User Manual

Air Quality Detector AQD-V43[WIFI]

Version: 1.0

Product Specifications

Display method: 4.3" LCD screen display, 480*270 pixels
Atmospheric pressure: 86Kpa to 106Kpa
Detection method for CO2: Infrared (NDIR)
Detection method for PM: Laser Scattering
Sampling time: 1.5 seconds
Product Size: 145*78*97.2mm
Detection temperature: -10℃ to 50℃
Relative humidity: 20% to 85%
Storage temperature: -10℃ to 60℃
Concentration unit for CO2: PPM
Concentration unit for PM: ug/m^3
Concentration unit for HCHO and TVOC: mg/m^3
Power source: Lithium battery with 3000mAh capacity;
5V DC power charging via micro USB port
Product weight: 235g

Product Description

This product is a multifunctional air quality monitor that detects Carbon dioxide (CO2), Formaldehyde (HCHO), Total Volatile Organic Compounds (TVOC), Particulate Matter <2.5 micron-sized particles (PM2.5/1.0/10), Temperature, and Humidity with clock and record function. As a scientific air quality detection device, it combines multiple air sensors with a built-in fan to allow real-time monitoring of Carbon dioxide (CO2), formaldehyde (HCHO), total volatile organic compounds (TVOC), PM2.5/1.0/10, temperature, and humidity on its digital LCD display.

Considerations

Please read the instructions carefully before using this device.
Please let the device work short mins outdoors before use for most accurate results.
Please keep the manual handy for quick reference and troubleshooting.

Precautions

Avoid covering the air intake areas during use to avoid inaccurate measurements.
Avoid use of solvents to clean the product as residual fumes will skew air quality readings.
Avoid water or other liquids near the product to avoid electrical damage.
Do not allow unauthorized modification or repair of this product.

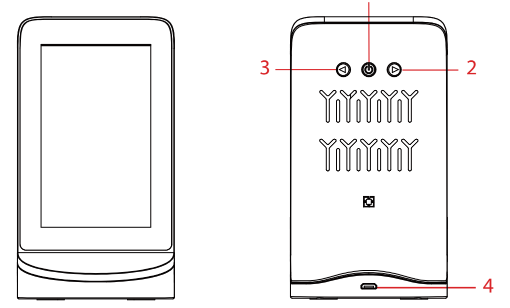
Features

- 4.3" color liquid crystal display (LCD), 480*270 pixels
- Test variables: Carbon dioxide (CO2), PM2.5/1.0/10, formaldehyde, TVOC, temperature, humidity
- Large 3000mAh capacity Lithium battery
- On-board fan to draw in ambient air for more accurate real-time results
- 5V Micro USB charging
- Low battery warning

Instructions

1. Start Up

When you long-press the center power buttion, the air quality monitor will boot up. Detector will proceed through its warm-up sequence for about 3 minutes to allow sensors to preheat and fan to draw in fresh ambient air. This is necessary for accurate results.



1) Power/OK/Menu Button, used to confirm highlighted options or to turn device on/off by pressing for 3 seconds.
2) ▷ /Switch/Decrease Button, used to scroll between interfaces.
3) ◁ /Switch/Increase Button, used to scroll between interfaces.
4) Micro USB charging Port.

2. Switching Among Data Display Formats(Figure 1-5)

Press the up or down buttons to switch among data display formats(figures 1-5) that displays air quality readings in various formats:

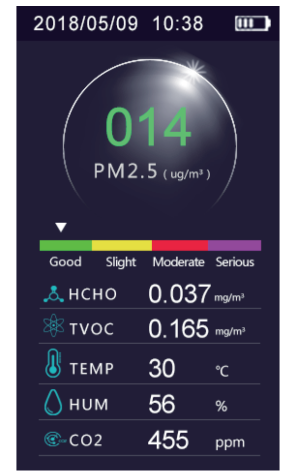

2018/05/09 10:38
014
PM2.5 (ug/m³)
Good Slight Moderate Serious
HCHO 0.037 mg/m³
TVOC 0.165 mg/m³
TEMP 30 ℃
HUM 56 %
CO2 455 ppm

Figure 1


2018/05/09 10:38
27℃ 62%
PM2.5
028
ug/m³
0 999
Health Advice
The air is great. Let's go out and get some fresh air.

Figure 2

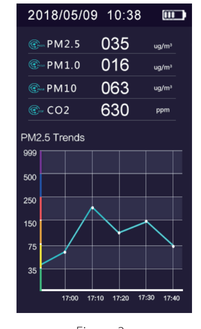

2018/05/09 10:38
PM2.5 035 ug/m³
PM1.0 016 ug/m³
PM10 063 ug/m³
CO2 630 ppm
PM2.5 Trends

Figure 3

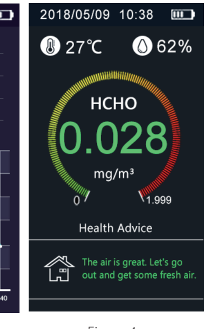

2018/05/09 10:38
27℃ 62%
HCHO
0.028
mg/m³
0 1.999
Health Advice
The air is great. Let's go out and get some fresh air.

Figure 4

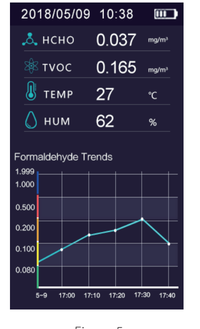

2018/05/09 10:38
HCHO 0.037 mg/m³
TVOC 0.165 mg/m³
TEMP 27 ℃
HUM 62 %
Formaldehyde Trends

Figure 5

3. Set up (Figure 6)

Double press Power button to enter the Set up screen.

