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> Inkbird INK-RD1 Radon Detector User Manual

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Model: INK-RD1

1. INTRODUCTION

Thank you for choosing the Inkbird INK-RD1 Radon Detector. This device is designed to monitor indoor radon levels, providing crucial information for maintaining a healthy living environment. Radon is a naturally occurring radioactive gas that can accumulate in buildings and poses a health risk, primarily lung cancer. This manual provides detailed instructions for the proper setup, operation, and maintenance of your INK-RD1 detector.

Please read this manual thoroughly before using the device and keep it for future reference.



Image: The Inkbird INK-RD1 Radon Detector on a wooden surface, with a family in the background. Text on the image highlights "Keep Your Family Away From Lung Cancer" and features like "Easy To Use", "Accurate Detection", "Battery-operated", and "Low Power Consumption".

2. PRODUCT OVERVIEW

2.1 Key Features

- **Reliable Measurements:** Provides three types of radon measurements: long-term average (up to 1 year), 1-day average (updates hourly), and 7-day average.
- **Extended Battery Life:** Operates continuously for up to 2 years on 3 AAA batteries (included).
- **Low Battery Indication:** A measurement indicator flashes during operation, and a low battery icon appears when power is critically low.
- **Flexible Placement:** Can be placed on a flat surface using its foldable stand or mounted on a wall using the hanging hole.

2.2 Components

Familiarize yourself with the different parts of your Inkbird INK-RD1 Radon Detector:



Image: Detailed diagram showing the front and back of the Inkbird INK-RD1 Radon Detector. Labels include Measurement Indicator, Low Battery Indicator, Long-term Average, 1-day/7-day Average on the front, and Hanging Hole, Battery Compartment, Foldable Stand, and Radon Sensing Area on the back.

- **Display Screen:** Shows radon levels (long-term, 1-day, 7-day averages), measurement indicator, and low battery indicator.
- **Battery Compartment:** Located on the back, holds 3 AAA batteries.
- **Foldable Stand:** Allows the device to stand upright on a flat surface.
- **Hanging Hole:** For wall mounting.
- **Radon Sensing Area:** The perforated area on the back where air samples are taken for radon detection.

3. SETUP

3.1 Battery Installation

1. Open the battery compartment cover on the back of the device.
2. Insert 3 AAA batteries, ensuring correct polarity (+/-). The device comes with batteries included.
3. Close the battery compartment cover securely.



Image: A close-up view of the Inkbird INK-RD1 Radon Detector's battery compartment with three AAA batteries being inserted,

demonstrating the battery installation process.

Note: All data will be erased after restarting the detector (e.g., after battery replacement). The device will begin a new measurement cycle.

3.2 Initial Placement

Proper placement is crucial for accurate radon measurement. Consider the following guidelines:

- Place the detector at least 50 cm (20 inches) above the floor.
- Ensure it is at least 150 cm (59 inches) away from windows, doors, or vents to avoid drafts that could affect readings.
- Choose a location where the device will not be moved during the measurement period.
- Ideal locations include living rooms, bedrooms, basements, or garages, especially areas close to the ground.

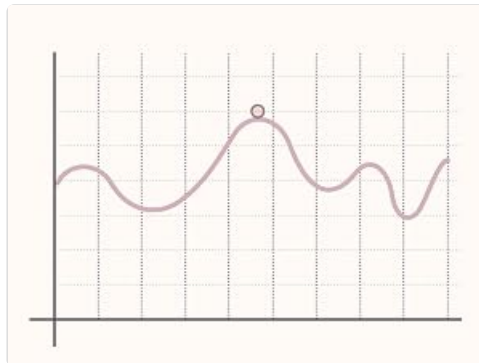


Image: A collage showing the Inkbird INK-RD1 Radon Detector placed in different environments such as a garage, basement, living room, and bedroom, demonstrating its flexible placement options using a foldable stand or wall mount.

4. OPERATING INSTRUCTIONS

4.1 Powering On

The device automatically powers on once batteries are installed. The display will activate, and the measurement indicator will begin to flash, signifying that the detector is active and taking measurements.

4.2 Initial Measurement Period

- The first radon data will be displayed after 24 hours of continuous operation.
- The 7-day average value will appear after the detector has operated for a full 7 days.
- For the most accurate long-term assessment, allow the device to operate undisturbed for an extended period.

