

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

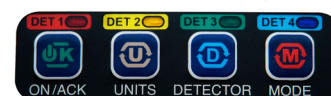
The Model 3001-3RK Emergency Response Kit consists of all of the basic radiation measurement tools needed to rapidly respond to a radiological emergency. The standard kit includes:

- 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

The Model 3001 is a digital survey meter with three modes of operation – RATE, MAX, and COUNT – and adjustable alarms. It can store detector settings for up to four detectors allowing personnel to easily change detectors in the field. Users can connect either the Model 44-9 alpha-beta-gamma detector for general survey measurements, the Model 44-2 high-sensitivity gamma scintillator for locating the source of high readings, or the Model 133-6 gamma detector for high-level gamma survey measurements.

Each kit comes in a rugged, air- and watertight transport and storage case, which holds the meter, the three detectors, and a 1 m (39 in.) detector cable.

Meter Buttons



Handle Button



Model 3001

Model 3001 Multi-Detector Survey Meter

- Four selectable and configurable detector settings
- Three operational modes: RATE (displays rate in selected units), 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 dpm to 999 kdpm
- 0.00 cpm to 999 kcpm
- 0.00 μR/h to 999 R/h
- 0.00 Bq to 99.9 kBq
- 0.00 μSv/h to 999 Sv/h

NOTE: Operational display ranges are dependent on the detector and dead time configuration. The minimum and maximum display can be set to limit the display to the 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

CONNECTOR: series "C" (others available)

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 (4π): ¹⁴C - 5%; ⁹⁰Sr/⁹⁰Y - 22%; ⁹⁹Tc - 15%; ³²P - 32%; ²³⁹Pu - 15%; ^{99m}Tc - < 1%; ¹²⁵I - 0.2%

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

ENERGY RESPONSE: energy dependent

BACKGROUND: 30-60 cpm (in 10 μR/hr field)

DEAD TIME: 80 μs

CONSTRUCTION: aluminum housing with beige powder coat, stainless steel screen (79% open)

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

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

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

ENERGY RESPONSE: energy dependent

BACKGROUND: 1800 cpm (in 10 μR/hr field)

CONSTRUCTION: aluminum with beige powder coat

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 μSv/h to 10 Sv/h (4 mR/hr to 1000 R/hr) (Maximum range may be reduced at longer cable lengths.)

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

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

BACKGROUND: 1 cpm or less (in 10 μR/hr field)

DEAD TIME: typically 50 μs

CONSTRUCTION: anodized aluminum housing

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

WEIGHT: 0.090 kg (0.20 lb)

Options

- **Stick-On Check Source** (PN: 4464-473-01)
1 μCi ¹³⁷Cs check source with adhesive holder.
- **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 Configuration Kit** (PN: 4519-747)
Includes Lumic Configuration Software, 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.