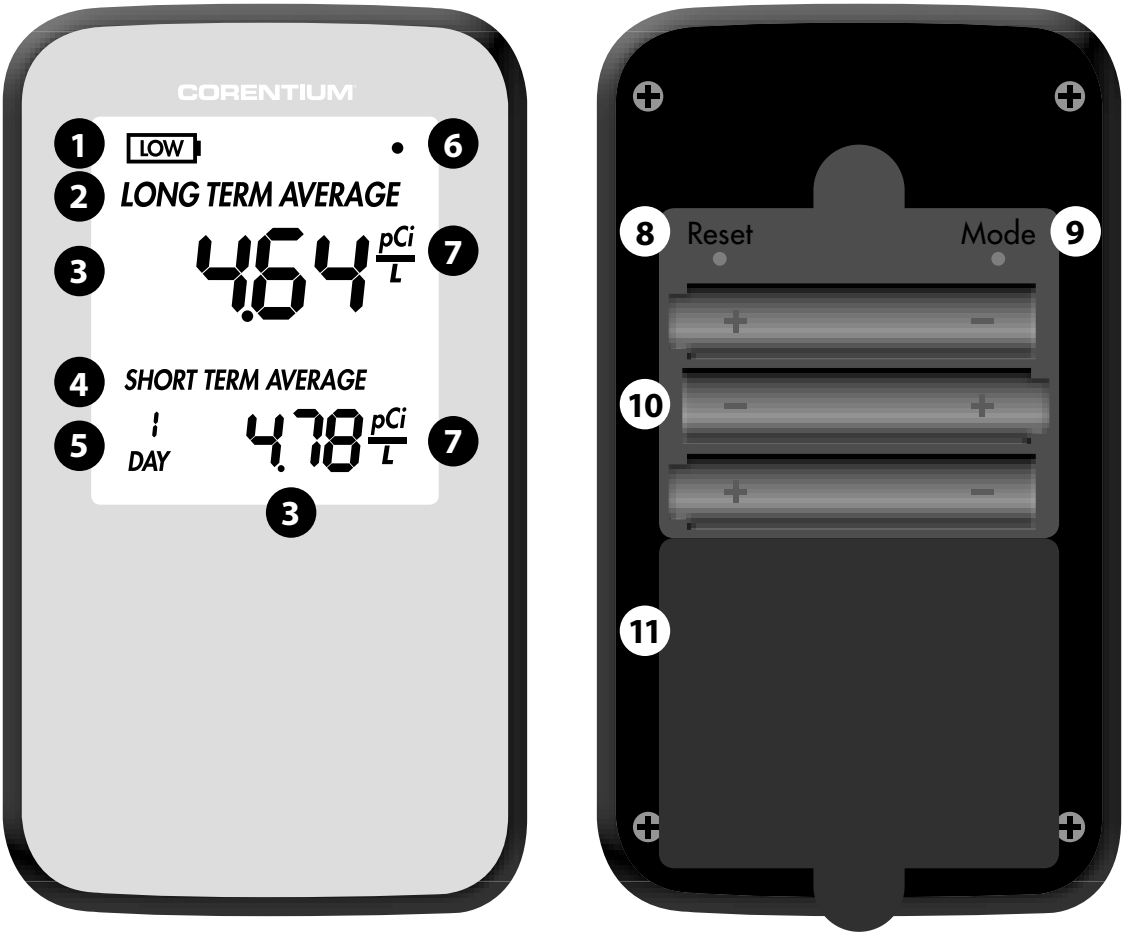
CORENTIUM®

Digital Radon Monitor

model QRI

User manual



The menu options may differ from what is illustrated in this user guide.

KEY TO FIGURE

1. Indicator for low battery level. The batteries need to be replaced when this is displayed
2. 'LONG TERM AVERAGE'. Long term average measurement mode
3. Measured value
4. 'SHORT TERM AVERAGE'. Short term average measurement mode
5. Measurement period for short term average. Alternates between 1 and 7 days
6. Indicator for measurement. The unit is active when this is flashing
7. Unit of measurement: pCi/L
8. 'RESET'. Button for resetting. Used when a new measurement period starts. NOTE: Deletes all stored data from earlier measurement
9. 'MODE'. Button for information about the number of days measured since the previous resetting. Displayed on the screen, see section 5
10. Battery compartment for 3 x LR03, alkaline AAA batteries
11. Battery cover

SAFETY

Contact the seller if the product requires service or repairs. The front or back cover must not be opened.

