

# Model BNC-RD-120 SAMpack Isotope Identifier



## FEATURES

- **Sigma threshold triggering with auto correction.**  
(Allows high sensitivity during changes in background)
- **< 9 lbs, Easily carried in several configurations**
- **Low power consumption and Lithium Ion battery allows 24 hours operation**
- **Clandestine mode with or without earphones**  
(e.g, vibration mode, color alert, real-time spectrum)
- **Shock resistant and water resistant**
- **Automated detector calibration**
- **Smart phone, ring tones, camera, etc.**

## APPLICATIONS

- **Emergency Response**
- **Law Enforcement**
- **Homeland Security**
- **Undercover Surveillance**
- **HAZMAT**
- **Industrial**
- **Medical**
- **Radiation Safety**
- **Passenger and Freight Monitoring**
- **Non-proliferation Enforcement**
- **Health Physics**
- **Environmental Waste Monitoring**
- **Unattended/Remote Monitoring**

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<b>Standard Internal Detectors</b>	3x3 NaI GM-Tube	Highest Sensitivity General Purpose Isotope Identification High Gamma Count Rates
<b>Internal Alternatives to NaI</b>	1.5x1.5 LaBr 1.5x1.5 CeBr	Highest Resolution Specialized Identification and Spectroscopy Less Costly, High Resolution Identification and Spectroscopy
<b>Optional Internal Detector</b>	Neutron Option	Solid State Detector
<b>Electronics (MCA)</b>	Digital Signal Processing 32 bit RISC, ARM Cortex 4096 Channels 150,000 CPS max	
<b>Alarms</b>	Automatic Adjustable Threshold	Count Rate, Dose Rate, Health/Safety, Neutron Rate (optional), Fixed or Variable (up to 5 Sigma)
<b>Data Output</b>	Type	1024 Channel Spectra, Alarm Conditions, Count Rates, Dose Rates, Channel Energy and Count, Time, Location Isotope, Classification, Confidence
	Identification	20 keV - 3.0 MeV
	Energy Range	10 nR/hr - 10 R/hr
	Dose Rate Range	XML, per ANSI N42.42
	Reachback	
<b>Operational Modes</b>	User, Administrator	Independently or Networked
<b>Functions</b>	Designed to meet or exceed requirements of ANSI N42.34 (2006) Background, Dose, and Dose Rate Search, Manual Capture, Automatic Capture, Isotope ID	
<b>Enclosure</b>	IP65 Rated Dimensions Weight Operating Temperature Deployment	Droppable to 1 m, Water Spray Resistant, Dustproof 10" x 5" x 6" 8 lbs max (w/ NaI Detector) -20° C to 50° C Handheld, 4 Steel Cleats for Shoulder Strap Detachable for Stand-off operation, Tripod Mountable
<b>Library</b>	25 ANSI, 7 SNM, 7 Medical, 7 Industrial, 4 NORM, Customizable Color Coded Classification Data User enabled, On-screen Isotope Help Directory Expandable to include 393 Isotopes from Koehler's Radioactive Decay Data Table	
<b>Smartphone Functions</b>	Display Control Event Alarms Location Communication Features	5" OLED Touch Screen Secure Mounting, Tilt-able and Rotatable Adjustable Speaker Volume, Headphones, Vibration, and Visual Display 3G GPS, Reported in Spectrum File Bluetooth, Wi-Fi, micro USB, and Cellular Network (optional) Camera, Video and Voice Recording attached to Spectrum File
<b>File Memory</b>	4.5 GB including Event Notes, Photos, Videos	
<b>Calibration</b>	Automatic Self-Calibration Automatic Self-Stabilization Manual Calibration	<sup>40</sup> K <sup>40</sup> K <sup>137</sup> Cs
<b>Battery Details</b>	Identifier Smartphone Charging	Li-Ion, >8 hours continuous operation Li-Ion, >2 hours continuous operation, >8 hours intermittent operation 12 VDC Wall (AC) or Vehicle (DC)

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## The Model BNC-RD-120-G SAMpack - Backpack Radioisotope Device (BRD)

The Model RD-120-G is a remote controlled radiation detection and identification system which can be configured as a backpack, shoulder pack, stationary monitor or custom design. Clandestine operation is convenient with a smart phone or PDA Bluetooth controller. Operation is intuitive and automated with event monitoring in real time. ANSI standard reports and spectra are displayed on the smart device with the ability to manipulate the spectrum, review data and transmit all information to the users command center. The RD-120-G is designed to carry out various emergency response operations involving hazardous rad waste, orphaned sources, remediation activities and unobtrusively monitoring for WMD and RDD threats. The high sensitivity of large NaI detectors makes this system unique for many applications. GPS data, photos and note are also available which become part of the event log.



### Ordering Options:

Model / P/N	Product Description
Model RD-120-G	SAMPack, Backpack Isotope Identifier
Model RD-120-GN	SAMPack, Backpack Isotope Identifier with Neutron Detection
Model RD-120-LG	SAMPack, Backpack Isotope Identifier
Model RD-120-LGN	SAMPack, Backpack Isotope Identifier, Lanthanum, Neutron Detector
Model RD-120-CG	SAMPack, Backpack Isotope Identifier, Cerium
Model RD-120-CGN	SAMPack, Backpack Isotope Identifier, Cerium, Neutron Detector
Model RD-120-2CG	SAMPack, Backpack Isotope Identifier, 2.0 x 2.0 Cerium
Model RD-120-2CGN	SAMPack, Backpack Isotope Identifier, 2.0 x 2.0 Cerium, He3