please check that the air inlet or outlet is not covered or that liquid has entered.
② Gently shake the detector during detection to increase interaction with the surrounding air.
③ The sensor may not recover, so please place the detector outside in a ventilated area.

Q: Why is CO₂ data high?

A: The user's environment may be poorly ventilated, resulting in high CO₂ concentration; it is recommended that the user place the product in an outdoor ventilated place for 10 minutes. If the data is still high, the customer is advised to perform a CO₂ calibration via the APP.

FCC Requirement

FCC Warning statement:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

FCC Requirement

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC RF exposure statement:

The device has been evaluated to meet general RF exposure requirement. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Air Quality Parameter For Referenc

Pollutant Status	PM2.5 (2012)	PM2.5 (2024)	PM10	AQI	CO ₂
<i>Tamtop</i>	55.5~999.9	55.5~999.9	255~999.9	151~500	1501~5000
<i>Tamtop</i>	12.1~55.4	9.1~55.4	55~254.9	51~150	1001~1500
<i>Tamtop</i>	0~12	0~9	0~54.9	0~50	400~1000

What's Included

- Air Quality Detector x1
- Detector manual x1
- USB Cable x1

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
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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V1.0

Made In China