

15 In 1 Air Quality Detector  
Tuya smart WIFI APP



CO2(Carbon Dioxide), CO(Carbon Monoxide), HCHO (Formaldehyde), TVOC(Total Volatile Organic Compounds), PM0.3, PM1.0, PM2.5, PM10, Temperature and Humidity Detection, AQI(dominated by composite particulate matter), Date & Time, Alarm Clock, Timer, Timer, 15 in 1 function.  
2.8-inch TFT display, Graffiti Smart WIFI APP, remote real-time monitoring data, you can view the detection parameters of the day, month, year historical data.  
Model: ZN-MT15 ZN-MT29

ZN-MT15 ZN-MT29 Product Description

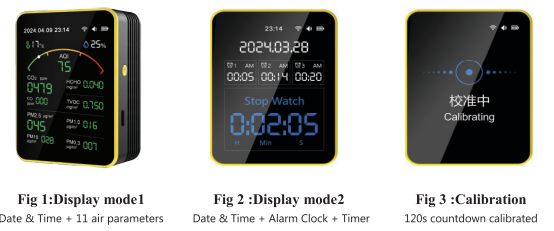


Fig 1:Display mode1  
Date & Time + 11 air parameters

Fig 2 :Display mode2  
Date & Time + Alarm Clock + Timer

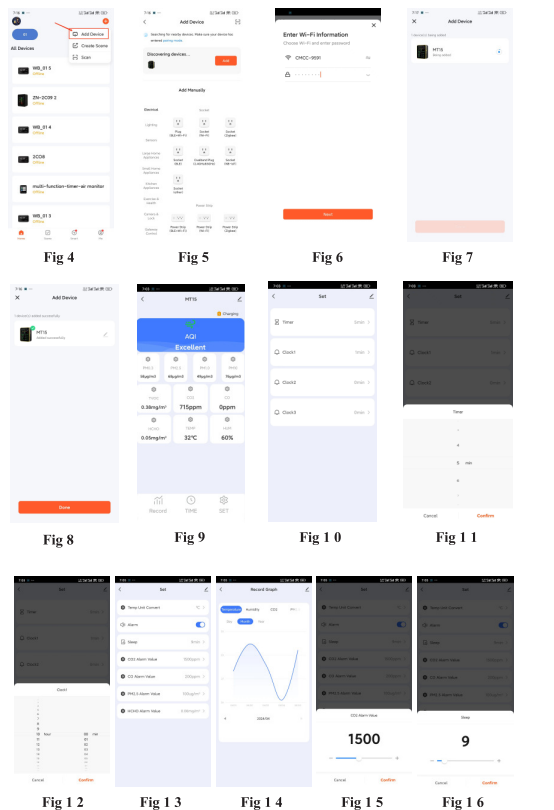
Fig 3 :Calibration  
120s countdown calibrated

General use (key operation)

- Press and hold the "Power button" for more than 3 seconds -- power on,count 60 seconds after power on, after countingit will start to detect and display the current air quality parameters, such as Fig 1: 11 air parameters are displayed;
- Short press the "Power button" for 1 time -- In Fig 1, you can switch the temperature unit(Celsius / Fahrenheit); In the interface of Fig 2, you can turn on the timer or timer function.
- Press the "Power" button 2 times -- In the interface of Figure 1, you can turn on/off the buzzer; In the interface of Fig.2, you can clear the timer or the timer; When the timer/ alarm is sounding, you can prioritize to turn off its alarm sound.
- Press "Power Button" 3 times in a row -- enter/exit the interface of Fig 2: Time & Alarm Clock & Timer/Timer display;
- Press "Power button" 4 times -- the instrument enters 120 seconds parameter calibration.
- Press "Power button" 5 times -- make the device enter WiFi pairing state/reset WiFi to enter pairing state (the device WiFi icon blinks with a delay of about 5s)

