Temtop P20C. R. Laser Particle Air Quality Detector User Manual

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Contents

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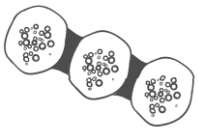
Air Quality Key

Factors PM2.5 (Particulate Matter 2.5) refers to fine particles with diameter of 2.5 micrometers or less. Due to its tiny size, PM2.5 can be absorbed into bloodstream and the lungs, so that long-term exposure to high

concentration of PM2.5 environment may cause eye and nose irritation, cough, asthma, emphysema, lung disease, heart attacks, cancer and etc.

Temperature & Humidity may often be ignored however they do have significantinpacts on individual's wellbeing, comfort, health and safety as well as your valuablegoods. While high humidity may lead to increased household air pollutants especially the biological contaminants such as molds, bacteria, viruses, fungi and dust mites; cold, low humidity may cause nosebleeds, skin and respiratory irritations, dyspnea,static electricity shocks and etc.



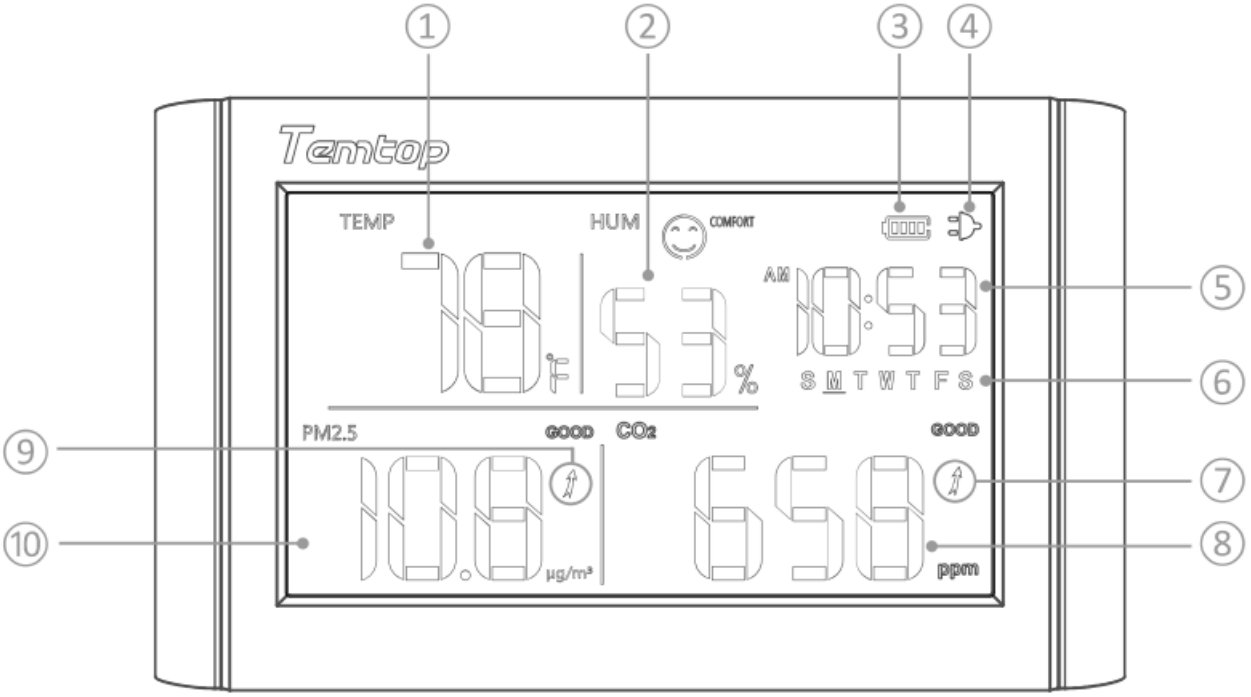
Carbon Dioxide (CO2) refers to a colorless and odorless gas that is usually derived from the breath of humans and animals. High CO2 concentration means that fresh air or ventilation is required, otherwise it may cause problems such as drowsiness, dizziness, loss of attention, and cognitive impairment.

Warning!

- Do not place detector in heavily polluted environments (concentration of HCHO >1.0mg/m3 or particle > 500pg/m3) for a long time; or it may cause damages to the sensor.
- Do not cover the air inlet/outlet during detection; or let fluff or hair enter the detector.
- Do not make contact with organic solvents, such as glue/adhesives/paint/alcohol etc.
- Do not use detector in humid places or environments with strong odor to maintain accuracy.
- Do not use in environments contain gases listed in FAQ 6 to avoid influences on HCHO sensor.
- If battery level shows  please charge the detector promptly to avoid effects during use (also chargeable when turned off).
- Do not change the "SYSTEM" file of the detector or it will cause abnormal and malfunctions. The file is for testing and maintenance by authorized engineers and personnel ONLY.

Overview

1.



Temperature

2. Humidity
3. Battery Level
4. Charging
5. Time
6. Days of the week
7. CO2 Trend*
8. CO2 Display
9. PM2.5 Trend*
10. PM2.5 Concentration

*The trend of CO2 concentration that increase /decrease over 100ppm within 10 seconds. * The trend of PM2.5 concentration that increase /decrease over Spg/m3 within 10 seconds.

