Prevent costly radioactive contamination of your scrap yard, steel plant, equipment, product and personnel with the RC4000 Series vehicle radiation detection system!

- Innovative design with multiple detector sizes
- Energy specific alarm and background statistical analyses
- Real-time density tracking algorithm
- Remote calibration software. No source needed
- Network capability with email
- User-friendly, easy to install and operate
- Ability to retrofit or upgrade existing systems

RC4000

Detection of Radioactivity in High Density Materials

The RC4000 Series of radiation detection systems have been designed to detect very low Gamma Ray emissions in high density materials. The vehicle size and type will help determine the appropriate panel size and configuration. The RC4000 is supplied in a variety of detector panel sizes with any configuration for up to 8 detector panels. The RC4000 detection systems utilize RadComm's high quality Polyvinyl Toluene (PVT) scintillators, electronics and Photomultiplier Tubes (PMT).

Simplified System Operation

The RC4000 utilizes real-time statistical algorithms that are based on Gamma Energy Distribution to ensure alarm thresholds levels are optimized. The RC4000 utilize a user-friendly graphical interface allowing the operator to easily move through the wide range of user options. All detailed Clean Scan, Testing and Alarms records are stored on the internal hard drive and can be easily retrieved and interpreted as required.

Remote System Access

The RC4000 Controller is equipped with a network adaptor allowing remote monitoring, data retrieval and maintenance functions. The internal software and hardware designs are extremely flexible allowing remote software updates and electronic hardware adjustments when necessary. Supervisors can monitor the system operation in real-time to ensure normal system operation is maintained. Also, with a network connection the system has the capability of emailing alarms and system malfunctions.

The RC4000 Series consists of:

- Detector assemblies (1-8 panels)
- RadLink embedded controller
- Smart Infrared presence sensors
- Large touchscreen monitor
- Remote communications package (optional)

RadLink Controller Features

- Touchscreen LCD monitor
- Large storage capacity for system operational information and alarms
- Easy to follow multilingual menu outlines and descriptions
- Multi-level security password control
- Detailed alarm data storage
- Manual scanning for pinpointing source location within the vehicle's load
- Easy to set alarm configuration menu
- Network access for remote service and monitoring
- Radiation levels displayed (mR/h, nSv/h, cps)
- Vehicle speed measurement in km/h and mph
- Ambient temperature displayed in Celsius and Fahrenheit
- Adjustable audio alarm
- Counter for number of scans in a 24-hour period and to-date incoming and outgoing
- Detailed alarm information displayed and stored after every alarm

Detector Features

- Large premium grade PVT scintillators
- 34.3 to 69 liters PVT volumes available (single panel)
- Low density shield on face of detector panel
- Dual layer thermal insulation protection (-20°C/-4°F to 55°C/131°F)
- High signal to noise ratio PMTs (up to 2)
- High speed micro-controller with programmable CPLD technology for signal/alarm analysis
- Dual input high speed pulse processor
- Noise reduction hardware/software
- Background characterization for variable ambient background suppression
- Smart infrared vehicle presence with speed monitoring
- 8 output drivers (24Vdc@50mA) for remote indicators
- Internal non-radioactive test source for detailed and repeatable system checks
- 24Vdc input voltage @1.5A
- System auto-stabilization & remote calibration
- Suitable for Vehicle, Rail, Charge Bucket, Off gas and Conveyor Systems

Options

- Camera
- External alarms
- Supervisory software

Response/Sensitivity

- Energy range: 20KeV to 3.0MeV (incident)

Model #	RC4069	RC4110	RC4138
System Size (in³)	4,216	5,264	8,432
System Size (L)	69	91	138
System size is based on 2 panels. Systems may be expanded with additional panels.			
PER/Panel Size (in³)	2,108	2,632	4,216
PER/Panel Size (L)	34.5	45.5	69
# of PMTs/panel	2	2	2
Detection Capability/Overall Sensitivity - Unshielded Source (Shielded Source)	1.6uCi (58mCi)	1.4uCi (50mCi)	1.1uCi (41mCi)

* Radiation measurement of [137]Cs (point source) at 1 meter from the face of the detector (the radiation exposure level is comparable to a 75mm x 150mm ^{137}Cs lead sealed source buried in 40lbs/ft³ (0.64 g/cm³) of scrap metal)

RADCOMM
RADIATION DETECTION SYSTEMS

Prevent costly radioactive contamination of your scrap yard, steel plant, equipment, product and personnel with the RC2000 Series vehicle radiation detection system

- Innovative design with multiple detector sizes
- User-friendly, easy to install and operate
- Detailed data storage
- Adjustable alarm threshold settings
- Network capability with email
- Ability to retrofit or upgrade existing systems

RC2000

VEHICLE RADIATION DETECTION SYSTEMS

Detection of Radioactivity in Moderate Density Materials

The RC2000 Series of radiation detection systems have been designed for moderate density materials such as compressed waste and processed scrap metal. The vehicle size and type will help determine the appropriate detector panel size (69L, 91L, 138L) and configuration. The RC2000 detection systems utilize RadComm's high quality specially prepared Polyvinyl Toluene (PVT) scintillators, electronics and Photomultiplier Tube (PMT).

