PIPE / GROUND GAMMA MONITOR SYSTEM

Model ~ PGM-2L

FEATURES:

- DETECTS GAMMA
- PORTABLE
- SMALL DIAMETER PROBE
- Nal Scintillation Probe OPTIONAL: BGO
- HIGH SENSITIVITY
- RUGGED
- MOISTURE RESISTANT
- OPTIONAL: SUBMERSIBLE
- PRS-7 ELECTRONICS
- AC & RECHARGEABLE BATTERY AND CHARGER







PROBE AND CABLE

DESCRIPTION:

The PGM-2L is a lightweight portable monitoring system:

APPLICATION:

This system is extremely useful for location or movement of underground radioactivity by use of pipes driven into the formation.

PROBE:

- A moisture resistant BGO or Nal scintillation probe 5/8" in diameter
- Up to a 40-foot cable.
- The ten-inch-long probe contains:
 - Sensitive/rugged photo-multiplier
 - Dynode resister string
 - A 1/2" x 2" BGO or Nal scintillation crystal.

ELECTRONICS: Model PRS-7 Ratemeter/Scaler

- Single Channel Analyzer
- Detects Gamma
- Power: AC & Rechargeable Battery and Charger
- Three Presettable Window Positions
- Switch Selectable; Six Decades
- Computer Interface: Rs-232, Optional: USB
- Crystal Controlled
- IP65



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SPECIFICATIONS:

PROBE

Length: 10"
Weight: 10 oz.
Diameter: 5/8"

DETECTOR

Scintillator Type: Nal or BGO* Scintillator

Size: 1/2" x 2"

Sensitivity: Typically, 350,000 cpm/mR/hr

Efficiency: Better than 50% for Cs Gammas

Drive Capability: 40' into PRS-7 Electronics

High Density - BGO: 7.13 (vs. 3.67 for Nal) nearly doubles sensitivity for Gammas in general. High atomic

enhances sensitivity to low energy Gammas by a further factor of up to 10.

**Options: Immersion proof probe

ELECTRONICS: PRS-7

Readout: 6-digit LCD Rate, 8 digit integrate.

Time Base: Crystal controlled 1-10,000 seconds; user settable.

• **Display Modes:** Rate, Integrate.

Range:

Usable Probes Cover Range: 1uR/hr to 1000 R/hr; 0 to 30,000 Cps; 0.1 mRem/hr to 10 Rem/hr.

Alarm: 2000 Hz audio tone with audio "mute" switch + RED LIGHT, high current relay.

Single Channel: PRS-7

3 Switch Selectable Windows:

2 preset (resettable) window positions plus one "variable".

• Analyzer/Discriminator: 10-turn, 1000 division pot for each threshold.

10-turn, 1000 division pot for window width.

Detector Connector: BNC bulkhead mount (MHV optional).

Detector Bias: 0-2000V regulated and filtered.

Front Panel Controls:
 On-Off Toggle; Alarm-Mute; Rate; Integrate; Reset;

Supply: High Voltage is adjustable & repeatable with the 10 turn dial.

Settable scale factors allow readout in almost any units.



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Engineering Units: User can input correct conversion factor and change to any units.

Controls: Front Panel: On-Off, Alarm-mute, Rate, Integrate, Reset.

• Calibration: Digital input of calibration factor gives high precision adjustment.

• Serial Output: Two way, RS-232 standard, USB optional.

• Construction: NEMA-4X polycarbonate gasket sealed case with handle:

Rugged / splash-proof.
All plug in circuit cards.

• Computer interface: RS-232 OPTIONS: USB

POWER:

• **Power:** 105-125 volts, 50-60 Hz (220 V optional)

Batteries:
 Rechargeable battery pack with AC Charger Adapter

Battery Life: 3-5 days at 8 Hour/day

