

# PCE-RAM 5

X, γ radiation personal dose equivalent Hp (10) monitor instrument

## User Manual

### First Product Profile

Model PCE-RDM5 product is one small size high sensitivity radiation dose alarm instrument, mainly used to monitor X,  $\beta$  and  $\gamma$  rays. It configured white light OLED screen, visual in night. It has both sound and flashing alarm method, and the alarm threshold able to be key setting. The main of this instrument accordance with national and international standard line.

### Second Main characteristics

Real-time measure dose rate, and record the accumulated dose and region average value at the same time.

- Smaller measure error range and able pass through national metering standards.
- Dose rate alarm threshold and metering alarm threshold all can be key setting.
- It has over dose alarm function, sound and optical alarm.
- Start machine and test automatically, simply and easily operation.
- It has exquisite volume and light weight, pen clamps design convenient to wear.
- Internal configured chargeable lithium battery, able to continue test 50 hours after fully charged.
- Display screen able to continuously measure after automatic dormant.
- White light OLED display screen design, displayed more clearly, also able to normally display in night.
- It has sensor fault reminding function (the display screen display "Device Fault").

### Third Technical Parameters

- Sensor: 48mm Geiger counter tube
- Measure range: 0.05 $\mu$ Sv-50mSv
- Measure precision: -17%...+25% based on  $^{137}\text{Cs}$   $\gamma$
- Working environment: temperature >20°C...50°C; humidity <95% RH without dew
- Size: diameter 15.3mm, length 108mm, weight: 19g
- Durable time: 50Hour (continue measure, screen dormant)
- Charging time: 2-3 hours
- Charging joggle: TYPE-C joggle (green light normally lighting when charging, extincted when fully charged)
- Alarm responding time td: <10s

#### **Fourth Menu Instruction**

DOSE RATE: means moment dose rate

00:00: 05 means start measure time, the max 100hours

DOSE: means accumulated dose

AVR: means the average dose rate

MAX: means the max dose rate

DOSE RATE Alarm: set the alarm threshold of moment dose rate

DOSE Alarm: set the accumulate dose alarm threshold

#### **Fifth Keys Instruction**

Power supply key (at right side): 3s long time press for power on/off, short time press for function keys

Menu key (at the left side): used in menu page turning and alarm threshold adjustment

#### **Sixth Alarm Setting**

Power on and default the lock status, indicate the “” on the display screen, need press the power supply key for unlock at the same time of press the menu key, only can set the alarm parameters after unlocked.

(1) Set the moment dose rate alarm threshold (DOSE RATE Alarm):

Short time press menu key shift the menu to DOSE RATE Alarm page.

Short time press power supply key DOSE RATE Alarm then alarm value flashing, now circling shift to alarm value within 0.6-300uSv range through menu key. Short time press power supply key to save the alarm value.

(2) Set the accumulate dose alarm threshold (DOSE Alarm):

Short time press menu key shift the menu to DOSE Alarm page.

Short time press power supply key DOSE Alarm then alarm value flashing, now circling shift to alarm value within 1-3000uSv range through menu key. Short time press power supply key to save the alarm value.

## Seventh Safety Notices

|                                                                               |                                                                                                                                                                  |
|-------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Instrument unexpected fallen                                                  | Please confirm whether radiation dose indicate value are normal, whether it will update. Please don't apply the instrument in the high strength radiation field. |
| Instrument reminding "Equipment damaged"                                      | Please don't apply the instrument in the high strength radiation field.                                                                                          |
| Contain explode and inflammable gas or powder dust in the operate environment | Please don't apply the instrument in explode and inflammable gas and powder dust environment.                                                                    |
| Waterproof                                                                    | Please attention the water proof degree of instrument only IP40, can't be raining or water splashing.                                                            |
| Energy responding                                                             | For the X-ray, it only can used as reference of test strong or weak radiation, unable to meet energy responding requirements.                                    |