

Personal Radiation Monitors

PDM-112 and PDM-117



FEATURES

- Simple Operation
- High Sensitivity
- Light Weight
- Easy-to-Read Digital Display

The PDM-117 and PDM-112 are excellent electronic pocket dosimeters that use a semiconductor detector which is sensitive to gamma and x-rays. Both models are battery operated and do not require a charger, separate reader or developing. The PDM-117 and PDM-112 have an automatic zero reset when the unit is turned off.

The range is 20 keV and above with a measuring from 1 to 9999 μ Sv.

	PDM-117	PDM-112
Radiation Detected:	gamma & x-ray (suitable for I-125) 20 keV & above	gamma & x-ray 40 keV & above
Measuring Range:	1-9999 mSv	1-9999 mSv
Battery Life:	2 weeks	1 month (continuous use)
Size:	1.2" w x 5.9" l x .49" d	same
Weight:	1.8 oz	same

Prima® II B Personal Radiation Monitor

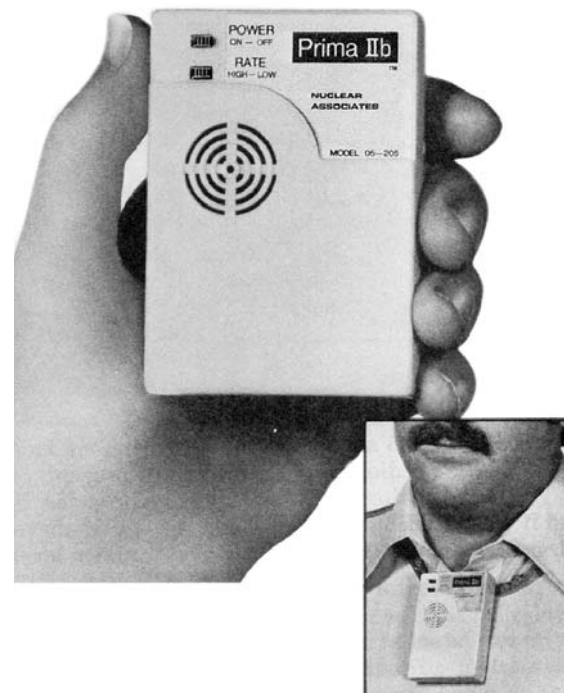
The PRIMA II b is a small warning device to alert the user when entering a radiation area. Excellent for working around areas with variable radiation present.

For gamma, the PRIMA II b emits approx. 2 chirps/min. (low range) or 60 chirps/min. (high range) in a 1 mR/h field. For x-ray, the unit functions as an indicator of relative radiation intensity, thus serving as a means to help reduce exposure during fluoroscopy. Battery life 6 months when used 8 hrs./day.

- Size: 3.6" h x 2.5" w x 0.84" thick; Weight: 4 oz.

FEATURES

- Used in detection of gamma and x-ray
- Audible indication when radiation is present
- Dual range with volume control
- Very compact and lightweight



ITEM #	DESCRIPTION
5250-0011	Pocket Dosimeter PDM-117
5250-0020	Pocket Dosimeter PDM-112

ITEM #	DESCRIPTION
5250-0070	Prima II b Personal Radiation Monitor
0670-0006	Carrying Case

Radiation Alert

Monitor 4 and Monitor 4EC

The Monitor 4 and Monitor 4EC are compact general purpose survey meters capable of detecting alpha, beta, gamma and x-rays over 3 selectable ranges. A red count light flashes and audible beep sounds with rising radiation levels. The Monitor 4EC offers a more accurate linear reading for gamma and x-rays (above 40 keV).

