

# What's new?

Rapid Response Fentanyl Test Strip



The Rapid Response<sup>TM</sup> Fentanyl (FYL) Test Strip is a lateral flow chromatographic immunoassay for the qualitative detection of Fentanyl/Norfentanyl in urine at the cut-off concentration of 20 ng/mL. It is specific for Fentanyl screening with no significant cross reactivity to other opiates, such as Morphine and Heroin. The Rapid Response<sup>™</sup> Fentanyl (FYL) Test Strip is able to detect Fentanyl and many other Fentanyl analogues such as Carfentanil, Acetyl Fentanyl, Butyryl Fentanyl, Remifentanil, Ocfentanil, Sufentanil, p-Fluoro Fentanyl, Furanyl Fentanyl, Valeryl Fentanyl, and 3-Methyl Fentanyl.

The LAURUS Systems team works every day to solve new challenges by finding innovative radiation, chemical and trace detection solutions and products to meet the needs of our customers. LAURUS has provided radiation detection and monitoring instruments since 2001 and unlike the manufacturer's, we offer choices and assist the customer in choosing the right tool for the job. Our mission is to provide the best instrumentation for the application. Check back here often as we are constantly updating our product list and adding new products to better serve LAURUS customers.

### **R200-GN SPRD**

identiFINDER R200 is a rugged, pager-sized Spectroscopic Personal Radiation Detector (SPRD). The R200 provides full ANSI N42.32 Personal Radiation Detector (PRD) compliance and features next-generation solid state detector read-out technology that delivers ANSI N42.48 SPRD compliance with nuclide identification.



At less than one pound, the identiFINDER R200 is light-weight and rugged enough

to wear it on a belt without burdening the user. It is 1.5 meter drop-tested and IP67-rated so operators can wear it with confidence during routine traffic stops or high visibility events and in mass transit or critical infrastructure entry control points.



# nts conte

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**LAURUS Systems Inc.** is a certified woman-owned small business corporation that specializes in the sales, service, installation and training of radiation, chemical, biological and explosives detection equipment. LAURUS Systems has acquired an expansive customer base in the U.S. and abroad including, federal, state, and local agencies; military installations; national labs; hospitals; and commercial manufacturing and processing entities.



The LAURUS mission is to exceed customer expectations and to take an innovative approach to business. Many of our products carry an unheard of full two (2) year warranty. We represent only those manufacturers who share our vision and meet or exceed the following benchmarks:

- First and foremost being responsive to the needs of the customer.
- Provide only high quality, durable equipment.
- Meet or exceed applicable industry standards; mil-specs, ANSI, NRC etc.

LAURUS Systems, Inc. has built a solid reputation on fair pricing, quality products and understanding and most importantly, responding to the needs of the customer. We are pleased to offer our products under the General Services Administration (GSA) Schedule. Contact us for information regarding other specially negotiated contracts.

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### RAD60 It doesn't get any easier than this!



The RAD60 personal alarming dosimeter is a simple to use stand-alone device that can be easily configured and programmed with a push of a button. Unique features include the ability to transform into a system dosimeter for use with access control programs and dose tracking systems. Included also are enhanced EMI shielding and a non-volatile memory function for retrieval of dose, even during power down.

### **Leather & Padded Nylon Dosimeter Holders**

- Designed Exclusively for use with Rados RAD60
- Substantial savings on clip replacements and repairs
- Less dosimeter "down-time" for your in-house inventory
- . Allows for secure use on a lanyard, belt, or other utility device

### **DMC 3000**

Covering a wide range of X-Ray and Gamma radiation detection, our **DMC 3000** Electronic Dosimeter represents over 25 years of real-world electronic dosimetry experi-

ence, continually refined through customer feedback. The unique, high contrast and backlit LCD display provides a clear indication of wearer's dose and ambient dose rate for deep dose equivalent. More importantly, multiple methods (audible, visual, and tactile) are utilized to alert the wearer of alarm conditions. Best of all, the DMC 3000 provides all of this protection, for over 2500 hours of continuous use, with a single AAA battery.

### Innovative modular design!

The DMC3000 features an innovative and cost effective modular design whereby the beta monitoring option, neutron dosimetry option and telemetry options integrate easily by

simply snapping into place. This eliminates the need for additional costly instruments when applications and needs change.







Readers come equipped with dosimeter configuration software to manage the all electronic dosimeter settings and thresholds for the RAD60 and DMC3000 series of instruments.



### **Beta Module**

The **Beta Module** provides operational dosimetry for hospital personnel, first responders, and radiation workers where there is a Beta radiation risk. The add-on Beta module plugged to the DMC 3000 dosimeter provides Hp (0.07) and a wide range of beta radiation measurement.

### Instadose & Instadose Plus



Instadose and Instadose Plus brings radiation monitoring into the digital age. Smaller than a flash drive, this rugged dosimeter provides an instant read-out when connected to any computer with internet access via a LISB connector.

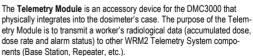
This revolutionary device provides radiation workers with complete control over when and how frequently they get their readings, with unlimited readings included for one low price. Based upon patented direct ion storage technology, *Instadose* includes access to each users historical and current exposure readings. There is no need to send badges to a processing center, simplifying administration and reducing costs.

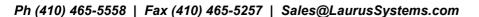


The **Neutron Module** provides operational dosimetry for Military, First Responders and radiation workers where there is a Neutron radiation risk. The add-on Neutron Module attaches to the DMC 3000 dosimeter and is able to measure Hp(10) radiation at a wide range of energy levels.



### **Telemetry Module**





### **RGU-100**

The RGU-100 Military Pocket Radiac detects and quantifies prompt gamma and neutron dose as well as residual gamma dose and dose rate in support of both tactical and non-tactical use. This rugged dosimeter is equipped with a back lit LCD as well as presettable audio and visual alarms that provide clear, real time indications of radiological conditions in demanding environments. Its built-in sleep mode offers enhanced operational flexibility by extending battery life. An infrared RS-232 port that resides in the RGU-100 enables its data to be accessed by a computer.



# Direct Read Dosimeters

Direct Read Pocket Dosimeters are rugged, precision instruments about the size of a pocket fountain pen, which are used to measure accumulative doses or quantities of gamma & X-ray radiation. A metal clip is used to attach the dosimeter to an individual's pocket or to any available object in an area to be monitored for total radiation exposure. It is pocket-size, conductive-fiber electroscope with an ion chamber for detecting and indication integrated exposure to gamma and x-radiation. It has a thin wall which permits the penetration and detection of radiation





### PED-IS, PED+, PED Blue

The **Tracerco PED-IS**, for workers who are not specially trained to measure radiation exposure. It is safe to use when monitoring radiation exposure in potentially explosive environments, (Intrinsically Safe).

The **PED+** can be used as both a PED and a handheld dose rate survey meter. The PED+ also incorporates a number of other additional features including, Bluetooth, GPS and pop-up message alarms.

The **PED Blue** is a high quality personal dosimeter, featuring the same design and features as the PED-IS, in a lighter weight, non-intrinsically safe model.



### **MK2+**

The Thermo Scientific EPD Mk2+ builds upon the high performance of the original MK2 design, while providing enhanced features. The EPD Mk2+ is suitable for use as a single, stand-alone dosimeter, or as a component of a comprehensive dosimetry management system using our renowned hardware and software packages. The high quality of the Mk2+ provides low lifetime costs as well as advanced radiological performance. The

Thermo Scientific Mk2+ electronic personal dosimeter is perfect for organizations, utilities, agencies, and research laboratories to monitor employee dose and dose rates.



# Sentry

The Radiation Alert Sentry Personal Alarming Dosimeter and Rate Meter is designed to ensure the personal safety of personnel that work in occupations with potential x-ray or gamma exposure. The Sentry Software option enables you to generate incident reconstruction for analysis and also enables you to

easily set the vibrating and audio alert to your desired levels for dose and dose rate. Use the audio switch to choose between an audible click with every count taken, or a discreet silent mode that can be augmented with the use of headphones.



### **EPD TruDose**

Protect your employees with electronic personal dosimeters that deliver real time radiation monitoring in most critical areas of your facility. The Thermo Scientific™ **EPD TruDose** Electronic Personal Dosimeter monitors Gamma and Beta radiation in any environment where workers need to monitor their exposure to radiation, with improved accuracy and simplified operation over previous generations of EPDs. EPD TruDose personal radiation monitors are available with or without telemetry and integrate with many different systems, including ViewPoint and webREMS.



### Mini Rad-D G3

The next generation **Mini Rad-D G3** is a very discrete and rugged all-weather PRD that is pager size yet powerful enough to quickly locate low-level radioactive sources. It has been designed and refined to discreetly monitor in any environment without intrusion to normal operations. the Mini Rad-D G3 can be set to notify the user with an audible or vibrating alarm whenever gamma radiation exceeds natural background levels. Simple operation and highly

readable display provide an automatically updated strength indicator in under 1 second, allowing a rapid area sweep to identify the exact location of any radiation source.

The Mini Rad-D G3 automatically calibrates itself to the natural background radiation, maximizing its detection sensitivity in any environment. What happens when the mini detects radiation? It will alarm or vibrate, depending which mode it is in and display a simple intensity number of a "1" to a "9" on a large, bright, easy to read LED display. The mini is designed to work in all weather conditions, survive submersion, survive a 3 ft drop onto concrete, and work in high-density RF environments. The Mini Rad-D G3 uses two AA batteries to provide a battery life of over 2 years when used 48+ hrs/week.



### RadEye PRD ER

Special proprietary circuitry allows for energy compensated dose and dose rate measurement up to 100 mSv/h (or 10 rem/h). Thus the RadEye PRD-ER is the ideal tool for both interdiction and response. Unlike instruments using 2 different detectors for the low dose rate range and the high dose rate range, the single detector arrangement in the RadEye PRD-ER offers the following unique advantages over the whole measuring range.

# RadEye PRD CD System

The RadEye PRD-CD System can positively detect contraband such as drugs, explosives, weapons, currency. It is a fast and effective way of detecting any material of a density that is typical of contraband substances in tires, doors and fuel tanks etc. The system consists of a RadEye PRD-CD gamma pager combined with a RadEye contraband adapter made of a low activity Ba-133 source that is embedded in a tungsten collimator with shutter. Voids with metal walls up to 1 cm of steel yield a very different

backscatter signal if empty or filled with contraband. The signal shows up in one channel of the dual channel display.



Detect and localize radiation sources generated by manmade devices such as nuclear weapons, improvised nuclear devices (INDs) or radiological dispersal devices (RDDs) with the Thermo Scientific™ RadEye™ PRD Personal Radiation Detector. The RadEye PRD detector provides border guards, customs agents, special forces and counter terrorism teams with high-performance detection for any scenario. The Thermo Scientific™ RadEye™ PRD-ER Personal Radiation Detector with extended range, is ideal for both interdiction and response.

The RadEye PRD Detector is a high sensitivity gamma radiation detection and dose rate measurement tool for security forces, steel

and recycling industry, and first responders to detect and locate orphaned sources or problematic NORM related sources in scrap yards, border crossings and other public locations. 5000 to 10,000 times more sensitive than a typical electronic dosimeter; incorporates highly sensitive Nal(TI) scintillation detector with miniature photomultiplier for detection of very low radiation levels (emphasis on gamma emissions below 400KeV).



### Mini Rad-DX

The Mini Rad-DX is an advanced technology PRD. The Mini Rad-DX offers the exclusive SensorNet mesh network as well as the ability to be monitored system wide via WIF1 to a central location, emailing or texting alerts to critical personnel. The Mini Rad-DX has ability to display dose rates in mR/Hr or Sv/Hr units. Several gigabytes of data and events can be stored before the memory rolls over. The data is downloaded completely or administrators can choose significant events, i.e. where the PRD actually received a 'hit.' Once the Mini Rad-DX comes within range of another Mini, or a Rad-DX Area Monitor, the units mesh together and act as transceivers and receivers and push the data to the DX View software or other remote monitoring software. With the GPS enabled, it is possible to know the exact coordinates of the 'event', device, or monitoring situation. Because the Mini Rad-DX can perform all these functions automatically, there is never any interference with the user's primary responsibilities.

### RadEve SPRD

# RadEye SPRD GN



Natural Background Rejection NBR is a technology used to eliminate fluctuating natural background levels while measuring radiation. This proprietary and patented technology is used to quickly differentiate between natural and artificial radiation by stripping away any natural background radiation that is registering, delivering you a more accurate result of artificial radiation levels.

The RadEve SPRD offers the next generation of NBR. The added fidelity of the new multi-channel NBR algorithm provides higher sensitivity to positively differentiate between natural and man-made radiation during search and find operation and better detection performance against masked isotopes. Once an alarm indicates the presence of significant gamma radiation the RadEye SPRD can automatically switch into radionuclide identification mode for immediate analysis. The editable trigger list allows users to select nuclides of concern from a list that includes all in the ANSI N42.48 standard. Users may also define custom subsets based on their areas of interest such as medical or industrial applications.