Simplified System Operation

The RC2000 provides a high level of detection capability for buried Gamma Ray sources in low to moderate material densities. System operation is completely automated providing specific alarm thresholds in real-time during each scanning period. The RC2000 Series utilize a user-friendly graphical interface allowing the operator to easily move through the wide range of user options. Detailed alarms records are stored on the internal hard drive and can be easily retrieved.

Networkable Remote System Access

The RC2000 Controller is equipped with a network adaptor allowing remote monitoring, data retrieval and maintenance functions. The internal RC2000 software and hardware designs are extremely flexible allowing remote software updates and electronic hardware adjustments when necessary. With a network connection, supervisors can monitor the system operation in virtual real-time to ensure normal system operation is maintained.

The RC2000 Series consists of:

- Detector assemblies (1-5 panels)
- RadLink embedded controller
- Smart infrared presence sensors
- Large touchscreen monitor
- Remote communications package (optional)
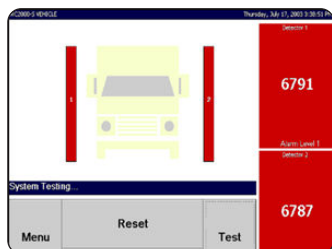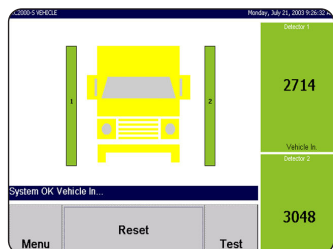
RadLink Controller Features

- Large touchscreen LCD monitor
- Large storage capacity for system operational information and alarms
- Easy to follow multilingual menu outlines and descriptions
- Multi-level security password control
- Detailed alarm data storage
- Easy to set alarm configuration menu
- Radiation levels displayed in counts per second, as well as (mR/h, nSv/h)
- Vehicle speed measurement in km/h and mph
- Adjustable audio alarm
- Various string outputs
- Network access for remote service and monitoring
- Configurable email reporting

Detector Features

- Large premium grade PVT scintillators
- 34.5 to 69 liters PVT volumes available (single panel)
- Low density shield on face of detector panel
- Dual layer thermal insulation protection (-20°C /-4°F to 55°C/131°F)
- High signal to noise ratio PMT
- High speed micro-controller
- Single input high speed pulse processor
- Noise reduction hardware/software
- Background characterization for variable ambient background suppression
- Smart infrared vehicle presence with speed monitoring
- 8 output drivers (24Vdc@50mA) for remote indicators
- Internal non-radioactive test source for detailed and repeatable system checks
- 24Vdc input voltage @1.5A

Options

- Camera
- External alarms
- Supervisory software

Response/Sensitivity

- Energy range: 20KeV to 3.0MeV (incident)

Model #	RC2069	RC2110	RC2138
System Size (in^3)	4,216	5,264	8,432
System Size (L)	69	91	138
System size is based on 2 panels. Systems may be expanded with additional panels.			
PER/Panel Size (in^3)	2,108	2,632	4,216
PER/Panel Size (L)	34.5	45.5	69
# of PMTs/panel	1	1	1
Detection Capability/Overall Sensitivity - Unshielded Source (Shielded Source)	2.3uCi (82mCi)	2.0uCi (71mCi)	1.6uCi (58mCi)
* Radiation measurement of [137]Cs (point source) at 1 meter from the face of the detector (the radiation exposure level is comparable to a 75mm x 150mm ^{137}Cs lead sealed source buried in 40lbs/ft^3 (0.64 g/cm^3) of scrap metal)			

Next Level in Radiation Detection

- Industry leading technology
- Fast reacting alarm response with isotopic identification
- Utilizes gamma spectra energy deconvolution technique
- State of the art large volume, high resolution Thallium Doped Sodium Iodide crystal (NaI(Tl)) scintillation detectors
- Standalone technology or combined with PVT based systems
- Flexible installation allowing for use in a variety of applications and industrial settings
- Stabilization without a radioactive check source
- Neutron detection capability (Optional)

RC7000

NEUSPEC SPECTROSCOPIC RADIATION DETECTION SYSTEMS

Next Level in Radiation Detection
The RC7000 utilizes gamma spectra energy deconvolution techniques, a significant improvement over conventional PVT scintillator based systems. This technology is specifically designed to enhance a radiation detection systems ability to recognize specific Gamma energies which can adversely affect alarm thresholds. The RC7000 utilizes a series of advanced isotopic identification algorithms in conjunction with RadComm's industry-leading and proven Region Of Interest (R.O.I.) analyses to provide best in class detection and identification.

