



Air quality detector Instruction for AQ9600

www.perfectprime.com for product register and warranty

Customer Service: cs@perfectprime.com



Table of Content

I. Product overview	3
II. Considerations	3
III. Product description	4
IV. Function setting operation	8
V. Measurement	10
VI. New air quality level	10
VII. Battery	10
VIII. Product specification	11

I. Product overview

AQ9600 can measure PM0.3, PM2.5 and PM10 concentration, and it is also designed to provide temperature and humidity measurement at the same time. The product is featured with the following:

1. **High measurement precision:** Combination of high quality electronic elements and advanced software.
2. **Stable performance:** Eliminates the need to stand still and stabilize the device.
3. **Easy to use:** Just a press the RUN button to start
4. **Convenient to carry:** Light and portable.

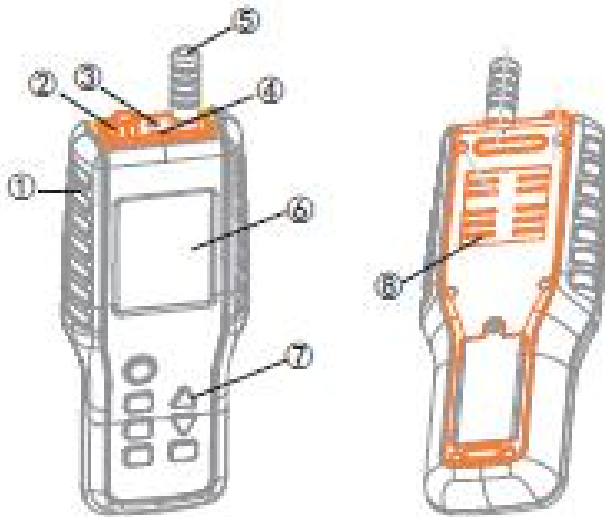
The product is suitable for monitoring indoor environment of your house or office. Measurements of air quality of roadways and natural environment can also be with this product.

II. Considerations

1. Electronic sensors and microprocessors used in the product belong to precision electronic device. Therefore:
 - > product must be kept away from water, fire, inflammable oil and gas (ATEX) or sites with strong electromagnetic interference,
 - > Prevent dropping heavily impacting the device
2. No blocking or blowing hot air/strong air to the air inlet during air sampling.
3. Cleaning: Use a dry cloth to wipe the device, do not use a wet clothe or cleaning agent.
4. Do not dismantle and remodel the product without authorization. This will void the warranty

III. Product description

1. Product structure and appearance description



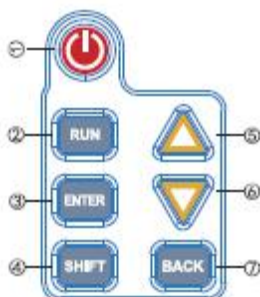
1	Case
2	Temperature and humidity detection port
3	Open
4	Open
5	Sampling air inlet
6	LCD display screen
7	Keys
8	Exhaust port

2. LCD display description

Number	Display description
1	Hour/Minute/Second
2	Year/Month/Day
3	Battery level indication
4	Counting unit
5	Schematic diagram of concentration grade
6	Display area of particle counting
7	Humidity
8	Temperature
9	Measuring object
10	Weight unit
11	Display area of particle weight calculation



3. Key function description



Key number	Key and brief function
1	Power key [⏻]: press to power on/off.
2	<p>Start sampling [RUN]:</p> <p>(1) At the main interface: press [RUN] to start data sampling.</p> <p>(2) Each sampling lasts for 50s. During sampling, other keys are disabled and cannot operate, only power key can function.</p>
3	<p>Enter key [ENTER]</p> <p>(1) At the historical record mode: press [ENTER] to confirm the page number of the selected pages.</p> <p>(2) At the functional parameters mode:</p> <ol style="list-style-type: none"> 1. press [ENTER] to enter function change. 2. press [ENTER] to save the changes.
4	<p>SHIFT key [SHIFT]</p> <p>(1) At the historical record mode: press [SHIFT] to select the unit's pages</p> <p>(2) At the functional parameters mode: press [SHIFT] to select the functional parameter items to be changed.</p>
5	<p>Page up key [▲]</p> <p>(1) At historical record mode: used to increase by 1/page up by one page.</p> <p>(2) At functional parameters mode/change state: used to increase by 1; switching unit and select “yes” or “No”.</p>