The SPRD is ideal for primary inspection of its surroundings and provides basic secondary inspection, allowing users to quickly adjudicate the most common alarms such as distinguishing medical patients from RDDs or crates of bananas from orphaned sources. Law enforcement officers can take advantage of its small, wearable size and its affordability to provide a sensitive and significant network of sensors to locate radiation. Rapidly determine identity and type of radiation, providing key information faster to determine if HAZMAT or CBRN teams are needed.



### RadEye SPRD Kits

Arrive at the scene with a compact tool set for quick, efficient, and accurate radiation detection, nuclide identification and data management. The RadEye™ SPRD and SPRD GN Spectroscopic Radiation Detector KIT bundles a RadEve™ SPRD with a compact belt holster, easy to use hardware and software tools for PC-based data review and transfer, and a Lutetium Test Adapter for guick and reliable performance verification all in a compact, robust transportation case ideal for first responders and emergency response teams.

The RadEye SPRD provides first responders and law enforcement teams like border guards or special forces with high performance detection and radionuclide analysis for any scenario.

# RadEve PRD NL Neutron Version



The RadEve NL closes a gap in the classical product spectrum of the radiation measurement technology. Rem-Counters for neutron detection with a He-3 or BF3 tube are usually heavy and bulky since fast neutrons have to be moderated in order to be detected and to provide the correct neutron dose rate response. Low energy neutrons with their lower biological impact however have to be suppressed to a large extent. Thus the rather low sensitivity of Rem- Counters to premoderated neutrons can be explained.



# RadEye G/G-10

The RadEye G is a light-weight and very rugged instrument designed for guick and reliable measurement of gamma dose rates. Modern electronic circuitry guarantees excellent linearity over 6 decades of radiation intensity: from background level to 10 R/h - with overrange indication up to 1000 R/h. It incorporates a large energy compensated GM-tube for precise dose rate measurement for gamma and x-ray.





# RadEye SX

The RadEye SX is a modern compact multi-purpose survey meter for external scintillator counter tubes. General count rate and surface contamination measurements can be performed as well as dose rate measurements. As part of the growing RadEye product family of highend stand-alone meters, the RadEye SX is designed to exceed the most demanding user expectations. Due to the clear and large display all essential functions and software parameters can be easily accessed. The display and the alarm-LED can be seen while the instrument is worn in the transparent case.



# RadEye GF The ver

The **RadEye GF** is a light-weight and very rugged instrument designed for

quick and reliable measurement of gamma dose rates. Modern electronic circuitry guarantees excellent linearity over 7 decades of radiation intensity: from background level to 300 R/h - with unlimited over range indication. The high-quality counter tube in conjunction with the nonmetal instrument housing allows detection and reliable measurements down to very low gamma energies - a crucial feature in respect to accidents involving medical isotopes or Am-241 (a component of smoke detectors).



## RadEye GX

The **RadEye GX** is a modern compact multi -purpose survey meter for external Geiger

Mueller counter tubes. General count rate and surface contamination measurements can be performed as well as dose rate measurements. As part of the RadEye product family of high-end standalone meters, the RadEye GX is designed to exceed the most demanding user expectations.



### RadEve G Ex

In emergency response and in industry flammable and explosive materials like gases, dust and fibers

can occur. In such potentially explosive atmospheres it is necessary to use ATEX certified devices for your measurements. The **RadEye G Ex** radiation detector series comprises 4 versions of intrinsically safe handheld devices for gamma and dose rate measurements. They are designed according to the latest ATEX standards to meet the needs of their operator in and around hazardous areas.

# nanoRAIDER (identiFINDER R300)



When radiation detection capabilities are necessary, operators must rely on the accuracy and dependability of their instruments. With the highest detector resolution available in a pager-sized device, the R300 virtually eliminates the false alarms and false positives that are so common to personal radiation detectors. With both detection and identification capabilities available in a single, rugged device, those on the front lines of homeland security can trust the R300 to make their job easier.

About the same size as a cell phone, the belt wearable R300 provides continuous detection capability with visible, audible and tactile alerts. Once radiation has been detected, the fast identification capability of the instrument provides essential information to the user in the field, enabling them to make a next step determination. The One Touch

Reachback™ feature integrated into the R300 allows the user to immediately send a notification to team members, superior officers, situation management personnel, and expert analysts – all with a single push of a button.



### identiFINDER R200

The identiFINDER R200 is a rugged, pager-sized Spectroscopic Personal Radiation Detector (SPRD). The R200 provides full ANSI N42.32 Personal Radiation Detector (PRD) compliance and features next-generation solid state detector read-out technology that delivers ANSI N42.48 SPRD compliance with nuclide identification. The clear user interface and simple data presentation common to all identiFINDER products allow it to quickly integrate with existing operational protocols and reduce the training burden.



### PDS 100 G/GN

The PDS-100G and PDS-100GN are a new generation of gamma and gamma/

neutron radiation detectors. These sensitive pocket-sized devices are designed to detect, locate and quantify any radioactive materials as Special Nuclear Materials or as Radiological Dispersal Devices (RDD's), in a very short time. The PDS-100G and GN feature the capability to transmit the measurement and the spectrum on request. They have been designed specially for First Responders, Law Enforcement, Customs Inspectors and for Personnel and Site Security in critical infrastructures.

# **RDS-30 Survey Meter**



The RDS30 is a digital handheld radiation dose rate meter designed for any number of applications involving the possibility of higher than expected or abnormal radiation levels. It is compact, lightweight and extremely user friendly. It is perfectly suited for radiation surveys in field conditions, the nuclear industry and for protection against radiological hazards by any user regardless of their level of radiation expertise. It's ruggedness and IP67 environmental rating make it the ideal choice for detecting and monitoring radiation in virtually any conditions by persons who may be exposed to gamma and/or X-ray radiation.

The RDS-30 provides sequential alarms for fixed dose rate values (programmable by CSW configuration software via IrDA link) and the ability to store dose rate events into the histogram memory of the meter. The use of a CSW software is provided for the easy download of this data to a PC via IrDA port.

### **RDS-80/80A Contamination Meter**



The RDS-80/80A Pocket Surface Contamination Meter is a rugged, versatile contamination instrument designed for a wide range of radiation detection applications. It is suitable for use in the nuclear industry, emergency response, interdiction operations or any environment where the possibility exists for abnormal contamination levels to be present. The unit combines contamination detection measurement with alarm functions and automatic conversion to activity values. Additionally, there is a histogram stored in the meter's internal memory. The RDS80 will also display in Bq/100 cm2!



### identiFINDER R100

The FLIR identiFINDER R100 is a personal radiation detector (PRD) in a beltworn, rugged form factor. It delivers threat alarms to frontline responders and automatically generates a dose-rate report providing continuous, situational awareness to central command. Every R100 features integrated Bluetooth® Smart technology that connects directly to a smart device, enabling networking. The R100 is IP67 certified to protect against dust and water immersion up to 1m. It meets the 1.5m-drop criteria required by ANSI N42.32, a key performance standard for alarming PRDs deployed in harsh responder environments.

### **UltraRadiac Plus**



The potential threat of a radiological terrorism incident requires that first responders are equipped with a radiation monitor that is designed to address the radiation hazards they may face. The UltraRadiac-Plus is the perfect unit for first responders as it offers the small size and light weight needed to avoid interference with critical work while providing continually updated information to the wearer.

Most electronic dosimeters on the market were intended for laboratory use, and not for the rugged environments that first responders may encounter. The UltraRadiac-Plus – based on a US Military design – is a small, rugged, simple to operate radiation monitor that displays both the radiation levels and the total dose that is received. A large, backlit LCD display ensures that the unit can be read in any light conditions. Alarms are annunciated by a flashing display, loud audible signal and vibration of the unit itself, when user-set dose rate or total dose alarm levels are exceeded.

The RDS-31S/R Multi-purpose Survey Meter is part of the RDS family of RADOS survey meters and offers modern design and an advanced approach to radiation monitoring.

The RDS-31 features outstanding ergonomics; it is lightweight and easy to handle with visual, audible and vibrating alarms.

The large LCD screen includes an automatic illumination control feature with an energy saving backlight that can be easily read in total darkness and in direct sunlight. To make the instrument even easier to use, the buttons can be configured with easy to understand Shortcuts. The Shortcuts allow the user a straightforward and simple way to configure the instrument for performing repeated operations such as the Manual Histogram, Sample Collection, Dose Value Display, and Diagnostics. In addition, to help the users to become accustomed to the Shortcut-function, a Visualization display function can be employed.



Optional smart probes available for the RDS31 include the GMP11-3, GMP 25i , GMP 25 and GSD 12.







The Radiagem™ 2000 features excellent ergonomics such as easy handling

# Radiagem 2000

large custom LCD display, semi-log bargraph, average digital reading, and visual and audible alarms

Radiagem's external smart probes extend the capabilities of the instrument to a range of general surveying applications. The probe is a fully integrated subsystem, taking and transmitting the measurement to the instrument, which is used for display. In this "smart" design, key components of hardware circuitry (high voltage, amplifier, discriminator, etc.) are located directly inside of the probe housing rather than in the host survey instrument. Also, the intelligence associated with controlling those components is located in the probe – that is, control and storage of key parameters, settings, calibrations, probe ID, alarm settings, etc...





### **DSM-500**

This microprocessor-controlled instrument represents the new gold standard of survey instruments. The **DSM-500** boasts an oversized digital display and a unique capability for dual probe capability. Comes standard with timed count capability. probe-saturation and error indicators.

The DSM-525 is the most functional survey instrument on the market with its dual probe capability. This dual connection capability allows users the luxury of multiple level measurements with as many as four different probes calibrated to each measurement type. No more retracking to the **DSM-525** instrument case to switch probes.



### **Teletector 6112M**

The Teletector 6112M is a portable, battery operated dose rate meter designed to measure photon radiation (gamma and Xradiation), and to detect beta radiation. Two GM counter tubes serve as detectors. The stainless steel telescope can extend up to four meters and its tip carries the two tubes. The tubes are placed along the axis one



behind the other; a groove marks the center of each tube. The low End tube detects beta radiation and together with the high end tube the Teletector covers a dose range from 10 uR/h to 1000 R/h (0.1 uSv/h to 10 Sv/h), where it automatically switches between the two tubes.

The **DSM-502** Survey meter is designed as the perfect application for general users of radiation measurement and monitoring. It's midrange internal detector allows for the perfect combination of accuracv. simplicity and functionality for the reliable and consistent measurement of dose

DSM-502





### DSM-506

The operation of the **DSM-506** provides users the ease of an internal detector with the additional probe capability for those specific measurement needs. This feature, with its easy to read display, digital electronics and rugged design make the 506 a perfect instrument for all applications.



### ERK-525 Kit

The ERK-525 is a complete, portable radiation monitoring system designed to measure a broad range of radioisotope contamination under field conditions. The system contains a state of the art, microprocessor based digital display meter that auto ranges and can detect most of the common alpha, beta & gamma radiation that is likely to be present in an emergency situation. The DSM-525 is a dual probe survey meter that measures contamination and dose levels from micro-R to 200 mR/hr levels of gamma isotopes (Based on 137-Cs calibration). The Instrument and accessories are contained in a very durable water resistant carrying case for easy storage and portability. The ERK-525 does not require changing probes to obtain the full operational benefits of the system. The user needs only to turn the selector switch to the desired probe and the rest of the operation is automatic.

### RadEve SX

The RadEye SX is a modern compact multi-purpose survey meter for external scintillator counter tubes. General count

rate and surface contamination measurements can be performed as well as dose rate measurements. As part of the growing RadEye product family of high-end standalone meters, the RadEve SX is designed to exceed the most demanding user expectations.

Due to the clear and large display all essential functions and software parameters can be easily accessed. The display and the alarm-LED can be seen while the instrument is worn in the transparent case.



### RadEye G20 Variants



The RadEye G20-10 and G20-ER -10 are excellent gamma survey meters with a flat energy response curve from 17 keV to 1.3 MeV according to ambient equivalent dose H\*(10). The versions G20 and G20-ER are equipped with a different energy filter in order to yield an energy response for dose rate measurements in R/h

### **FFATURES**

- Light Weight (300 g), excellent grip with and without gloves
- Rugged and compact design, thick rubber protective cover
- > 500 h operation time with 2 AAA batteries rechargeable NiMH-cells can be used
- Menu-driven user interface results in low training cost and immediate familiarity
- Huge internal data memory for both scaler results and continuous data recording
- Bright backlit LCD display plain text messages different languages can be selected
- Audible indication: single pulse or chirper mode proportional to count rate
- Earphone output for operation in loud environment



# RadEye PX

The RadEve PX is a modern compact multipurpose survey meter for proportional counter tubes. General count rate and surface contamination measurements can be performed as well as dose rate measurements. typically with He-3 or BF3 based Rem-counters.

