

CHNADKS RM-73

CHNADKS RM-73 Radon Detector User Manual

Model: RM-73

1. INTRODUCTION TO RADON AND THE RM-73 DETECTOR

Radon is a naturally occurring, colorless, and odorless radioactive gas that can accumulate indoors, posing health risks. It emanates from foundation soil and building materials, and can enter from outdoor air into indoor spaces. Radon is also released from natural gas used in water supply and heating, as well as kitchen appliances. Early detection and continuous monitoring are essential for maintaining a healthy indoor environment.

The CHNADKS RM-73 Radon Detector is designed to provide accurate and continuous monitoring of radon levels in your home or workplace. Featuring a high-precision sensor and a user-friendly touchscreen display, it offers real-time data, historical records, and customizable alarms to help you manage radon exposure effectively.



Figure 1: Understanding Radon and its Sources

2. PACKAGE CONTENTS

Please verify that all items are present in your package:

- 1x CHNADKS RM-73 Radon Detector
- 1x User Manual
- 1x Charging Cable (USB-C)



Figure 2: Items included in the package

3. PRODUCT OVERVIEW

The CHNADKS RM-73 Radon Detector is a compact and advanced device designed for accurate radon measurement. It features a 3.4-inch capacitive touchscreen LCD color display for intuitive operation and clear data visualization.

Key Features:

- **High-Precision Sensor:** Utilizes a self-developed high-precision radon pulse ionization chamber sensor with $\pm 10\%$ accuracy.
- **Real-time Updates:** Provides data updates every 10 minutes.
- **Historical Records:** Stores up to 508 days of historical data, viewable directly on the device or via computer (PDF reports).
- **Audible & Visual Alarms:** Customizable alert levels with dual warning lights and alarm sounds.
- **Energy-Saving (ECO) Mode:** Automatic energy-saving function with adjustable sleep duration, offering up to 12-day battery life in auto ECO mode.
- **Measurement Range:** 0.054-540 pCi/L (2-20 kBq/m³).



Figure 3: CHNADKS RM-73 Radon Detector

HIGHLY SENSITIVE IONIZATION CHAMBER SENSOR

MEASUREMENT ACCURACY: $\pm 10\%$



Figure 4: High-Precision Ionization Chamber Sensor

4. SETUP AND INITIAL USE

4.1 Charging the Device

Before first use, fully charge the RM-73 Radon Detector using the provided USB-C charging cable. Connect the cable to the USB-C port on the device and a compatible power source. Off-power charging typically takes about 6 hours.



Figure 5: USB-C Charging Port

4.2 Powering On

To power on the device, long-press the power button located on the front. The device will display a welcome message and begin its initial data clearing and parameter setting process. This process ensures accurate measurements. The first measurement data will be available in approximately 10 minutes.

Your browser does not support the video tag.

Video 1: Unboxing and Initial Power-On of the CHNADKS RM-73 Radon Detector. This video demonstrates the unboxing, initial power-on sequence, and basic display features of the CHNADKS RM-73 Radon Detector, including its quick response time and touchscreen interface.

10 Minutes

Initial Data Refresh

CHNADKS RM-73



1 Hour

Ensures Data Reliability

Smart Monitoring, Clear Display

Figure 6: Initial Data Refresh and Reliability

5. OPERATION

5.1 Navigating the Touchscreen Display

The RM-73 features a responsive touchscreen for easy navigation. The main screen displays the latest 1-hour radon value, accumulated average value, and total count. You can tap the left/right arrows to view accumulated average values for 12h, 24h, 48h, and 96h, as well as the accumulated peak value.



Figure 7: Accumulated Average Values Display

5.2 Viewing Historical Data

The device can store up to 508 days of historical data. To access this, navigate to the 'Data' section from the main menu. You can view records directly on the device in both curve graph and table formats. For more detailed analysis, connect the device to a computer via USB to access PDF data reports.

