

# Model 177 Benchtop Counter



Ludlum Measurements, Inc.

## Features

- 4-Range Meter
- Linear Analog Scale Readout
- Adjustable Alarms
- 50 Hour Rechargeable Battery
- Operates with GM & Scintillation Detectors
- Uses World-Wide 9 Vdc Adaptor with Interchangeable Prongs



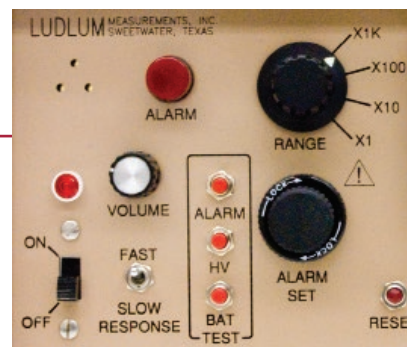
Part Number: 48-1632

## Introduction

The Model 177 is a rugged benchtop ratemeter with alarming capability. These units are very popular for frisking operations at stations where line power is available but can also be used in portable applications for up to 50 hours using the internal rechargeable battery.

The 177 supports GM and scintillation type detectors and displays the results on a linear readout analog meter. The audio alarm is adjustable from 0 through 150% of full scale, and is factory set to latching. Reconfiguration to non-latching can be accommodated via a minor internal change.

Front-panel controls include a 4-position rotary switch for selecting each detector decade, an alarm set control, an audio volume adjust, fast/slow response switch, power on/off switch and pushbuttons for count reset, battery test, high voltage test, and alarm test. The back panel contains the power cord connection and a 9-pin type "D" plug, power output, alarm output, pulse output, and a recorder output.



## Specifications

**INDICATED USE:** multi-purpose radiation monitoring, surveying; frisking

**SUGGESTED DETECTORS:** GM; scintillation

**HIGH VOLTAGE:** adjustable from 400 to 1500 volts

**INPUT SENSITIVITY:** adjustable from -10 to -100 mV

**LINEARITY:** within 5% of full scale

**METER:** 6.4 x 6.4 cm (2.5 x 2.5 in.) 1 mA, DC movement

**METER DIAL:** 0-500 cpm; 0-1.5 kV; BAT TEST

**AUDIO:** built-in unimorph speaker, with volume control, to provide click-per-event audio or audible alarm indicator

**ALARM SET:** front-panel locking control allowing alarm to be set at any point on the meter (can be read on meter)

**ALARM:** indicated by red lamp and full volume audible tone (greater than 60 dB at 61 cm [2 ft])

**CALIBRATION CONTROLS:** accessible from back of instrument (protective cover provided)

**RESET:** pushbutton to zero meter and/or reset alarm

**MULTIPLIERS:** x1, x10, x100, x1k

**RESPONSE:** toggle switch control selects FAST (2.2 seconds) or SLOW (22 seconds) response, for 90% of full scale reading

**DATA OUT:** 9-pin series "D" connector allowing for external connections of the following items: battery, unregulated supply, instrument common ground, alarm signal (current sink), pulse out, external background subtract, and recorder output

**RECORDER OUTPUT:** correlated to meter reading (adjustable to 0 to 1.25 volt at 1 mA)

**POWER:** 95-250 Vac through wall adaptor, and 6-volt sealed lead-acid rechargeable battery (built-in)

**BATTERY LIFE:** typically 50 hours in non-alarm condition (battery condition can be checked on meter)

**BATTERY CHARGER:** battery is continuously trickle-charged when instrument is connected to line power and turned on

**SIZE:** 12.7 x 20.3 x 15.2 cm (5 x 8 x 6 in.) (H x W x L)

**WEIGHT:** 1.9 kg (4.2 lb)

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Note: specifications subject to change without notification. We are not responsible for errors or omissions.

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