

AUTOOL ND300

Nuclear Radiation Detector

User Manual



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COPYRIGHT INFORMATION

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NOTICES

- ▶ Do not disassemble or modify the equipment on your own.
- ▶ Before measuring, please check if the device is malfunctioning to ensure it can work normally before use, to avoid injury.
- ▶ If you suspect the device is malfunctioning while operating, immediately turn off the device and quickly leave the workplace.
- ▶ The operating and storage environment should remain dry; excessive humidity may damage the equipment.
- ▶ Avoid dropping, knocking, or strong vibrations to prevent damage to the detector.
- ▶ If the device will not be used for a long time, please remove the battery and store it properly.

PRODUCT INTRODUCTION

- The nuclear radiation detector is built with a high-sensitivity Geiger counter tube as the detector, primarily used for detecting γ and X-rays in various workplaces. It can be used in vehicle maintenance, nuclear facilities, steel chemical industry, medical facilities, laboratories, etc., to ensure timely safety protection for workers.
-

Product Features

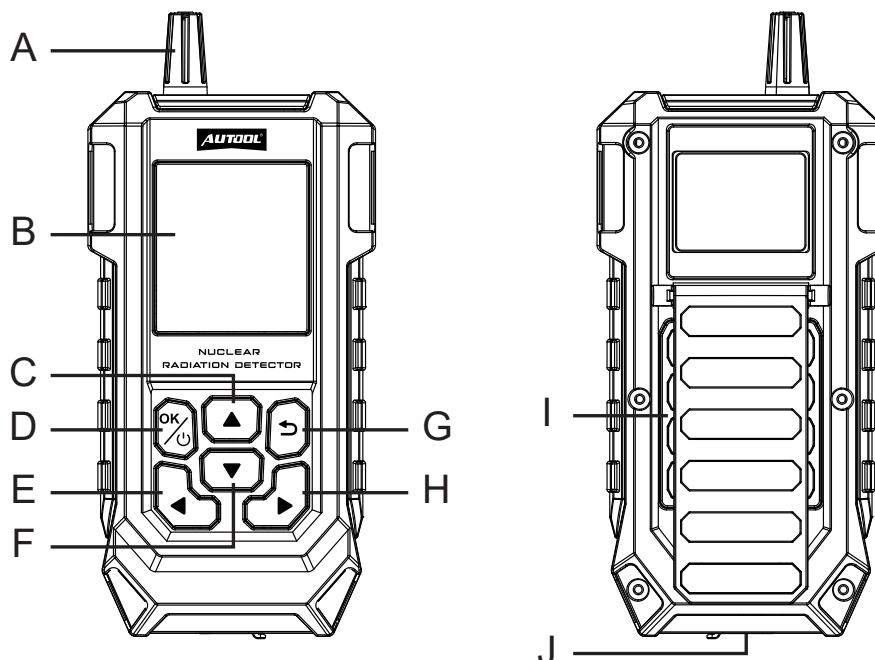
- Detects γ and X-rays.
 - High sensitivity, fast response, and wide measuring range.
 - Displays current dose rate, average dose rate, maximum dose rate, and cumulative dose simultaneously.
 - Sound and vibration alarm settings available.
 - Dose alarm threshold can be set.
 - High-definition LCD display.
-

Technical Parameters

Detectable Radiation	Gamma(γ), X-rays
Detector	Energy-compensated GM tube(Geiger counter)
Measuring Range	Dose equivalent rate: 0.01~999.99μSv/h Cumulative dose equivalent: 0.01μSv~500.0mSv
Relative Inherent Error	$\leq \pm 15\%$(with ^{137}Cs at 1mSv/h)
Sensitivity	80CPM / μSv/h(for Co-60)
Dose Units	μSv/h, μGy/h, mR/h, CPS, CPM
Operating Environment	Temperature: -10~45°C Relative Humidity: $\leq 95\%$(at 45°C)
Power Supply	4*1.5V AAA batteries