Product Introduction

- The first time out of the box, in order to read accurate datapower on continuous work 24 hours after reading the data; boot up after inserting USB charging continuous work. 24 hours after the test data more accurate. In addition to the first time out of the box the general boot after 30 minutes to display data more accurate.
- Battery fully charged takes 3-4 hours, generally fully charged can work 6-7 hours.** This product uses 2000mah lithium polymer battery charging using USB DC5V/1A,data cable using TYPE-C USB interface.
- Simply determine if the unit is working: please blow into the vent on the side of the product, the CO2 display will rise significantly, which indicates that the product is in normal working condition. In general, the higher the value of each parameter, the worse the air quality.
- Parameter alarm default thresholds (after connecting WiFi, you can set the alarm thresholds for each parameter by yourself in Graffiti APP): CO2 value is greater than 1500ppm; CO value is greater than 200ppm; PM2.5 value is greater than 100ug/m³;HCHO value is greater than 0.08mg/m³,it will trigger 3 groups of rapid buzzer alarms, with one-second intervals between the alarm sounds once.At the same time, the parameter data corresponding to the interface of Fig A will make a color change warning according to the actual situation, such as Fig A(green - normal), Fig B (orange - warning), Fig C (red - alarm)(Figures A/B/C are shown on the reverse side of the first page!).
- AQI (to integrated particulate matter) value color warning: 0-100: green; 100-250:orange; greater than 250: red. The larger the data, the more serious the air pollution.
- If the data is too high and abnormal, please turn off the machine and then turn it on again. Plug in the USB cable, put it in the window under a well-ventilated environment, and keep working for 24 hours, then the internal data will be cleared to zero, and the data will return to normal.
- The packing list includes: product, bilingual manual, Type-c data cable.



Link Tuya smart WIFI APP

- Install the Tuya Smart APP**: Enter "Tuya Smart" in the "Application Market" of the mobile phone, find the "Tuya Smart" APP and click to install. Register an account after installation.
- In the WIFI signal area**, within 2 minutes after the machine is turned on, or press the button 5 times continuously, the WiFi symbol flashes quickly, indicating that the pairing link is being made.
- Open the mobile doodle smart APP** and click "Add device" as shown in Figure 4;Search for WIFI devices and find devices as shown in Figure 5; Device found and Click Add again;As shown in Figure 6, enter the WIFI name and password, and click Next, as shown in Figure 7, and as shown in Figure 8 after adding the pairing connection successfully. Click Finish again. Then Figure 9; The WiFi symbol does not flash after the connection is successful.
- Tuya smart APP remote real-time monitoring data**: As long as the device is linked to WIFI successfully, the phone installed Graffiti Intelligent APP can remotely monitor 11 air parameters in real time or view historical data, and can remotely manipulate the corresponding functions of the device.APP display: AQI data color warning: 0-100: green, excellent; 100-250: orange, moderate pollution; greater than 250: red, heavy pollution. Bigger data means more serious air pollution, as shown in Fig 9.
- Tuya smart APP View historical data**: Click "Statistical curve" in Figure 9 to view the historical curve data of 10 air parameters, as shown in Figure 13. Click the corresponding CO2,HCHO, TVOC, CO,

PM2.5, PM10, PM1.0, PM0.3, TEMP, HUMI; And click day, month, year, you can view the corresponding parameters: day / month / year curve. Note:This curve is calculated by the average curve parameters, there may be errors with the actual data, it is normal.

**6. Date & time display**: When the device is successfully connected to the Doodle Smart APP (WiFi), the time and calendar parameters will be synchronized with the data on the mobile APP without additional settings. The date and time are shown in both Fig 1 and Fig 2 interface, this time is 24-hour system.

**7. Alarm Settings**: Alarm clock interface is shown in Figure 2, click on the menu in Figure 9, such as Figure 10, respectively, click

on 1 and 2 ,such as Figure 12, respectively, select 10:00 and 10:30, and then press "ok" then the alarm clock setup is complete , Graffiti Smart APP alarm clock 1 will show 600 minutes, alarm clock 2 shows 630 minutes, such as Figure 10; This alarm clock is a 12-hour system. When the time comes to the set alarm time, the alarm clock

will alarm for 30 seconds, the alarm clock symbol will flash when the alarm clock alarms, or press the button twice to cancel the alarm sound.

**8. Timer display**: In Figure 1, press the button times to Figure 2;

**9. Timer Timing**: When shown in Fig 2, press the key once to start the positive timing, the maximum time is 9 hours 59 minutes 59 seconds, press the key once to pause the timing, press the key again to continue the timing, press the key twice to cancel the timing.

**10. Setting the Timer**: In Figure 2 display, long press 1 second switch button, then the center stopwatch H bit flashes press the power button from 1-9 to select the number of hours, similarly, long press 1 second, Min bit flashes, you can set the number of minutes and seconds.

For example, set the time for 1 hour 30 minutes and 30 seconds, this time 6 seconds without action, then the setting is complete, or set in the Graffiti Smart APP is more convenient.

As shown in Figure 10, Click to enter Figure 11move the screen up and down, select 5min, press "OK", then the setting is complete. Press the button once to start the timer countdown, press the button once to suspend the timing, press the button twice to cancel the timing, and reset the timing time after canceling. Countdown to the set time will automatically alarm for 30 seconds, alarm clock symbol will flash,press the button twice to cancel the alarm sound.