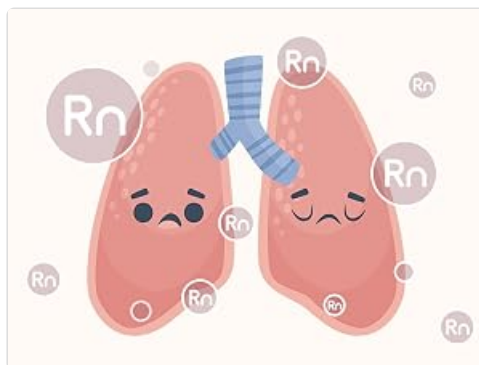


Image: The Inkbird INK-RD1 Radon Detector on a wooden table, with animated radon particles (Rn) surrounding it, illustrating continuous monitoring and accurate detection of indoor radon concentration.

4.3 Reading the Display

The display shows three key radon measurements in Bq/m³ (Becquerels per cubic meter):

- **Long-Term Average:** This value represents the average radon concentration over the entire period since the last reset or battery installation, up to 1 year. It provides the most stable and reliable indication of your home's radon exposure.
- **1-Day Average (Short-Term Average):** This value updates hourly and shows the average radon concentration over the last 24 hours. It reflects recent fluctuations in radon levels.
- **7-Day Average:** This value shows the average radon concentration over the past 7 days. It provides a more stable short-term trend than the 1-day average.

5. UNDERSTANDING RADON LEVELS

Radon levels can fluctuate daily and seasonally. Long-term measurements provide the most accurate assessment of your average exposure. Refer to local guidelines for recommended action levels. General guidance is provided below:



Image: A line graph illustrating the fluctuation of radon levels over a period, demonstrating that radon concentration is not constant.

Radon Gas Level Guidelines (Example)

Radon Level (Bq/m ³)	Interpretation & Action
More than 150 Bq/m ³	Poor: Air quality is poor. If levels persist for more than one month, contact a radon professional for repairs or other measures to reduce radon levels in your home.
Between 100 – 150 Bq/m ³	Fair: Continued monitoring is necessary. If levels remain for more than 3 months, contact a radon professional for repairs or other measures to reduce radon levels in your home.
Less than 100 Bq/m ³	Good: Air quality is good. Maintain current conditions.

Image: A table outlining general guidelines for radon gas levels, categorizing them as Poor, Fair, or Good, along with recommended actions based on Bq/m³ readings.

6. MAINTENANCE

6.1 Battery Replacement

When the low battery indicator appears on the display, it's time to replace the batteries. Follow the battery installation steps in Section 3.1. Remember that replacing batteries will reset all stored data, and the device will start a new measurement cycle.

6.2 Cleaning

- Wipe the device with a soft, dry cloth.
- Do not use abrasive cleaners or solvents.
- Ensure the radon sensing area on the back remains clear of dust and debris.

6.3 Storage

If storing the device for an extended period, remove the batteries to prevent leakage and damage.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
No display or device not turning on.	Batteries are dead or incorrectly installed.	Check battery polarity. Replace with new AAA batteries.
"---" displayed instead of readings.	Device has not been operating for 24 hours yet.	Allow at least 24 hours for initial readings to appear. The 7-day average requires 7 days.
Readings seem unusually high or low.	Improper placement (too close to windows/vents, or moved frequently).	Ensure proper placement as described in Section 3.2. Avoid moving the device during measurement. Radon levels naturally fluctuate; observe long-term trends.
Low battery indicator is on.	Batteries are running low.	Replace all 3 AAA batteries. Note that data will reset.

8. SPECIFICATIONS

Feature	Detail
Model Number	INK-RD1
Power Source	3 x AAA Batteries (included)
Battery Life	Up to 2 years (continuous use)
Measurement Unit	Bq/m³ (EU Version)
Display Readings	Long-term average, 1-day average, 7-day average
Alarm Type	Visual (Low Battery Indicator)
Product Dimensions (L x W x H)	2.4 x 7 x 12 cm (0.94 x 2.76 x 4.72 inches)
Item Weight	170 Grams (0.37 lbs)
Color	Black
Manufacturer	Inkbird
Country of Origin	China
Box Contents	Radon Detector, User Manual

9. WARRANTY AND SUPPORT

Inkbird products are designed for reliability and performance. For warranty information and technical support, please refer to the official Inkbird website or contact their customer service directly.

- **Manufacturer:** Inkbird

- **Website:** www.inkbird.com (Please check the official website for the most up-to-date contact and warranty information.)