

## Model 35 Vehicle Radiation Monitor

### Features

- Multiple Mountings (see Options Page)
- Powered by Connected Vehicle or by Internal Batteries
- Large Backlit Auto Ranging LCD with Adjustable Viewing Angle
- Simple Green, Yellow, and Red Status Lights
- 3-Button Intuitive Interface for Ease of Use
- USB Port and All-Digital Calibration



### Introduction

The Ludlum Model 35 is a versatile, lightweight, vehicle-mounted instrument with an external detector used for alpha, beta, or gamma radiation survey. It remains unobtrusive until an alarm level is reached. When an alarm level is reached the monitor can be quickly removed from the mount for closer inspection. Three modes of operation – RATE, MAX, and COUNT – are available for the user. Measurements can be collected in two sets of units (primary and secondary) for RATE and MAX modes in cps, cpm, Bq, dpm, R/hr, rem, or Sv/h units. The user can switch between two sets of chosen units by simply pressing the Units button.

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 from Ludlum Measurements. The Model 35 features a large, easily-readable LCD (liquid crystal display), an audio warning tone, and easy, intuitive, user-friendly design. Splash-resistant construction allows it to be used outdoors. The unit body is made of lightweight, durable, high-impact plastic. It is shipped ready to use with batteries and calibration certificate.

## Specifications

Part Number: 48-4112 (includes short ball mount stand, 1.5 m (5 ft) detector cable, and 12 V power cable)

**COMPATIBLE DETECTORS:** Geiger-Mueller (GM), scintillator, or proportional

**LCD DISPLAY:** 3 digit LCD with large 13.4 mm (0.53 in.) digits, (k)cps, (k)cpm, (k)Bq, (k)dpm, (μ)(m)R/h, (μ)(m)Sv/h, (μ)(m)mrem/h, low-battery indicator, MAX, ALARM, MUTE

**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 μR/h to 999 R/h; 0.00 rem/h to 999 rem/h; 0.00 μSv/h to 999 Sv/h. Display range can be set to limit display to calibrated range

**BACKLIGHT:** Built-in ambient light sensor automatically activates low-power LED backlight, unless internal dipswitch is set to continuous-on (will reduce battery life). Alarm light intensity varies based on ambient light levels.

### USER CONTROLS:

ON/OFF/ACK - Press to turn ON; Tap to acknowledge alarms and silence alarm tone; Press to reset Sigma Audio alarm; Turn "click" audio On/Off; Turn Sigma Audio beep On/Off; 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.

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

**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

**ZERO PROTECTION:** After a user-settable time interval (default 60 seconds) of no pulses from detector, the instrument will flash zero reading and the alarm audio will be triggered

**DEAD TIME CORRECTION:** Employs first and second order corrections for extended performance

**HIGH VOLTAGE:** 400 to 1500 Vdc

**THRESHOLD:** 2 to 200 mV

**AUDIO:** Greater than 75 dB at 0.6 (2 ft), approximately 4 kHz

**POWER:** INTERNAL: Two alkaline or two rechargeable "AAA" batteries; EXTERNAL: 10 to 24 V through powered mount (does not charge batteries)

**BATTERY LIFE:** Approximately 100 hours of operation, 24-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 rating of 3x or IP rating of 52 with audio hole seal option (hole seal option will reduce maximum volume by approximately 10 dB)

**SIZE:** 8.5 x 8.0 x 4.8 cm (3.4 x 3.1 x 1.9 in.) (H x W x L); instrument only

**WEIGHT:** 174 g (0.38 lb); instrument only

**OPTIONS:** Stereo Audio Option: PN 4498-697; Audio Hole Seal Option: PN 4498-913; Lumic Calibration Software Kit: PN 4498-1020

## Options

Option	Description	Part Number
 <p><b>Lumic Calibration Kit</b></p>	Includes Lumic Calibration Software and cable.	4498-1020
<b>Audio Hole Seal Option</b>	Reduces audio volume output.	4498-913
<b>Windshield Mount</b>	Mounts instrument to vehicle windshield.	4498-682
<b>Under-Dash Mount</b>	Mounts instrument underneath vehicle dashboard.	4498-681