PRODUCT STRUCTURE

Structural Diagram

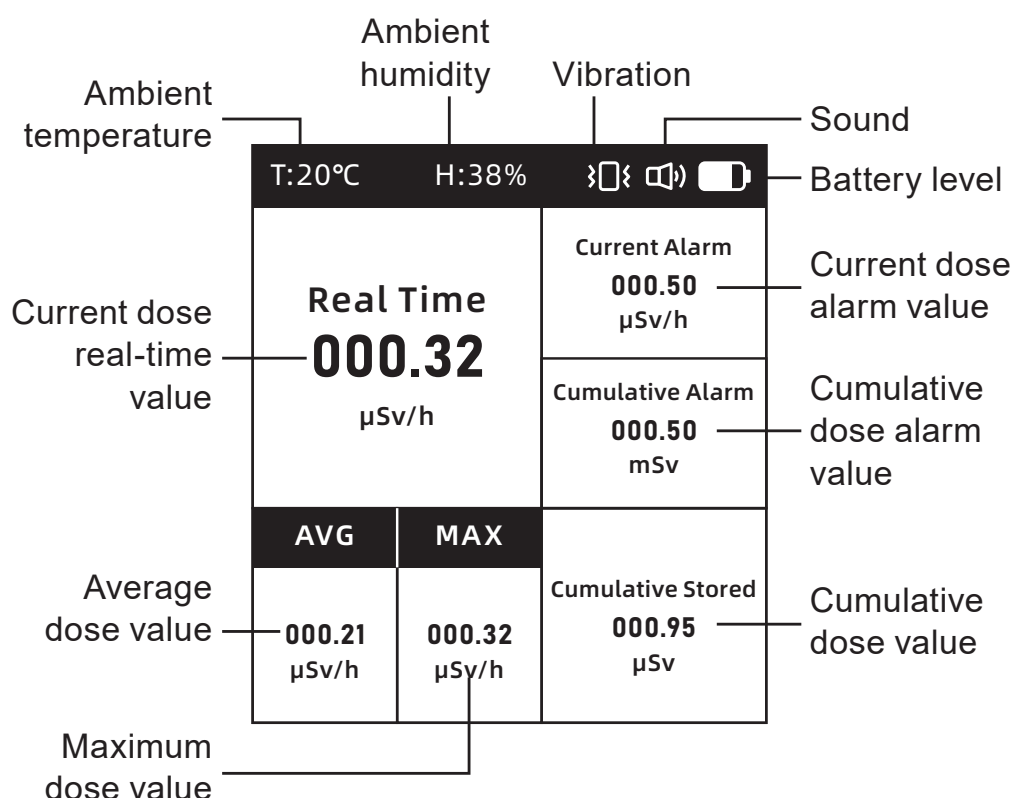


A	Probe		B	LCD Screen	
C	▲	Press briefly to select up / increase value; Press and hold for rapid increase			
D	OK /	Press briefly to enter settings / save settings; Press and hold to power on/off			
E	◀	Press briefly to switch main interface / cancel parameter setting			
F	▼	Press briefly to select down/decrease value; Press and hold for rapid decrease			
G	↺	Press briefly to return to main interface / cancel parameter setting			
H	▶	Press briefly to switch main interface / enter parameter setting			
I	Battery Compartment		J	TYPE-C Port	

OPERATING PROCEDURE

Power On

- Following the positive and negative indicators inside the battery compartment, insert the batteries (4 x 1.5V AAA batteries). After installation, press and hold the [$\frac{ON}{\text{OFF}}$] button to turn on the device. Upon powering on, the device enters the measurement interface as shown below:



- In the measurement interface, pressing the [$\blacktriangleleft$] button or the [$\blacktriangleright$] button allows switching between measurement interfaces, as shown below:



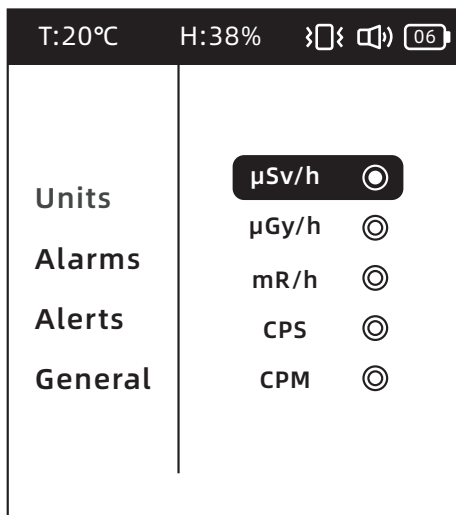
- In the measurement interface, press the [$\frac{OK}{\cup}$] button to enter the settings interface as shown below:

- | <div>T:20°C H:38%   </div> | |
|--|--|
| | |
| Units | <div>μSv/h </div> <div>μGy/h </div> <div>mR/h </div> <div>CPS </div> <div>CPM </div> |
| Alarms | |
| Alerts | |
| General | |

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Units

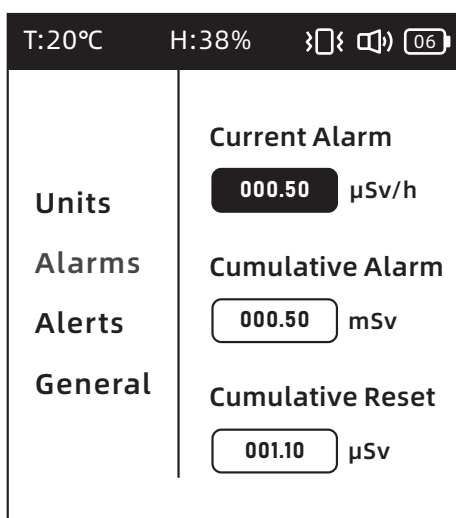
- In the settings interface, select “Units” as shown below:



- Press the [▲] / [▼] buttons to choose the dose unit, then press the [%] button to save the settings.
- There are five unit options available: μSv/h, μGy/h, mR/h, CPS, CPM.

Alarms

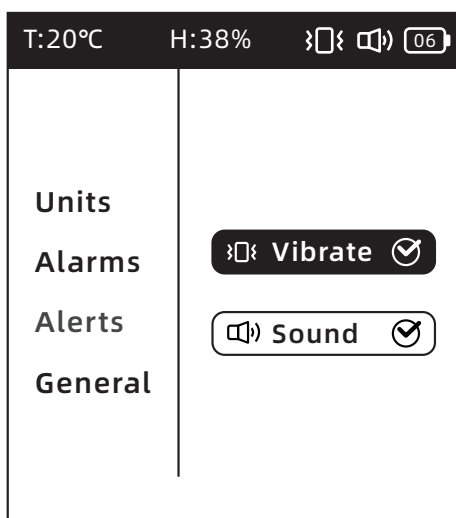
- In the settings interface, select “Alarms” as shown below:



- Press the [▲] / [▼] buttons to choose the dose alarm value or to reset the dose to zero.
- Press the [%] button to enter value setting.
- Press the [▲] button for a slight increase in value, or hold for a significant increase.
- Press the [▼] button for a slight decrease in value, or hold for a significant decrease.
- Press the [%] button again to save the settings.

Alerts

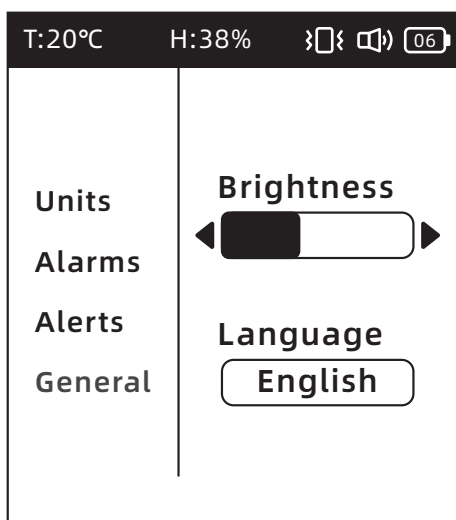
- In the settings interface, select “Alerts” as shown below:



- Press the [▲] / [▼] buttons to choose between vibration alarm or sound alarm.
- Press the [%] button to turn the alarm prompt on/off.