SPECIFICATIONS

- Monitor 4- Halogen-quenched uncompensated GM tube with thin mica window 1.5-2.0 mg/cm² thick.
- Monitor 4EC- Halogen quenched GM tube, energy compensated sidewall 2 mm tin filter. Thin mica window 1.5-2.0 mg/cm² thick.
- Effective diameter .36"/.92cm
- Monitor 4 Energy Sensitivity: Detects alpha down to 2.5 MeV; typical detection efficiency at 3.6 MeV is greater than 80%. Detects beta at 50 keV with typical 35% detection efficiency. Detects beta at 150 keV with 75% typical detection efficiency. Detects gamma and x-rays down to 10keV typical through the window, 40 keV minimum through the sidewall detector. Normal background is approx. 10-20 CPM. Gamma Sensitivity: 1000 CPM/mR/hr.
- Monitor 4EC Energy Sensitivity: Same as Monitor 4 except the energy response through the detector sidewall is flat within +61% or -26% over the range of 40 keV to 100 keV, and within +35% or -17% over the range of 100 keV to 1.3 MeV (referenced to Cs-137)
- Accuracy: + 10% of full scale (referenced to Cs-137)
- Audio Indicator: Internally mounted beeper (can be switched off for silent operation)
- Range Switch: X1, X10, X100, Battery Check
- Operating Range: 0-.5, 0-5, 0-50 hR/hr and 0-500, 0-5000, 0-50,000 CPM
- Optional SI meter scale: 0-500 μ SV/hr and 0-50 mR/hr
- Anti-Saturation: Meter will hold at full scale in fields as high as 100 times the maximum reading
- Power Requirements: One 9 volt alkaline battery. Battery life is up to 2,000 hours at normal background radiation levels.
- Temperature Range: -20° C to 55° C (-4° F to 131° F)
- Weight of the Monitor 4: 178 grams (6.3 oz) without battery
- Weight of the Monitor 4EC: 198.1 grams (7oz) without battery
- Size: 145 x 72 x 38mm (5.7 x 2.8 x 1,5 in)
- Includes: 1 year limited warranty, CE mark, carrying case
- Options: Stainless steel belt clip (attached to instrument)



ITEM #	DESCRIPTION
0695-0050	Radiation Alert Monitor 4
5250-0046	Radiation Alert Monitor 4EC
0695-0051	Radiation Alert Monitor Kit
0695-0052	Belt Clip

Radiation Alert

Digilert 50

The Digilert 50 measures alpha, beta, gamma, and x-radiation. Its digital display shows readings in your choice of counts per minute (CPM) or mR/hr, or in accumulated counts. A red LED flashes and beeper sounds with each count detected. An audible alert sounds when the radiation reaches a user set alert level.

SPECIFICATIONS

- Detector: Halogen-quenched uncompensated GM tube with thin mica window 1.5-2.0 mg/cm² thick.
- Display: 4-digit liquid crystal display with mode indicators; Updates every 60 sec.
- Operating Range: μ R/hr: .001 to 50 mR/hr (c's -137); CPM: 0 to 50,000; Total - 1 to 60,000 counts; Optional- μ Sv/hr .01 to 500
- Energy Sensitivity: Detects alpha down to 2.5 MeV; typical detection efficiency at 3.6; MeV is greater than 80%; Detects beta at 50 keV with typical 35% detection efficiency; Detects beta at 150 keV with 75% typical detection efficiency; Detects gamma and x-rays down to 10keV typical through the window, 40 keV minimum through the sidewall of the detector; Normal background is approx. 10-20 CPM; Gamma Sensitivity: 1000 CPM/mR/hr.
- Accuracy: 10% Typical + maxim
- Alert: Pulsating beeper sounds at exceeded alert threshold. User adjustable alert elves are used for mR/hr and CPM
- Count Light: Red LED flashes with each count
- Beeper: Sounds with each count (can be muted)
- Outputs: Dual miniature jack sends counts to CMOS compatible devices including computers, data logger, and educational data collection systems. Submini jack provides audio output to an external earpiece, amplifier or tape recorder.
- Anti-Saturation: Readout to hold at full scale in high radiation fields as high as 100 times the maximum reading
- Temperature Range: -10° to +50°C, 14° to 122° F
- Power: One 9-volt alkaline battery. Battery life is 2000 hours typical at normal background
- Size: 150 x 80 x 30 mm (5.9" x 3.2" x 1.2")
- Weight: 225 grams (8 oz) including battery
- Includes: 1 year limited warranty, CE mark, carrying case