Stabilization Without a Radioactive Check Source
RC7000 systems incorporate large sodium iodide thallium doped crystals (NaI(Tl)) specifically selected for high resolution signal response. The crystals are protected inside a stainless steel case with a low density aluminum door. To ensure the best possible spectral analyses, the sodium iodide crystals must be continuously stabilized. The RC7000 stabilizes these crystals with specific Gamma energies associated with the ambient background energies, thus eliminating the need for a radioactive check source.

Flexible Multiple Applications
The RC7000 can be used in a variety of applications including: enhancement of an existing PVT based vehicle monitoring system, conveyor belt and area monitoring. RC7000's gamma spectra energy deconvolution algorithms give the system the ability to either ignore (for example NORM or medical isotopes) or alarm on specific gamma energies.

RC7000 Series Components

• Detector assemblies
• RadLink embedded controller
• Smart Infrared presence sensors
• Large touchscreen monitor
• Remote communications package (Optional)

RadLink Controller Features

• Large touchscreen LCD monitor
• Large storage capacity for system operational information and alarms
• Easy to follow multilingual menu outlines and descriptions
• Multi-level security password control
• Detailed alarm and scan data storage
• Easy to set alarm configuration menu
• Network access for remote service and monitoring
• Radiation levels displaying in either: CPS, R/h, Sv/h
• Vehicle speed measurement in Km/h or mph
• Internal operating temperature displayed in Celsius & Fahrenheit
• Adjustable audio alarm
• Counter for number of scans in a 24 hour period for incoming and outgoing scans
• Detailed alarm information displayed and stored after every alarm
• Configurable email reporting
• Various string outputs available

Detector Features

• Detector case: 36"H(915cm)x 24"L(60cm)x 6"W(15cm)
• Outer detector case: painted aluminum
• NEMA 4 (IP65) rated
• Integral PMTs with EM shielding
• High speed DSP circuitry with High SNR
• Ultra stable high voltage software adjustable
• Temperature sensor
• Internal operating temperature: -20°C (-4°F) +55°C (131°F)
• Relative humidity: 93% non-condensing at 40°C (104°F)
• Vibration: 2 g for 15 min at 10 – 33 Hz in XYZ directions (ANSI N42.34, ANSI N42.38)
• Shock: Complies with ANSI N42.34, ANSI N42.38
• EM compatibility: ANSI N42.34, ANSI 42.38 compliant
• CE compliant (EU safety, RFI and EMI directives)

Spectrometer Specifications

• NaI(Tl) Crystal - Variety of sizes available
• Energy Resolution 8.0% or better for of 662 KeV
• Energy Range: 20 KeV to 3.0 MeV (Gamma)
• System Calibration Software Monitor with Operator Alert
• Dose Rate Range 1nSv/h to 1.0mSv/h Auto-Ranging
• Gamma Spectrum - 512 Channels, channel capacity 16 bits
• Correction - non-linear energy calibration
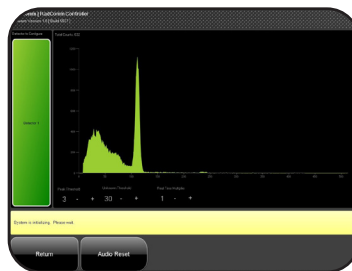• Detection Specification: Meets ANSI N42.38 (2006)

Options

• Camera
• External alarms
• Supervisory software
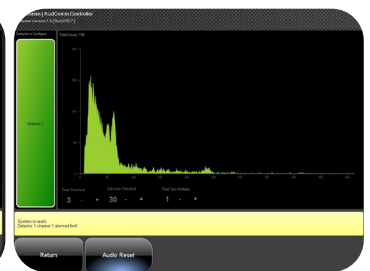• Neutron detection (He3 or alternative)
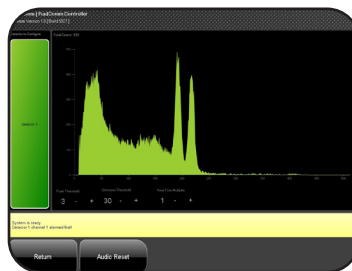
Cobalt-60 Spectra

Thorium-232 Spectra

Cesium-137 Spectra

Barium-133 Spectra