6	<p>Page down key[▼]</p> <p>(1) At the main interface: press to enter the historical record→the functional parameter.</p> <p>(2) At the historical record mode: used to decrease by 1/page down by one page.</p> <p>(3) At the functional parameters mode/change state: used to decrease by1; switching unit and select “yes” or “No”.</p>
7	<p>Back key [BACK]</p> <p>(1) At historical record and functional parameters mode: back to the main interface.</p> <p>(2) When changing a parameter: press to exit from changing.</p>

IV. Function setting operation

Function type	Function items	Function setting operation
Historical record	Page number: Single pages/ Pages in tens/ Pages in hundreds	Check historical record: 1. At the main interface, press [▼] key to enter historical record mode. 2. Press [ENTER] key and the current page is selected. 3. Press [▲] key or [▼] key to go through the data. If you want to skip to certain page directly, input the page number by: 1. Pressing [SHIFT] key to select the page number. 2. Pressing [▲] key to increase the value by 1/press [▼] key to decrease the value by 1.
Functional parameters	Particle unit: piece/L or ug/m ³	Change the particle unit: 1. At the main interface, press [▼] key twice to enter the functional parameter mode. 2. Press [ENTER] key to enter the change state. 3. Press [SHIFT] key to select piece/L or ug/m ³ . 4. Press [▲] key or [▼] key to select unit. 5. Press [ENTER] key to confirm; press [BACK] key to return to the main interface.


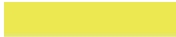




Functional parameters	Time change	<ol style="list-style-type: none"> 1. Enter the functional parameter mode as above. 2. press [ENTER] key to enter the change state. 3. Press [SHIFT] three times to select “No” in the item of “changing time”. 4. Press [▲] key or [▼] key to select “Yes”. 5. Press [ENTER] key to enter time change interface. 6. Press [SHIFT] key to select the items to be changed. 7. Press [▲] and [▼] key to increase or decrease the value by 1 respectively. 8. Confirm and return to the main interface as above.
	Temperature unit: °C/°F	<ol style="list-style-type: none"> 1. Enter the functional parameter mode as above. 2. Press [ENTER] key to enter the change state. 3. Press [SHIFT] key six times to select the items to be changed in “temperature unit”. 4. Press [▲] key or [▼] key to select °C/°F. 5. Confirm and return to the main interface as above.
	Restore factory-set value	<ol style="list-style-type: none"> 1. Enter the functional parameter mode as above. 2. Press [ENTER] key to enter the change state. 3. Press [SHIFT] key seven times to select the items to be changed in “Restore factory-set value”. 4. Press [▲] key or [▼] key to select “Yes”. 5. Press [ENTER] key to confirm. -->The screen will display “restoring factory set value...”. 6. Return to the main interface as above. <p>(Users may also use the method to delete data record).</p>

V. Measurement

The instrument should be placed in an open space before measurement to avoid blocking of the sensors.



1. Press the power key to switch on.
2. Press [RUN] key at the main interface to enter the sampling state of 50 seconds.
3. Do not operate the instrument while sampling.
4. After sampling, the result will be displayed on the screen.
5. Users may enter “functional parameter” interface to set the particle unit so as to recognize the switching of measurement mode (counting mode/weighing mode).

VI. New air quality standard

Schematic diagram of concentration grade	Air quality level	Average standard value of PM2.5 in 24 hours.
	Excellent	0-35
	Good	35-75
	Slight pollution	75-115
	Moderate pollution	115-150
	Heavy pollution	150-250
	Serious pollution	>250

VII. Battery (9V DC)

The device is designed to display battery level.

When the battery level symbol is displayed as  or , please replace the battery.

VIII. Product specification

Principle of PM2.5 Sensors	Optoelectronic type
Sampling method	Pumping type
Light sources	Laser diode
Grain size channels	0.3um 2.5um 10 um
Flow rate	1L/min
Measurement range	0-1000ug/m ³
Resolution ratio	1 ug
Test method	Manual
Sampling time	50s
Sampling method	Pumping type
Typical precision	<20%
Concentration unit	Piece/L ug/m ³
Temperature range	0 ~ 50°C
Typical precision	± 1°C
Humidity range	0 ~ 99%RH
Typical precision	±2%RH
Work temperature	-10 ~ 50°C
Working humidity	10 ~ 90%RH
Stored data	999 sets
Automatic power off	2 minutes(no key operation)
Power supply	9V DC Battery
Startup current	120mA
Working current	200mA
Display method	LCD value display. Color backlight
Screen size	2.8 inches
Screen resolution	320*240
Weight	325g (battery included)
Dimension	245 × 85 × 40mm