# RadEye B20 Variants

The RadEye B20 is a modern compact multi-purpose contamination meter for alpha, beta, gamma and X-

ray radiation. By virtue of optional gamma energy filters, deep or shallow dose rate measurements from 17 -1300 keV can be performed. For emergency response purposes alpha and beta contamination can be discriminated using another optional filter. The instrument is part of the growing RadEve family of high-end standalone meters, which are designed to exceed the most demanding user expectations.

### **FEATURES**

- Light Weight (300 g), excellent grip with and without gloves, rugged and compact
- 500 h operation time with 2 AAA batteries rechargeable NiMH-cells can be used
- Menu-driven user interface results in low training cost and immediate familiarity
- Huge internal data memory for both scaler results and continuous data recording
- Bright backlit LCD display plain text messages different languages can be selected
- Easy adaptation to different tasks by supervisor: figuration, calibration, selection of measuring units
- Versatile operation modes:: Scaler/Timer Continuous rate meter mode for frisker operation Dose rate
- Audible indication: single pulse or chirper mode proportional to count rate
- A table of up to 15 nuclides can be loaded for display in Bg or dpm



Rejection).

# RadEye AB100

The RadEve AB100 is a modern contami-

nation meter for surface contamination measurements with excellent alpha/beta discrimination. The user can select the proper calibration factor within a list of isotopes (e.g. Bg. Bg/cm<sup>2</sup>, dpm). The instrument is part of the growing RadEye family of high-end standalone meters, which are designed to meet the most demanding user expectations.

### **FEATURES**

- · Light weight, rugged and compact design
- 1.000 h operation time using 2 C batteries
- Menu-driven user
- · Huge internal data memory
- Bright backlit LCD display –
- Different languages can be selected
- Easy adaptation to different tasks by supervisor configuration
- · Audible indications
- · Earphone output

The RadEve™ NBR is a combination of the Thermo Scientific RadEve SX multipurpose meter and the FHZ 674 NBR detector. Even in case of large variations of the natural background during the search, very small contributions of artificial gamma radiation can be detected by a NBR detector (Natural Background





# Ranger & Ranger EXP



The Ranger offers maximum performance in a lightweight, rugged solution for using your survey meter at the facility, or in the field. Though designed for industrial environments, the Ranger has all the features you've come to expect in the lab. The Ranger is a small, handheld, microprocessor-based instrument which offers excellent sensitivity to low levels of alpha, beta, gamma and x-rays.

The Ranger EXP offers maximum performance in a lightweight, rugged solution for using your survey meter in the field. The Ranger EXP has been designed specifically for individuals that are operating in harsh environments. The digital readout is displayed with a red count light and a beeper sounds with each count detected.





### **Observer Software**

The **Observer** software runs on a Windows platform and can be used with the Inspector, and Geiger Radiation Monitors. As an option, any of our Radiation Alert® instruments can be modified to interface with the Observer.

# Fuji Model NSN3



The Fuji Model NSN3 portable neutron survey meter is very lightweight and small without polyethylene moderator. The energy response is improved using the spectrum weighting function. The NSN3 survey meter measures ambient dose equivalent and ambient dose equivalent rate of neutrons.

It is lightweight and portable at 4.4 pounds (2kg) it is ideal for a wide range of measurement requirements. It can use AC power and primary and secondary power options are applicable. It is equipped with USB drive function for data uploading, display measurement values and data management on a PC.



The Radiation Frisker is a radiation contamination instrument that has been designed and developed to meet the ever increasing demands of today's radiation responder. By integrating the latest electronics with a proven and dependable GM (Geiger-Mueller) detector, the result is an ergonomic and ruggedized tool that addresses a diverse range of radiological applications.

By eliminating cables and the need for two handed operation, the Radiation Frisker makes the radiation contamination survey process easier than ever before. With a straightforward user interface and multi-mode operation, the Radiation Frisker is an instrument that is truly operable with one hand tied behind your back! Simple two button operation and an easy to read LCD screen allows responders with any level of radiological knowledge to quickly maximize the potential of this device. User configurable audible and visual alarms make the Radiation Frisker the ideal device for use in a full range of environments.

### FH40- Survey Meter





speaker can be activated to signal detector pulses. The FH 40 G models are designed to record up to 256 data points containing measurement number, date, time and dose rate at the internal detector and external detector, status, and barcode information.



### FHZ 672 E / 672 E-10



For fast discrimination of natural and artificial gamma radiation. The FHZ 672 E consists of a special detector of 750 cm<sup>3</sup> organic scintillation material of integral line construction, voltage divider, high voltage generator, amplifier and discriminator thresholds and NBR process computer. The indication of artificial radiation is shown by LED on the probe, as well as visually in the display and audibly by the speaker in the instrument body.

### **Monitor 200**

The **Monitor 200** measures alpha, beta, gamma, and x-rays. Its digital display shows readings in your choice of CPM, CPS,  $\mu$ Sv/hr, mR/hr, or in accumulated counts. It has a digital display, a red count light, and a beeper that sounds with each count detected. Other features include an adjustable timer, and selectable alert. With the free Observer USB Software Family, you can set computer alarms, calibrate your instrument, and download your collected data from the internal memory for easy reporting.



### **RC-2 Handheld Detector**

The RC2 portable radiation detector has been designed to detect very low radiation intensity levels from radioactive materials buried in scrap metal. The RC2 is an extremely effective handheld detector that utilizes a large 32 cu. in. (0.54L) internal PVT plastic scintillation detector, a common material found in most larger vehicle monitoring systems.

Operation of the RC2 is fully automatic and designed to allow fast and easy inspection of areas, containers or vehicles that may contain radioactive materials, or to verify or separate radioactive materials that have triggered an alarm on large scale radiation detection systems. The RC2 contains a state-of-the-art microproces-

sor and internal electric circuitry designed to automatically set the lowest achievable alarm level and to continuously monitor system operation in order to maintain consistent optimum performance.

### **RO-20AA Ion Chamber**



The Model **RO-20AA** is a portable air ionization chamber instrument, used to detect beta, gamma, and x-radiation, with five linear ranges of operation to measure exposure from background to 50 R/h full scale.

The ionization chamber is vented to atmospheric pressure and is specifically designed to have a flat energy response into the x-ray region. The detector is fully temperature compensated, eliminating any need for temperature correction. A single rotary switch turns the instrument off, checks the batteries, checks the zero setting, and selects the range of operation. An ergonomically located switch illuminates the meter.



### **Monitor 1000EC**

The Monitor 1000EC measures gamma, and x-rays. Perfect for most applications requiring an energy compensated detector. Users can choose from readings of CPM, CPS, µSv/hr, mR/hr, or in accumulated counts. It has a red count light, a beeper that sounds with each count detected, and includes an adjustable timer, and selectable alert. The free Observer USB Software allows you to set alarms, select preferences, and download your collected data. The Bluetooth and Observer BLE for Android enables saving, sharing, and automation of surveys and RadResponder compatibility..

### **Tracerco T202**

The TRACERCO™ T202 Radiation Dose Rate Monitor has been specifically designed to combine intrinsic safety with ruggedized but lightweight construction and provides additional key operational features such as personal dose integration and peak dose rate. Radioactive materials are employed routinely in industry to facilitate a wide range of measurements including Process Level Control, Fluid Separation and Non-Destructive Testing. In order to protect the work-force from exposure and to ensure compliance with relevant legislation, radiation dose rates must be carefully monitored and controlled.



### **Tracerco NORM Monitor IS**

An intrinsically safe, weatherproof monitor with dual probe capability - the ultimate tool for obtaining accurate NORM Measurements in hazardous areas or difficult conditions.

The Tracerco™ NORM Monitor-IS allows users to monitor wet and dry NORM in a variety of situations. Its unique, intrinsically safe design incorporates different probe options to make it the optimum measurement tool. The NORM Monitor-IS Handset is available to purchase with a Scintillator Probe, a GM Probe, or Dual Probes as the NORM Monitor Kit.

### identiFINDER R400



The FLIR identiFINDER R400 is a logical extension of the original identiFINDER series of handheld radioisotope identification detector (RIID) instruments. The spectrum is continuously LED peak stabilized to handle a wide range of count rates and conditions with no peak interference in the identification spectrum. Wired communication uses a micro USB connector, USB 2.0, or wireless via a Class 2.0 Bluetooth© interface, with a 33 ft (10m) range, which supports the reach-back capability, also provided. A Web interface is provided via USB emulated TCPIP (LAN) for monitoring and configuring the identiFINDER R400. A twelve channel, Sirf III GPS is included for incident location. Data storage has been enlarged to 1 GB to save more spectra and event information.

Unchanged are the size, shape and weight; the three button (4th for power) operation; the scintillation, neutron and GM detector types, sizes and sensitivities; the screens menus, when operated in the original identiFINDER mode; the types of alarms; the radionuclide identification accuracy; and the reliability, support and service.

### identiFINDER R200 G/GN



The identiFINDER R200 is a rugged, pager-sized Spectroscopic Personal Radiation Detector (SPRD). The R200 provides full ANSI N42.32 Personal Radiation Detector (PRD) compliance and features next-generation solid state detector read-out technology that delivers ANSI N42.48 SPRD compliance with nuclide identification. The clear user interface and simple data presentation common to all identiFINDER products allow it to quickly integrate with existing operational protocols and reduce the training burden.

GSA

The identiFINDER R-series of products share a field-proven, common user interface and simple data presentation. With over 20,000 identiFINDER products deployed globally, the familiar interactions with the identiFINDER R200 allow it to quickly integrate with existing operational protocols while also reducing the training burden.

### identiFINDER R440



The FLIR identiFINDER R440 is a lightweight, sourceless radionuclide identification device (RID) that delivers sensitive detection and fast results for routine survey or secondary screening response missions. The 2x2" NaI (sodium iodide) detector responds to radiological threats from farther away, behind heavier shielding, and with better resolution than similarly-sized RIDs. The extended energy range provides neutron indication. Its light weight makes single-handed operation easy during extended operations, while the IP67-rated enclosure is built to survive. The bold, easy-to-read interface with 360° EasyFinder™ mode expedites decision-making to keep personnel and the community safe.

The R3440 detects radiological threats from farther away, behind heavier shielding, and with better resolution than similarly sized RIDs. Droptested to 1m, it boasts a completely enclosed crystal, and IP67-rated enclosure that protects against dust and water immersion up to 1m. 360° EasyFinder Mode pinpoints and instructs operator on exact location of radiation source to keep responders and the community safe.

# identiFINDER R500 (radHUNTER)

The identiFINDER R500 is an extremely sensitive and accurate digital handheld gamma radionuclide identification device (RID). It is the culmination of over eight years of development of micro-miniature, digital signal processing electronics; operating power conservation; and advancements in the scintillation detector, radionuclide template matching identification algorithm. The R500 development was supported in part by the U.S. Government.

The R500 is able to quickly detect, rapidly locate, accurately measure and precisely identify sources of contamination from their gamma radiation signature. The R500 uses a 0.75" thick by 4" diameter Nal(TI) detector. This large cross section provides an excellent source to background ratio which rapidly locates gamma contamination. It comes with a GM tube for high gamma dose rate measurements and an optional sealed 3He detector with moderator for neutron detection. Each instrument is supplied in a carrying case with belt holster, wrist strap, battery pack and recharging unit.



### **SPIR Ace**



The SPIR-Ace is a versatile Radionuclide Identification Device (RID) addressing all applications requiring efficient detection and identification of radiological threats in security applications, including civil defense, border security and customs. The SPIR-Ace can be used by in law enforcement, emergency response and other critical infrastructure applications. It also provides accurate assessment of nuclear materials for power plants, safeguard inspection, forensic laboratories and OSI/CTBTO agents

The SPIR-Ace offers identification performance beyond current standards for RIDs such as for heavily shielded isotopes, unbalanced mixtures of nuclides and Special Nuclear Material (SNM) masked by medicals or Naturally Occurring Radioactive Material (NORM) within a few seconds.

The SPIR-Ace offers user-friendly and state-of-the-art features such as easy localization with

### SPIR-ID LT



The SpiR-ID LT is an advanced RadioIsotopic Identifier (RIID); its "on-the-fly" identification capability makes it the fastest and most effective handheld instrument on the market for interdiction and inspection missions.

The SpiR-ID LTs performance exceeds all current RIID standards (ANSI N42.34 and IEC 62327) for criteria such as identifying heavily shielded sources.

unbalanced mixtures of nuclides, and Special Nuclear Material (SNM) that's masked using medical or Naturally Occurring Radioactive Materials (NORM).