General

- In the settings interface, select “General” as shown below:



- Press the [▲] / [▼] buttons to choose between brightness adjustment or language switch.
- Press the [%] button to enter settings.
- Press the [◀] button to reduce brightness or switch languages.
- Press the [▶] button to increase brightness or switch languages.

MAINTENANCE SERVICE

- Our products are made of long-lasting and durable materials, and we insist on perfect production process. Each product leaves the factory after 35 procedures and 12 times of testing and inspection work, which ensures that each product has excellent quality and performance.
-

Maintenance

To maintain the performance and appearance of the product, it is recommended that the following product care guidelines be read carefully:

- Be careful not to rub the product against rough surfaces or wear the product, especially the sheet metal housing.
- Please regularly check the product parts that need to be tightened and connected. If found loose, please tighten it in time to ensure the safe operation of the equipment. The external and internal parts of the equipment in contact with various chemical media should be frequently treated with anti-corrosion treatment such as rust removal and painting to improve the corrosion resistance of the equipment and extend its service life.
- Comply with the safe operating procedures and do not overload the equipment. The safety guards of the products are complete and reliable.
- Unsafe factors are to be eliminated in time. The circuit part should be checked thoroughly and the aging wires should be replaced in time.
- Regularly clean and replace consumable parts such as oil pump and oil filter; adjust the clearance of various parts and replace worn (broken) parts. Avoid contact with corrosive liquids.
- When not in use, please store the product in a dry place. Do not store the product in hot, humid, or non-ventilated places.

WARRANTY

- From the date of receipt, we provide a three-year warranty for the main unit and all the accessories included are covered by a one-year warranty.

Warranty access

- The repair or replacement of products is determined by the actual breakdown situation of product.
- It is guaranteed that AUTOOL will use brand new component, accessory or device in terms of repair or replacement.
- If the product fails within 90 days after the customer receives it, the buyer should provide both video and picture, and we will bear the shipping cost and provide the accessories for the customer to replace it free of charge. While the product is received for more than 90 days, the customer will bear the appropriate cost and we will provide the parts to the customer for replacement free of charge.

These conditions below shall not be in warranty range

- The product is not purchased through official or authorized channels.
- The product breakdown because the user does not follow product instructions to use or maintain the product.

We AUTOOL pride ourselves on superb design and excellent service. It would be our pleasure to provide you with any further support or services.

Disclaimer

- All information, illustrations, and specifications contained in this manual, AUTOOL reserves the right of modify this manual and the machine itself with no prior notice. The physical appearance and color may differ from what is shown in the manual, please refer to the actual product.

Every effort has been made to make all descriptions in the book accurate, but inevitably there are still inaccuracies, if in doubt, please contact your dealer or AUTOOL after-service centre, we are not responsible for any consequences arising from misunderstandings.

RETURN & EXCHANGE SERVICE

Return & Exchange

- If you are an AUTOOL user and are not satisfied with the AUTOOL products purchased from the online authorized shopping platform and offline authorized dealers, you can return the products within seven days from the date of receipt; or you may exchange it for another product of the same value within 30 days from the date of delivery.
- Returned and exchanged products must be in fully saleable condition with documentation of the relevant bill of sale, all relevant accessories and original packaging.
- AUTOOL will inspect the returned items to ensure that they are in good condition and eligible. Any item that does not pass inspection will be returned to you and you will not receive a refund for the item.
- You can exchange the product through the customer service center or AUTOOL authorized distributors; the policy of return and exchange is to return the product from where it was purchased. If there are difficulties or problems with your return or exchange, please contact AUTOOL Customer Service.

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