Min/Max **Switch Min/Max; Decrease Value**

- Press to view the Min/Max values of temperature, humidity and PM2.5 concentration and CO2 concentration in hours.
- In time setting mode, press to decrease the value, press and hold to decrease quickly.

  Note: The Min/Max values will show within a few minutes after power on.

°C / °F **Switch C/F; Increase Value**

- Press to switch temperature uints C and F.
- In time setting mode, press to increase the value, press and hold to increase quickly.

Set **Setting; Switch; USB Mode**

- Press to enter time setting mode, press again to switch for the next digit and etc.
- Connect detector to the computer via USB cable; the press and hold for 3s to enter the USB mode.

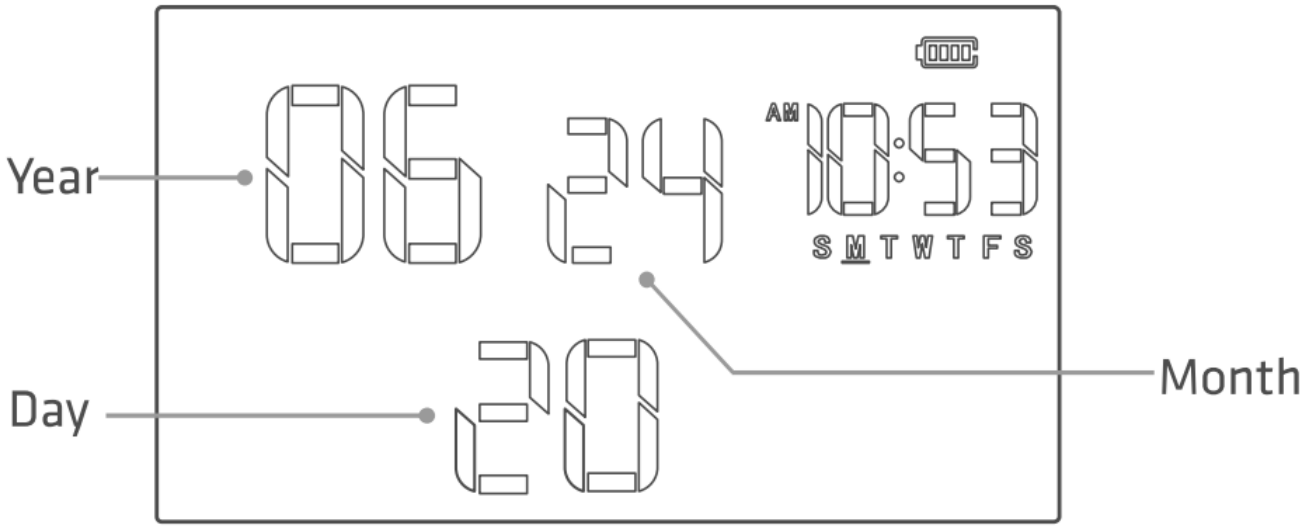
Power **ON/OFF; Confirm**

- Press and hold for 3s to turn on/off the detector.
- In time setting mode, press to confirm and save changes.

Operation

ON/OFF

- Press and hold Power button for 3s to turn on/off the detector. After turned on, it will count down for 3s and then display normally.



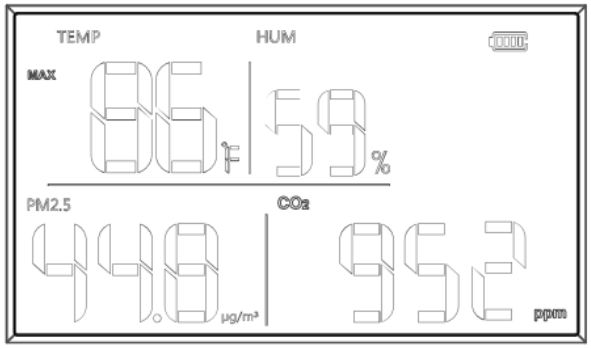
Time Settings

- Press Set button, Month will flash first.
- Press Min/Max or °C / °F button to decrease or increase to the correct month; press and hold to quickly decrease or increase the values.
- Pres Set button to switch for the next digit. Repeat previous step to set the Month, Day, Year, AM, PM, Hour and Minute(days of week will auto adjust based on others).
- Press Power button to save all settings and return to main page(auto exit after lOs without activity and all changes will not be saved).

