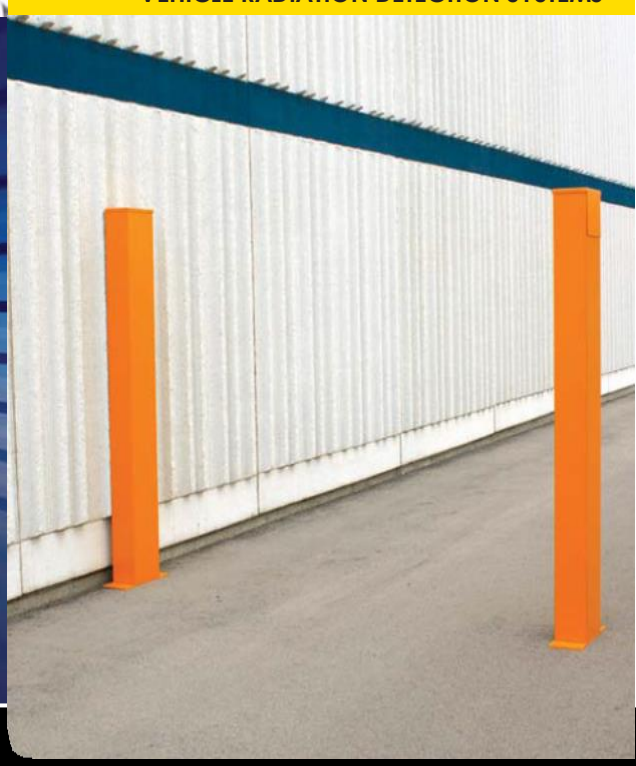




**The RC1000 series is an ideal radiation detection for small vehicle and small material handling units**

- Innovative Design, User Friendly,
- Easy to Install and Operate
- Adjustable Alarm Threshold Settings
- Site Specific Calibration
- Auto-Restart after Power Outage

# RC1000

## VEHICLE RADIATION DETECTION SYSTEMS

### Detection of Radioactivity in Low Density Materials

The RC1000 series of radiation detection systems have been designed for lower density materials such as waste and light/bulky scrap metal. The vehicle size and type will help determine the appropriate detector panel size (34L or 69L). The RC1000 detection systems all utilize RadComm's high quality specially prepare PolyVinyl Toluene (PVT) scintillators. The proprietary PVT design has been optimized to allow maximum light output during scintillation events.

### Simplified and efficient

The RC1000 is based on "Rate-Meter" technology. This technology requires a minimal calibration on system startup. Once the alarm thresholds are setup, system operation is automated. In the event that an increase in the measured radiation levels is detected, an increasing audio frequency will sound with an accompanying Red Alarm lamp, to alert the operator of the presence of radioactive material.

### Flexible and upgradable

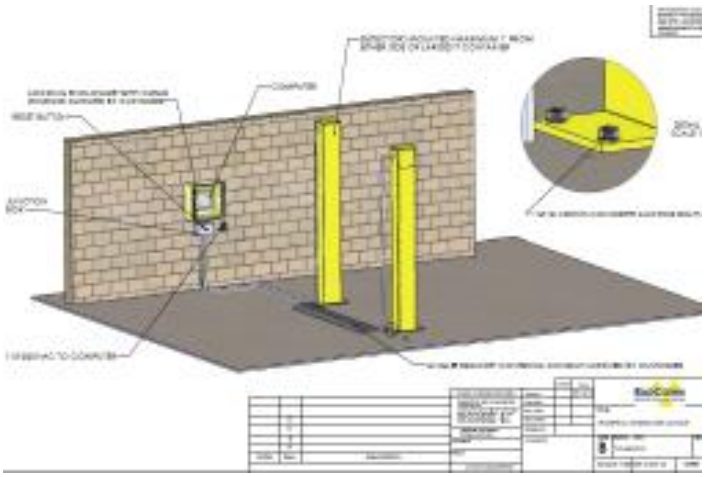
The RC1000 design is considered an entry level system where the operator will have to manually record and track alarm information and other parameters. In anticipation of future requirements the RC1000 system is fully capable of upgrading to the RC2000 and RC4000 that have full automation of the manual tasks of the RC1000 system. These upgrades enable such features as detailed Data Storage, Real Time Tracking, Network Capability and Manual Scanning.

# RC1000

**VEHICLE RADIATION DETECTION SYSTEMS**

## The RC1000 Series consists of:

- Detector assemblies (1-2 panels)
- Power supply control unit
- Controller



### RC1000 Controller Consists of:

- 2.5" Touch Sensitive LCD Display
- High Speed Micro-Controller
- Easy to Follow Menus
- Audio and Visual Alarms
- Radiation Levels Displayed in CPS (Counts per second)
- Detailed Easy to Follow Detector and System Configuration Menu
- Internal non-radioactive Test Source
- Touch Key Activated

**Energy Ranges: 50KeV to 3.0 MeV (Incident)**

### Detector features:

- Large Premium Grade
- Detector Case Nema-4 (IP65) Rated
- Low Density Shield on Face of Detector Panel
- Dual Layer of Thermal protection (-20°C to 50°C)
- 95% Humidity Rating (Non-condensing)
- High Signal to Noise Ration PMT
- High Speed Micro-Controller
- High Speed Pulse Processor
- Noise Reduction Hardward/Software
- Internal Non-radioactive Test Source
- 24v DC Input Voltage @ 1.5A
- Sensitivity: Typ. 0.05 counts/s/cm$^3$/nSv/h$^{-1}$

| Model | RC1034 | RC1069 |
|---|---|---|
| System Size (in$^3$) | 2108 | 4216 |
| System Size (L) | 34.5 | 69 |
| System Size is based on 2 panels | | |
| PER/Panel Size (in$^3$) | 1054 | 2108 |
| PER/Panel Size (L) | 17.25 | 34.5 |
| # of PMT's/panel | 1 | 1 |
| Detection Capability Overall Sensitivity/ Unshielded Source (Shielded Source) | 3.3uCi (116mCi) | 2.3uCI (82mCi) |
| Radiation measurement of 137Cs (point source) at 1m from the face of the detector (the radiation exposure level is comparable to a 75mmØ x 150mm 137 Cs lead sealed source buried in 20 lbs/ft$^3$ (0.32 g/cm$^3$) of scrap metal) | | |

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