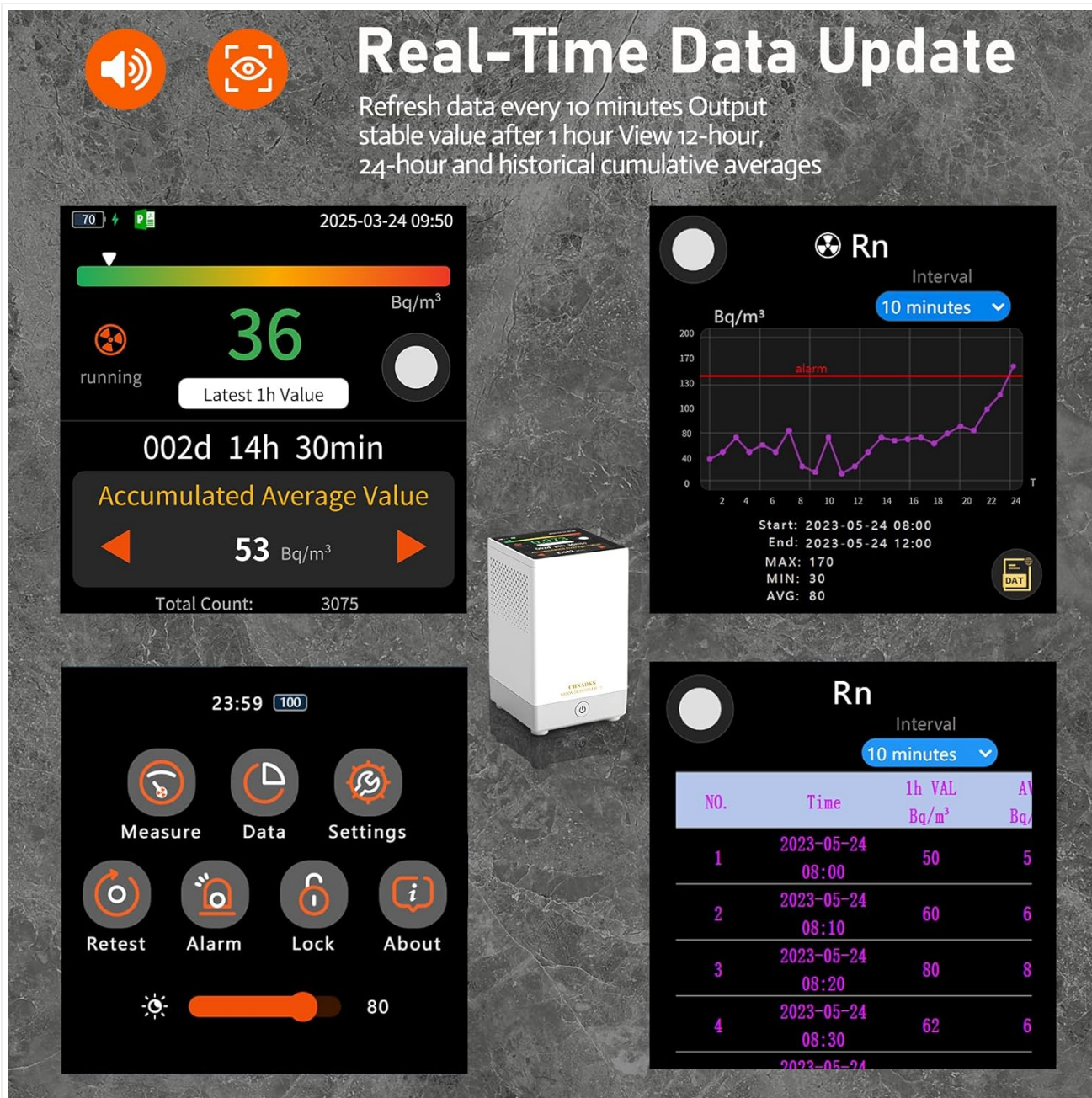


Figure 8: Real-time Data and Historical Records

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Video 2: Detailed Operation of the CHNADKS RM-73 Radon Detector. This video provides a detailed overview of the CHNADKS RM-73 Radon Detector's operational features, including navigating the touchscreen menu, setting alarms, adjusting ECO mode, and viewing historical radon data in graph and table formats.

5.3 Setting Alarms

The RM-73 allows you to set custom alert levels. When the radon concentration exceeds the set threshold, the device will activate dual warning lights and an audible alarm for 20 seconds every 10 minutes. You can also enable or disable the alpha particle sound control.

- From the main menu, tap 'Settings' then 'Alarm'.
- Adjust the 'Alarm Line' to set your desired radon concentration threshold.
- Toggle 'Particle Alarm' to enable or disable the alpha particle sound.