Avoid subjecting the unit to shock, impact, pressure, vibrations, dust and moisture. Condensation can occur if the unit is moved from a location with high atmospheric humidity to a cold location. If condensation occurs, remove the batteries and leave the unit in a dry environment for 2 hours. The unit must not be exposed to direct sunlight for extended periods. The unit must be stored under dry conditions, if possible together with a desiccant such as silica gel.

Use only batteries of type LR3, alkaline AAA batteries. The batteries must not be exposed to fire or other extreme heat. The battery terminals must not be touched, and they must be kept free from dust, sand, liquids and other foreign objects.

CALIBRATION

We recommend that the unit is left on at all times. If the unit is turned off (by removing the batteries) for more than one year, it should be recalibrated. The same applies if measurement takes place continuously for one year at values over 35pCi/L.

In the event of continuous operation at lower radon values, recalibration will not be required for the first 10 years.

GETTING STARTED

- Insert the supplied batteries. Measurement will start automatically after about 3 minutes. This is indicated by a flashing measurement indicator at the top right of the screen
- If the screen displays the error message 'Err' and a number: press the RESET button, remove the batteries and put them back in
- Position the unit in a living area (for example a bedroom or living room), and in a location that is representative of the air that is breathed in this room
- The unit should not be exposed to direct sunlight or electromagnetic radiation; it should be positioned lying flat at least 25 cm from the nearest wall, at least 50 cm above the floor, and at least 150 cm from the nearest door, window or ventilation device
- To permit self-calibration, the unit should remain untouched for the first few minutes after start-up

HOW TO USE THE MONITOR

- The long term average (LONG TERM AVERAGE) is the average radon value over the last year (updated once every 24 hours)
- The short term average (SHORT TERM AVERAGE) alternates between showing the radon value over the last day (1 DAY – updated every hour) and over the last 7 days (7 DAYS – updated once every 24 hours)

The long term average is used to identify any potential health risk. The short term average is used primarily to see the effect of measures to reduce the radon level – for example by increasing the ventilation.
The building can be diagnosed by taking measurements for one week in all living areas, such as living rooms and bedrooms. This should preferably be followed by long term measurement in the room which has the highest radon value. For long term measurement period and action level we recommend to follow the guidelines from the national radiation authority.

The RESET button is used when the monitor is moved in order to take a new measurement. This deletes all stored radon data. Remember to note the previous measurement before using the RESET button.

The MODE button is used to obtain information on how many days measurements have been taken since the monitor was started for the first time, or since the RESET button was last depressed. This information is displayed on the lower half of the screen for 20 seconds, after which the screen reverts to the regular display.

It is recommended that the monitor is activated continuously, and that the batteries are not removed. The batteries last for about 3 years, and they can be replaced without stored data being deleted.

DISPOSAL

The monitor and the batteries must not be disposed of as ordinary household waste. The materials used in the monitor can be recycled. It is the user's environmental responsibility to ensure that electronic equipment and batteries are disposed of in accordance with national regulations. Users should contact the seller or their local authority for information about environmentally friendly waste disposal.

DISCLAIMER

The Corentium monitor has a 1-year warranty against system failure. Beyond this, reference should be made to national consumer protection legislation.

In the event of incorrect use or operation of the monitor, Corentium AS cannot be held responsible for any losses resulting from failure or from the loss of measurement data.

See www.corentium.com for complete disclaimer.

SPECIFICATION

Sampling Method	Passive radon diffusion chamber
Detection Method	Alpha spectrometry
Power Supply	3 LR03 (AAA alkaline battery) 3 years battery life-time
Power Consumption	< 250µW
Dimensions	120mm × 69mm × 22.5mm
Weight	130 grams (incl. batteries)
Operation Environment	Temperature: 0 °C to +40 °C Relative Humidity < 95%
Measurement Range Lower detection limit Upper display limit	 0 pCi/L 9999 pCi/L
Precision (at 2,7 pCi/L) 7 days Long term	 < 20% < 10% after 1 month
Accuracy	5% ± 0,14 pCi/L

Supplementary information about the product can be found at www.corentium.com

USV2.0

Designed and manufactured in Norway
Corentium AS, Oslo, Norway