It is suited for all applications that require efficient detection, search and identification of radiological threats (Radiological Dispersal Devices or RDD), including civil defense, customs & border protection (illicit trafficking of radioactive materials) and emergency response situations.

the SpiR-ID LT can be used as well for mobile surveys or for secondary screening after a primary detection by a radiation portal monitor (RPM).



The Thermo Scientific RIIDEye™ detects and identifies radiation present in the environment and gives users feedback on where the radiation is, what type and how much. It is the only RIID with real time spectra build to allow users to optimize identification during the scan which

leads to faster scans, more confidence that measurement was accurate and the ability to add scan time based on real time results

The RIIDEye offers identification speed with high accuracy. Allowing more scans, faster results in situations where rapid decisions need to be made. With patented QCC technology, it provides real time gamma source identification

and improved quality of isotopic IDs.

The RIIDEye is ergonomically engineered for single-grip operation and weight balanced for comfortable usage, even in long-term use scenarios. The RIIDEye is an intuitive instrument to operate. With a large, illuminated color interface and simple, raised button design, it can easily be used by personnel with little experience in radiation measurement - providing identification "at a clance."

The **RIIDEye** from Thermo Scientific is an easy to use and very advanced handheld isotopic identifier. It provides precise, real time gamma source identification using the patented *QCC technology*. Effortless and uninterrupted operation is made possible due to a design that is ergonomic with the weight of the unit perfectly balanced at the mid point of the handle.

Training is easy allowing for swift and expeditious deployment of the RIIDEye by virtually anyone regardless of their level of experience or background in radiation detection and monitoring. The unique and advanced features of the RIIDEye can be quickly mastered to ensure fast, accurate measurements and reliable results. Immediate identifications are already displayed as color coded energy peaks in real time - while taking a spectrum – resulting in significant time savings in many critical situations.

### SYCLONE



The **SYCLONE** is a highly sensitive handheld Gamma-Ray spectrometer capable of identifying single or multiple isotopes simultaneously. The SYCLONE also provides the user with various functions such as Search and Find, Optional Neutron Detection, Rate Meter, Nuclide ID, Dose Rates and accumulated Dose. The SYCLONE Gamma-Ray spectrometer utilizes the highest quality Thallium doped Sodium lodide crystal, combined with an integral high signal to noise ratio PMT and state-of-the-art electronics and embedded microcontroller firmware. All of these enhanced features allow the SYCLONE to be one of the most accurate portable Gamma-Ray spectrometers when it comes to identifying specific and/or multiple isotopes even with weak gamma sources. The mechanical assem-

bly of the SYCLONE is robust and designed for field applications where harsh environments are commonplace. The SYCLONE operating system utilizes sensible easy to read and follow Menus. The multi-position joystick and large LCD backlit display provides easy navigation through menu selections. Detailed spectral information is clearly and precisely displayed so knowledgeable users have the ability to visually identify peaks in the histogram. Various on-screen messages assist the user when immediate attention is required for issues such as preset timing, high radiation levels, alarm settings and warning messages.



The RadEve SPRD provides first responders and law enforcement teams like border quards or special forces with high performance detection and radionuclide analysis for any scenario. Metal recyclers and producers that need to detect, locate and identify orphan radionuclides in their incoming scrap material can now add an additional level of security, using the RadEve SPRD.

The ability to perform nuclide identification in a pager sized Personal Radiation Detector (PRD) offers advantages over current market options; including, compact size, low weight, long battery life time and low cost. This combination makes the RadEve SPRD a perfect tool for users detecting. locating and identifying sources of radiation as an secondary requirement of their main task.

Natural Background Rejection NBR is a technology used to eliminate fluctuating natural background levels while measuring radiation. This proprietary and patented technology is used to quickly differentiate between natural and artificial radiation by stripping away any natural background radiation that is registering, delivering you a more accurate result of artificial radiation levels.

The RadEye SPRD offers the next generation of NBR. The added fidelity of the new multi-channel NBR algorithm provides higher sensitivity to positively differentiate between natural and man-made radiation during search and find operation and better detection performance against masked isotopes. Once an alarm indicates the presence of significant gamma radiation the RadEye SPRD can automatically switch into radionuclide identification mode for immediate analysis. The editable trigger list allows users to select nuclides of concern from a list that includes all in the ANSI N42.48 standard. Users may also define custom subsets based on their areas of interest such as medical or industrial applications.

The SPRD is ideal for primary inspection of its surroundings and provides basic secondary inspection. allowing users to quickly adjudicate the most common alarms such as distinguishing medical patients from RDDs or crates of bananas from orphaned sources. Law enforcement officers can take advantage of its small, wearable size and its affordability to provide a sensitive and significant network of sensors to locate radiation. Rapidly determine identity and type of radiation, providing key information faster to determine if HAZMAT or CBRN teams are needed

# **GR-135 - SYCLONE Upgrade**

Retro-Fit Out of Date **Technology to Maximize Resources** 



**GSA** 

LAURUS Systems provides an advanced spectrometer technology that allows specific components of existing spectrometers to be retrofitted into RadComm's State-of-the-Art SYCLONE series of portable RIID's (handheld radio-isotope identification device). We now have the ability to upgrade and retro fit existing and potentially out of date or inoperable GR-135™ handheld spectrometers to the SYCLONE's advanced technology.

By redeploying specific components from the older devices, we can now offer the end user a fundamentally brand new instrument. Our exclusive process involves incorporating the existing fully functioning sensors (including He3 and moderators if applicable) with new electronics, boards, and display as well as a more durable and ergonomic case. The end result is an instrument that carries a full warranty at a fraction of the acquisition cost typically associated with new devices of this type.

### identiFINDER R300



When radiation detection capabilities are necessary, operators must rely on the accuracy and dependability of their instruments. With the highest detector resolution available in a pager-sized device, the **identiFINDER R300** TM virtually eliminates the false alarms and false positives that are so common to personal radiation detectors. With both detection and identification capabilities available in a single, rugged device, those on the front lines of homeland security can trust the R300 to make their job easier.

About the same size as a cell phone, the belt wearable R300 provides continuous detection capability with visible, audible and tactile alerts. Once radiation has been detected, the fast identification capability of the instrument provides essential information to the user in the field, enabling them to make a next step determination. The One Touch Reachback<sup>™</sup> feature integrated into the R300 allows the

user to immediately send a notification to team members, superior officers, situation management personnel, and expert analysts – all with a single push of a button.



# MSpec G/GN

The **MSpec** portable fast responding gamma and gamma/neutron spectrom-

eter and dose rate meter will instantly measure any material for the presence of radioactivity whether it is general waste, medical waste, scrap metal or recycled material. Operation of the MSpec is completely automatic once the easy-to-set operational parameters have been selected. Simply position the unit in close proximity to the object that needs to be scanned and listen for the varying audio alarm to sound and/or the displayed readings to increase. The MSpec scans suspect material and quickly analyses to determine if and what radio-isotope is present then further categorizes the result as Medical, Industrial, or Natural Occurring Radioactive Material (NORM).

The user selectable readout on the instrument display will show the desired units of measure such as Counts per Second (CPS), Dose-Rate (Sv/h, R/h) or Accumulated Dose (Sv/R). The MSpec stores all results in a record which can be downloaded via USB into the user-friendly RadComm MSpec software for information archiving and further data manipulation and analysis. Reports can be saved in Adobe® PDF format and emailed via user's PC. Remote service diagnostics and software updates of the MSpec are also achieved by utilizing the RadComm software.

### **SPIR Pack**

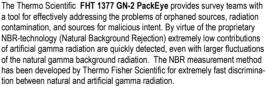


Mirion's SPIR-Pack is ideal for all applications requiring the efficient detection and identification of radiological and nuclear threats. Of primary importance, these applications include the protection of large public events, as well as providing superb capabilities for radiological/nuclear interdiction.

The SPIR-Pack is lightweight, comfortable to carry, and durable, with a long battery life for extended field operations. The SPIR-Pack system includes sensitive detectors that connect to a smartphone. Because it alarms only in presence of radioactive sources (not on background variations), the smartphone can simply stay in the user's pocket (or other carrying accessory) until vibration and/or audible alarm indicates the presence of a source. The full-featured smartphone app provides dose rate, nuclide identification and an innovative Radar screen to indicate the direction of radioactive sources arriage return. Users also appreciate the fact that the SPIRPack uses the same app as the

SPIR-Ace, greatly simplifying training and making it easy for users to use both instruments.

# FHT 1377 GN-PackEye





Unlike conventional spectroscopic based gamma identification systems, the systems using NBR do not require the presence and resolution of gamma spectral peaks, and unlike Sodium lodide detectors, NBR detectors are stable at varying temperatures and for many years of real field use, with no regular re-optimization or stabilization with sources required. Because of this flexibility, NBR can also definitively distinguish artificial high energy beta sources and heavily shielded gamma ray sources from fluctuating natural background sources. Thus alarm levels in the order of 1 µR/h are achieved for SNM or heavily shielded industrial sources in outdoor environment. Such sources may be used in Radiation Dispersal Devices (RDD's) known as "dirty bombs". Artificial gamma radiation sources are identified in seconds by operators with basic training levels. Presence of artificial gamma radiation is simply indicated by a red flashing light and an audible alarm.

# **SpiR-Ident Mobile System**

### **FFATURES**

- · Very sensitive nuclear detection and real-time identification
- · For mobile use: car, boat, helicopter or airplane
- Potential radiological threat search with Homeland Security algorithm
- After event contamination mapping
- Versatile configuration 1 to 4 detectors, 2 to 16 liters NaI(TI)
- Rugged detection case and wireless tablet PC
- . GPS and mapping function



SPIR-Ident Mobile System, is a movable radiation monitoring system. developed for vehicle, helicopter and aircraft use. It is a ruggedized and friendly deployable equipment with the higher existing capability for both detection and identification of radioactive sources.

This system especially allows to detect artificial gamma isotopes among varying natural isotopes when used as an airborne or vehicle borne system for the purpose of contamination evaluation and unattended source search

### **URSAII**

### Ideal for laboratory applications!



The URSA II, with a full-featured MCA program, can be used with practically any radiation detector and can extract any data your detector can supply! It has been designed taking into account comments and requests from our current URSA customers, URSA-II MCA, the all-new fully, quantitative Windows™ based URSA-II software package has been designed for ease of use in a 32-bit Windows™ environment. Software also includes URSA-II for PPC software to run the URSA-II using a Windows

Mobile™ Device (Jornada, iPAQ, TDS Recon, etc.) running Windows CE™ or Windows Mobile™. The Software can be installed on as many computers as you like, with no restrictions and includes free software updates.

NUC-ID Kit Featuring the URSA II

Disc Sources and Kits

These sources are supplied as one inchip plastic discs.

With the exception of the alpha source, the small quantity of radioactive material is sealed in the plastic with epoxy to prevent leakage and contamination. The transmission window is sufficiently thin to transmit both beta and gamma emissions without undue absorption. The alpha source is of open window construction with the source material bonded to the surface of a silver foil mounted in the recess of the plastic disc. This design yields excellent emission of alpha particles without window losses. Many sources are and of nominal activity to provide a safe, yet inexpensive supply of radioactive material for educational and commercial use. Calibrated sources are also available, please call for more options.

These sources are supplied as one inch plastic discs.



RSS-2—GM Resolving Time Set; This set is used for determining the resolving time of GM Counters, It consists of three half discs, two of which contain 5 uCi of TI-204 plus a third half disc with no activity. The count-rate of each half disc plus the blank (to maintain constant geometry) is measured and then both active half discs are combined for a measurement with high count-rate.

RSS-3—The RSS-3 contains 1 each Po-210, Sr-90 and Co-60 emitting a range of alpha, beta and gamma radiation's. This set is ideal for demonstration and introductory nuclear labs covering basic characteristics of radiation





RSS-5—Containing 1 each Cs-137, Co-60, Sr-90, TI-204 and Po-210, the RSS-5 provides a wide of alpha, beta and gamma emissions making it a popular choice for nuclear science instruction The set contains two beta emitters, two beta/gamma emitters and one alpha source for in-depth studies of radiation

RSS-8—Designed for gamma spectroscopy, the RSS-8 contains eight different gamma emitting isotopes covering the entire energy range from 32 to 1333 keV. Also included in the set is a mixed source of Cs-137 and Zn-65 which students may use to identify an "unknown" isotope. The set consists of Ba-133, Cd-109, Co-57, Co-60, Cs-137, Mn-54, Na-22 and Cs/Zn,





RSS-8 EOD—Uniquely configured for EOD and DNDO applications. The RSS-8 EOD variations contain consists of 1uCi Ba-133, Co-57, Mn-54, Cd-109; 0.5uCi Cs-137, Na-22 and Co-60; 0.1uCi Cs-137; PRND Training Kit: Includes-1 of each of the following-1 uCi each-Ba133-EU152-Cs137-Na22-Mn54-Co57-Co60-Cd109

Cs-137—Cs-137 sources available in activities up to 10 micro curies



# **GammaTRACER Spider**

The autonomous **GammaTRACER Spider** gamma probe is specially designed to cover the needs of first responders in an emergency scenario. Based on the proven GammaTRACER design, the probe provides reliable measurement of the gamma dose rate and wireless data transmission to the crisis center by using SkyLiNK/ShortLiNK radio or Iridium satellite modem.

