Temtop

M10+ Air Quality Monitor User Manual

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.



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.



TVOC (Total Volatile Organic Compounds) are a wide range of chemicals that readily evaporate into the air at room temperature. TVOC sensors behave similarly to the human nose, responding to changes in the relative intensity of indoor TVOCs on a scale from 1 to 500.



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.

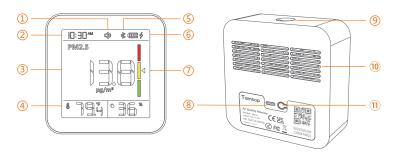


AQI (Air quality index) is a quick guide to air quality levels. It aims to indicate the cleanliness or pollution level of the air in an easy-to-understand way. It ranges from 0 to 500, with higher values indicating higher levels of air pollution and adverse health effects. AQI assessments can show PM2.5, 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 is intended for monitoring the health of the indoor environment only and should not be considered a professional measurement tool.

Overview



1 Buzzer Display Status	② Time	(3) Air Quality Display Area	
4 Temperature & Humidity Display Area		⑤ Bluetooth	
6 Battery Level & Charging Status		7 Health Level Display Area	
8 USB Port	Power Button	① Air Inlet/Outlet	
(11) Back Button			

Specifications

Model: M10+

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

Battery capacity: 2200mAh

Input: DC 5V 1A

Operation environment: 0-50°C (32-122°F)

0-90%RH

PM2.5

Measuring range: 0-999.9 μg/m³

Resolution: 0.1 µg/m3

Accuracy: $\pm 10 \mu g/m^3 (0-100 \mu g/m^3)$ $\pm 10\% (100-500 \mu g/m^3)$ CO₂

Measuring range: 400-5000ppm

Resolution: 1ppm

Accuracy: ±(40ppm +5%) (400-2500ppm)

TVOC

Index range: 1-500 Resolution: 1

Temperature*

Measuring range: 0-60°C (32-140°F)

Resolution: 0.1°C (0.1°F) Accuracy: ±0.5°C (±0.9°F)

Humidity

Measuring range: 0-99%RH

Resolution: 0.1%RH Accuracy: ±3%RH

Note: The above data are from Temtop Laboratory.

^{*} When the product is charged, the temperature will have an error of ±0.5°C, and it will recover in about 10 minutes after full change.

When the temperature measurement environment suddenly changes, and the temperature difference is large, it may takes 3 to 5 minutes adaptation time.

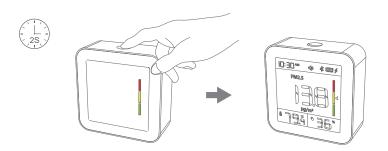
Operations

△ Warning!

- For indoor use: Keep the room/area airtight for 10 minutes to obtain more accurate results.
- If the battery level shows , please charge the detector in time to avoid being affected during use (it can also recharge when switched off).

1. On/Off

Press 2s to turn ON/OFF the M10+ monitor.



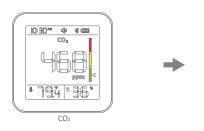
2. Display

- Click the Home button to switch the parameter display interface; the display order is PM2.5/AQI/CO2/TVOC.
- 2. Double-clicking the Power button automatically switches the parameter display interface with an interval of 3s. Double press again to exit Auto Loop mode.



AQI*

*Follow EPA particle pollution standards to calculate the AQI for PM2.5.



Status	Reference	
Poor	or 1501~5000	
Fair	1001~1500	
Good	400~1000	



Status	Reference	
Poor	351~500	
Fair	101~350	
Good	1~100	

Buzzer switch Icon
 Displayed: buzzer sound on the device is turned on;
 Disappears: the buzzer sound is turned off.

3. Back Button



operate	status	
Click	Turn on the bluetooth	
Double click	Turn on/off the buzzer	
Press and hold 3s	Switch temperature unit (°F/°C)	

4. Charging

When the battery level is low, please charge it by connecting it to the USB cable and power supply.



5. Bluetooth Connection

1. Temtop App

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









2. Add Device

a. Click the back button to turn on your product's bluetooth and on the home page of the Temtop app, click on the "+" sign to start adding devices.



 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.

When encountering issues connecting to the device, follow these steps to ensure a successful connection:

1) Locate the button on the back of the device and click it to activate the device's Bluetooth broadcasting.

2) Bring the device close to your phone, ensuring they are in close proximity to facilitate a successful Bluetooth connection.





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.

What's Included

Air Quality Detector x 1
M10+ Manual x 1
USB Cable x 1

FAQ

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: 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 PM2.5/10, and sometimes with the value of O₃.

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

A: PM2.5 concentrations in the environment are constantly changing, not only due to environmental factors such as changes in airflow, moisture, and wind patterns but also due to the presence of such familiar sources as smoking, cooking, vehicle emissions, smoke from coal burning/chimney/stoves, etc. All these may affect the concentration of PM2.5 and lead to differences in the readings.

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.

Q: What is TVOC and what are the common sources in households?

A: TVOC (Total Volatile Organic Compounds) refers to a variety of chemical substances that easily evaporate into the air at room temperature. The TVOC sensor behaves similarly to the human nose and reflects changes in the relative intensity of indoor TVOC on a scale from 1 to 500. Common sources of TVOCs in the home include alcohol, air fresheners, citrus fruits, scented candles, paints, cleaning supplies, pesticides, building materials and furniture, inks, glues, and various cosmetics.

Q: Why are the TVOC data readings very high/out of range when with the detectors on?

A: Being packed in an ink-printed box may interfere with the sensor over time due to the organic volatiles left in the packaging. Therefore, once unpacked, please place the detector in a ventilated area to help speed up its data recovery.

Q: Why is the temperature high when charging?

A: The temperature and humidity sensor is located inside the product. When charging, a large amount of heat will be generated, causing the actual temperature of the product to rise.

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.

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. 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. The device can be used in portable exposure condition without restriction.

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 \forall items are ready:

	Detector & Accessories	Complete Package	Proof of Purchase*	Gift (if any)
Return	√	V	√	√
Exchange	٧	√	√	
Repair	٧		٧	

^{*} 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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