

JOY-IT

FOR MAKERS AND PROFESSIONALS

NUCLEAR RADIATION DETECTOR JT-RAD01



TABLE OF CONTENTS

1. Product description	03
2. Product specifications	03
3. Overview	04
4. View modes	05
5. Settings	07
6. Safety instructions	10
7. Support	11
8. Additional information	11

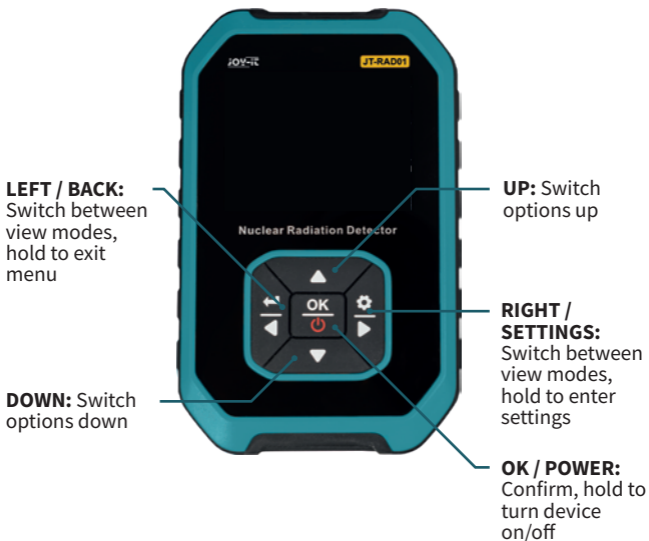
1. PRODUCT DESCRIPTION

The JT-RAD01 is a radiation meter for the detection of γ -, β - and X-ray radiation and is characterized by its particularly easy handling, high measurement stability and its handy and robust design. The meter has a large LCD color display with backlight. The measurement results can be displayed both as clear statistics and as a graph evaluation.

2. PRODUCT SPECIFICATIONS

DETECTABLE TYPES OF RADIATION	γ rays, β rays, x rays
MEASUREMENT METHOD	Geiger Miller Counter
DOSIS RATE	0.00 - 1000 μ Sv/h (10 mSv/h)
CUMULATIVE RADIATION DOSE	0.00 μ Sv - 500.0 mSv
ENERGY RANGE	48 keV - 1.5 MeV \pm 30% (CS-137)
SENSITIVITY	80 CPM/ μ Sv (Co-60)
BATTERY	1100 mAh Lithium-Ion-Battery
AVAILABLE LANGUAGES	English, German
DOSIS UNITS	μ Sv/h, μ Gy/h, mR/h, cps, cpm

3. OVERVIEW



4. VIEW MODES

The JT-RAD01 has two display modes that can be switched between. Press the Left or Right button to switch between the modes:



The screenshot shows the radiation detector's display interface. At the top, it displays the date (2022/01/11), time (15:17:50), and battery status. The main display area shows a large '000.00' in yellow, representing the current radiation level in uSv/h. To the right, there are two alarm thresholds: 'Current Alarm' at 001.00 uSv/h and 'Cumulative Alarm' at 020.00 mSv. Below these, there are two columns for 'Average' and 'Maximm' (sic) radiation levels, both showing 000.00 uSv/h. At the bottom, it shows 'Cumulative stored' as 000.00 uSv and 'BeginDate 2022-01-11 Lifetime 00:12:34'.

Average		Maximm	Cumulative stored
000.00 uSv/h	000.00 uSv/h	000.00 uSv/h	000.00 uSv

REAL TIME VIEW

All relevant data is displayed in the real-time view. This includes the current radiation exposure, the average radiation exposure per hour, the highest measured radiation exposure, the cumulative accumulated radiation exposure, and the alarm trigger values for the current and cumulative radiation exposure.



GRAPH VIEW

In the graph view, the course of the radiation exposure is displayed in the form of a graph. In addition, the current radiation exposure as well as the minimum and maximum measured radiation exposure are displayed.

5. SETTINGS

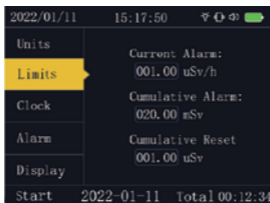
To enter the settings, press and hold the right/settings button. You can navigate through the settings menu with the up and down buttons. Press the right button to enter a sub-menu. To leave the sub-menu, press the left button.