ITEM #	DESCRIPTION
5250-0009	Digilert 50 Monitor
0695-0053	Instrument Stand

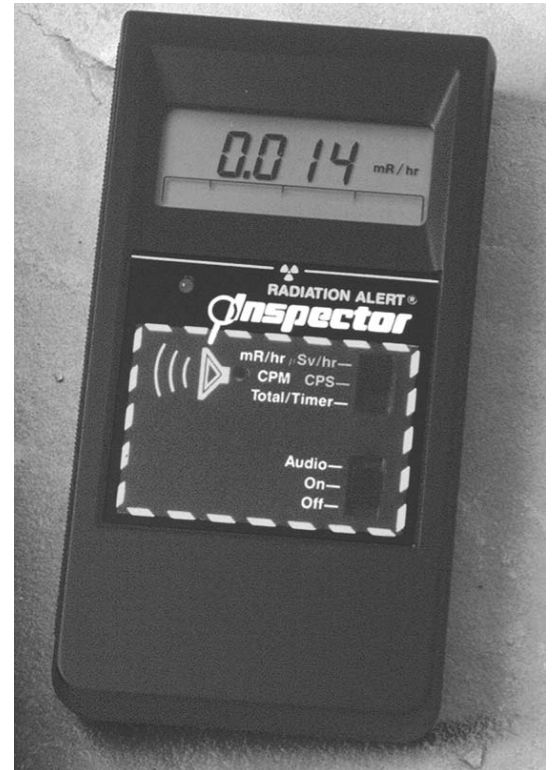
Inspector

The Inspector is a small handheld microprocessor based instrument which offers excellent sensitivity to low levels of alpha, beta, gamma, x-rays. The digital readout is displayed with a red count light and audible beep, providing instant indications of the radiation level. Other benefits include an adjustable timer and external calibration controls.

SPECIFICATIONS

- Detector: Halogen-quenched uncompensated GM tube with thin mica window, 1.4-2.0 mg/cm² areal density. Effective diameter of window is 45 mm (1.75 in.).
- Display: 4 digit liquid crystal display with indicators
- Averaging Periods: Display will update every 3 seconds. At low background levels, the update is the moving average for the past 30 second time period. Timed period for moving average decreases as the radiation level increases.
- Operating Range: mR/hr- .001 (1µR) to 100 mR/hr; µSv/hr- .01 to 1000; CPM- 0 to 300,000; CPS- 0 to 5000; Total/Timer- 1 to 9,999,000 counts
- Accuracy: mR/hr + 15% from 0 to 50 mR/hr; mR/hr + 20% from 50 to 100 mR/hr; CPM + 15% from 0 to 130,000 CPM; CPM + 20% from 130,000 to 300,000 CPM; (Referenced to Cs-137)
- Sensitivity to Common Isotopes: Typical GM tube efficiency for 4 Pi geometry at contact

Beta Isotopes	Energy	Efficiency
C-14	49 keV Avg. 156 keV	5.3%
Bi-210	390 keV Avg. 1.2 MeV max.	32%
Sr(Y)-90	546 keV and 2.3 MeV	38%
P-32	693 keV Avg. 1.7 MeV max	33%
Alpha		
AM-241	5.5 MeV	18%



- Gamma Sensitivity: 3500 CPM/mR/hr referenced to Cs-137; Smallest detectable level for 1-125 is .02 µCi at contact
- Timer: Can set 1 minute sampling periods from 1 to 10 minutes. 10 minute sampling periods 10 to 60 minutes; 1 hour sampling periods from 1 to 24 hours
- Count Light: Red LED flashed with each radiation event
- Size: 150 x 80 x 30 mm (5.9" x 3.2" x 1.2")
- Weight: 225 grams (8 oz) including 1 nine volt battery



SPECIFICATIONS

- Audio Indicator: Internally mounted beeper (can be switched off for silent operation)
- Outputs: Dual miniature jack drives CMOS or TTL devices: count to computer or datalogger. Submini jack input allows for electronic calibration.
- Anti-Saturation: Meter will hold at full scale in fields as high as 100 times the maximum reading.
- Utility Menu: A Utility Menu offers several options accessible by holding down the + button while turning the instrument on. 3 second (fast response); Switches from mR/hr and CPM to μ Sv/hr and CPS; Reset the CAL factor to 100; Probe adjustment settings; Adjust the CAL factor; Reset all settings to original factory settings (default)
- Includes: 1 year limited warranty, CE mark, carrying case
- WipeTest Plate (patent pending)
- Option to be used with the Inspector

The stainless steel WipeTest Plate slide easily onto the Inspector positioning the depression and wipe directly in front of the detector window at a fixed distance of 1 centimeter. The WipeTest plate is removable for general surveying or decontamination. It can also protect the GM from damage and prevent the instrument from contamination while the Inspector is not in use. Fits in carrying case with Inspector.

ITEM #	DESCRIPTION
5250-0047	Radiation Alert Inspector
0695-0054	Wipe Test Plate
0695-0055	Radiation Alert Inspector Exp
0695-0056	RAP-RSI Replacement Probe for Inspector Exp
0695-0057	Probe Case Replacement for Exp