

## RC2<sup>PLUS</sup> Advanced Portable Radiation Detector



The RC2<sup>PLUS</sup> was designed specifically for the any application where sensitivity and detection capability must be extremely high even in high backgrounds. The RC2<sup>PLUS</sup> portable radiation detector utilizes advanced spectral techniques to enhance sensitivity for reliable detection of isotopes with extremely low Dose Rates. The RC2<sup>PLUS</sup> Advanced is an upgrade option from the RC2<sup>PLUS</sup> Basic Total-Count version. The Basic version tracks the total count rate produced by all of gamma energies during the scanning period and automatically sets an alarm threshold over the background count rate average. The Advanced ROI Analyses versions allows the operator to see the distributed of measured radiation energies in a histogram where specific Regions Of Interest (R.O.I.) can be selected for desired energy ranges applicable to the requirement. Once the R.O.I. ranges are selected, a specific alarm threshold can be set for each R.O.I. This unique technology provides extremely high sensitivity while decreasing the adverse effects caused by ambient background radiation. The RC2<sup>PLUS</sup> provides additional features such as the display of detected energy response in a histogram form, data storage, selected R.O.I. count rate viewing, Dose/Exposure Rates.

The RC2<sup>PLUS</sup> stores operator selected results in a histogram record which can be downloaded via USB to RadComm's PC RADVIEW software for further analysis and archiving. Reports can also be saved in PDF format for emailing and/or printing. Remote servicing/diagnostics and software updates of the RC2<sup>PLUS</sup> can be achieved via a network utilizing the RADVIEW software application.

The RC2<sup>PLUS</sup> utilizes a large internal, high grade PVT detection medium with high Dose GM Tube and state-of-the-art electronics to maximize detection capability for high energy Beta, X-Rays and Gamma Rays. The RC2<sup>PLUS</sup> also incorporates a high speed micro-controller with high resolution backlight LCD. The LCD can be switched between Day/Night time colors depending on the ambient light conditions. On a continuous basis system operation is monitored in order to maintain consistent optimum performance.

The RC2<sup>PLUS</sup> is equipped with an internal rechargeable battery pack that eliminates the need for stocking and changing conventional batteries. In the event that radiation is detected a varying audio tone along with a vibrating handle will activate to help locate the source of radiation.

## SPECIFICATIONS:

### Size:

- Detector Dimensions
- 7" H(18cm) x 8-1/4" L(21cm) x 4" W (10cm)
- System weight: 3.4lbs (1.5kg)
- Detector Case: Durable plastic with protective silicone sleeve

### Electronics:

- Integral PMT with EM Shielding
- Audio & Visual Alarm with Vibration
- Stable Low Noise, High Voltage Power Supply
- Battery: Internal Lithium Ion with charge indicator
- Battery Life: up to 9 hours
- Battery Recharge Time:
- Wall charger: 2.5 hrs
- PC USB: 6 hrs (estimated)

### Environmental:

- Operating Temperature: -20°C (-4°F) to +60°C (140°F)
- Shock resistance: Complies with ANSI N42.34

### Display:

- Backlit RGB colour LCD 320x240 resolution
- Viewing area: 2.7"(7cm) x 2.1" (5.3cm)
- Basic: selectable units of measure: (CPS, uSv/h, uR/r)
- Advanced: Histogram format

### Software for Advanced:

- Menu Driven User Interface
- Configurable Data Storage with Backup
- Emailing capability (with network connection)

### Detector Specifications:

- PVT (Basic & Advanced): 4" x 3" x 2" (101.6mm x 76.2mm x 50.8mm)
- GM Tube (Advanced only), 0.59" x 1.9" (12mm x 45mm)
- Dose Rate Range, Basic: 1 uR/Hr - 10 mR/Hr (10nSv/hr to .1mSv/hr)
- Dose Rate Range, Advanced: 1 uR/Hr - 10R/Hr (10nSv/hr to 100mSv/hr)

### RC2PLUS - Docking Station (Optional)

- Docking Station charges RC2PLUS instrument
- Provides Area Monitoring while the RC2PLUS is docked
- Audio and Visual alarm with reset button
- Wall mounted with security lock
- ✓ Weather Resistant Enclosure IP54 (Nema4) (305H x 254W x 190 D mm)
- ✓ 25mm dia. Alarm LED
- ✓ 25mm dia. Operational Status LED
- ✓ 87-240 Vac 50/60 Hz/24V DC @ 500mm Input Power
- ✓ Momentary Reset Button Internal Charger for RC2<sup>PLUS</sup> portable

### Response/Sensitivity

- Energy Range: 30 KeV – 2.0 MeV
- Gamma histogram:
- 256 Channels, channel capacity 16 bits

### RC2PLUS Basic vs Advanced

#### Each RC2PLUS Package Includes:

- RC2PLUS instrument charged and ready for use
- Hard shell carrying case
- Smart battery wall charger
- USB key with operation manual embedded
- Calibration certificate

Feature	Basic Option	Advanced Option
Search/Find	•	•
Total Counts	•	•
Dose Rate	•	•
Dose Rate Alarm		•
Histogram		•
Graph Plotting		•
ROI Analysis		•
ROI Alarm Threshold Settings		•
Date Storage		•
Accumulated Dose		•



Docking Station, Part no. RC\_RC2-Dock