**11. Set the Fahrenheit and Celsius degrees**: Click in Figure 9, Fig 14 to set the Fahrenheit and Celsius degrees respectively.

**12. Set alarm sound switch**: Click in Figure 9, as shown in Fig 14 you can set the sound on/off.

**13. Setting alarm values**: Click in Figure 9, as shown in Fig 15 you can can set alarm values for parameters such as CO2, CO, PM2.5 and HCHO formaldehyde.

**14. Setting the device sleep time**: Click in Figure 9, as shown in Fig 16 you can set the hibernation time.

Product Parameters

| parameter                   |                                 |
|-----------------------------|---------------------------------|
| CO2 Detection Range         | 400-5000PPM , ±50 ±5%PPM        |
| CO2 Detection Sensitivity   | 1PPM                            |
| CO Detection Range          | 0-999PPM , ±10PPM               |
| CO Detection Sensitivity    | 1PPM                            |
| TVOC Detection Range        | 0-9.99mg/m³, ±0.05mg/m³         |
| HCHO Detection Range        | 0-1.99mg/m³, ±0.05mg/m³         |
| PM2.5 Detection Range       | 0-999ug/m³, ±10ug/m³            |
| PM2.5 Detection Sensitivity | 1ug/m³                          |
| PM1.0 Detection Range       | 0-999ug/m³, ±10ug/m³            |
| PM10 Detection Range        | 0-999ug/m³, ±10ug/m³            |
| PM0.3 Detection Range       | 0-999ug/m³, ±10ug/m³            |
| Temp MeasurementRange       | -10 ~50 °C                      |
| Temp Measurement Accuracy   | ±2°C                            |
| Humidity Measurement Range  | 0% ~99% RH                      |
| HumidityMeasurementAccuracy | ±5%RH                           |
| Charging Mode               | DC5V/1A TYPE-C USB interface    |
| Battery                     | Lithium polymer battery 2000mah |
| Working Current             | 260mA                           |
| Working Voltage             | 3.7V                            |
| Dead Weight                 | About 160g                      |

Environmental Pollution Index Reference

|       | Green  | Orange   | Red                     |
|-------|--------|--|-------------------------|
| AQI   | 0-100  | 100-250  | > 250                   |
| CO2   | 0-900  | 900-Alarm value set by APP (Initial alarm value value is default: 1500)  | >Alarm value set by APP |
| HCHO  | 0-0.06 | 0.06-Alarm value set by APP (Initial alarm value value is default: 0.08) | >Alarm value set by APP |
| TVOC  | 0-0.8  | 0.8-1.6  | >1.6                    |
| CO    | 0-100  | 100-Alarm value set by APP (Initial alarm value value is default: 200)   | >Alarm value set by APP |
| PM2.5 | 0-60   | 60-Alarm value set by APP (Initial alarm value value is default: 100)    | >Alarm value set by APP |
| PM10  | 0-100  | 100-200  | >200                    |
| PM1.0 | 0-100  | 100-200  | >200                    |
| PM0.3 | 0-100  | 100-200  | >200                    |

Note: The initial alarm value is the default value, and the color (orange/red) corresponding to the parameter value of this device will change as the user updates the alarm value setting. See Fig A/B/C for examples.

Attention

- Please pay attention to the following conditions before using the air detector This product has a built-in lithium battery, please use standard DC-5V charger When operating, the air inlet and outlet can not be blocked to avoid numerical deviation. Do not use it frequently in a dusty environment with poor air quality to prolong its service life. Do not use this device in high temperature, high humidity, dirty places or near strong magnetic fields to avoid inaccurate values or internal circuit failure of it. The device is available within the temperature range of -10°C~50°C. Store the device and accessories in the temperature range of -20°C~55°C. When the ambient temperature is too low or too high, it may cause equipment failure. Please avoid exposure, rain or moisture to the equipment and accessories, otherwise it may cause malfunctions or risks of display screen, battery, case and circuit. Do not use sharp objects like pins into the air inlet, outlet or charging space to avoid the damage of device.
- When the customer starts to take out the box, there is alcohol odor gas in the box, the factory should be cleaned with alcohol when packaging, and it should be taken out and put on the window with good air ventilation for 1-2 hours, the data will return to normal value.
  - TVOC sensors will be affected by smoke, alcohol, formaldehyde, perfume and other odor interference, after a period of time to return to normal.
  - Zero operation: put the device on the edge of the window with good air ventilation, restart the counting display for 10-18 seconds, shut down, restart again, and clear the data to zero operation, will be normal.

**This product has the detection and alarm function, but can not prevent dangerous substances Leakage, so the accident caused by the loss, we do not assume responsibility.**

## FCC Warning

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE 1: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.