Walfront BR-6

Walfront BR-6 Nuclear Radiation Detector User Manual

Professional Handheld Beta Gamma X-Ray Dosimeter

1. INTRODUCTION

This manual provides essential information for the safe and effective operation of your Walfront BR-6 Nuclear Radiation Detector. Please read this manual thoroughly before using the device to ensure proper function and accurate readings. This device is designed for detecting Beta (β), Gamma (γ), and X-ray radiation.

2. SAFETY INFORMATION

Always handle the device with care. Do not expose it to extreme temperatures, moisture, or strong impacts. This device is for informational detection purposes only and should not be used for medical diagnosis or as a substitute for professional safety equipment in high-risk environments. Ensure batteries are inserted correctly to prevent damage.

3. PRODUCT FEATURES

- **Wide Detection Range:** Capable of detecting Beta (β), Gamma (γ), and X-ray radiation.
- **High Accuracy:** Inherent error controlled within ±10%.
- **User-Friendly Operation:** Simple and convenient steps for environmental radiation parameter detection.
- **Multiple Sound Modes:** Features real particle sound, alarm sound, and mute options.
- **Durable Construction:** Made from high-quality ABS material for impact and scratch resistance.
- **Clear Display:** Large TFT screen for real-time data monitoring, precise mean data, and intuitive trend graphs.
- **Portable Design:** Small size for easy carrying and inspection.

Image: The Walfront BR-6 Nuclear Radiation Detector with a list of its key features, including nuclear radiation detection, radioactive detector, βγx ray trend graph, particle sound, alarm sound, and power supply options.

4. PACKAGE CONTENTS

Upon opening the package, please verify that all items are present and undamaged:

- 1 x Walfront BR-6 Nuclear Radiation Detector
- 1 x User Manual (this document)

Note: 2 x 1.5V AA batteries and a USB cable are not included and must be purchased separately.

5. PRODUCT OVERVIEW

Familiarize yourself with the components of your Walfront BR-6 detector:

Image: A detailed diagram of the Walfront BR-6 detector, labeling its parts including the large screen TFT, ABS shell, intuitive trend graphs, start key, ordinary selection key, power button, real-time monitoring of data, precise mean data, side USB supply port, backlight, and off key.

6. SETUP

6.1 Battery Installation

1. Locate the battery compartment cover on the back of the device.
2. Slide the cover open.
3. Insert two (2) 1.5V AA batteries, ensuring correct polarity (+/-).
4. Close the battery compartment cover securely.

Image: The rear view of the Walfront BR-6 Nuclear Radiation Detector, showing the battery compartment cover and product label with model number BR-6.

6.2 Powering On

Press the **ON** button located on the front panel to power on the device. The LCD screen will illuminate and display the current readings.

7. OPERATING INSTRUCTIONS

7.1 Automatic Detection

Once powered on, the device automatically begins detecting radiation. The main display will show the real-time

radiation dose rate in μSv/h. The trend graph provides a visual representation of radiation level changes over time.

Image: A close-up of the Walfront BR-6 detector's LCD screen, showing a digital reading of 00.23 μSv/h, an average reading (AVG), and a trend graph (TREND) indicating radiation levels over time.

7.2 Adjusting Alarm Threshold

The device allows you to set an alarm threshold. If the detected radiation level exceeds this threshold, an audible alarm will sound (if not muted).

- Press the **Ordinary selection key** (usually represented by a speaker icon or similar) to cycle through sound modes or alarm settings.
- Available alarm thresholds are typically 0.5, 1.0, 2.0, and 5.0 μSv/h. Select the desired threshold.

7.3 Sound Settings

The device supports different sound modes:

- **Real Particle Sound:** Emits a click sound for each detected radiation particle.

- **Alarm Sound:** Sounds when the radiation level exceeds the set threshold.
- **Mute:** Disables all sounds.

Use the **Ordinary selection key** to switch between these sound modes.

7.4 Backlight Control

Press the **Backlight** button (usually represented by a light bulb icon) to turn the screen backlight on or off, improving visibility in different lighting conditions.

7.5 Powering Off

Press the **OFF** button to turn off the device when not in use.

8. APPLICATIONS

The Walfront BR-6 Nuclear Radiation Detector is suitable for a variety of detection scenarios:

- Home decoration environment detection
- Distance detection after ion implantation
- Radiological protection detection
- Airport security inspection machine detection
- Overseas shopping goods residue detection (e.g., Japanese goods)
- Maternity and baby products radioactivity detection
- Jewelry, stone, and jade articles radioactivity detection
- Cosmetics radiation residue detection

Image: The Walfront BR-6 detector centrally placed, surrounded by images depicting various application scenarios such as signal towers, factories, medical facilities, reflective substances, and microwave ovens, illustrating its wide detection capabilities.

9. MAINTENANCE

To ensure the longevity and accuracy of your device, follow these maintenance guidelines:

- Keep the device clean and dry. Use a soft, dry cloth to wipe the exterior. Do not use abrasive cleaners or solvents.
- Avoid exposing the device to direct sunlight, high temperatures, or high humidity for extended periods.
- When storing the device for a long time, remove the batteries to prevent leakage and damage.
- Do not attempt to open or repair the device yourself, as this will void the warranty and may cause damage or injury.

10. TROUBLESHOOTING

If you encounter issues with your Walfront BR-6 detector, try the following steps:

- **Device does not power on:** Check if the batteries are inserted correctly with the right polarity. Replace with

fresh AA batteries. Ensure the ON button is pressed firmly.

- **No readings or erratic readings:** Ensure the device is in an environment where radiation is expected. If in a known radiation source, and still no reading, the sensor might be obstructed or damaged.

- **Alarm not sounding:** Check the sound settings to ensure the device is not in mute mode and the alarm threshold is set appropriately.

- **Screen issues:** If the screen is dim or flickering, replace the batteries.

If problems persist after attempting these troubleshooting steps, please contact customer support.

11. SPECIFICATIONS

Model	BR-6
Material	ABS
Sensor	Energy compensation type tube
Detection Type	Beta (β), Gamma (γ), X-ray
Inherent Error	±10%
Sensitivity	80cpm µSv (Co 60)
Measurement Range	00.00~99.99 µSv/h
Sound Source Type	Real particle sound, alarm sound, mute
Alarm Thresholds	0.5, 1.0, 2.0, 5.0 µSv/h
Battery	2 x 1.5V AA battery (not included)
Item Weight	6 ounces
Package Dimensions	6.89 x 3.94 x 2.24 inches
Item Model Number	WALFRONT910x5ocs8i

12. WARRANTY AND SUPPORT

For warranty information or technical support, please refer to the purchase documentation or contact the seller directly. Keep your proof of purchase for any warranty claims.