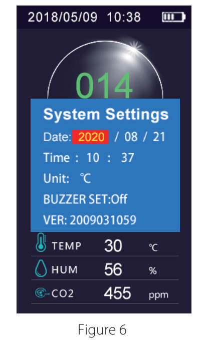

2018/05/09 10:38
014
System Settings
Date: 2020 / 08 / 21
Time : 10 : 37
Unit: ℃
BUZZER SET:Off
VER: 2009031059
TEMP 30 ℃
HUM 56 %
CO2 455 ppm

Figure 6

DATE: Change the date by using the up and down button.Confirm each setting with one press on the on/off button.

TIME: Change the time by using the up and down button and by Confirming with the on/off button.

UNIT: Change the temperature unit between Celcius(℃) or Fahrenheit(℉).

Buzzer: use up/down buttons to select whether to turn the alarm buzzer on/of.

4. About Charging

When low battery icon is displayed, the device needs to be charged. Insert the included or another compatible micro USB charging cable into the device. Attach the other end to a USB DC charger (such as a smart phone charger) that outputs DC 5V at >=1000mA. Fully charge for at least 2-3 hours before use. Avoid charging with a USB computer port which only outputs 500mA.

5. History (Figure 3, Figure 5)

Graph shows the last 5 data values for PM2.5, Formaldehyde and taken every 10 minutes over the previous 50 minutes.


2018/05/09 10:38
PM2.5 035 ug/m³
PM1.0 016 ug/m³
PM10 063 ug/m³
CO2 630 ppm
PM2.5 Trends

Figure 3

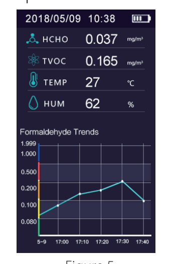

2018/05/09 10:38
HCHO 0.037 mg/m³
TVOC 0.165 mg/m³
TEMP 27 ℃
HUM 62 %
Formaldehyde Trends

Figure 5

6. Alarm Threshold

Default factory value alarm threshold levels for HCHO: 0.1mg/m^3. when reach 0.1mg/m^3, Device alarm sounds. HCHO (formaldehyde) ideal range: <=0.10mg/m^3.

If the alarm sounds noisy, you can turn it off. please read page 7 about how to set the "Buzzer".

Formaldehyde Standard	**PM2.5 Air Quality Rating Range**	
Formaldehyde Less than 0.100: Safety range 0.101 to 0.200: Slight pollution 0.201 to 0.300: Moderate pollution 0.301 or more: Heavey pollutiona	Air Quality Level	PM2.5 (ug/m^3) Average Standerd Value
	Excellent	0 to 35
	Good	36 to 75
TVOC Standard	Light pollution	76 to 115
Less than 0.600: Safety range Achieve 0.601 or more: Exceeding the standard can cause respiratory system Abnormal, inflamed, cancerous, etc.	Mouderate pollution	116 to 150
	Heavy pollution	151 to 250
	Serious pollution	more than 250

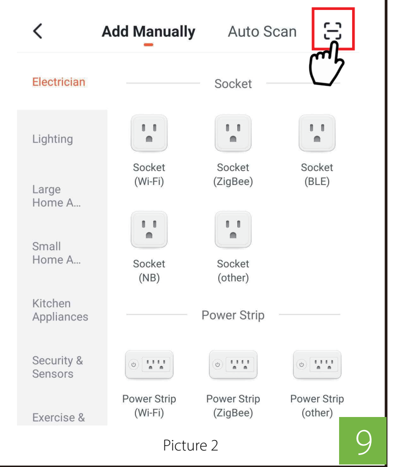
CO2 Air Quality Grade Range

Air Quality level	CO2 average standard value (PPM)
Excellent	≤800
Good	800 to 1000
Poor	+1000

How to connect your device to an Android or Apple iOS smartphone via NGTeco Smart App

1. Download and install the NGTeco Smart App through the Google Play Store or Apple App Store. Or to scan QR code (Picture 1) to download the NGTeco APP, then registration and login it.
2. Turn on the air quality monitor (AQD-V43[WIFI]) by long pressing Power button.
3. Connect your phone to a WiFi network and open the NGTeco Smart App. (Long-press ▷ button for 3 seconds to enter regular wifi connection model, Wifi icon would quick flash.)
4. Select Add Device, then Click the scan icon in the upper right corner of NGTeco interface (Picture 2), and scan the QR code (Picture 3) to connect and follow the instructions of NGTeco interface.

Picture 1



Picture 2

Picture 3

7. AQI (Ari quality index)

Green Color (Good): 0 to 50
Yellow Color (Slight): 51 to 100
Red Color (Moderate): 101 to 200
Purple Color (Serious): 201 to 500

▼
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Good Slight Moderate Serious

8. Parameters

CO2 Technical Indicators
Measuring range: 400 to 5000PM
Sensor for CO2: Infrared (NDIR)
Resolution: 1PPM

PM2.5, PM10, PM1.0 Specifications:
Measuring principle: Laser Scattering
Measuring range: 0 to 999ug/m^3
Resolution: 1ug/m^3

Formaldehyde Specifications:
Measuring principle: Electrochemistry
Measurement range: 0.000 to 1.999mg/m^3
Resolution: 0.001mg/m^3

TVOC Specifications:
Measuring principle: Semiconductor
Measuring range: 0.000 to 9.999mg/m^3
Resolution: 0.001mg/m^3

Temperature and Humidity Technical Indicators
Measuring range: -10 to 50℃
Measurement accuracy: ±1℃
Humidity range: 20% to 85% RH
Measurement accuracy: ±4% RH

Product List

Air Quality monitor	x 1
Micro USB charging cable	x 1
Product Manual	x 1

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