

Irfora MT15-W

Irfora MT15-W WiFi 15-in-1 Air Quality Detector User Manual

Model: MT15-W

INTRODUCTION

The Irfora MT15-W is a versatile 15-in-1 air quality detector designed for household use. It provides comprehensive monitoring of various air parameters, including AQI, PM0.3, PM1.0, PM2.5, PM10, Carbon Monoxide (CO), Carbon Dioxide (CO₂), Total Volatile Organic Compounds (TVOC), and Formaldehyde (HCHO). Additionally, it measures temperature and humidity and features time display, alarm, timer, and countdown timer functions. This manual provides essential information for the proper setup, operation, and maintenance of your device.



Figure 1: Front view of the Irfora MT15-W Air Quality Detector, showing its compact design and display area.

SETUP

Unpacking and Initial Charge

Carefully remove the air quality tester from its packaging. Before first use, fully charge the device using the provided Type-C cable. Connect the cable to the device's charging port and a standard 5VDC, 1A USB power adapter (not included). The battery indicator on the display will show charging status.

Powering On/Off

To power on the device, press and hold the power button located on the side or top of the unit until the display illuminates. To power off, press and hold the power button again until the display turns off.

Wi-Fi and App Connection

The device supports Wi-Fi connectivity for real-time testing and remote management via a dedicated

mobile application (e.g., Tuya App). Follow these steps to connect:

1. Download the compatible mobile application from your smartphone's app store.
2. Register or log in to your account within the app.
3. Follow the in-app instructions to add a new device. Ensure your MT15-W is powered on and in pairing mode (refer to the device's on-screen prompts or the app's guide for specific pairing instructions).
4. Once connected, you can view real-time data, customize settings, and access historical data through the app.



Figure 2: The Irfora MT15-W device displaying air quality data, with a smartphone screen showing the connected Tuya app interface for remote monitoring.

OPERATING THE DEVICE

Display Overview

The 2.8-inch TFT color screen provides clear and immediate access to all measured data. The display typically shows:

- Current time and date

- Temperature and Humidity
- AQI (Air Quality Index)
- Readings for CO, CO2, PM0.3, PM1.0, PM2.5, PM10, TVOC, HCHO
- Battery status and Wi-Fi connection indicator



Figure 3: A close-up of the Irfora MT15-W's display, showing comprehensive air quality readings including AQI, CO₂, CO, PM_{2.5}, PM₁₀, HCHO, TVOC, PM_{1.0}, and PM_{0.3}, along with temperature and humidity.



Figure 4: The Irfora MT15-W display showing time, alarm settings, and a stopwatch function, highlighting its versatile time clock capabilities.

Air Quality Monitoring

The device continuously monitors air quality. The interface color changes to provide intuitive warnings:

- **Green:** Indicates good air quality.
- **Orange:** Indicates a warning level, suggesting caution.
- **Red:** Indicates poor air quality, requiring immediate attention.

If connected to Wi-Fi, you can set custom alarm limits through the app. When measured data exceeds these limits, the device will emit three emergency beeping alarms.

App Features and Customization

The mobile application offers enhanced control and data analysis:

- **Custom Alarm Limits:** Set specific thresholds for each air parameter.
- **Sleep Modes:** Configure the device to operate silently during specific hours.
- **Historical Data:** Review detailed historical data on air parameters by day, month, or year.
- **Unit Switching:** Change temperature units (Celsius/Fahrenheit).
- **Timer Settings:** Utilize versatile timer and countdown functions.

Intelligent Linkage Control

The device can be linked with smart plugs to control external devices based on air quality readings. For example, you can set an exhaust fan to turn on automatically when CO2 concentration exceeds a certain level (e.g., 1500ppm) and turn off when it drops below a safe level (e.g., 800ppm), optimizing air circulation and energy consumption.

MAINTENANCE

Cleaning

To maintain accuracy and appearance, regularly clean the device. Use a soft, dry cloth to wipe the exterior. Do not use abrasive cleaners, solvents, or immerse the device in water. Ensure the air inlets and outlets are free from dust and obstructions.

Battery Care

The device is equipped with a 2000mAh polymer lithium battery. For optimal battery life, avoid extreme temperatures and prolonged periods of full discharge or full charge. Charge the device when the battery indicator is low.

TROUBLESHOOTING

- **Device not powering on:** Ensure the device is fully charged. Connect it to a power source and try again. If the issue persists, contact customer support.
- **Inaccurate readings:** Ensure the device is placed in an area with good air circulation, away from direct drafts, heat sources, or strong chemical fumes. Allow the device to stabilize for a few minutes after powering on.
- **Cannot connect to Wi-Fi/App:**
 - Ensure your Wi-Fi network is 2.4GHz (5GHz networks are typically not supported by smart home devices).
 - Check your Wi-Fi password.
 - Ensure the device is within range of your Wi-Fi router.
 - Restart both the device and your router.
 - Follow the app's pairing instructions carefully.
- **Alarm not sounding:** Check the alarm settings in the mobile application to ensure thresholds are set correctly and the alarm function is enabled.

SPECIFICATIONS

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Name: Air Quality Tester

Material: plastics

Model: MT15-B, MT15-W(optional)



Figure 5: Diagram illustrating the dimensions of the Irfora MT15-W Air Quality Detector: 90mm height, 70mm width, and 35mm depth.

Parameter	Value
Model	MT15-W
Manufacturer Part Number	LAKUSE25932-W
Battery	2000mAh Polymer Lithium Battery
Working Voltage	3.7V
Working Current	260mA
CO2 Detection Range	400-5000PPM, $\pm 50 \pm 5\%$ PPM
CO2 Detection Sensitivity	1PPM
CO Detection Range	0-999PPM, ± 10 PPM
CO Detection Sensitivity	1PPM
TVOC Detection Range	0-9.99mg/m ³ , ± 0.05 mg/m ³

Parameter	Value
HCHO Detection Range	0-1.99mg/m ³ , ±0.05mg/m ³
PM2.5 Detection Range	0-999µg/m ³ , ±10µg/m ³
PM2.5 Detection Sensitivity	1µg/m ³
PM1.0 Detection Range	0-999µg/m ³ , ±10µg/m ³
PM10 Detection Range	0-999µg/m ³ , ±10µg/m ³
PM0.3 Detection Range	0-999µg/m ³ , ±10µg/m ³
Temperature Measurement Range	-10~50°C
Temperature Measurement Error	±2°C
Humidity Measurement Range	0%-99% RH
Humidity Measurement Error	±5%RH
Charging Interface	5VDC, 1A Type-C
Item Size	90 x 35 x 70mm / 3.54 x 1.38 x 2.76in
Item Weight	165g / 5.82ounce

WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation included with your product or visit the official Irfora website. Keep your purchase receipt as proof of purchase for warranty claims.