The compact design and innovative self-erecting enclosure facilitate deployment and minimize time, particularly important for emergency use and roll-out in contaminated area. The probe can simply be dropped out of a vehicle or pushed out through a lock or outlet. Thus, exposure to personnel can be significantly reduced. Alternatively deployment by a remote controlled drone or by parachute is possible.



### Rad-Alert Area Monitor

The Radiation Alert Radiation Area Monitor uses state of the art touch screen technology and a stream lined design to create one of the most user friendly area monitors available. The user interface is an intelligent graphics display system featuring an integrated resistive touch screen, an easy to read five digit LED display, warning indicators for low and high radiation alarm levels, low battery, and instrument failure.

Calibration parameters are accessed by a safely recessed push button. A Calibration Settings screen displays a function menu that allows the user to set high voltage, threshold, dead time correction, network IP address, units of measure, USB and Ethernet communication, and calibration constant. The touch sensitive sliding scale makes adjustments simple. Parameters are stored in memory even when power is disconnected. Batteries provide up to 10 hours of backup power.



### Rad-DX



The Rad-DX operates on the new and exclusive D-Tect SensorNet; an automatic communication network that allows users to monitor a full network of Rad-DXs as long as they are in range of a single Rad-DX system (up to 1000 meters)! The Rad-DX units will automatically form an intelligent, self-healing mesh network, allowing them to be constantly connected to each other as well as to the user network.

Each Rad-DX can be controlled and monitored by a PC on the network or cross the internet on any Tablet or remote PC. 128-bit encryption protected. Monitoring can be real-time or past event logs can be reviewed.

Monitor all the Rad-DXs on a floor plan, within a facility or on wide area map. The display provides an intuitive understanding of the location of the devices and can track the motion of a radioactive source. Dose rates can be viewed in multiple graph formats. The Rad-DX is ideal for security and infrastructure protection applications – waste management – hospitals – industry – or any location where accurate, versatile and economical radiation monitoring is needed.

The intelligent **SpectroTRACER** probe is a continuous measurement system for detecting

# **Spectro Tracer**

lowest gamma radiation in air and on the ground, but also excellently suited for high gamma radiation measurement, e.g. in emergency cases.

SpectroTRACER performs a spectrometric analysis of the measurement to identify the detected radionuclides. The device is used for gamma monitoring whenever a pure gamma dose rate monitor is not efficient enough or if it is necessary to qualify the nature of the gamma radiation. Low power consumption allows stationary as well as mobile application. Autonomous operation is possible in combination with battery backup for up to 10 days or unlimited with additional solar power supply. The compact mobile setup can be installed within a few minutes. Available wireless data transmission options are: WIFI, GPRS/3G, satellite, proprietary ShortLINK/SkyLINK radio. Possibility for different redundant configurations.

The measurement of the **SpectroTRACER Aqua Probe** is based on a LaBr3(Ce) or Nal (TI) detector (others on request). The hermetically sealed probe housing can be immersed up to a depth of 100 m (more on request) and is connected by cable with the control and power supply box. kept in dry conditions, via RS485 serial interface.



### AM-801

The WB Johnson AM-801 Portable Portal monitor assembles simply in less than five minutes. It comes with Voice Operational Commands. Full Color Touch Sensitive graphics panel, and Auto Cal for Maximum Sensitivity. The audible and visual alarms meet or exceed FEMA's sensitivity requirements of 1uCi or less Cs-137 detection

The AM-801 is the only portable walk-through monitor with voice commands, making the monitoring and decontamination process much easier for the technician and the public. This also the only device of this type to boast a full 36" (91 cm) interior pass-through width to accommodate wheelchairs and stretchers

It boast a full color touch sensitive graphics readout making it easy to set up and operate. It features auto calibration (for maximum sensitivity), audible and visual alarms, diagnostics, 120 vac w/10hr battery backup. The AM-801 is also available with optional printer and VH-1 Vehicle Monitor Kit



### PM-704



The Rapiscan PM704 transportable personnel monitor is the solution of choice for temporary radiation inspection applications. It is ideal for inspecting people gathered at events, such as sporting venues, political conferences or government functions. First responders can guickly transport the PM704 to a site and be ready to inspect people for radiation contamination. It also serves as a backup pedestrian monitor when additional inspection capacity is needed.

The PM704 is a compact and lightweight system that delivers the required radiation detection performance for effective personnel inspection. Large collimated PVT gamma detectors are housed in the vertical pillars. The PM704 meets the requirements of US and international pedestrian inspection standards, as well as the US FEMA

standard for radiological emergency response.



### **TPM-903B**

The TPM-903B is designed for rapid screening of personnel in the event of a radiation release. It provides early warning of hot spots, i.e. on protective clothing, and has design features suited for monitoring radiation workers, vehicles or the public. The TPM-903B is lightweight and mobile to facilitate transport to its location, where it is easily installed within seconds. In use, the aperture accommodates walkers or wheelchairs, and can be adjusted to also accommodate vehicles. Users are first detected by the occupancy sensor which switches the detectors from updating the background into scan mode. The alarm is given if the counts exceed a predetermined level, if not, the green "ready/clear" light remains on. The passage time is typically 1 second and a Reliably Detected Activity (RDA) figure of 1 uCi in a 25 uR/h background.

With preset parameters, self-testing is complete in 2 seconds and background is acquired in 20 seconds. The TPM-903B is then operational. If parameters need adjustment, the LCD display prompts the operator for setup values which are entered via the password protected keypad. Alarm level, time and date, signal amplitude discrimination level, resetting of occupancy sensor and detector variance test are all adjustable.





The TSA PM700 automatically scans pedestrian traffic without the need for frequent calibration. They are intended for applications where the relatively low energy emissions from 235U and 239Pu are the main concern. They are currently in use at uranium enrichment plants, weapons manufacturing plants, weapons storage sites, nuclear laboratories, nuclear waste disposal and storage sites where detection of Special Nuclear Materials (SNM) is essential.

The TSA PM700 monitor is a stand-alone pedestrian radiation portal monitor (RPM) with excellent sensitivity and reliability. The PM700 large detectors and unique detection algorithm improve its performance to the point that it can achieve ASTM Standard C 1169 Category III\* sensitivity for SNM. All of the essential components are contained in the pillars: radiation detectors, controller, and occupancy detector. The system operates from an internal battery. The battery is constantly charged from the site's AC line during normal operation. In the event of a power outage, the battery permits continued operation for at least 12 hours. Selectable settings for sensitivity, energy discrimination, and fault levels may be entered by the administrator.



### Mini Rad-V G2

Recognizing elevated radiation levels and detecting radioactive materials has never been easier. The ultra sensitive Mini Rad-V vehicle mounted radiation detector takes the proven performance and reliability of the Mini Rad-D and Rad-D technology to new levels for first responders and those concerned with discovering unwanted radioactive materials.

The Mini Rad-V will give the occupants of the vehicle an instantaneous alarm (< 1 second) when the radiological conditions minimally exceed normal background levels. Although the Mini Rad-V constantly calculates and updates the background conditions, the end-user does have the option of manually adjusting for higher than usual radiation environments

Whether you are concerned with dirty bomb components, industrial accidents, or unknowingly adding radioactive materials to your normal payload, the Mini Rad-V will economically enable you to reduce your risks. Because it is permanently installed in the vehicle, if there is power from the battery, the Mini Rad-V is on the iob.



### **DRM-Area Monitors**



The **DRM-1** is a compact area radiation monitoring system offering unparalleled features for stand-alone or wireless area monitoring. The DRM is a portable or fixed position device for monitoring of perimeters or boundaries and quickly identify changing radiological conditions. With enhanced sensitivity, the DRM-1D is ideal for radiological monitoring in medical facility emergency rooms, incident site decontamination tents, etc. The optional Display Unit allows the user to monitor the device from a remote location with visual and audible alarms. The versatility of the DRM provides for easy deployment on emergency response vehicles. The DRM can be configured for wireless (FHSS) transmission of radiological data or other communication process (air card, satellite,

GPS, etc.) It can be deployed and configured as a wireless radiological monitoring system in arenas, stadiums, convention centers, transportation hubs, etc.

The **DRM-2** works essentially the same as the DRM-1. The difference being, it is an all-in-one area radiation monitoring system with display and alarm indicators in the same device. The DRM-2 offers unparalleled features for a stand-alone, TCP/IP networked (optional) or wireless area monitoring solutions.

### **Rad-D Portal Monitor**

Fixed or Portable; At 17" Length and 5" around, the **Rad-D** is a versatile and highly sensitive radiation detector that can be integrated into an existing security system and be used to monitor: Points of entry; conveyor belts; on X-ray machines; or metal detectors.



Other devices need large, fixed areas and concrete footings to mount their systems and require traffic (vehicles or people) to be forced through a fixed inspection corridor. Due to it's small footprint, the flow of vehicles or pedestrians is not affected. A Rad-D system can include up to 4 detectors operating simultaneously. The Rad-D is designed to integrate into existing networks, using serial communications or Bluetooth

Two types of Rad-D detectors are available; Gamma, or Neutron. The standard unit searches for gamma and X-ray radiation and can be configured with or without collimated lead shielding. The neutron detector is an important tool to detect the transport of illicit nuclear weapons. The Rad-D is designed to be extremely easy to use. It provides the operator with a single digit read out of a "1" to a "9" to show the strength of the detected radiation. The Rad-D also shows the actual count of photons or neutrons and automatically calibrates itself to the natural background.

The RC99 is designed to provide an economical and extremely robust system for covert radiation monitoring of vehicles at a permanent control points or for security operations at special events. The sensitive and durable Polyvinyl Toluene (PVT) sensors are concealed in our specially designed housing allowing for inconspicuous monitoring of radioactive material or threats. Our unique configuration enables the end user to deploy the system quickly and easily in any environmental conditions.

As the vehicle slows and passes over the RC99, the sensor detects elevated levels of gamma radiation and instantly notifies the operator with an audible or visual alarm. The user can segregate the suspect vehicle, driver and passengers and move the response to the next level.

While the system is operated with a user friendly and rugged controller box, operated and monitored with a simple, user-friendly control box, a wireless configuration is available as an option to further ensure the covert nature of the RC99. With the wireless option, notifications can be made via text message or email when responding to the threat. Additionally, the RC99 can be configured to perform gamma spectroscopy to provide more detailed information.

### **RC-99**



### RC2W34-2

The RC2W34 Waste Radiation Detection System is a precise and innovative instrument specifically designed to detect radioactive material in a moving vehicle containing waste and scrap. The revolutionary design of the RC2W34 incorporates 20 years of engineering design and proven field application experience. The RC2W34 incorporates state-of-the-art components and software. The end-user will have a clear understanding of the RC2W34 operations without a background in computer science or physics.



# M-206 M-206 AM-806 WARR ANGERORY

### **AM-806**

The **Model AM-806** is a ruggedized, industrial grade monitor that can be utilized to detect radioactive material. The 806 utilizes 2 large area plastic scintillators totaling 360 cubic inches to detect the movement of gamma emitting isotopes passing through doorways, entrance gates or other similar openings. The instrument is durable and easy to operate with minimal training. Installation can be permanent or temporary. All of the data for the system is stored in a non-volatile memory, capable of maintaining the data for 10 years. The AM-806 utilizes the latest field proven, microprocessor circuitry and large area plastic scintillators to accurately and rapidly measure gamma radiation from 60 KeV to 2 MeV. Radiation detection is by  $2-40^\circ$  long plastic scintillators with a total volume of 360 cubic inches.

# **RC17 Watchdog**

The RC17 WatchDog Radiation Detection System was designed specifically for the scrap and recycling industry to provide the absolute highest level of radioactive source detection in real-time for small to medium size weigh scale applications. RadComm Systems is a leading provider of innovative, radiation detection solutions for the Recycling industry. For more than 20 years, RadComm has been supplying the cutting edge and industry-leading radiation detection systems designed and developed exclusively for the metals and recycling industries. All of our advanced technology is based on real-world designs for real-world applications.



### RC4138 RadLink

The RC4138 RadLink Radiation Detection System, is a finely-tuned, revolutionary, instrument that has been specifically designed to detect radioactivity contained in a moving vehicle and cargo. The revolutionary design of the RC4000 series incorporates more than 20 years of engineering design and proven field application experience. The RC4000 series system with its direct replacement for He-3 Neutron detector was recently tested by Oak Ridge National Laboratory for the ITRAP+10 (2013-2014) / ANSI N42:35 (2006) with excellent results.

