**Introduction**

The Ludlum Model 3001 is a versatile, lightweight, ergonomically-designed instrument with up to four external detectors used for alpha, beta or gamma radiation survey. Three modes of operation—RATE, MAX and COUNT—are available. Measurements can be collected in two sets of units (primary and secondary) for RATE and MAX modes in cps, cpm, Bq, dpm, mR/hr or µSv/h units. Users can switch between two sets of chosen units by simply pressing the Units button. The Detector button selects the color-coded detector and activates the corresponding color LED.

An internal switch is used to enable or disable the front-panel setup feature to protect desired settings from inadvertent modification. Setup is also available via software available. This instrument features a large, easily-readable LCD (liquid crystal display), a piercing audio warning tone, and easy, intuitive, user-friendly design. Splash-resistant construction allows the Model 3001 to be used outdoors. The unit body is made of lightweight, durable high-impact plastic. The Model 3001 is shipped ready to use with batteries and calibration certificate.

**Features:**
- 4 Selectable & Configurable Detector Settings
- Large Backlit LCD for Ease of Reading
- Autoranging
- Rate, Max and Count Modes of Operation
- Splash-Resistant Construction for Outdoor Use
- 4-Button Intuitive Interface for Easy Operation
- All-Digital Calibration
- USB Port
- Lighter Weight and Ruggedly Built
- Datalogging and Headphone Options
Specifications—Model 3001 Multi-Detector Survey Meter

**DETECTOR**: may be Geiger-Mueller (GM), scintillator, or proportional  
**ALARMS**: count rate, exposure/dose, and scaler alarm setpoints adjustable over the display range  
**OVERLOAD**: high count rate saturation protection prevents false display of lower count rates  
**LOSS OF COUNT ALARM PROTECTION**: after preselected time interval (default 60 seconds) of no pulses from detector, audible and visual alarms will be activated  
**LCD DISPLAY**: 3 digit LCD with large 20 mm (0.8 in.) digits, (k)cps, (k)cpm, (k)Bq, (k)dpm, (μ)(m)R (/h), (μ)(m)Sv(/h), low-battery indicator, MAX, ALARM, AUDIO  
**DISPLAY RANGE**: 0.0 cps to 99.9 kcps; 0.00 cpm to 999 kcpm; 0.00 Bq to 999 kBq; 0.00 dpm to 999 kdpm; 0.00 μR/h to 999 R/h; 0.00 μSv/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 dip-switch is set to continuous-On (will reduce battery life)  
**USER CONTROLS**  
- **ON/ACK** - press to turn ON, tap to acknowledge alarms and silence alarm tone, press to reset Sigma Audio alarm, hold for OFF  
- **MODE** - alternates between NORMAL (count rate), MAX (captures peak rate), and COUNT (user-selectable preset count time from 0 to 10 minutes). Number of modes can be reduced in setup.  
- **DETECTOR**: selects active detector  
- **UNITS** - changes the units between count rate (cpm, cps), dose/exposure (μSv/h, mR/h), or disintegration (dpm, Bq)  
**RESPONSE TIME**: user-selectable from 1 to 60 seconds, or Auto-Response Rate FAST or SLOW  
**AUDIO**: greater than 75 dB at 0.6 m (2 ft), approximately 4.5 kHz  
**POWER**: four alkaline or four rechargeable “AA” batteries (instrument does not support in-device charging)  
**BATTERY LIFE**: approximately 500 hours (as low as 100 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)  

For additional functionality, see Options for the Model 3000 Series Survey Meters