Reliable Peace of Mind

3 Types of Alarms



Power LED Indicator



Audible Alarm



Horn Icon Alert

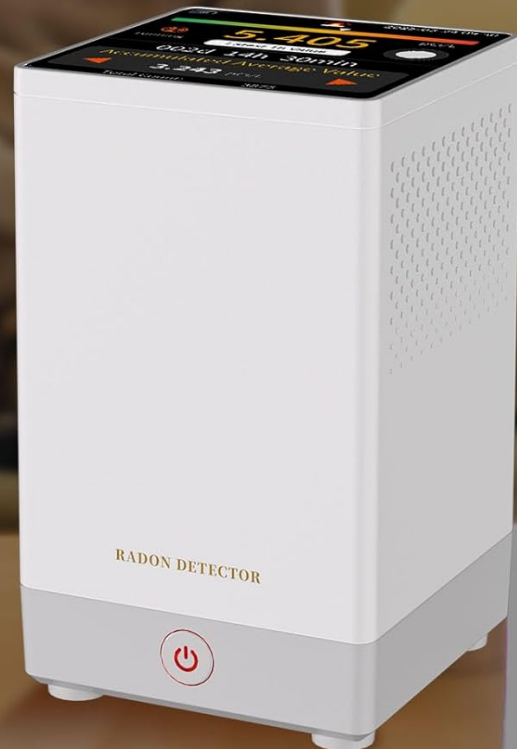


Figure 9: Three Types of Alarms

5.4 ECO Mode and Battery Life

The device features an automatic energy-saving (ECO) function. After 1 minute of inactivity, it enters ECO mode, where the screen turns off to conserve power. You can adjust the sleep duration, brightness, and sound settings within the 'ECO' menu under 'Settings'. The device maintains normal operation with up to 12-day battery life in auto ECO mode.

5.5 Unit and Time Settings

You can change the radon concentration unit between pCi/L and Bq/m³, and set the temperature unit (°C or °F) in the 'Unit' menu under 'Settings'. The date and time can also be adjusted in the 'Time & Date' menu to ensure accurate timestamping of your readings.

6. RADON LEVELS AND RECOMMENDED ACTIONS

Understanding your radon levels is crucial for taking appropriate action. The following table provides general guidelines for interpreting radon concentrations:



Figure 10: Radon Levels and Recommended Actions

Note: These are general guidelines. Consult local health authorities or certified radon professionals for specific recommendations and mitigation strategies in your area.

7. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the device. Do not use abrasive cleaners or solvents.
- **Placement:** Place the detector in an area where radon levels are representative of the living space, typically in the lowest lived-in area of the home. Avoid placing it near drafts, vents, or in direct sunlight.
- **Avoid Vibration:** Do not vibrate the device during measurement to ensure accurate readings.
- **Storage:** When not in use for extended periods, store the device in a cool, dry place.

8. TROUBLESHOOTING

8.1 Device Not Powering On

- Ensure the device is fully charged. Connect it to a power source using the USB-C cable and allow it to charge for at least 6 hours.
- Confirm you are long-pressing the power button. A short press may not activate the device.

8.2 Inaccurate or Fluctuating Readings

- Ensure the device is placed in an appropriate location, away from drafts, vents, and direct sunlight.
- Avoid moving or vibrating the device during measurement.
- Radon levels naturally fluctuate. Long-term monitoring provides a more accurate average. Refer to the historical data for trends.

8.3 Alarm Not Sounding

- Check the alarm settings in the 'Settings' menu to ensure the alarm is enabled and the threshold is set correctly.
- Verify that the sound is not muted in the 'ECO' settings.

8.4 Screen Unresponsive

- Ensure the screen is not locked. Tap the lock icon and confirm to unlock.
- If the screen remains unresponsive, try restarting the device by long-pressing the power button.

9. SPECIFICATIONS

Feature	Detail
Brand	CHNADKS
Model Number	RM-73
Power Source	Battery Powered (1 Lithium Ion battery included)
Product Dimensions	3.11"D x 3.11"W x 5.24"H
Item Weight	430 Grams (15.2 ounces)
Alarm Type	Audible, Visual (LED Indicator, Horn Icon)
Sensor Type	High-precision radon pulse ionization chamber
Accuracy	±10%
Measurement Range	0.054-540 pCi/L (2-20 kBq/m³)
Data Storage	Up to 508 days of historical data
Connectivity	USB for data export

10. WARRANTY AND SUPPORT

For warranty information, technical support, or any questions regarding your CHNADKS RM-73 Radon Detector, please refer to the contact details provided in your product packaging or visit the official CHNADKS website. Keep your purchase receipt for warranty claims.