### VM250 AG/AGN

The TSA Systems VM-250AG vehicle portal monitor consists of two self-contained, weather resistant pillars placed on either side of the roadway to be protected. Each pillar contains two organic plastic scintillator detectors, an occupancy detector, and an amplifier/controller. The master pillar also has a battery, power supply/battery charger, and an SC-770 system controller. The VM-250AGN adds neutron detection capability to the basic VM-250AG. Both are equipped with RS-232 and Ethernet communications capability. The VM-375AG system (not shown) is essentially a VM-250AG with a



third pillar positioned horizontally between the two upright pillars. The third pillar can be mounted above or below the other pillars. The VM-375A provides improved sensitivity over the VM-250AG.

### TM850

The TSA TM850 automatically screens railroad or vehicular traffic without the need for frequent calibration. High sensitivity allows the TM850 to be used at transportation hubs requiring a wider installation area and high throughput such as at ports and customs and border entry points. The TM850 is designed for use in harsh environmental conditions.



# The GammaTRACER is designing and optionally transmitting to more than 3 000 probes in world probe, including the GM detectnents, operates completely authorized connections, thus resignental conditions. Finerov-savi

The GammaTRACER is designed for continuous measuring, recording and optionally transmitting the environmental gamma dose rate — more than 3 000 probes in worldwide use The hermetically sealed probe, including the GM detectors as well as all electronic components, operates completely autonomously and is independent of any physical connections, thus resisting extreme climatic and environmental conditions. Energy-saving chip technology allows maintenance-free non-stop operation of the GammaTRACER probe of typically five years, ootionally up to ten years!

The time resolved measurement values are stored together with the auxiliary and QA parameters (built-in storage up to 12.800 data sets). Data download and parameterization can be performed via an interactive infrared or cable port. DataEXPERT, a professional user friendly database, communication- and analyzing software guarantees both, a simple and safe access to the stored data as well as their powerful visualization and fast, precise analysis. Via WebVIEW data can be accessed and configured via any standard browser.

Offering easy installation, fast relocation and long autonomy, GammaTRACER, enhances new approaches in environmental monitoring for routine as well as for emergency management. Additional interface possibilities for online and real-time data transmission, ranging from wired modules (RS232, RS485) to sophisticated wireless transmitters (SkyLINK, ShortLINK) fulfill a wide variety of user needs.

# **AlphaE Personal Radon Monitor**



The **AlphaE** is an ultra-small continuous radon monitor for fast and time-resolved radon monitoring in buildings, outdoor as well as in mines.

Typ. 80 % of the final result is achieved after 2 hrs (faster response for higher values). Due to the light-weight and small dimensions it can also perfectly be used to measure the personal radon exposure and to manage personal dose. Based on a silicon diode diffusion chamber the sensitivity is 3 cph at 100 Bq/m² (2.7 pCi/l). Thus, also low radon levels below 100 Bq/m² (2.7 pCi/l) can be measured as specified by the latest WHO recommendations (12 % uncertainty at 1 sigma/24 hrs.). The calculation of dose is possible due to a user-settable equilibrium factor.

# **AlphaGUARD**

AlphaGUARD is a portable, battery- or netoperated radon monitor with high storage capacity AlphaGUARD incorporates a pulse-counting ionization chamber (alpha spectroscopy). Through optimal geometry of the chamber and intelligent signal evaluation this radon monitor is suitable for continuous monitoring of radon concentrations between 2 –



2 000 000 Bq/m³. AlphaGUARD offers high detection efficiency, a wide measurement range, fast response and permanent, maintenance-free operation with long-term stable calibration. No pump is required when operating in diffusion mode (e.g. long-term monitoring) and the instrument is insensitive to both, high humidity and vibrations.



### BM185/285 Waste Monitors

The TSA **BM185/285** waste monitors are designed to screen small and medium-sized items for radioactive emissions and is ideal for monitoring prior to release from the facility. With an efficient and accurate go/no go analysis and typical scan times of one to three minutes, the waste monitor allows for cost effective waste management.

The waste monitors high sensitivity and uniform measurement is achieved by using large volume plastic scintillator detectors on all six sides of the counting chamber for effective and accurate screening of all sides of the item. The load platform, containing the weight monitoring load cells, is mounted on sliding runners to facilitate easier loading of heavy samples. With the ability for an administrator to define screening parameters, customizing the waste monitors for specific radioactive isotopes or 'waste streams' is possible. The operator selects the proper waste stream from an annotated list for each item to be scanned, making the waste monitors flexible when screening for multiple contaminants.

The BM185/285 comes standard with a stainless steel liner that protects the detectors and allows for easy cleaning if contaminated. An optional aluminum liner is available if greater sensitivity is required. With the optional sodium iodide detector, spectral isotopic identification to fit specific detection requirements is possible.

# scrap - steel - industrial



### **RC Series Radiation Monitors**

Prevent costly radioactive contamination of your scrap yard, equipment, plant, product and personnel with the **RC4000** vehicle radiation detection system. The state-of-the-art design of the RC4000 incorporates 14 years of engineering and field application experience, and has provided the metals industry with the highest safety record to-date.

The RC4000 Series of radiation detection systems have been specifically designed to detect radioactive materials contained in a moving vehicle loaded with scrap material. The system design is modular, flexible and customizable, offering multiple detector configurations to meet site specific applications. The RC4000 incorporates only the highest quality of components and software/hardware technology available today.

The system menus are based on a Windows environment allowing a clear and precise understanding of the RC4000 operations without the requirement of having a background in physics. The software is extremely flexible, with touch-screen navigation that 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 RC4000 can be controlled and monitored from virtually anywhere in the world, in real-time. Supervisory administration has full control of system access with password control features. The system is both network and intranet ready, with secured digital wireless and/or high-speed telephone network capabilities. All scans are stored in both graphic and text modes with full data-logging and central alarm storage viewing capabilities.

RadComm engineers have developed proprietary technology that not only tracks the pulse count rates from the PVT scintillator but applies a special characterization analysis on each pulse. The key benefit of this "characterization" is the knowledge that specific isotopes will produce predictable results.



Characterization is used to eliminate any major fluctuations caused by varying densities in loads of scrap metal, along with any atmospheric changes that might affect a reading. This technique is similar to what is utilized in gamma ray spectroscopy where a sodium iodide scintillator is used. Characterization is a signal processing technique that focuses on real-time system noise cancellation, correction of ambient background variations and maintaining extremely accurate alarm threshold settings, all resulting in higher radiation detection sensitivity and the fewest false alarms.





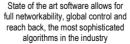
### PRIMARY PROTECTION

- · Detectors must be the right size, not too small
- Detector surface area must be as close as possible to the surface area of the vehicle being scanned
- Detectors face to face spacing must be as close as possible
- WATERSIDE best possible detection capability with grapple detectors

### SECONDARY PROTECTION

- · Unloading rail cars detectors on the grapple/magnet
- Loading conveyors/shredders grapple/magnet/side walls/overhead detectors
- · Loading charge buckets "In-Air" detectors
- Dust or Off-gas systems = Multiple detectors







4138 Rail Monitor



4069 for Truck Scales



Exclusive RC 4110 Replacement System



# **CRICKET Grapple System**

The exclusive RadComm CRICKET radiation detection system fits any grapple, in any application. It has been designed specifically to meet the needs of the scrap, steel and waste industries. The CRICKET's revolutionary, yet simple design provides an optimum level of detection capability for low intensity radioactive sources, on a continuous basis, in applications where radiation detection systems have never existed before. The level of detection capability will far exceed any conventional radiation detection system, including detection systems that are mounted on the boom of a crane, repardless of the detector size.

**Get closer, scan longer**. Mounting the CRICKET in the grapple allows direct exposure to all the material being handled. There are three different opportunities to measure all scrap material during the handling process. Because the system scans on a continuous basis, material is scanned on the surface before the grab even picks up the load. Secondly, the grapple load is scanned for up to 10 seconds while in the

grapple. Finally, the material is scanned as it falls from the grapple. These three scanning conditions allow the CRICKET to provide a high degree of detection capability for low level radioactive material. In addition, the CRICKET's robust design provides greater impact-resistance then any manufactured grapple.



# **CRICKET Magnet System**

Find radioactive sources that other radiation detection systems miss! CRICKET is the world's leading, most rugged, highly sensitive radiation detection magnet mounted system on the market! The CRICKET radiation detection system is designed specifically to meet the needs of the scrap, steel, and waste industries. The CRICKET's revolutionary, yet simple design provides an optimum level of detection capability for low intensity radioactive sources, on a continuous basis, in applications where radiation detection systems never existed before. The level of detection capability will far exceed any conventional radiation detection system, including detection systems that are mounted on the boom of a crane, regardless of detector size.



Get closer, scan longer, with more accuracy. Mounting the CRICKET in a magnet application allows direct exposure to all the material being handled. There are two different opportunities to analyze all the scrap material during the handling process. Firstly, the CRICKET system can scan on a manual basis, material may be scanned on the surface before the load is even picked up. Secondly, once the magnet is energized the load is scanned while in the magnet allowing for the highest level of sensitivity.

### RC-2 Handheld Detector



The RC2 portable radiation detector has been designed to detect very low radiation intensity levels from radioactive materials buried in scrap metal. The RC2 is an extremely effective handheld detector that utilizes a large 32 cu. in. (0.54L) internal PVT plastic scintillation detector, a common material found in most larger vehicle monitoring systems.

Operation of the RC2 is fully automatic and designed to allow fast and easy inspection of areas, containers or vehicles that may contain radioactive materials, or to verify or separate radioactive materials that have triggered an alarm on large scale radiation detection systems. The RC2 contains a state-of-the-art microproces-

sor and internal electric circuitry designed to automatically set the lowest achievable alarm level and to continuously monitor system operation in order to maintain consistent optimum performance.

In the event that radiation is detected, a varying audio tone will activate to help locate the source of the radiation. In addition, the display will show an increasing count/second (cps) numeric radiation level. The RC2 is equipped with an internal rechargeable battery pack that eliminates the need for stocking and changing conventional batteries.

### **RC-22/23 Wand**

Pinpoint a radioactive source quickly and safely with the RC22 or RC23 Wand.

- . Fully automatic and easy to use
- · Light weight
- · Extendible for longer reach
- · Easy to read backlit display
- Quick response time with variable alarm tone
- · Fully Automatic and Operator Friendly



The RC22 and RC23 were designed to allow fast and easy inspection of areas, containers or vehicles that may contain radioactive material. Upon start up the unit will perform a background check and automatically set an alarm threshold for the user. In only seconds the RC22 and RC23 is ready for use. Easy to Read Display with Audible Alarm—When radiation is detected the display will immediately show the increasing radiation levels. An audio alarm will also be activated to help locate the exact source of the radiation. The tone varies based upon the proximity and intensity of the radioactive source.

# **RC 1069 Manually Operated System**





The RC1069 is a dual detector configuration that is mounted at vehicle weigh scales. The RC1069 is extremely flexible when it comes to detector configurations. The line of detector sizes can be made to fivirtually any application whether it be a feeder yard large or small vehicle scales to a conveyor in feed/downstream to a small non-ferrous sorting area.

In order to provide reliable and rugged state-of-the-art detectors suitable for any hostile environment, RadComm uses nothing but lab-quality components, such as premium grade PVT and components using low noise design technology.

### **SYCLONE**



The **SYCLONE** Gamma-Ray spectrometer utilizes the highest quality Thallium doped Sodium lodide crystal, combined with an integral high signal to noise ratio PMT and state-of-the-art electronics and embedded microcontroller firmware. All of these enhanced features allow the SY-CLONE to be one of the most accurate portable Gamma-Ray spectrometers when it comes to identifying specific and/or multiple isotopes even with weak gamma sources. The mechanical assembly of the SYCLONE is robust and designed for field applications where harsh environments are commonplace.

Simplified and Flexible - The SYCLONE operating system utilizes sensible easy to read and follow Menus. The multi-position joystick and large LCD backlit display provides easy navigation through menu selections. Detailed spectral information is clearly and precisely displayed so that even users without special nuclear training can easily see scan results. Various on-screen messages assist the user when immediate attention is required for issues such as preset timing, high radiation levels, alarm settings and warning messages.

Remote SYCLONE PC Spectral Analysis and Data Storage Software- The SYCLONE is equipped with a large internal memory that allows large amounts of data to be stored by record number, date and time. Stored data such as spectral and dose rate information can be easily downloaded to a PC via a serial RS232, mini USB or Bluetooth. The SYCLONE PC software has all the necessary features that will meet the needs of virtually any user.

