BENETECH®

MODEL:GM8804

Multifunctional Air Quality Detector

Instruction manual

Ⅰ.Introduction

This product is a type of portable multifunctional air quality detector that can simultaneously detect the concentration of airborne particulates, formaldehyde concentration, temperature and humidity. This instrument can achieve accurate measurement, real-time response, continuous collection and detection of formaldehyde and particulate matter concentration in the air. Its minimum resolution particle size is 0.3um.

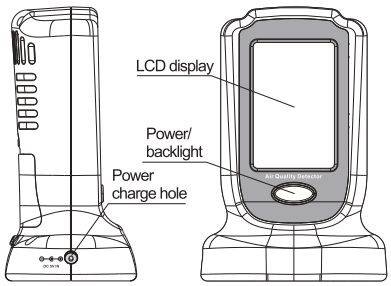
The multifunctional air quality detector has the following characteristics:

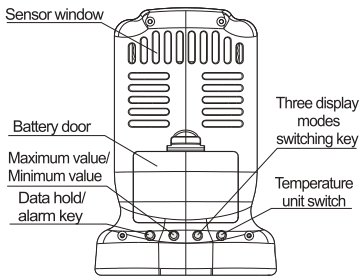
1. Real-time and dynamic detection of PM2.5 and PM10 concentrations and formaldehyde concentration in the air.
2. Environmental temperature and humidity measurement and temperature unit conversion.
3. Switching between three different display modes.
4. Display of the maximum and minimum values.
5. Data hold function.
6. Sound and light alarm settings.
7. LCD backlight display of air quality level.

Ⅱ.Safety Warnings

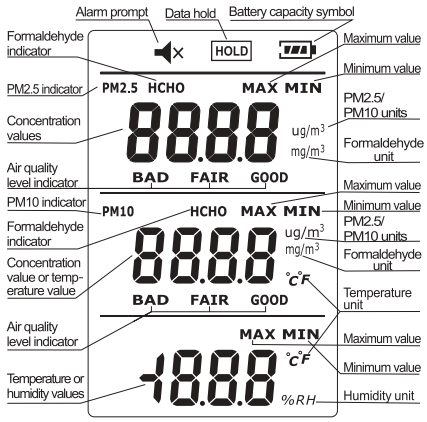
1. The concentration of particulate matter.
▶0 ug /m³ ~ 75 ug/m³: Air quality level is GOOD (green, good).
▶75ug/m³ ~ 150ug/m³: Air quality level is FAIL (yellow, slightly polluted, unhealthy).
▶⩾150 ug/m³: Air quality level is BAD (red, heavily polluted, very unhealthy).
2. Formaldehyde concentration.
▶0mg/m³ ~ 0. 1mg/m³: Air quality level is GOOD (green, good).
▶0. 1mg/m³ ~ 0. 3mg/m³: Air quality level is FAIL (yellow, slightly polluted, unhealthy).
▶⩾0. 3mg/m³: Air quality level is BAD (red, heavily polluted, very unhealthy).

Ⅲ.Components





Ⅳ. LCD display



Ⅴ.Operation instruction

1. Power button

Press the power button to switch on, and hold down the power button to shut down.

2. Three display modes

Press the Mode button to switch between the three modes.

(1)Mode 1: display PM2.5 concentration, PM10 concentration and ambient temperature.
(2)Mode 2: Display PM2.5 concentration, PM10 concentration and ambient humidity.
(3)Mode 3: Display PM2.5 concentration, ambient temperature and ambient humidity.

3. Real-time detection value, maximum value and minimum value.

(1)Real-time detection value: After the full-screen display of startup, the real-time detection value can be displayed.
(2)Maximum value: Press the Max/Min key to display the maximum value with "MAX" prompt from power on to present value.
(3)Minimum value: Press the Max/Min key when the maximum value is displayed, the minimum value with"MIN" prompt from power on to present value. Press again to return to real-time detection.

4. Data hold.

Press the HOLD key to hold the momentary reading on the screen with the "HOLD" prompt displayed at the top of the screen. Press the Data hold key again to exit the data hold state.

5. Unit conversion between Fahrenheit and Celsius.

Press the temperature unit conversion button to switch between Celsius and Fahrenheit.

6. Alarm prompt.

Press and hold the alarm key to turn off the sound and light alarm prompt. The icon "🔇" is displayed at the top of the screen. Press the alarm key again to enable the sound and light alarm prompt. The icon" 🔊 "is displayed at the top of the screen.

(1)In the event that the sound and light alarm is enabled, when PM2.5 or PM10 concentration is equal to or greater than 75 ug/m³ but lower than 150 ug/m³, or the formaldehyde concentration is equal to or greater than 0.1mg/m³, but lower than 0.3 mg/m³, the yellow light flashes, which suggests the current air quality is slightly polluted.
(2)In the event that the sound and light alarm is enabled, when PM2.5 or PM10 concentration is equal to or greater than 150 ug/m³, or the formaldehyde concentration is equal to or greater than 0.3 mg/m³ the buzzer sounds intermittently and the yellow light flashes, which suggests the current air quality is severely polluted.

7. LCD backlight display of air quality level.

In the normal working conditions, press the power button to turn on the LCD backlight, and press again to turn off the LCD backlight.

Note: There are three kinds of backlight colors, which indicate three air quality levels. The green, yellow and red colors respectively represent good, slightly polluted, heavily polluted air quality.

8. Charging.

When the battery power is low, LCD will display "🔋" icon, indicating that the battery power is low and the rechargeable Ni-MH battery needs to be recharged.Note: In the charging state, shut down the detector to solely charge the battery; press the power button to return to realtime detection; hold down the power button to directly turn off the detector. After the battery is fully charged in charging state, or the adapter is unplugged, the detector will be shut down.

Ⅵ.Technical parameters

Detected gas	Particle concentration in the air (PM2.5, PM10)		
Particle concentration measurement range	(0～5000) ug/m³	Minimum reading of particle concentration	1 ug/m³
Effective range of formaldehyde concentration	(0～1) mg/m³	Minimum reading of formaldehyde concentration	0.01 mg/m³
Particle concentration resolution	1 ug/m³	Minimum resolution particle size	0.3um
Formaldehyde concentration resolution	0.01 mg/m³	Maximum error of formaldehyde concentration	< ±5%FS
Response time	≦10S		
Measurement principle	Particulate concentration: Laser diffusion principle HCHO concentration: Electrochemical principle		
Working environment	0~50℃,32~122℉;10~90%RH		
Storage environment	-10~80℃,-14~176℉;10~75%RH		
Power supply	3 * 1.2V AA rechargeable NiMH or 5V 1A power adapter		
Dimension	91.5*64.8*135mm	Weight	152g (excluding of batteries)

Ⅶ.Warm tips

1. In case the LCD display dims or the detector is turned off before the detection interface is displayed, which means that the battery power is low. It is recommended to plug the adapter to recharge the battery.
2. This air quality detector is equipped with built-in two-in-one digital particulate concentration sensor capable of detecting particulate concentration and formaldehyde concentration, which does not need calibration.
3. Do not blow on the detection window or cover the detection port so as not to affect the detection.
4. It is required to avoid directly blowing detector, which shall be placed in the area of relatively stable air flow to the get the correct test results (High wind speed in the air can cause the formaldehyde concentration to fluctuate).
5. When detecting air quality, avoid spices, air fresheners, cigarettes, alcohol and other chemical substances so as not to affect the detection results.

Specific Declarations:
Our company shall hold no any responisibility resulting from using output from this product as an direct or indirect evidence.
We reserves the right to modify product design and specification without notice.

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