Irfora ZN-MT29

Irfora 15-in-1 Smart Air Quality Monitor User Manual

Model: ZN-MT29

INTRODUCTION

The Irfora 15-in-1 Smart Air Quality Monitor (Model ZN-MT29) is a comprehensive device designed to provide real-time assessment of indoor air quality. It integrates multiple high-precision sensors to detect various air parameters, offering a complete solution for monitoring your environment. This manual provides detailed instructions for setting up, operating, and maintaining your air quality monitor.

15-in-1 Air Quality Monitor

Fast Response and Accurate Measurement
Active Recognition of 10 Air Data
Accurate Detection to Thousandths of A Unit

Built-in high-precision sensor, quickly and efficiently recognizes airborne CO,CO2, Formaldehyde HCHO, TVOC, PM particulate matter 0.3,2.5,1.0,10, comprehensive functions, power-on detection.

Understanding Air Quality: The monitor helps identify common indoor air pollutants to ensure a healthier living environment.

SAFETY INFORMATION

- Do not disassemble or modify the device.

- Keep the device away from water and high humidity environments.

- Avoid exposing the device to extreme temperatures or direct sunlight.

- Use only the provided charging cable and a DC5V/1A power adapter.

- Ensure proper ventilation around the device for accurate readings.

PACKAGE CONTENTS

Please check the package contents upon opening to ensure all items are present:

- 1 x Air Quality Tester (ZN-MT29)

- 1 x Charging Cable (Type-C)
- 1 x Packaging Box
- 1 x User Manual (English)

Included items: Air Quality Tester, Charging Cable, and User Manual.

PRODUCT OVERVIEW AND FEATURES

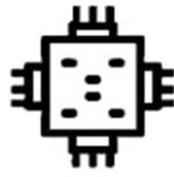The Irfora 15-in-1 Air Quality Monitor is equipped with advanced features for comprehensive environmental monitoring:

- **Comprehensive Air Quality Testing:** Measures AQI, CO, CO2, PM0.3, PM1.0, PM2.5, PM10, HCHO, TVOC, Temperature, and Humidity.
- **Multi-functional Display:** Includes time display, alarm, timer, and countdown timer functions.
- **TFT Color Display & App Control:** Features a 2.8-inch TFT color screen for clear data visualization and remote management via mobile APP.
- **Customizable Settings:** Allows setting alarm limits, sleep modes, and exploring historical data (daily, monthly, yearly).
- **Early Warning & Visual Alert:** Provides emergency beeping alarms and changes interface color (green, orange, red) based on air quality levels.

- **Smart Linkage Control:** Can be linked with smart plugs to control external devices based on air quality readings.

Product Details

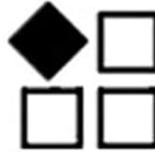|		
Thousand Bit Level Detection	High Precision Sensors	Intelligent Calibration Algorithm
Air Quality Assessment	Collection of Multiple Functions	Intelligent Connectivity

The 15-in-1 Air Quality Tester features a clear display and multiple high-precision sensors.

Healthy Breathing, Understanding Air

An adult breathes more than 20,000 times a day, inhaling about 15~20m³ breathing air cleanliness and freshness need to be highly concerned. Human respiration will lead to rising indoor CO2 concentration, so CO2 concentration is an important indicator of the freshness of indoor air, C02 concentration is too high will make people sleepy. It also means that ventilation is poor.

In poorly ventilated environments it is easy to deposit a variety of pollutants, such as PM particulate matter harmful formaldehyde (HCHO), TVOC (volatile organic compounds), etc. After being inhaled, it may affect the respiratory system and even enter the blood circulation, and the negative impact on children and the elderly and people with related illnesses is particularly significant.

Key product details highlighting advanced detection, sensors, and smart features.

SETUP

1. Initial Charging

Before first use, fully charge the device. Connect the provided Type-C charging cable to the device's charging port and the other end to a DC5V/1A power adapter (not included). The charging indicator on the screen will show charging status.

