

Model 3001-3RK Emergency Response Kit

Part Number: 48-4179

Features

- Ready-to-Go Response Kit in Rugged Case
- Ergonomic Survey Meter with 4 Selectable and Configurable Detector Settings
- Measures Alpha, Beta, and Gamma Contamination
- Convenient In-Field Detector Switching

Introduction

The Model 3001-3RK Emergency Response Kit consists of all of the basic radiation measurement tools needed to rapidly respond to a radiological emergency. The standard kit includes:

- Model 3001 Multi-Detector Survey Meter
- Model 44-9 Alpha-Beta-Gamma GM Detector
- Model 44-2 High Energy Gamma Scintillation Detector
- Model 133-6 Gamma GM Detector

Each kit comes in a rugged transport and storage case, which holds the meter and all three detectors, as well as a detector cable and a 1 μCi ^{137}Cs check source.



Options

Model 133-7 Gamma GM Detector (PN 47-1216)

A higher range option replacing the Model 133-6 detector.

Model	133-6	133-7
Linear Range	40 $\mu\text{Sv/h}$ to 1 Sv/h (4 mR/hr to 100 R/hr)	250 $\mu\text{Sv/h}$ to 10 Sv/h (25 mR/hr to 1000 R/hr)

Bluetooth® Modification (PN 4498-1024)

Adds Bluetooth® capability to instrument.

Lumic Calibration Kit (PN 4519-865)

Includes Lumic Calibration Software versions 1.0 & 2.0, a Model 3000 Series USB cable, and a Model 30 family USB cable.

Lumic Data Logging Kit (PN 4498-1019)

Includes Lumic Data Logger Software and Model 3000 Series USB cable.

Meter Buttons



Handle Button



Model 3001

Model 3001 Multi-Detector Survey Meter

- Four selectable and configurable detector settings
- Three operational modes: RATE (displays count rate), MAX (captures peak rate), and COUNT (preset count time from 0 to 10 minutes)

DISPLAY: 3-digit auto-ranging LCD with large 20 mm (0.8 in.) digits. **Units:** (k)cps, (k)cpm, (k)Bq, (k)dpm, (μ)(m)R(/h), (μ)(m)Sv(/h). **Indicators:** bar graph, MAX, ALARM, USB, audio, low-battery.

DISPLAY RANGE: 0.0 cps to 99.9 kcps; 0.00 cpm to 999 kcpm; 0.00 Bq to 99.9 kBq; 0.00 dpm to 999 kdpm; 0.00 μ R/h to 999 R/h; 0.00 μ Sv/h to 999 Sv/h. Max display can be set to limit display to calibrated range.

BACKLIGHT: built-in ambient light sensor automatically activates LED backlight, unless internal dipswitch is set to continuous-On (will reduce battery life)

USER CONTROLS:

- ON/ACK: instrument On/Off, acknowledge alarms, adjust audio level, reset mode
- UNITS: switch between primary and secondary units, count time in COUNT mode
- DETECTOR: press to change between detectors
- MODE: press to select mode - RATE, MAX, COUNT
- LOG: log current display (requires Lumic Data Logger Kit), or initiate count in COUNT mode

DATA LOGGING: Can store up to 1000 data points internally. Requires Lumic Data Logger Kit (see Options).

RESPONSE TIME: selectable from 1 to 60 seconds, or auto-response rate FAST or SLOW

ALARMS: two count rate, exposure/dose, and scaler alarm setpoints adjustable over the display range

OVERLOAD PROTECTION: high count rate saturation protection prevents false display of lower count rates

LOSS OF COUNT PROTECTION: after a user-settable time interval (default 60 seconds) of no pulses from detector, unit will flash a zero reading and trigger alarm audio

OVERRANGE: if reading exceeds predefined detector range, unit will flash maximum reading and trigger audio warning.

AUDIO: approximately 4.5 kHz, click audio greater than 65 dB at 0.6 m (2 ft), alarm audio greater than 72 dB

POWER: four alkaline "AA" batteries

BATTERY LIFE: approximately 500 hours (as low as 60 hours with backlight configured for continuous-on), 16-hour low battery warning

CONSTRUCTION: high-impact plastic with water-resistant rubber seals and separate battery compartment

TEMPERATURE RANGE: -20 to 50 °C (-5 to 122 °F), may be certified for operation from -40 to 65 °C (-40 to 150 °F)

ENVIRONMENTAL RATING: NEMA 5 or IP 53

SIZE (H x L x W): 16.5 x 11.4 x 21.6 cm (6.5 x 4.5 x 8.5 in.)

WEIGHT: 0.7 kg (1.6 lb) (excluding clips and detectors)

Model 44-9 Alpha-Beta-Gamma GM Detector

DETECTOR: pancake-type, halogen-quenched GM

EFFICIENCY (4 π): ¹⁴C - 5%; ⁹⁰Sr/⁹⁰Y - 22%; ⁹⁹Tc - 19%; ^{99m}Tc - < 1%; ³²P - 32%; ²³⁹Pu - 1%; ¹²⁵I - 0.2%

SENSITIVITY (¹³⁷Cs gamma): 3300 cpm per mR/hr

ENERGY RESPONSE: energy dependent

BACKGROUND: 60 cpm

DEAD TIME: 80 μ s

OPERATING VOLTAGE: 900 Vdc

SIZE (H x W x L): 4.6 x 6.9 x 27.2 cm (1.8 x 2.7 x 10.7 in.)

WEIGHT: 0.5 kg (1 lb)

Model 44-2 High Energy Gamma Scintillation Detector

DETECTOR: scintillator, 2.5 x 2.5 cm (1 x 1 in.) NaI(Tl)

EFFICIENCY: ¹²⁵I - 7%; ⁵⁷Co - 10%; ¹³⁷Cs - 3%; ⁶⁰Co - 3%

SENSITIVITY (¹³⁷Cs gamma): typically 175 cpm per μ R/hr

ENERGY RESPONSE: energy dependent

BACKGROUND: 1800 cpm

OPERATING VOLTAGE: 500 to 1200 volts

SIZE (D x L): 5.1 x 21 cm (2 x 8.25 in.)

WEIGHT: 0.5 kg (1 lb)

Model 133-6 Gamma GM Detector

DETECTOR: energy-compensated, halogen quenched GM, 30 mg/cm² stainless steel

LINEAR RANGE: 40 μ Sv/h to 1 Sv/h (4 mR/hr to 100 R/hr)

SENSITIVITY (¹³⁷Cs gamma): 1.8 cpm/ μ Sv/h (18 cpm/mR/hr)

ENERGY RESPONSE: within 15% of true value (60 keV to 3 MeV)

BACKGROUND: 1 cpm or less

DEAD TIME: typically 50 μ s

OPERATING VOLTAGE: 550 Vdc

SIZE (D x L): 2.2 x 10.2 cm (0.88 x 4 in.)

WEIGHT: 0.090 kg (0.20 lb)