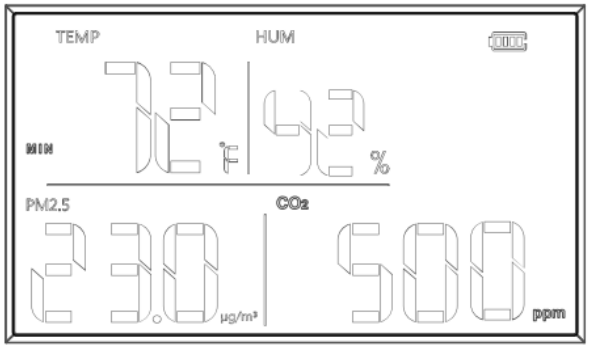
Temperature, Humidity, PM2.5, CO2

- Press C / °F button to switch between temperature uints C and F.
- Press Min/Max button to display the maxium temperature, humidity, PM2.5 concentration and CO2 concentration within 12h.
- Press again to display their minimum values(auto exit after 10s of inactivity). Please see figures shown below.

Max

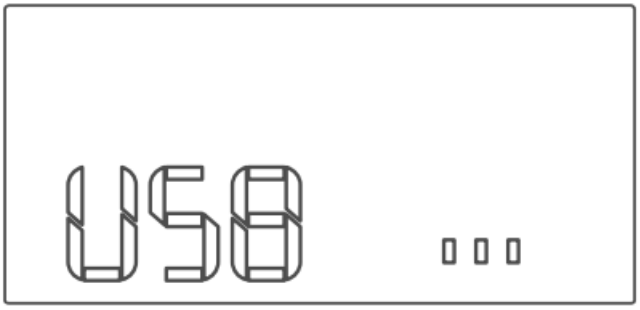


Min



Data Management

- Connect the detector to the computer via USB cable; then press and hold Set button for 3s to enter the USB mode.
- The detector will generate a removable storage device Temtop disk including two folders: HISTORY and SYSTEM.



1. HISTORY folder: the .csv format file that contains average temperature, humidity, PM2.5 data and CO2 data on an hourly basis. Please save it to your computer for further view.
2. SYSTEM folder: the system file that used for testing and maintenance ONLY. Users are forbidden to change it or it may cause abnormal or malfunctions of the detector. After viewing and copying data, press and hold Set button for 3s to exit the USB mode.

Specificatoins

- Model: P20C
- Dimensions: 260 x 139 x 33 mm 6.9 x 2.6 x1.2 in
- Battery capacity: 3000 mAh

- Battery voltage: 3.7 VDC
- Battery life: 6-8h on a full charge
- Input voltage/current: DC5V; 1A
- Operating environment: 0-50°C(32-122°F); 0-90%RH
- Atmospheric pressure: latm standard atmosphere
- Temperature Measuring range: 0-50°C (32-122°F) Accuracy: ±1°C (±1.8°F)
- Humidity Measuring range: 0-90%RH Accuracy: ±S%RH

PM2.5 Sensor: Laser particulate matter sensor
Measuring range: 0-999ug/m³
Resolution: 0.01ug/m³ (0-9.99ug/m³) 0.1ug/m3 (10-99.9ug/m³) 1ug/m³ (100-999ug/m³)
Accuracy: ±1Oug/m³(0-10Oug/m³) ±10%(100-500ug/m³)
CO2 Sensor:NEIT Measuring range: 0-5000ppm Resolution: 1ppm Accuracy: ±40ppm±readings*3io

Frequently Asked Questions(FAQs)

Q: Why is the PM2.5 reading not matching with the government departments' or other organizations'?

– A: The PM2.5 data computed by government departments or other organization are the average data values from multi-monitoring points.
– Hence it is common that the PM2.5 reading at your place/location is different form theirs.

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

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

Q: How to calibrate CO2 sensor?

– A: In the natural environment, the concentration of carbon dioxide is about 400ppm. After the instrument enters the calibration mode, please place it in clean air in time. – – – After the calibration is completed, the instrument automatically returns to normal operation.

Q: Why is data reading unstable?

– A: As airflow in the environment is changing, the distribution of organic matter concentration may be uneven. Temtop recommends trying again in low airflow areas. Q: **How to read face icon on the display?**
– A:

PM2.5(μg/m³)		CO_2(ppm)		(% RH)	
GOOD	0-12	GOOD	0-699	COMFORT	30-60
FAIR	12.1-55.4	FAIR	700-2499	WET	>60
POOR	>55.4	POOR	2500-5000	DRY	<30

What' Included

P20 Laser Partical Detector x1
USB Cable x1
User Manual x1
Seamless Nail x4
Seamless Nail Label x1

Warranty

Temtop warrants the included item 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 artificia damage.
Item Warranty Period Detector 1 year included Accessories N/A

Item	Warranty Period
Detector	1 year included
Accessories	N/A

Before returning or sending for repair please check if the following items are ready:

	Detector & Accessories	Complete Package	Proof of Purchase*	Glft Of any)
Return	✓	✓	✓	✓
Exchange	✓	✓	✓	
Repair	✓		✓	

*including invoice, order number and etc.
Temtop warranty does NOT include:

- Malfunction or damages caused by artificia damage or modification;
- Other deliberate damages;
- Damages caused by force majeure event.

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V1.1 Made in China

Documents / Resources

	Temtop P20C. R. Laser Particle Air Quality Detector [pdf] User Manual P20C. R. Laser Particle Air Quality Detector, P20C., R. Laser Particle Air Quality Detector, Air Quality Detector

Manuals+,