# **RC17 WatchDog**

The RC750 WatchDog Radiation Detection System was designed specifically for the scrap and recycling industry to provide the absolute highest level of radioactive source detection in real-time for small to medium size weigh scale applications. RadComm Systems is a leading provider of innovative, radiation detection solutions for the Recycling industry. For more than 20 years, RadComm has been supplying the cutting edge and industry-leading radiation detection systems designed and developed exclusively for the metals and recycling industries. All of our advanced technology is based on real-world designs for real-world applications.

RadComm is uniquely positioned to provide the Scrap Industry with a new and innovative radiation monitoring solution for low level radioactivity for small weigh scale applications. The design of the RC750 addresses all the challenges associated with monitoring small and medium volumes of material as it is being weighed in and out on the weigh scale.

### MSpec G/GN



The MSpec portable fast responding gamma and gamma/neutron spectrometer and dose rate meter will instantly measure any material for the presence of radioactivity whether it is general waste, medical waste, scrap metal or recycled material. Operation of the MSpec is completely automatic once the easy-to-set operational parameters have been selected. Simply position the unit in close proximity to the object that needs to be scanned and listen for the varying audio alarm to sound and/or the displayed readings to increase. The MSpec scans suspect material and quickly analyses to determine if and

what radio-isotope is present then further categorizes the result as Medical, Industrial, or Natural Occurring Radioactive Material (NORM).

# Mini Rad-D



The **Mini Rad-D** is a highly portable, rugged, all -weather radiation detector that's small enough

to wear on a belt yet powerful enough to quickly locate low-level radioactive sources, even in a container of material. Designed to discreetly monitor in any environment with very little training required, the Mini Rad-D can be set to notify the user by vibration or audible alarm whenever gamma radiation exceeds

natural background levels. The mini's simple operation and highly readable display provide an automatically updated strength indicator in under 1 second, allowing a rapid area sweep to identify the exact location of any radiation source.

### H-810DMDC



The RADēCO ™ Model H-810DM (Defense Model) is a ruggedized version of the popular H-810AC. The H-810DM is designed to meet a variety of military standards and for use in extreme environments. This microprocessor based unit has our unique aluminum Tough Screen. The Tough Screen has no moving parts or buttons and operates like a touch screen phone only made of 1/4 inch thick aluminum with a polycarbonate display window.

External upgrades to the unit include the upgraded keypad, power cord clamp, mil-spec paint, and the case has an internal support structure to prevent denting if dropped. The display and microprocessor have been upgraded to operate in extreme sub zero temperatures.

Like it's predecessor, the H-810DM displays current flow rate, sample time and total volume. The unit can be programmed to take samples based on the user's established procedures. The functions/parameters established during calibration may be locked in using the keypad security. When the keypad security is on, all keys on the keypad are disabled with the exception of the START/STOP and UNITS keys. The UNITS key will toggle the LCD display from CFM to LPM.

The operation of the Model H-810 is a very simple, four-step procedure, and the training required by the user is relatively short. Its operational procedure is:

- 1.Connect to a power source.
- 2.Install the sample holder with filter media.
- 3. Turn power switch on and Press the start key.

The RADēCO™ Model H-810BL (Brushless) is a ruggedized, maintenance fee and continuous version of the popular H-

810AC. The H-810BL is designed to meet a variety of military standards and for use in extreme environments. This microprocessor based unit has our unique aluminum Tough Screen. The Tough Screen has no moving parts or buttons and operates like a touch screen phone only made of 1/4 inch thick aluminum with a polycarbonate display window. External upgrades to the unit include the upgraded keypad, power cord clamp, mil-spec paint, and the case has an internal support structure to prevent denting if dropped. The display and microprocessor have been upgraded to operate in extreme sub-zero temperatures.



Like it's predecessor, the H-810BL displays current flow rate, sample time and total volume. The unit can be programmed to take samples based on the user's established procedures. The functions/parameters established during calibration may be locked in using the keypad security. When the keypad security is on, all keys on the keypad are disabled with the exception of the START/STOP and UNITS keys. The UNITS key will toggle the LCD display from CFM to LPM. The H-810BL has a two stage brushless blowers that allows maintenance free continuous use. This expanded capability is offered in the same package and footprint as the original H-810.

H-810BL

### FEATURES:

- •EXTREMELY RUGGED
- •OPERATES IN EXTREME ENVIRONMENTS
- CONTINUOUS OPERATION
- •I CD DISPLAYS
  - ♦ Elapsed Sample Time
  - ♦Flow Rate Total Volume
- •MICROPROCESSOR BASED
- •ALUMINUM "TOUGH SCREEN" KEYPAD

# RADECO Inc.



### H-29A & 66A

The Model HD-29A and HD-66A are mobile "K-Flow" constant flow air samplers designed for use in nuclear power plants, research laboratories, production areas, and throughout industrial facilities where the collection of precise air samples is required on a continuous or semi-continuous basis. The heavy duty vacuum pump and constant air flow regulator combination permits the collection of an air particulate sample at a constant flow rate until the \( \Delta \) Pacross the filter paper exceeds the capability of the pump at that flow rate.

The controlled flow rate is observed on the handle-mounted rotometer and is adjustable from 1.0 to 7.0 CFM. The HD-66A can be used with all 25mm, 37mm, 47mm and 2 inch diameter filters and charcoal cartridges used for the collection of airborne contaminants. An internal air filtering system has been installed between the regulator valve and the pump to prevent particulates from reaching the self-adjusting carbon vanes and causing excess wear. A re-settable elapsed time meter is mounted on the instrument panel. By setting this timer to zero at the start of each sample period, an accurate sample volume may be readily calculated.





### H-811ACDC

The RADECO Model H-811ACDC is a dependable, lightweight high volume air sampler which can operate off 12 or 24VDC as well as 120 VAC. This microprocessor based high volume air sampler will operate virtually anywhere. The unit has a slip connector for powering off a car battery or a RADeCO RAD1224 Battery Pack as well as a removable AC power cord for when line power is available. In 2006 we upgraded the microprocessor of the industry favorite H-810 to allow three independently programmable

calibrations as well as altitude correction factors. This one unit can replace up to 6 air samplers.

The Air Volume Totalizer portion of the sampler is composed of an enclosed air-turbine which rotates at speeds proportional to the air velocity of the sampled air. The turbine's rotation is sensed by a reflective sensor/breaker disk. The microprocessor converts the signal to volume and displays the flow rate, total volume, and elapsed time on the LCD readout.



### **E AVS-20T**

The AVS-20T is a light weight digital constant flow air sampler. We have taken the industry workhorse AVS-28A, and reduced the foot print, and weight while adding a totalizer. The heavier pumps used in traditional constant flow air samplers like the AVS-28A, HD-29A and HD-28A are far heavier than is necessary. The range of flow for those models is 20-100 LPM (0.5-3.5 CFM). The overwhelming majority of plants and REMP programs only sample at around half that flow rate. Meaning they are lugging around extra weight and capability that they are NOT using or need.



### **AVS-28A**

The Model AVS-28A Portable Constant Flow Air Sampler is a continuous duty, constant flow device. It can be used with filters and cartridges in the collection of airborne contaminates, or as a regulated, positive displacement vacuum supply for continuous air monitors and stack sampling sys-

The ability of the AVS-28A to maintain a preset sample flow rate is controlled by the unique side-mounted regulator valve. The RADECO regulator valve is not a bypass design, and therefore the exhaust contains only sampled air. The AVS-28A has the superior ability to compensate for added P across sampling media. The sampling flow rate is read out on a side-mounted rotometer which measures the differential pressure across the in-line anodized aluminum venturi. All units are individually calibrated and traceable to NIST.



### H-809-V

The Model H-809V is a lightweight rugged grab sampler designed specifically for heavy duty industrial applications sampling airborne particulates or combination particulates and radioiodine. The Model H-809V may be used with RADCO sample holders that house selected filter discs and high quality RADCO radioiodine cartridges. The unit may be re-calibrated

using one of the RADCO NIST traceable Air Flow Calibrators (sold separately) to give the user a fully qualified air sampling system.

The H-809VI has a small, sintered metal exhaust diffuser and is normally used with combination. filter and cartridge holders (typical flow range from 1-8 CFM). The H-809VII has a large diffuser and is normally used with 4" diameter filter holders (typical flow range from 1-30 CFM). Standard features of the H-809 series include a spring-loaded face guard which protects the switch, fuse, and flow adjust knob and a top mounted eve bolt with carrying strap.



### Calibrators: C-812, C-828, C-8528; D-812, D-828, D-8528



RADECO Air Flow Calibrators are the most durable and repeatable calibration devices available. The RADēCO calibrators are constructed of a precision machined aluminum venturi tube. The C-Series (analog) employs an appropriately ranged magnehelic gauge while the D-Series uses an appropriately ranged intelligent digital meter, both mounted in rugged steel cases.

Simple, cost effective and consistently accurate year after year. RADECO Air Flow Calibrators are available calibrated in cubic feet per minute or in liters per minute. Each calibrator is individually calibrated to an air flow instrumentation system whose calibration is certified and traceable to the National Institute of Standards and Technology (NIST). The RADECO Air Flow Calibrators are guaranteed to an accuracy of better than +5%, referenced to 29.92 inches of mercury and 70°F. A Certificate of Calibration is supplied with each calibrator.



### Air Force Kit H-809VII High Volume Air Sampler

In 2003 RADēCO was selected by the United States Air Force as their supplier of Emergency Response air sampling equipment. Since then, RADēCO has provided the USAF with over 500 complete air

sampling kits, composed of calibrators, filter media, sample holders and air samplers. These kits have been distributed to Air Force bases around the globe and we continue to support and supply the USAF with quality service and equipment.

### USAF Complete Air Sampling Kit - Part No. AS Kit USAF SC

- H-809VII High Volume Air Sampler
- 2500-25 (2500-25A) 4" Diameter Filter Holder
- 0750-49 Filter Paper, Retention Efficiency 99.99% for 0.3 micron particles
- TRP-2 Tripod for use with the H-809VII with applicable adaptor
- Soft Case Air Sampling Kit Model SC-1

### Calibration Equipment - Part No. D-8528Kit

- D-8528 Digital Air Flow Calibrator
- 2500-43 Calibration Adaptor
- \* One adaptor per calibration setup



# Filter Papers- HD-2061 & LB-5211



HD-2061 This filter paper combines good aerosol filtration efficiency with slightly higher porosity than LB-5211 Laminated glass filter paper. These products are high efficiency multi-purpose filter materials with good heat resistance. They are particularly recommended for both gas and liquid filtration in the medical field and for air monitoring applications. The base material consists of micro glass borosilicate fibers with low amounts of acrylic resin, the composition of which corresponds to the description listed in DFR Title 21, Part 177.2260, Filter, Resin Bonded.



### 210B - Weather House

The RADēCO Model 210B Weather House is a heavy duty, all aluminum weather house with features especially desirable in a weather protected air sampling station. The Model 210B not only has two sets of louvers on each of four sides so that air may enter the weather house from any direction, but each set of louvers is uniquely counter-louvered to prevent rain or snow from blowing onto the instrumentation in the weather house. Each end also has upoer louvers to prevent heat build-up under the roof.

To permit ease of installation, an electrical box is firmly mounted inside on one wall in the upper part of the house. Electrical conduit from the bottom of the house to the electrical box requires only wire installation and the wiring of the box. A standard light socket is provided so that a "heat lamp" may be installed by the user for extremely cold weather usage.

### Air Force Kit Soft Case

Unlike the heavy and cumbersome Pelican Case, the SC-1 Transport Case was specifically designed for use with the **USAF Air Sampling Kit**. The SC-1 allows responders to store their air sampler attached to the TRP-2 Tripod, enabling responders to vastly improve their response time. There are also internal pockets for storage of the 2500-25A filter holder and 0750-49 filter paper.



Tripod Model TRP-2





The TRP-2 is a survey style Tripod which provides telescoping legs for varying sampling heights. The feet are rugged steel with sharp point for a solid gripping on a variety of surfaces. Constructed of lightweight Aluminum for ease, of nortability with

Constructed of lightweight Aluminum for ease- of portability with a solid cast aluminum head for years of reliability.

The TRP-2 works with either the H-809 Series or the H-810 series of High Volume Grab Samplers. When ordering please specify which unit it will be used so the appropriate adapter plate/block can be provided.

Constructed of lightweight Aluminum for ease- of portability with a solid cast aluminum head for years of reliability.