2. Powering On/Off

Press and hold the power button on the side of the device to turn it on or off. The device will perform a self-check upon startup.

3. Wi-Fi Connection and App Setup

To utilize the smart features and remote monitoring, download the companion mobile application (e.g., Tuya Smart APP) from your device's app store. Follow the in-app instructions to connect your air quality monitor to your home Wi-Fi network. This typically involves putting the device into pairing mode and entering your Wi-Fi credentials in the app.

1. Understanding the Display

The 2.8-inch TFT color screen displays various air quality parameters and device information. Key indicators include:

- **AQI (Air Quality Index):** Overall air quality assessment.
- **CO2 (Carbon Dioxide):** Concentration in PPM.
- **CO (Carbon Monoxide):** Concentration in PPM.
- **HCHO (Formaldehyde):** Concentration in mg/m³.
- **TVOC (Total Volatile Organic Compounds):** Concentration in mg/m³.
- **PM0.3, PM1.0, PM2.5, PM10:** Particulate matter concentrations in μg/m³.
- **Temperature:** Current ambient temperature in °C or °F.
- **Humidity:** Relative humidity in %.
- **Time/Date:** Current time and date.
- **Battery Indicator:** Shows remaining battery life.
- **Wi-Fi Status:** Indicates connection status.

8 Air Pollutants
Thousands of Detection Data Units

Quickly and efficiently identifies CO, CO2, formaldehyde, TVOC, PM0.3, 2.5, 1.0, 10, and other pollutants in the air, and intelligently calculates the data.
Large detection range and small error.

8 Air Pollutants Detection Range and Error

Carbon Monoxide (CO) * PPM; ±10PPM
Formaldehyde (HCHO) * mg/m³; ±0.05
Total Volatile Organic Compounds (TVOC) * mg/m³; ±0.05
PM2.5 Particulate Matter * ug/m³; ±10

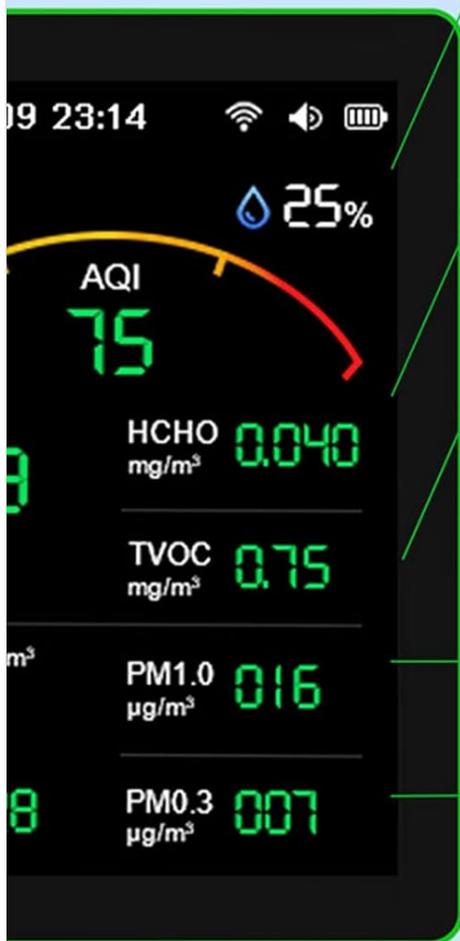PM1.0 Particulate Matter * ug/m³; ±10
PM10 Particulate Matter * ug/m³; ±10
PMO.3 Particulate Matter * ug/m³; ±10
Carbon Dioxide (CO2) * ppm; ±50ppm

The device display provides real-time readings of multiple air quality parameters.

Humidity Detection Display
Temperature is tied to comfort and health. Too much humidity leads to the growth of mold and bacteria, which can trigger respiratory problems and allergies. Low humidity makes skin, eyes and respiratory tracts dry and uncomfortable while also making it easier for some viruses and bacteria to survive and spread.

