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## TROUBLESHOOTING

| PROBLEM                                 | SOLUTION                                                              |
|-----------------------------------------|-----------------------------------------------------------------------|
| Unable to boot                          | Ensure power adapter is plugged in                                    |
| Continuous alarm ringing                | Confirm proximity to radiation source; check alarm threshold settings |
| Alarm not ringing near radiation source | Check alarm threshold settings                                        |

\* If your problem cannot be resolved, please contact X-Z LAB or your account administrator.



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### § 15.19 Labelling requirements.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

### § 15.21 Information to user.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### § 15.105 Information to the user.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to

try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### \*RF warning for Mobile device:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

# RadWall-H

## Area Radiation Monitor



## USER GUIDE

# RADWALL-H

## AREA RADIATION MONITOR

RadWall-H is a next-generation, all-digital area radiation monitor that combines three functions in one:

- Alarm and display unit
- Built-in scintillation detector
- Self-healing and self-forming mesh network capable monitor

RadWall-H has high detection accuracy, high sensitivity, fast response, and a high-resolution display, as well as other significant advantages. RadWall-H can be used as a standalone area radiation monitor, or multiple units can be combined to form a protected mesh network communicating via ZigBee. RadWall-H also includes the RadSys 2.0 software to accommodate applications of any size or complexity.

## PRODUCT DIAGRAM



## OPERATING INSTRUCTIONS

### Startup/Installation

Plug RadWall-H into a standard power outlet. Turn on power switch. The RAYCAN logo is followed by device ID, indicating active monitoring state.



Cable routing is included on the back of RadWall-H. The power cord can be tucked into the groove for better cable management.



### Working Status

The device can issue overload indication, error warnings, and audible and visible alarms. When the absorbed dose rate exceeds the alarm threshold, red lights and sound will indicate danger.



### Threshold Settings

The manufacturer default alarm threshold value is 1 mrad/h (10 µGy/h). The alarm threshold range can be set remotely via RadSys. Please check the RadSys software manual for more details.

## TECHNICAL SPECIFICATIONS

| FEATURE                    | PARAMETER                                                                            |
|----------------------------|--------------------------------------------------------------------------------------|
| Detector                   | YSO scintillator + SiPM                                                              |
| Type of Radiation Detected | Gamma; X-ray                                                                         |
| Energy Range               | 20 keV–30 MeV                                                                        |
| Dose Rate Range            | 1 µrad/h–1 rad/h<br>(0.01 µGy/h–10 mGy/h)                                            |
| Sensitivity                | 410 cps/mrad/h<br>(41 cps/µGy/h)                                                     |
| Energy Response            | ≤ ±15% (α Cs-137)                                                                    |
| Dose Rate Linearity        | ≤ ±10% up to 1 rad/h<br>(10 mGy/h)                                                   |
| Accuracy                   | ±10% (α Cs-137)                                                                      |
| Alarm Threshold            | User-set values for dose rate:<br>100 µrad/h–1 rad/h<br>(1 µGy/h–10 mGy/h)           |
| Alert Options              | Audible (80 dB at 12 in / 30 cm); visual (display)                                   |
| Alarm Response Time        | < 2 s                                                                                |
| Overload Display           | Activation when > 1 rad/h (10 mGy/h)<br>Overload indication up to 10 rad (100 mGy/h) |
| Display Units              | Gy; rad; cps                                                                         |
| Dimensions                 | Ø 6.89 x 1.97 in<br>(Ø 175 x 50 mm)                                                  |
| Weight                     | 19.0 oz (540 g)                                                                      |
| Operating Temperature      | 41–122 °F (5–50 °C)                                                                  |
| Relative Humidity          | ≤ 90% (non-condensing)                                                               |
| EMI/EMC                    | Exceeds IEC 61526                                                                    |
| FCC Compliance             | FCC Part 15                                                                          |