RadPack

Backpack-Based Radiation Detection System

The STE RadPack was developed in 2000 and was derived directly from government-produced equipment used by NEST and elite military units. The RadPack is the most sensitive man-wearable neutron detector available. It employs an array of seven two-inch diameter Helium-3 tubes as neutron detectors, as well as six individual cesium iodide gamma scintillators for gamma radiation sensing. Developed specifically for military operators, law enforcement, and first responders, the RadPack is lightweight, compact, and enjoys a level of ruggedness not approached by competing equipment.

When gamma rays or neutrons are detected at levels significantly above the natural background, the unit quickly alerts the operator by sounding an audio alarm and employing the graphical display on the handheld control module. The operator can easily locate the radiation source using the duty-cycle based audio alarm, and/or the graphical readout. The RadPack is designed for operators who need to quickly detect and locate a radiation threat in an unpredictable radiation background.

Like all of STE's current products, the RadPack requires no regular maintenance or calibration. With an included five-year warranty, the full lifecycle cost associated with this device is limited to the purchase price and the cost of replacement batteries.

Features

Ruggedness

The Radpack and RadPack Max are unique as the only backpack-based radiation detection system designed to the stringent needs of military users. They have been engineered and tested to operate in the harshest environments and can even accompany operators on parachute jumps.

Sensitivity

With seven two-inch Helium-3 tubes employed for neutron detection, significantly more than competing devices, the RadPack enjoys a measurably superior initial detection range against the most critical nuclear threat materials.

Reliability

Over the last two decades, the RadPack has demonstrated tremendous reliability and operational longevity – units deployed 15 years ago are still in service today. While the RadPack seldom needs to be repaired, the included five-year factory warranty ensures that no-cost service is available when you need it.

Bluetooth Communications

As either a factory-installed option or as a retrofit in the field, the RadPack can be equipped for Bluetooth communications. This capability allows real-time streaming of radiological data to mobile device applications and to centralized command and control networks

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Specifications

Radiation Type		Gamma, Neutron
Gama	Detector Type	Cesium Iodide Scintillator
	Detector Size	5cc
	Sensitivity	2.2 cps per μR/h at Cs-137 (662keV)
Neutron	Detector Type	Helium-3 Proportional Counter
	Detector Size	1.81 in^3 (122 psi)
	Sensitivity	10.5 cps/nv
Integration Time		<1 Second
Size		21.1 cm x 5.1 cm x 3.0 cm
Weight		369g with Battery
Battery		CR123A
Battery Life (Operating)		1 Month
Environmental Protection		Shock, Vibration, and Drop Resistant; Waterproof to 66 ft
Temperature Range		-25º to 50º C
Indicators		Visible, Audible, Vibration
Data Streaming		Optional Bluetooth
Operational Availability		0.999

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