



Introducing the
**RS-220 GAMMA-RAY SPECTROMETER
 WITH NUCLIDE ID CAPABILITY**



The Spectrometer is auto-stabilizing on the naturally occurring (K, U, & Th) radioactivity and does not require any test sources.

RS-220 – Ideal For Source location and ID

*The RS-220 Spectrometer is the state of the art in portable hand-held radiation research and identification devices for radioactive waste applications. It offers an integrated design with a large detector for search, direct nuclide Identification readout and data storage. The simple **one-button** operation makes the unit easy to use and simplifies training. Bluetooth (BT) technology facilitates data outputs and reporting*

Description:

The RS-220 allows the user to locate radioactive medical waste. In a special "Scan Mode" the RS-220 will produce profiles of the total count data should the user want to profile, or map an area in order to locate radioactive sources. The data can be integrated with GPS coordinates in real time so a full mapping capability is possible

Features Include:

- ❑ High sensitivity with large 2.0 x 2.0 NaI crystal 103 cm³ (6.3 in³)
- ❑ Lightweight & rugged 4.4 lb (2Kg) including batteries
- ❑ Easy to use, single button
 - Search, and nuclide ID modes of operation
- ❑ Nuclide ID display in isotope form
- ❑ Auto Stabilizing on naturally occurring radio elements
- ❑ 5 Digit LCD display with high count rate – 65,535 cps
 - Scrolling histogram graph display of last 1000 readings
- ❑ Fast audio output with adjustable audio threshold set point
 - BT earphone audio support for noisy area searching
- ❑ Special rugged design to withstand typical field usage, full IP66 weatherproofing with protection against streaming water and fully dusty protected
- ❑ GPS data can be directly integrated if mapping is required
- ❑ Lower power (4 x AA batteries), typical 8-12 hour battery life at 20°C
- ❑ No radioactive sources required for proper operation



Survey and Scan Modes

Total Count readout at a 1x / second rate in the Survey Mode or variable (1 – 20 sec.) in the Scan Mode. Large detector allows fast source location when used with a GPS receiver, data can be stored and profiles produced. Ideal for mapping and source location

Nuclide Identification Mode

The Nuclide Identification Mode provides direct identification of any radioactive material present in relatively short period. The large detector (50% bigger than most units) permit higher levels of performance and faster ID

RS-Analyst Software

The RS-220 is provided with utility software running on the users PC to download the data that is stored in memory and interface to the unit for parameter setup, etc. All data in memory is output via Bluetooth or USB to the RS-Analyst program on a PC. This may take the form of 1024 channel spectra, Nuclide ID data or Scan data + GPS. The program also gives graphical and numeric views of the data. The data can also be re-exported as a text file for further processing.

Standard Accessories

- RS-220 Spectrometer with carrying handle
- Removable protective boot with shoulder strap
- Battery cartridge with 4 x AA rechargeable batteries & charger
- Spare battery holder cartridge
- RS-Analyst utility software
- USB cable
- User guide
- Delivered in hard case with foam insert

Specifications:

Temperature Range:

- -20°C - + 50°C

Control:

- Single push button, thumb activated

Alarm:

- Audio via miniature speaker
- Variable audio threshold set point
- Audio proportional to count rate

Weight:

- 4.4 lbs (2 kg) including the batteries

Size and Package Style:

- 10.2" x 3.2" x 3.8" (259mm x 81mm x 96mm)
- 1 mm aluminum outer case
- In a flashlight configuration with side support strap, wrist strap and optional detachable handle

Memory:

- 2MB
- Memory can be partitioned for desired storage
- Example:
 - Scan Total count only 94,000 readings
 - Scan + Nuclide Identification – more than 1000 readings
 - Nuclide Identification only – more than 400 readings (plus full spectrum)

Data Input / Output:

(Using supplied RS-Analyst software)

- USB
- Bluetooth (BT)
- GPS link via BT

Display:

- 128 X 64 Pixels, 1 1/8" x 2 3/8"
- Graphic LCD display with white backlight and automatic dimming

Readout:

- Search Mode : Counts in CPS from 0 to 65,535 and Histogram chart
- Nuclide Identification Mode: Display in Isotope ID

Energy response:

- 30 keV 3000 keV 1024 channels

Internal sampling for Audio Analysis:

- 20 readings per second

Power Supply:

- Internal battery pack module (4xAA) easily replaceable
- Rechargeable or Alkaline
- Life: 8 hours at 20°C



Specifications subject to change without notice # 09.01