

Irfora TYHDEE17790B

Irfora 3-in-1 Portable Air Quality Monitor User Manual

Model: TYHDEE17790B

1. INTRODUCTION

This user manual provides comprehensive instructions for the Irfora 3-in-1 Portable Air Quality Monitor, Model TYHDEE17790B. This device is designed for real-time monitoring of carbon dioxide (CO2) concentration, ambient temperature, and relative humidity. Please read this manual thoroughly before operating the device to ensure proper usage and optimal performance.

2. PRODUCT OVERVIEW

2.1 Key Features

- Multifunction air quality detection: Monitors CO2, temperature, and humidity simultaneously.
- Clear LCD display: Large digital display for easy reading, with intelligent backlighting for eye protection.
- Color-coded CO2 indicator: An on-screen color ring changes based on CO2 concentration, providing quick visual alerts.
- High-precision sensors: Utilizes a TVOC air support sensor and high-performance chip for accurate detection, with CO2 precision up to 1 PPM.
- Rechargeable battery: Equipped with a 1200 mAh high-capacity battery (replaceable with same model batteries of higher capacity).
- Efficient ventilation: Multiple ventilation holes accelerate air convection for effective detection and thermal dissipation.
- Portable design: Lightweight and suitable for various environments including home, office, school, warehouse, and agricultural settings.
- Automatic monitoring: No calibration required at startup; the device monitors automatically.

2.2 Device Components

The Irfora Air Quality Monitor features a compact design with an intuitive display and essential ports. Refer to the images below for a visual guide to the device's components.



Figure 1: Front View. This image shows the front of the Irfora Air Quality Monitor, highlighting the LCD screen with CO2 concentration (0450 PPM), temperature (22°C), and humidity (70%) readings, along with a battery indicator and a color-coded CO2 level ring.



Figure 2: Side and Back View. This image illustrates the side of the monitor with the power button and USB charging port, surrounded by ventilation grilles. The back panel includes mounting holes and a speaker grille.

3. SETUP

3.1 Initial Charging

1. Before first use, fully charge the device. Connect the provided USB cable to the monitor's USB port and to a 5V, 1A USB power adapter (not included).
2. The battery indicator on the LCD screen will show charging status. Once fully charged, the indicator will show a full battery icon.

3.2 Placement

- Place the monitor in an area where you wish to measure air quality. Avoid placing it directly next to windows, air vents, or heat sources, as this may affect readings.
- Ensure the ventilation holes on the device are not obstructed to allow for accurate air sampling.
- The device can be placed on a flat surface or mounted on a wall using the integrated mounting holes on the back.

4. OPERATING INSTRUCTIONS

4.1 Powering On/Off

- To power on: Press and hold the power button located on the side of the device until the LCD screen illuminates.
- To power off: Press and hold the power button until the screen turns off.

4.2 Automatic Monitoring

Once powered on, the device will automatically begin monitoring CO2, temperature, and humidity. No manual calibration is required at startup. Readings will be displayed in real-time on the LCD screen.

5. UNDERSTANDING THE DISPLAY

The LCD screen provides clear, real-time data for various air quality parameters.

- **CO2 Concentration (PPM):** The central large number indicates the current CO2 level in parts per million (PPM).
- **Color Ring Indicator:** A colored ring around the CO2 reading visually represents the CO2 level:
 - **Green:** Indicates good air quality (low CO2).
 - **Yellow:** Indicates moderate CO2 levels.
 - **Orange/Red:** Indicates high CO2 levels, suggesting a need for ventilation.
- **Temperature:** Displays the ambient temperature in degrees Celsius (°C).
- **Humidity:** Shows the relative humidity (RH) percentage.
- **Battery Indicator:** Located at the top right, this icon shows the current battery charge level.

6. SPECIFICATIONS

Parameter	Value
Brand	Irfora
Model Number	TYHDEE17790B
CO2 Detection Range	400-5000 PPM
CO2 Detection Sensitivity	1 PPM
TVOC Detection Range	0-2.0 mg/m³
Temperature Measurement Range	-10-50 °C
Temperature Measurement Accuracy	± 1 °C
Humidity Measurement Range	0-99 % RH
Humidity Measurement Accuracy	± 2 % RH

Parameter	Value
Charging Mode	5V, 1A (USB)
Battery	1 x 18650 battery, 3.7V/1200mAh (replaceable)
Product Dimensions (L x W x H)	89 x 70 x 35 mm <i>(Note: Original product description states 'cm', but 'mm' is assumed for a portable device of this weight.)</i>
Product Weight	146 g (including batteries)
Color	Black

7. MAINTENANCE

7.1 Cleaning

To clean the device, gently wipe the exterior with a soft, dry cloth. Do not use abrasive cleaners, solvents, or immerse the device in water. Ensure the ventilation holes remain clear of dust and debris.

7.2 Battery Replacement

The device is equipped with a replaceable 18650, 3.7V/1200mAh battery. If battery performance degrades significantly, you may replace it with a new battery of the same model and specifications, or a higher capacity 18650 battery. Ensure proper polarity when replacing the battery.

8. TROUBLESHOOTING

- **Device does not power on:**
 - Ensure the device is fully charged. Connect it to a power source using the USB cable.
 - Verify the battery is correctly installed if it has been removed or replaced.
- **Inaccurate or fluctuating readings (CO2, Temp, Humidity):**
 - Ensure the device is placed in a stable environment, away from direct airflow (fans, open windows), heat sources, or high humidity areas.
 - Check that the ventilation holes are not obstructed.
 - Restart the device by powering it off and then on again.
 - Allow the device to stabilize for a few minutes after powering on or moving it to a new location.
- **Short battery life:**
 - The device's battery life can vary depending on usage and environmental factors. For continuous monitoring, it is recommended to keep the device connected to a power source via the USB cable.
 - Consider replacing the 18650 battery with a new one, potentially with a higher capacity, if the current battery's performance has significantly degraded.

9. PACKAGE CONTENTS

Upon opening the package, please verify that all the following items are included:

- 1 x Irfora 3-in-1 Air Quality Monitor
- 1 x USB Cable
- 1 x User Manual (this document)

10. WARRANTY AND SUPPORT

Specific warranty information for the Irfora 3-in-1 Portable Air Quality Monitor is not provided in this manual. For details regarding warranty coverage, technical support, or service, please contact your retailer or the manufacturer directly using the contact information provided at the point of purchase or on the product packaging.