

# Model 2000 General Purpose Scaler

*Radiation Detection for a Safer World*



Ludlum Measurements, Inc.

## Features

- Self-Contained, General Purpose Scaler
- Supports Wide Range of External Detectors
- 95–250 Vac Power Input
- Portable Battery Operation
- RS-232 Interface to Printer or PC
- LED readout and Analog Dial

Part Number: 48-1648



## Introduction

The Model 2000 is a general purpose scaler typically used for counting samples. Rugged design and construction accommodates both benchtop and portable applications. The wide-ranging AC power supply and internal batteries are capable of powering the instrument upwards of 120 hours. The Model 2000 supports GM, proportional, and scintillator type detectors, and provides fine adjustment controls for setting the high-voltage and threshold settings. The scaler reading is presented on a digital, six-digit readout LED that can be set to count from 0.1 to 999

minutes via a front-panel dip switch. An internal switch facilitates counting in seconds rather than minutes, if desired. Other front-panel controls include a start-count button, an HV/Bat switch for displaying the current value on the accompanying analog meter, and a three-way switch for selecting Power Off, Battery, or Line Power. An RS-232 port on the rear panel allows connection to a PC or printer as set by a rear mounted switch. When connected to a PC, the counting may be controlled and results recorded via application software.

## Specifications

**INDICATED USE:** gross counting

**SUGGESTED DETECTORS:** GM, scintillation, proportional

**SCALER:** six-digit LED display with a range of 0–999999 counts

**SCALER LINEARITY:** reading within 2% of true value

**TIMER:** push-wheel adjustment from 0–999 minutes with selectable X0.1 and X1 multipliers

**METER:** 1 mA, 6.4 cm (2.5 in.) arc, self shielded DC mechanism, analog type displaying 0 to 2.5 kV

**HIGH VOLTAGE:** adjustable from 200–2500 volts (will support 60 megohm scintillation loads)

**THRESHOLD:** adjustable from 1.0–10.0

**DISCRIMINATOR:** adjustable from 2–100 mV

**CONNECTOR:** series “C” (others available)

**RS-232:** 9-pin connector allowing for printer or computer interface

**POWER:** 95–250 Vac 50–60 Hz or four “D” cell batteries (housed in externally accessible compartments)

**BATTERY LIFE:** typically 120 hours with alkaline batteries (battery condition can be checked on meter)

**CONSTRUCTION:** aluminum housing with beige powder coat paint, sub-surface printed front panel

**TEMPERATURE RANGE:** -20 to 50 °C (-4 to 122 °F)

**SIZE:** 21.6 x 12.7 x 23.5 cm (8.5 x 5 x 9.3 in.) (H x W x L)

**WEIGHT:** 3.1 kg (6.9 lb) without batteries

### Options:

**Printer:** 40-column, serial-input impact printer records results of each scaler count, can be configured to print the time/date with each scaler count. Cable and adapter are supplied to fit any IBM-compatible PC's 9- or 25-pin serial port (P/N 4167-386)

**Sample Counter Head Model 180-8:** painted lead housing with choice of five preset spacings (P/N 47-1549)

**Sample Planchets:** 5.1 cm (2 in.) x 3.2 mm (0.125 in.) sample planchets in stainless steel (P/N 7525-371-01) or aluminum (P/N 7525-371); minimum order of 500