UNITS

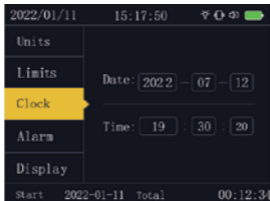
Set the measurement unit used for the current radiation level, the minimum radiation level and the maximum radiation level. You can choose between the following units:

$\mu\text{Sv/h}$	Microsievert per hour
$\mu\text{Gy/h}$	Microgray per hour
mR/h	Milliroentgen per hour
CPS	Counts per second
CPM	Counts per minute



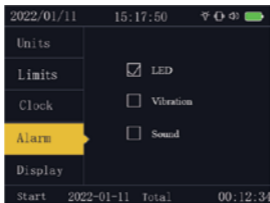
LIMITS

Here you can set the limits individually. The alarm limit of the current radiation exposure as well as the alarm limit of the cumulative exposure and the reset value of the cumulative exposure can be defined here.



CLOCK

Set the current date and time here.



ALARM

Define here the ways you want to be informed about increased radiation exposure. You can choose from the following options:

LED

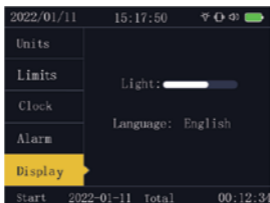
A red LED above the display indicates the counts by the current radiation exposure.

VIBRATION

A vibration alerts you when the set alarm limit is exceeded.

SOUND

A sound alerts you when the set alarm limit is exceeded.



DISPLAY

Both the display brightness and the system language can be set here. The languages English and German are available.

6. SAFETY INSTRUCTIONS

- ▶ Please note that our device is not a medical device or protective equipment, no health decisions should be made based on the readings from this device. We recommend always making decisions with your health in mind. Avoid dangerous situations and play it safe.
- ▶ The device is expressly not intended to be used to assess whether there is a danger from radiation or to determine how long to stay in the contaminated area, it provides a "rough" indication that is not suitable for assessing health risks. Only professional equipment specifically designed for such purposes should be used.
- ▶ Do not open the device, components inside work with high voltage, there is a risk of serious injury up to death by electric shock. Maintenance and repair may only be carried out by the manufacturer or an electrician who has been trained in the product!
- ▶ Protect the product from extreme temperatures, mechanical stress, strong vibrations as well as flammable gases, vapors and solvents. Use the device only in a dry environment, it must not get wet or damp.
- ▶ The device heats up when charging, do not cover it, it should not be charged unattended. Please use a 5 V 500 mA charger.
- ▶ Always handle the product with care. Shocks, jolts and falls, even from a low height can damage the device. The counting tube inside is made of glass and is fragile.
- ▶ If safe operation is no longer possible, take the product out of operation immediately. Safe operation is no longer guaranteed if the device shows visible damage, no longer functions properly, has been stored under unfavorable conditions for a longer period of time or has been subjected to a considerable transport load. In this case, please contact the manufacturer for further instructions.
- ▶ Your device is equipped with a lithium-ion battery 1100 mah, lithium-ion batteries are safe if handled properly, but if the device / battery is damaged or gets wet, there is a risk of heat development, up to fire. In case of damage where it can not be excluded that the internal battery was damaged, we recommend storing in a fireproof container in a safe place, this should not be your home!

7. SUPPORT

We also support you after your purchase. If you have any questions left or encounter any problems, please do not hesitate to contact us:

E-Mail: service@joy-it.net

Ticket-System: <https://support.joy-it.net>

Phone: +49 (0) 2845 - 9360 - 50 (10 - 17 o'clock)

Please visit our website for more information:

www.joy-it.net

8. ADDITIONAL INFORMATION

Our information and take-back obligations according to the Electrical and Electronic Equipment Act (ElektroG)



SYMBOL ON ELECTRICAL AND ELECTRONIC EQUIPMENT:

This crossed-out dustbin means that electrical and electronic appliances do not belong in the household waste. You must return the old appliances to a collection point. Before handing over waste batteries and accumulators that are not enclosed by waste equipment must be separated from it.

RETURN OPTIONS:

As an end user, you can return your old device (which essentially fulfills the same function as the new device purchased from us) free of charge for disposal when you purchase a new device. Small appliances with no external dimensions greater than 25 cm can be disposed of in normal household quantities independently of the purchase of a new appliance.

POSSIBILITY OF RETURN AT OUR COMPANY LOCATION DURING OPENING HOURS:

SIMAC Electronics GmbH, Pascalstr. 8, D-47506 Neukirchen-Vluyn, Germany

POSSIBILITY OF RETURN IN YOUR AREA:

We will send you a parcel stamp with which you can return the device to us free of charge. Please contact us by email at Service@joy-it.net or by telephone.

INFORMATION ON PACKAGING:

If you do not have suitable packaging material or do not wish to use your own, please contact us and we will send you suitable packaging.

JOY-IT

FOR MAKERS AND PROFESSIONALS

WWW.JOY-IT.NET

JT-RAD01