Garosa HT629

Garosa HT629 Portable Nuclear Radiation Detector User Manual

Model: HT629

Introduction

This manual provides detailed instructions for the safe and effective use of the Garosa HT629 Portable Nuclear Radiation Detector. Please read this manual thoroughly before operating the device and keep it for future reference.
The HT629 is a compact and highly sensitive device designed for detecting various types of ionizing radiation, including gamma, X-ray, and beta radiation. It features an advanced tube sensor for accurate measurements and provides both sound and light alarms when radiation levels exceed a set threshold.

Product Overview

Key Features:

- High sensitivity detection of Beta, Gamma, and X-ray radiation.
- Wide detection range: 0.00 μSv/h to 50000 μSv/h.
- Energy compensation for accurate readings.
- Audible and visual alarm indicators.
- Compact, lightweight, and durable ABS construction.
- Suitable for continuous 24-hour monitoring.

Components:

The HT629 detector consists of a main unit with a display screen, control buttons, and a battery compartment.

Figure 1: Front view of the HT629 detector, showing the display screen, control buttons, and speaker grille.

Figure 2: Close-up of the control buttons: Power, HOLD, MAX/AVG/ACC, and UNIT.

Setup

Battery Installation:

1. Locate the battery compartment on the back of the device.
2. Slide open the battery compartment cover.
3. Insert three (3) AAA batteries, ensuring correct polarity (+/-). *Batteries are not included.*
4. Close the battery compartment cover securely.

Figure 3: Open battery compartment showing slots for three AAA batteries.

Operating Instructions

Powering On/Off:

- To power on, press and hold the **Power** button (🔋) until the display illuminates.
- To power off, press and hold the **Power** button again until the display turns off.

Measurement Modes:

The device automatically begins detecting radiation upon power-on. The display shows real-time radiation dose rate in µSv/h and cumulative dose in µSv.

- **MAX/AVG/ACC Button:** Press this button to cycle through different display modes:
  - **MAX:** Displays the maximum radiation dose rate detected since power-on or last reset.
  - **AVG:** Displays the average radiation dose rate over the measurement period.
  - **ACC:** Displays the accumulated total radiation dose.

Unit Selection:

- Press the **UNIT** button to switch between different measurement units (e.g., µSv/h, mR/h, CPM).

HOLD Function:

- Press the **HOLD** button to freeze the current reading on the display. Press again to resume real-time measurement.

Alarm Function:

The HT629 features both audible and visual alarms. When the detected radiation dose rate exceeds the preset alarm threshold, the device will emit a loud sound and the screen will flash. This occurs regardless of whether the screen is in sleep mode or active.

Figure 4: The detector indicating an alarm condition with flashing display and sound.

Note: The alarm threshold is factory set. Refer to advanced settings (if available in a separate advanced manual) for adjustment.

Maintenance

- **Cleaning:** Wipe the device with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Storage:** Store the detector in a cool, dry place away from direct sunlight and extreme temperatures. If storing for extended periods, remove the batteries to prevent leakage.

- **Battery Replacement:** Replace batteries promptly when the low battery indicator appears on the display to ensure continuous and accurate operation.
- **Calibration:** Regular calibration by qualified personnel is recommended to ensure measurement accuracy, especially for professional applications.

Troubleshooting

Problem	Possible Cause	Solution
Device does not power on.	Batteries are dead or incorrectly installed.	Check battery polarity and replace with fresh AAA batteries.
Inaccurate readings.	Device needs calibration or is exposed to interference.	Ensure the device is not near strong electromagnetic fields. Consider professional calibration.
Alarm sounds frequently without apparent high radiation.	High background radiation or alarm threshold set too low.	Move to an area with known lower background radiation. If applicable, adjust alarm threshold (refer to advanced manual).
Display is blank or frozen.	Low battery or device malfunction.	Replace batteries. If the problem persists, contact customer support.

Specifications

Parameter	Value
Model	HT629
Manufacturer	Garosa
Material	ABS
Detector Type	Energy compensated tube sensor
Detected Radiation Types	Gamma (γ), X-ray (X), Beta (β)
Detection Range	0.00 µSv/h - 50000 µSv/h
Energy Range	48keV - 1.5MeV ±30% (for 137Cs)
Power Supply	3 x AAA batteries (not included)
Dimensions (Approx.)	142mm x 58mm x 28mm (5.59in x 2.28in x 1.1in)
Weight (Approx.)	100 g (without batteries)
Applications	Home, hospital, nuclear power plants, laboratories, processing enterprises, metallurgy, building materials, petrochemical industry, geological census.

Figure 5: Dimensions of the HT629 detector.

Warranty and Support

For warranty information and technical support, please refer to the documentation included with your purchase or contact Garosa customer service directly. Please have your product model (HT629) and ASIN (B0D9KRM2ST) ready when contacting support.

Manufacturer: Garosa

ASIN: B0D9KRM2ST

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