



The SYCLONE is a highly sensitive handheld Gamma-Ray spectrometer capable of identifying single or multiple isotopes simultaneously. The SYCLONE also provides the user with various functions such as Search and Find, Optional Neutron Detection, Rate Meter, Nuclide ID, Dose Rates and accumulated Dose Rate.

- Large Isotope Library
- Lightweight
- Battery Operated
- Large Backlight Display
- 4 position Joystick
- Easy to Follow Menus
- Large Internal Memory



# SYCLONE

PORTABLE GAMMA-RAY SPECTROMETER (with optional Neutron Detection)

## Detect and identify specific radioactive isotopes in a sample

The SYCLONE Gamma-Ray spectrometer utilizes the highest quality Thallium doped Sodium Iodide crystal, combined with an integral high signal to noise ratio PMT and state-of-the-art electronics and embedded microcontroller firmware. All of these enhanced features allow the SYCLONE to be one of the most accurate portable Gamma-Ray spectrometers when it comes to identifying specific and/or multiple isotopes even with weak gamma sources. The mechanical assembly of the SYCLONE is robust and designed for field applications where harsh environments are commonplace.

## Simplified and Flexible

The SYCLONE operating system utilizes sensible easy to read and follow Menus. The multi-position joystick and large LCD backlit display provides easy navigation through menu selections. Detailed spectral information is clearly and precisely displayed so knowledgeable users have the ability to visually identify peaks in the histogram. Various on-screen messages assist the user when immediate attention is required for issues such as preset timing, high radiation levels, alarm settings and warning messages.

## Remote SYCLONE PC Spectral Analysis and Data Storage Software

The SYCLONE is equipped with a high capacity internal memory that allows large amounts of data to be stored by record number, date and time. Stored data such as spectral and dose rate information can be easily downloaded to a PC via a serial RS232, mini USB or Bluetooth. The downloaded data can then be displayed and managed with the powerful SYCLONE PC software. Primary features such as the selection and highlighting of R.O.I. details and Zoom In/Out of the gamma energy histogram can be easily performed. The SYCLONE PC software has all the necessary features that will meet the needs of virtually any user.

## Syclone Portable Gamma-Ray Spectrometer

### Detector Case consists of:

- Detector Case: 7"H(18cm)x8.25"L(21cm)x 4"W(10cm)
- Outer Detector Case: Durable plastic w. protective silicone sleeve
- System Weight: 3.6 lbs (1.6Kg)

### Electronics:

- Integral PMT with EM Shielding
- High Speed DSP Circuitry with High SNR
- Ultra Stable High Voltage (1.0 Volt steps) Software Adjustable
- Controller with CPLD Technology
- micro USB port
- Battery: Internal Lithium Ion rechargeable
- Operating time: 8 hrs (rechargeable)

### Environmental

- Operating temperature: -20 °C (-4°F) +60 °C (140 °F)
- Relative Humidity: 93% non-condensing at 40 °C (104 °F)
- Shock: Complies with ANSI N42.34
- EM Compliance: Complies with ANSI N42.34 and CE requirements for safety RFI and EMI directives FCC CFR 47, Part 15, Subpart B, Class B compliant

### Display

- Backlit RGB colour LCD 320x240 resolution
- Viewing area: 2.76" [70.1mm] x 2.07" [52.5mm]

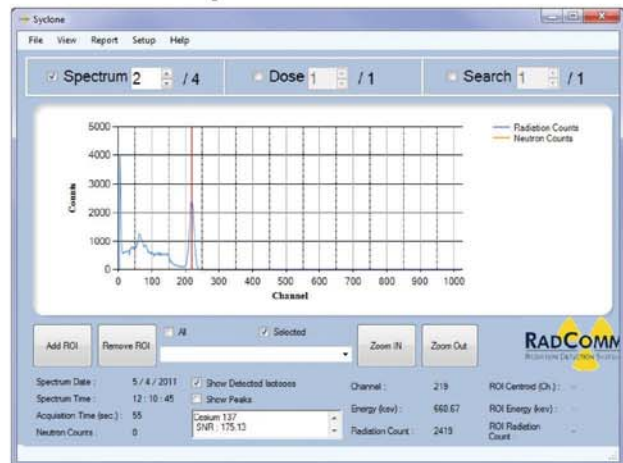
### Software:

- Windows™ Based Syclone Application Software
- Easy to use Menu Driven Interface
- Configurable Data Storage with Backup
- Emailing Capability with network connection
- Data Storage - 100,000 Dose Rate samples/427 Spectra

### Spectrometer Specifications:

- Gamma NaI - Size 1.5" (38mm) x 2" (51mm)
- Geiger-Mueller, size 0.59"(12mm) x 1.9" (45mm)
- Energy Resolution 8.0% or better for of 662 KeV
- Energy Range: 20 KeV to 3.0 MeV (Gamma)
- Optional Neutron Detector - Sensitivity - 5.1 CPS/NV
- System Calibration Software Monitor with Operator Alert
- Accumulate dose up to 5 Sv, custom increase
- Automatic stabilization via temperature mode
- Manual stabilization via 0.25 uCi Cs-137 source
- Gamma Spectrum - 1024 Channels, channel capacity 16 bits
- Correction - non-linear energy calibration
- Preset time - up to 5400 sec.

### RadView Analysis Software



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