Formaldehyde (HCHO) Detection Display
Formaldehyde is a known irritant and carcinogen that can cause irritation of the eyes, nose and throat, and prolonged exposure can lead to respiratory problems, skin lesions and even an increased risk of certain cancers.

TVOC Detection Display
A mixture of thousands of compounds tends to evaporate at room temperature to form gases that contaminate indoor air. Some of these substances may be irritating and toxic causing health problems such as impaired immune system and nervous system disorders.

PM1.0 and 0.3 Detection Display
PM0.3 and PM1.0 can carry more harmful substances such as heavy metals, PAHs, etc. Due to its tiny size, it enters deep into the lungs and even into the blood circulation, which can cause damage to the human heart, lungs and central nervous system.

Detailed explanation of each air quality parameter displayed on the screen.

2. Using the Mobile APP

The mobile application provides enhanced control and data analysis:

- **Real-time Monitoring:** View current air quality data remotely.

- **Historical Data:** Access detailed historical graphs and data by day, month, or year.

- **Alarm Settings:** Customize alarm thresholds for each parameter. The device will beep and change screen color if thresholds are exceeded.

- **Timer Functions:** Set alarm clock, countdown timer, and general timer functions.

- **Unit Switching:** Change temperature units between Celsius and Fahrenheit.

- **Smart Linkage:** Configure automated actions with other smart home devices (e.g., turn on a fan if CO2 is high).

3. Setting Time and Alarm

The device can display time and function as an alarm clock. These settings are typically managed through the mobile application

for ease of use. Refer to the app's interface for specific instructions on setting time, alarms, and timers.

The device also features a stopwatch function and compact dimensions.

MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to wipe the device. Do not use abrasive cleaners or solvents.
- **Sensor Care:** Avoid blocking the sensor vents. Do not insert any objects into the vents.
- **Storage:** When not in use for extended periods, store the device in a cool, dry place.
- **Battery:** Recharge the battery regularly to maintain its lifespan, even if not in frequent use.

TROUBLESHOOTING

Problem	Possible Cause	Solution

Problem	Possible Cause	Solution
Device does not power on.	Low battery; device malfunction.	Charge the device for at least 2 hours. If still not working, contact support.
Inaccurate readings.	Sensor blocked; device not calibrated; placed in an unsuitable environment (e.g., near strong air currents, chemicals).	Ensure sensor vents are clear. Move the device to a stable environment. Allow 5-10 minutes for readings to stabilize after moving.
Cannot connect to Wi-Fi.	Incorrect Wi-Fi password; device too far from router; router issues; 5GHz network (device supports 2.4GHz only).	Verify Wi-Fi password. Move device closer to router. Restart router. Ensure you are connecting to a 2.4GHz network.
App not showing real-time data.	Device not connected to Wi-Fi; app not refreshed; server issues.	Check device Wi-Fi status. Refresh the app. Ensure your phone has internet access.

SPECIFICATIONS

Parameter	Value
Model	ZN-MT29
Material	ABS
Battery	2000mAh polymer lithium battery
Working Voltage	3.7V
Working Current	260mA
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	0-999µg/m³, ±10µg/m³
PM2.5 Detection Sensitivity	1µg/m³
PM1.0 Detection Range	0-999µg/m³, ±10µg/m³
PM10 Detection Range	0-999µg/m³, ±10µg/m³
PM0.3 Detection Range	0-999µg/m³, ±10µg/m³

