

Tentop

P10/M10/M10i

Factors Affecting Air Quality



PM2.5 (Particulate Matter 2.5) refers to particulates with diameter of 2.5 micrometers or less. Due to its tiny size, PM2.5 can be absorbed by bloodstream via the lungs. Exposure to high concentrations of PM2.5 may cause eye and nose irritation, cough, asthma, emphysema, lung disease, cancer or other respiratory and cardiovascular diseases.



Formaldehyde is a colorless and strong-smelling chemical with formula CH_2O or H-CHO , which has been classified by IARC as Group 1 carcinogen due to its significant dangers to human health. Long-term exposure to just low doses could cause chronic respiratory diseases, nasopharyngeal cancer, colon cancer, brain tumors, nuclear gene mutations and etc.



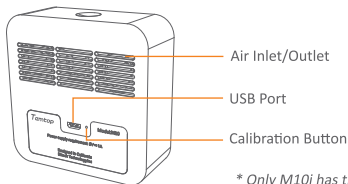
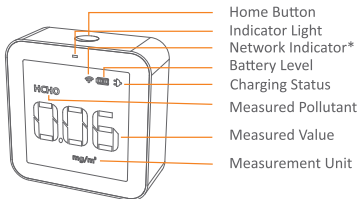
TVOC (Total Volatile Organic Compounds) refers to various common VOCs including benzene, toluene, styrene, formaldehyde and etc. Due to their volatility as well as toxicity, irritability and carcinogenicity, long-term exposure to TVOCs can cause damage to the skin, liver, kidneys, central nervous system and etc.

AQI (Air Quality Index) is a quick guide on air quality levels. It aims to indicate how clean or polluted the air is in a way that's easy to understand. It ranges from 0 to 500 that higher values indicate higher air pollution levels and more adverse for health. AQI assessment can be indicated for PM2.5, PM10, O_3 , SO_2 , NO_2 , CO etc. Temtop follows EPA Standards to calculate and focus only for AQI of PM2.5&10.

Warnings!

- ★ Do not place the detector in heavily polluted environment for a long time. Otherwise, the sensor may be damaged and cannot run normally.
- ★ Do not use the detector in humid environment in order to maintain the detection accuracy.
- ★ Do not cover the air inlet/outlet while in use.
Do not let fluff or hair entering the detector.
- ★ Try to avoid using the product in the environment with strong odour or pungent smell.

Product Overview



* Only M10i has this symbol.

Functions

Function \ Model	P10	M10	M10i
PM2.5	✓	✓	✓
AQI*	✓	✓	✓
HCHO		✓	✓
TVOC		✓	✓
Wi-Fi			✓

* Following the US EPA Standards for Particle Pollution to calculate AQI.

Specifications

Model: P10/M10/M10i

PM2.5

Battery capacity: 2200mAh

Sensor: Laser PM sensor

Battery life: Approx. 6 hours on a single charge

Measuring range: 0-999 μ g/m³

Input: DC 5V; 0.5A-1A

Resolution: 1 μ g/m³

Operating environment: 0-50°C; 0-90%RH

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

Dimensions: 82x82x31 mm

HCHO*

3.2x3.2x1.2 in.

Sensor : Electrochemical sensor

Weight: 200g

Measuring range: 0-2mg/m³

TVOC Measuring range*: 0-5mg/m³

Resolution: 0.01mg/m³

TVOC Resolution : 0.01mg/m³

Accuracy: $\pm 0.03\text{mg}/\text{m}^3$ (0-0.3mg/m³);
 $\pm 10\%\text{mg}/\text{m}^3$ (others)

* The function is for M10/M10i only.

Operations

Before you begin

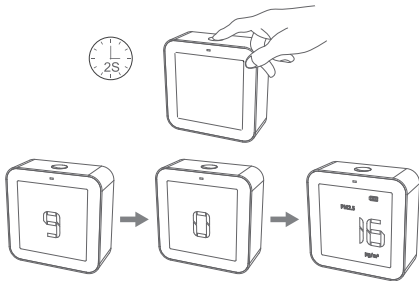
Unpack and take out the detector.

Place it outdoors for more than 6 hours for calibrations.

1. Turn On/Off

Press and hold Home button for 2 seconds to turn on/off the detector.

After turn on, please wait for the countdowns.



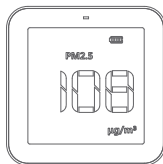
2. Display

1 M10/M10i Model

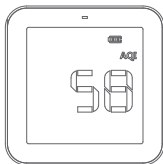
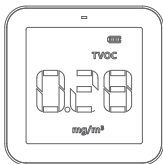
HCHO concentration will auto display after the countdowns:



Then press Home Button to display PM2.5 concentration:



Then press Home Button to display TVOC concentration;
Then press Home Button again to display AQI index:



Other Operations

Manual Loop: Repeat above steps can manually loop the display in order of HCHO, PM2.5, TVOC, AQI.

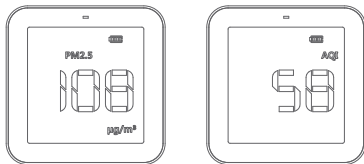
Auto Loop : Double press Home Button can auto loop each display every 3s. Double press again to exit Auto Loop mode.

Note: For further Wi-Fi connecting instructions to M10i model, please refers to another manual that comes along: "M10i Add Device and Connect Wi-Fi".

2 P10 Model

PM2.5 concentration will auto display after turn on countdowns;

Then press Home Button to display AQI index:



Other Operations

Manual Loop: Repeat above steps can manually loop and display the PM2.5, AQI.

Auto Loop: Double press Home Button can auto loop each display every 3s. Double press again to exit Auto Loop mode.

3. Indicator Lights

The indicator lights on the panel indicate the corresponding air quality:

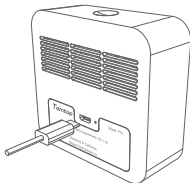
Status	Good	Fair	Poor
Color	Green	Yellow	Red

The battery level indicator on the screen indicates the device charging status:

Status	Charging	Full
Color	Yellow	Green

4. Charging

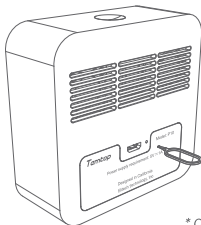
When battery level is low, please charge by connecting it with the USB cable and power supply.



5. HCHO Calibration*

It is suggested to calibrate the detector after 3 months usages.
The calibration instructions are showing below:

- a) Turn on the detector and wait for about 10 minutes.
- b) Use the pin tool to press the calibration button for more than 10 seconds until HCHO icon blinks on the screen.
- c) Place the detector outside for 10 minutes for ventilation.
- d) When HCHO icon does not blink, it indicates that the calibration has finished.



** Calibration is only for M10/M10i.*

Air Quality Parameter for Reference

Status Pollutant	Good	Fair	Poor
PM2.5 ($\mu\text{g}/\text{m}^3$)	≤ 12	12.1~55.4	≥ 55.5
AQI*	≤ 50	51~150	≥ 151

**Following the EPA Standards for Particle Pollution to calculate AQI for PM2.5.*

Status Pollutant	Healthy	Unhealthy
TVOC (mg/m^3)	≤ 0.5	> 0.5
HCHO (mg/m^3)	≤ 0.1	> 0.1

What's Included

Air Quality Detector	x 1
P10/M10/M10i Manual	x 1
USB Cable	x 1
Pin Tool*	x 1
M10i Add Device and Connect Wi-Fi Manual** x 1	

* Only included for M10 and M10i

** Only included for M10i

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V1.2

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