



RC2000

Vehicle Radiation Detection Systems



Detect radioactive materials contained in a moving vehicle loaded with scrap material

The RC2000 Series provides an extremely high degree of detection capability for a wide range of radioactive elements commonly associated with scrap metal. The RC2000 Series utilizes proven signal processing alarm algorithms with a large volume of high grade specially prepared scintillation material. The detection system then incorporates a dual detector arrangement with high gain, low noise, photo multiplier tubes (PMT's) and infrared vehicle presence sensors that enable the system to better focus on the specific background radiation levels as the vehicle travels between the detector panels.

Easy to use, operator friendly

The system menus are based on a Windows environment allowing a clear and precise understanding of the RC2000 operations without having a background in physics. The software is extremely flexible; with touch-screen navigation it allows the user to configure general operations such as; setting passwords, adjusting detector parameters, pinpointing the location of a radioactive source when detected in a vehicle, storing and the retrieval of all vehicle information.

The RC2000 controller performs tasks such as analysis of the pulses from the detectors, management of data received from the detector assemblies and configuring of the system operational parameters, all in *real time*. With high speed signal processing and alarm analysis the RC2000 provides a high level of detection capability with virtually no scanning interruptions.

Detect radioactive materials **BEFORE** they enter, are melted or exit your metals facility

The best radiation detection value

- Largest detector volume available for dollars spent

Highly sensitive

- Will detect a 185KBq (point source) at one meter from the face of the detector
- Vehicle presence sensors with background compensation software
- User adjustable sensitivity levels

User friendly

- Multi level security password control
- Touch screen navigation
- Three alarm levels – audio and visual
- Multi language capability
- Data logging capability, 1500 alarms can be saved, graphical and text formats

Maintenance friendly

- Self testing and self diagnostic
- Non-radioactive test source
- Phone modem for service and software upgrades

Excellent customer references

- Leader in scrap metal recycling
- Over 500 systems in successful operation worldwide

RC2000

Overview:

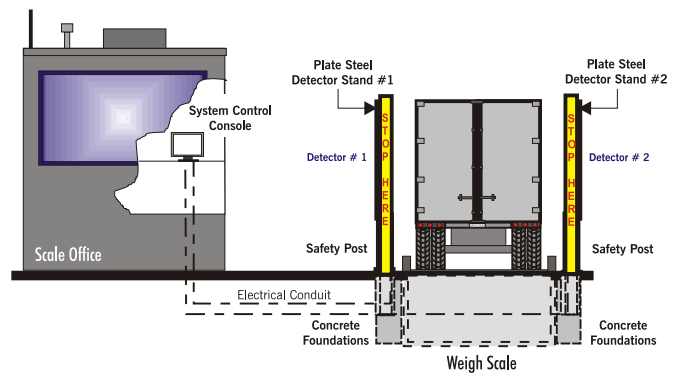
The RC2000 consists of:

- Detector assemblies (1 and 2 panels)
- Windows based PC
- Large touch-screen monitor
- Power supply control unit
- Remote communications package (optional)



Controller features

- Large touch-sensitive LCD display
- High speed pentium processing unit
- Windows based software for menu and data management
- Large storage capacity for system operational information and alarms
- Easy to follow menu outlines and descriptions
- Multi-level security password control
- Detailed alarm data storage
- Manual scanning for pinpointing source location in vehicle
- Multilingual menu selection
- Easy to set alarm configuration menu
- Telephone modem for remote service and monitoring
- Watchdog monitor for system lock-ups
- Radiation levels displayed in CPS (counts per second)
- Vehicle speed measurement in km/h and mph.
- Ambient temperature displayed in Celsius and Fahrenheit
- Detailed easy to follow detector and system configuration menu
- Adjustable audio alarm
- Detailed alarm information displayed and stored after every alarm
- Internal non-radioactive test source, touch-key activated.



Detector features

The RC4000 series of radiation detector assemblies provide an extremely high degree of detection capability for a wide range of radioactive elements commonly associated with scrap metal. The detectors utilize large plastic scintillation panels that are sensitive to ionizing radiation. The geometrical share of the detectors has been designed specifically for monitoring the wide range of vehicles that carry scrap metal.

- Large premium grade PVT scintillators
- 10 to 138 liter PVT volumes available
- 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 ratio PMTs
- High speed micro-controller
- Dual input high speed pulse processor
- Noise reduction hardware/software
- Smart infrared vehicle presence with speed monitoring
- Internal non-radioactive test source, touch-key activated.
- 8 output drivers (24Vdc@ 50mA) for remote indicators
- 24 Vdc input voltage @ 1.5 A
- **Energy range:** 18KeV to 3.0MeV (incident)
- **Sensitivity:** Typical 0.08 counts/s/ cm³/nSv/h
- **Detection Capability:** Will detect a 185KBq (point source) at 1 meter from the face of the detector (the radiation exposure level is comparable to a 75mm 0 x 150mm 3.7GBq (100mCi) 137Cs lead sealed source buried in 0.7 g/cm³ of scrap metal