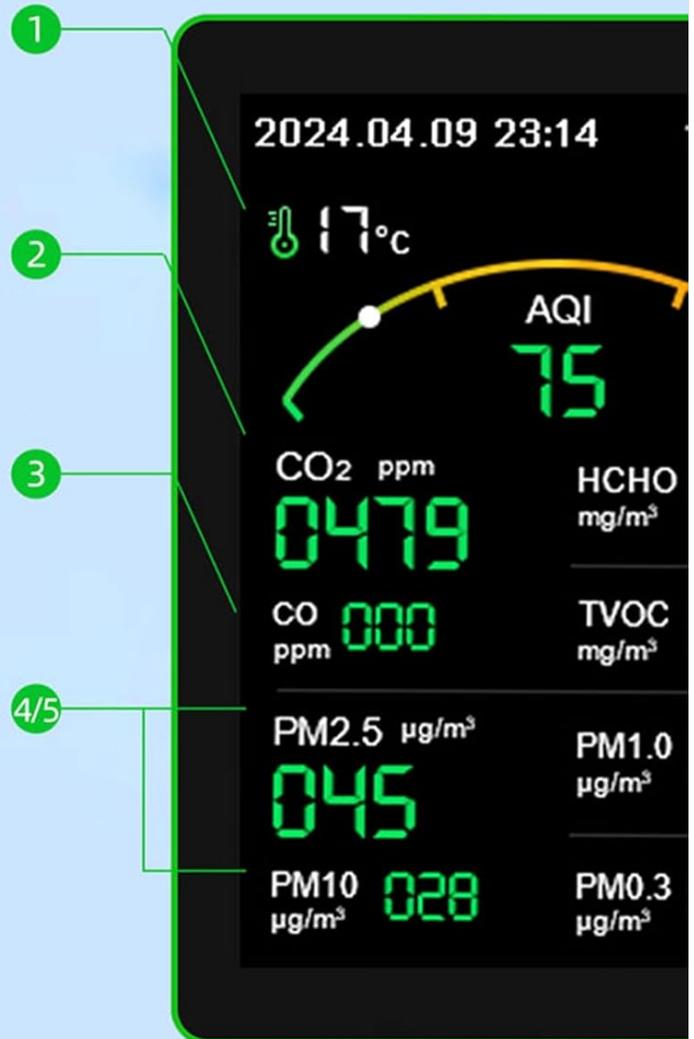| Parameter	Value
Temperature Measurement Range	-10~50°C
Temperature Measurement Error	±2°C
Humidity Measurement Range	0%-99% RH
Humidity Measurement Error	±5% RH
Charging Mode & Interface	DC5V/1A, Type-C interface
Item Size	90 * 70 * 35mm / 3.54 * 2.76 * 1.38in
Item Weight	160g / 5.64oz

Temperature Detection Display
Temperature is not only about comfort but also closely related to health, poor temperature environment, will accelerate the release of formaldehyde volatile organic compounds and other chemicals can cause allergies or respiratory illnesses such as carbon dioxide detection display

Carbon Dioxide Detection Display
CO2 itself is not a typical pollutant, but it is an indicator of poor air High concentrations indicate inadequate ventilation, which in turn may be accompanied by other pollutants, and in highly concentrated environments causing people to feel fatigue, headaches, lack of concentration, etc....

Carbon Monoxide Detection Display
CO is a colorless, odorless, toxic gas. Exposure to CO can cause headaches, nausea, dizziness and even coma and death. Prolonged exposure at low levels may also lead to cardiovascular disease and neurological problems.

PM2.5 and 10 Detection Display
PM2.5 can carry toxic metals and organics, and due to its tiny size, can penetrate deep into the lungs and even into the blood circulation, potentially causing or aggravating heart disease, lung disease, respiratory disease and cancer.

PM10 comes from dust, building construction, industrial emissions, etc. Although the particles are large, they are still large enough to enter the upper respiratory tract and may cause or aggravate asthma, bronchitis and other diseases.

Detection ranges and error margins for various air pollutants.

WARRANTY AND SUPPORT

This product comes with a standard manufacturer's warranty. For specific warranty terms and conditions, please refer to the documentation provided with your purchase or contact the retailer. For technical support, troubleshooting assistance, or any inquiries regarding your Irfora 15-in-1 Smart Air Quality Monitor, please contact Irfora customer service through their official website or the contact information provided in your purchase documentation.
Please visit Irfora's Amazon Store for more product information.