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1. 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.
2. 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.
3. PRODUCT DESCRIPTION

3.1 Product structure and appearance description

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

3.2 LCD 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
3.3 Key function description

① Power key [_ctr] : press to power on/off.

② Start sampling [RUN]:
   1. At the main interface: press [RUN] to start data sampling.
   2. Each sampling lasts for 50s. During sampling, other keys are disabled and cannot operate, only power key can function.

③ Enter key [ENTER]
   1. At the historical record mode: press [ENTER] to confirm the page number of the selected pages.
   2. At the functional parameters mode:
      1. Press [ENTER] to enter function change.
      2. Press [ENTER] to save the changes.
3. PRODUCT DESCRIPTION

4. **SHIFT key [SHIFT]**
   1. At the historical record mode: press [SHIFT] to select the unit’s pages.
   2. At the functional parameters mode: press [SHIFT] to select the functional parameter items to be changed.

5. **Page up key [▲]**
   1. At historical record mode: used to increase by 1/page up by one page.
   2. At functional parameters mode/change state: used to increase by 1; switching unit and select “yes” or “No”.

6. **Page down key[▼]**
   1. At the main interface: press to enter the historical record→ the functional parameter.
   2. At the historical record mode: used to decrease by 1/page down by one page.
   3. At the functional parameters mode/change state: used to decrease by1; switching unit and select “yes” or “No”.

7. **Back key [BACK]**
   1. At historical record and functional parameters mode: back to the main interface.
   2. When changing a parameter: press to exit from changing.
## 4. FUNCTION SETTING OPERATION

<table>
<thead>
<tr>
<th>Function Type</th>
<th>Function Items</th>
<th>Function Setting Operation</th>
</tr>
</thead>
</table>
| **Historical Record** | Page Number:   | 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. |
|                     | Single Pages/  | 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. |
|                     | Pages in Tens/ |                                                                                                                                                    |
|                     | Pages in Hundreds |                                                                                                                                                    |
| **Functional Parameters** | Page Number:   | 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/m³.  
4. Press [▲ ] key or [▼ ] key to select unit.  
5. Press [ENTER] key to confirm; press [BACK] key to return to the main interface. |
|                     | piece/L or ug/m³ |                                                                                                                                                    |
### 4. FUNCTION SETTING OPERATION

<table>
<thead>
<tr>
<th>Function Type</th>
<th>Function Items</th>
<th>Function Setting Operation</th>
</tr>
</thead>
</table>
| Functional Parameters | Time Change | 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. |
| Functional Parameters | Temperature Unit: °C/°F | 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. |
4. FUNCTION SETTING OPERATION

<table>
<thead>
<tr>
<th>Function Type</th>
<th>Function Items</th>
<th>Function Setting Operation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Restore Factory-set Value</td>
<td>1. Enter the functional parameter mode as above.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Press [ENTER] key to enter the change state.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Press [SHIFT] key seven times to select the items to be changed in “Restore factory-set value”.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Press [▲] key or [▼] key to select “Yes”.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Press [ENTER] key to confirm. → The screen will display “restoring factory set value…”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. Return to the main interface as above.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Users may also use the method to delete data record).</td>
</tr>
</tbody>
</table>
5. 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).
6. NEW AIR QUALITY STANDARD / 7. BATTERY

New air quality standard

<table>
<thead>
<tr>
<th>Schematic diagram of concentration grade</th>
<th>Air quality level</th>
<th>Average standard value of PM2.5 in 24 hours.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Excellent</td>
<td>0-35</td>
</tr>
<tr>
<td></td>
<td>Good</td>
<td>35-75</td>
</tr>
<tr>
<td></td>
<td>Slight pollution</td>
<td>75-115</td>
</tr>
<tr>
<td></td>
<td>Moderate pollution</td>
<td>115-150</td>
</tr>
<tr>
<td></td>
<td>Heavy pollution</td>
<td>150-250</td>
</tr>
<tr>
<td></td>
<td>Serious pollution</td>
<td>&gt;250</td>
</tr>
</tbody>
</table>

Battery

If the battery is too low, it may cause the power to fail. When the battery level shows “□”, please charge the battery in time:

1. Use the original adapter and USB cable to charge the meter.
2. Plug the USB cable into the USB charging port of the meter.
3. Charging time is at least 2 hours.
4. Unplug the USB cable after the battery is fully charged.
## 8. PRODUCT SPECIFICATION

<table>
<thead>
<tr>
<th><strong>Principle of PM2.5 Sensors</strong></th>
<th>Optoelectronic type</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sampling method</strong></td>
<td>Pumping type</td>
</tr>
<tr>
<td><strong>Light sources</strong></td>
<td>Laser diode</td>
</tr>
<tr>
<td><strong>Grain size channels</strong></td>
<td>0.3um 2.5um 10 um</td>
</tr>
<tr>
<td><strong>Flow rate</strong></td>
<td>1L/min</td>
</tr>
<tr>
<td><strong>Measurement range</strong></td>
<td>0-1000ug/m3</td>
</tr>
<tr>
<td><strong>Resolution ratio</strong></td>
<td>1 ug</td>
</tr>
<tr>
<td><strong>Test method</strong></td>
<td>Manual</td>
</tr>
<tr>
<td><strong>Sampling time</strong></td>
<td>50s</td>
</tr>
<tr>
<td><strong>Sampling method</strong></td>
<td>Pumping type</td>
</tr>
<tr>
<td><strong>Typical precision</strong></td>
<td>&lt;20%</td>
</tr>
<tr>
<td><strong>Concentration unit</strong></td>
<td>Piece/L</td>
</tr>
<tr>
<td><strong>Temperature range</strong></td>
<td>0 ～50°C</td>
</tr>
<tr>
<td><strong>Typical precision</strong></td>
<td>± 1°C</td>
</tr>
<tr>
<td><strong>Humidity range</strong></td>
<td>0 ～99%RH</td>
</tr>
<tr>
<td><strong>Typical precision</strong></td>
<td>±2%RH</td>
</tr>
<tr>
<td><strong>Work temperature</strong></td>
<td>-10 ～50°C</td>
</tr>
<tr>
<td><strong>Working humidity</strong></td>
<td>10 ～90%RH</td>
</tr>
<tr>
<td><strong>Stored data</strong></td>
<td>999 sets</td>
</tr>
</tbody>
</table>
## 8. PRODUCT SPECIFICATION

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automatic power off</td>
<td>2 minutes (no key operation)</td>
</tr>
<tr>
<td>Power supply</td>
<td>Lithium-ion Battery</td>
</tr>
<tr>
<td>Startup current</td>
<td>120mA</td>
</tr>
<tr>
<td>Working current</td>
<td>200mA</td>
</tr>
<tr>
<td>Display method</td>
<td>LCD value display. Color backlight</td>
</tr>
<tr>
<td>Screen size</td>
<td>2.8 inches</td>
</tr>
<tr>
<td>Screen resolution</td>
<td>320*240</td>
</tr>
<tr>
<td>Weight</td>
<td>325g (battery included)</td>
</tr>
<tr>
<td>Dimension</td>
<td>245× 85×40mm</td>
</tr>
</tbody>
</table>
CUSTOMER SERVICE INQUIRIES

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For more information about our products and services, please send us an email:

cs@perfectprime.com

For B2B or project-based application, please send an email:

sales@perfectprime.com

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