RADĒCO

Tru DAC

Personal Air Monito

RAD-Pro 10 The RADeCO RAD-Pro 10 is an industry leader in back pressure performance, reliability and ease-of-use. This

pump offers flow rates up to 10 LPM respectively. And thanks to several advanced features, this pump overcomes the main causes of sampling errors – saving you time and money. The air flow display holds calibration for 30 days, even with atmospheric changes. While RADeCO air sampling pumps are known for their strength, the back-pressure capabilities of the RAD-Pro 10 are the highest in the industry for any personal sampling pump. With the RAD-Pro 10 there is less risk of lost samples due to battery failure. It incorporates a nickel-metal hydride (NiMH) battery which, unlike a NiCad battery, doesn't suffer from "memory" problems. So there's no hidden loss of battery capacity, no shorter-than-expected run time and no need for special battery maintenance. You use our standard charger and get the same. highly predictable life, charge

after charge. When the display indicates a "full" battery, that's exactly what the pump delivers. Plus, the indicator more accurately displays remaining life throughout the sampling period. You get faster charging too. The NiMH battery fully charges in just five hours. And you won't be hampered with special storage or disposal requirements, since the NiMH battery is friendly to the environment.



### RAD-Pro 5

The RADeCO RAD-Pro 5 is an industry leader in back-pressure performance, reliability and ease-of-use.

This pump offers flow rates up to 5 LPM respectively. And thanks to several advanced features, this pump overcomes the main causes of sampling errors – saving you time and money. The air flow display holds calibration for 30 days, even with atmospheric changes. While RADeCO air sampling pumps are known for their strength, the back-pressure capabilities of the RAD-Pro 5 are the highest in the industry for any personal sampling pump.

With the RAD-Pro 5 there is less risk of lost samples due to battery failure. It incorporates a nickel-metal hydride (NiMH) battery which, unlike a NiCad battery, doesn't suffer from "memory" problems. So there's no hidden loss of battery capacity, no shorter-than-expected run time and no need for special battery maintenance. You use our standard charger and get the same, highly predictable life, charge after charge.

### **TRU-DAC**

The **TRU-DAC** Personal Air Sampler determines the inhalation dose obtained from the exposure to long living Alpha and Beta nuclides (LLRD) in

the breathing air. The aerosols will be accumulated on the surface of a membrane filter by an internal pump. The collected activity is analyzed by a semiconductor detector with subsequent Alpha spectroscopy and Beta gross counting. The influence of natural occurring Radon daughters is fully compensated.

An accurate determination of the obtained dose without any additional equipment is possible by a special filter analysis mode. The small filter paper (17.5 mm diameter) can be used for preservation of evidence.

The lightweight (less than 1 lb) instrument can be worn on the body without impairment of the mobility. Sampling head, battery and electronics have been integrated into rugged metal enclosure of the size of a mobile phone. Therefore, no additional cables and hoses are required.

Dangerous doses will be detected within 60 Seconds and signalized by an acoustical and an optical alert. The display, equipped with a with bright back-light shows the recent dose values

(µSv or mrem) as well as the over all count rates. The internal rechargeable battery allows approx. 24 hours of autonomous operation – it takes only one hour to recharge the battery.

### **TRU-DAC-Pro**



The TRU-DAC Pro Personal Alarming Alpha/ Beta CAM, combines a very compact design with a high flow rate and long battery life. The unit measures long life Alpha and Beta emitting aerosols as well as Radon daughters by alpha spectroscopy and beta counting. A bright alpha numeric display and the clear keypad allow the operation even under harsh conditions. The integrated powerful charger recharges the unit within two hours. The aerosols will be accumulated on the surface of a membrane filter by an internal pump. The collected activity is analyzed by a semiconductor detector with subsequent

Alpha spectroscopy and Beta gross counting. For first responders, an optional wireless interface (Net Monitors by ZigBee) allows the officer-incharge to receive the data online from the action forces. The instrument can be ordered also with a GPS receiver.

### **Filter Holders**



Filter Diameter	47 mm	2"
Holder Number		
2500-65	В	
2500-67		В



Filter Diameter	47 mm	2"
Holder Number		
2500-05		B,C
2500-19		A,D
2500-21		B,D
2500-27		A,C
2500-34	A,D	
2500-35	B,C	
2500-39	A,C	
2500-46	B,D	

### In-Line Filter Holders



# Open Face Filter Holders

RADēCO™ has available the finest line of precision machined, all aluminum, holders for air sampling media. There are four different types of holders: (1) Open Face Filter Holder, (2) Inline Filter Holder, (3) Open Face Combination Filter and Cartridge Holder, and (4) Inline Combination Filter and Cartridge Holder. All four types are available for the RADēCO H809, H810, HD and AVS series of air samplers as well as for other manufacturers models.

RADECO pioneered the unique two O-ring method of preventing the sampling air from bypassing the cartridge in the combination holder. This method of sealing the cartridge in the lower body eliminated gasket creep and wrinkling which caused leakage past the cartridge.

All 47 mm, 2 inch and 4 inch holders are hard anodized to give the sample holders good chemical resistance to prevent oxidation and to color code the various parts. The main body of each holder is colored blue, while the filter retainer nuts and the cartridge retainers are colored gold for 47 mm, black for 2 inch, and blue for 4 inch

Open Face Filter and Open Face Combination Holders for the HD & AVS series are supplied with a mating 3/8 inch male quick disconnect fitting which will snap directly into the inlet of the samplers. All inline type holders are furnished with a 3/8 inch male quick disconnect at both the inlet and outlet of the holder.

When ordering, please specify the type of holder desired, the diameter of the filter to be used, and in the case of a combination holder, the type of charcoal or silver zeolite cartridge (RADēCO or Scott) to be used in the holder.

# Open Face Combination Filter & Cartridge Holders

A-Threaded for 787 809 810 series

In-Line Face Combination Filter & Cartridge Holders

B-With 3/8" male quick disconnects for HD & AVS series.
C-Holds Scott cartridge
D-All RADECO Cartridges
Note: All inline holders fitted with two 3/8" male quick disconnect fittings



Filter Diameter	47 mm	2"	4"
Holder Number			
2500-04		В	
2500-23		Α	
2500-25A			Α
2500-33	Α		
2500-42	В		



Filter Diameter	47 mm	2"
Holder Number		
2500-40	B,C	
2500-41		B,C
2500-44	B,D	
2500-45		B,D

# LAURUS WMD & Environmental Kits

The Original Radiation Response Kits



3-8 Person Kits

Laboratory Kits



**ERK Kit** 

Kit's May Include:

- Dosimeters for Personal protection
  - ♦ Alarming dosimeter
  - Pocket ion chamber
  - Dosimeter holders
- Personal Radiation Detector/s (PRD)
- Survey meters for dose rates/contamination
- Radiological air samplers for airborne threats
- Training Guides
  - ♦ Written manuals
  - ♦ Interactive training CD Rom's
- · Check Sources
- Pelican Cases



**Custom Kits** 

The first step in providing protection for risk and vulnerability is to be able to immediately detect and respond to any potential radiological threat. LAURUS Systems provides a wide variety of specialized response kits designed to detect, identify, and analyze a radiological and/or nuclear threat. Since not all responding organizations face the same threat levels, or are responsible for the same degree of response, LAURUS Systems designs kits that address the specific needs of the end-user. We can assemble kits with any number of options from the products shown here, but we are certainly limited to these configurations. Many other options are available by request.









**LAURUS EOD Kit** 



**Pelican Cases** 

Waterproof • Dustproof • Rugged Multiple Sizes • Multiple Colors Versatile and Proven



# **Gamma Laboratory Kit**



### With RadEye PRD

The mobile Thermo Scientific **Gamma Laboratory Kit** allows immediate, local response to emerging food monitoring requirements for known contamination scenarios.

# Highly Sensitive Gamma Lab Kit With RadEye SX

The portable Thermo Scientific Highly Sensitive Laboratory Kit supports the laboratory and also field measurement program for contamination resulting from a nuclear accident. The Highly Sensitive Laboratory Kit combines a 1.01 Marinelli beaker with the 2x2" Nal(TI) probe model SPA-3. Data evaluation and display is performed by the low power RadEye SX multipurpose meter. This combination allows low limits of detection within short measurement time.





# RadEye HEC

The RadEye HEC is a sample counting system that provides simultaneous alpha and beta measurements. The system incorporates a 2" (5 cm) dual scintillation phosphor mated to a sliding drawer accommodating a 2" (5 cm) diameter sample. Using a height-adjustable sampling area the drawer permits the use of different sample types and must slide fully to the rear to initiate the counting.

# **LAURUS RadEye Kits**



- · RadEye SX Gamma Kit
- Gamma Laboratory Kit
- RadEye Kit with Accessories
- LAURUS First Responder Kit
- RadEye PRD GO Kits
   PadEye Sefety Kits
- RadEye Safety Kit

LAURUS RadEye kits can include RadEye PRD;s, B-20's, RadEye SX, probes, laboratory accessories and consumables. All configured in a rugged pelican/Storm case!





### LAURUS Nuclide ID Kit

The URSA II, with a full-featured MCA program, can be used with practically any radiation detector and can extract any data your detector can supply! It has been designed taking into account comments and requests from our current URSA customers. URSA-II MCA, the all-new fully, quantitative Windows™ based URSA-II software package has been designed for ease of use in a 32-bit Windows™ environment. The Software can be installed on as many computers as you like, with no restrictions and includes free software undates.

- URSA-II (Universal Radiation Spectrum Analyzer)
- RAP 47 Scintillation Probe
- TDS Recon Ruggedized PDA
  - Check Sources
- Pelican protective case for all items above (1)

The CsI (TI) crystal used in Radiation Alert® Probes has a higher atomic number, is more rugged, and less hygroscopic than a typical Nal detector. The improved gamma ray absorption allows a thinner crystal to be used, effectively reducing the background count rate. Thin-crystal (1 mm) optimizes sensitivity to low energy gamma radiation while minimizing sensitivity to higher energies. An excellent detector for Iodine-125 and suitable for thyroid uptake measurements.



# **Rapid Response Fentanyl Test Strip**

The Rapid ResponseTM Fentanyl (FYL) Forensic Test Kit is a lateral flow chromatographic immunoassay for the qualitative detection of Fentanyl/Norfentanyl in liquid and powder substances at the cut-off concentration of 200 ng/mL.

It is specific for Fentanyl screening with no significant cross reactivity to other opiates, such as Morphine and Heroin. The Rapid ResponseTM Fentanyl (FYL) Forensic Test Kit is able to detect Fentanyl and many other Fentanyl analogues such as Carfentanil, Acetyl Fentanyl, Butyryl Fentanyl, Remifentanil, Ocfentanil, Sufentanil, p-Fluoro Fentanyl, Furanyl Fentanyl, Valeryl Fentanyl, and 3-Methyl Fentanyl.

Interpretation of test results are: positive (one line), negative (two lines), invalid (no lines or no control line).



### Griffin G510

The FLIR Griffin™ G510 GC/MS is a versatile, person-portable chemical identifier. It complements presumptive techniques used during emergency missions, by enabling responders to analyze all phases of matter (liquid, solid, vapor) and by performing rapid field-confirmation of chemical hazards. No Time? No Lab? No Problem. Designed for downrange missions, quickly and easily identify chemical hazards in emergency situations with the FLIR Griffin™ G510 portable GC/MS.

The integrated heated sample probe enables hot zone operators to identify vapor-phase chemical threats within seconds when operated in Survey Mode. The integrated split/splitless injector allows for environmental, forensic, and hazardous material sampling via syringe injection of organic liquids. The 9" on-board touchscreen delivers automated user controls and can be operated while wearing full personal protective equipment downrange. It is built with an IP65-rated enclosure for harsh environments and supports passive defense, interdiction, elimination, and consequence management missions. Long-lasting, on-board batteries ensure every mission is supported from beginning to end.

The Fido X-80 (Griffin 844) is a desktop trace detector that is used to screen personal belongings, parcels, cargo, skin, vehicles, and other surfaces for explosives and narcotics threats. It delivers a significantly lower false alarm rate than other offerings, offers expandability to address future threats without impacting sensitivity, and ensures fast and reliable clear-down to maximize availability

Built around FLIR's mass spectrometry (MS) technology, the Fido X-80 provides much higher resolution compared to existing ion mobility spectrometry (IMS) technology, resulting in improved chemical selectivity. As a result, the X-80 yields significantly lower false alarm rates, providing confidence to security officers that only true threats are detected. FLIR's expandable library allows new threats to be added to the library without impacting sensitivity or false alarm rates. Updates to the library are offered as they become available, providing customers with a future-proof solution that addresses emerging threats.



Fido X-80



The Griffin™ 824 is a desktop mass spectrometer designed specifically for explosives and narcotics trace detection. Mass Spectrometry (MS) is a widely trusted technique used for definitive chemical analysis. Its inherent ability to provide selective chemical identification in complex operational environments is unmatched by existing Ion Mobility Spectrometry (IMS) technology.

Griffin 824



Today's high consequence applications require high confidence results that only mass spectrometry can provide. The Griffin 824 mass spectrometer offers ease of adoption across a broad range of existing and emerging trace detection applications. Selectable detection modes allow customers to tailor the system to their operations using explosives only, narcotics only, or explosives-narcotics simultaneous mode.



The Fido X2 is an ultra-lightweight, handheld explosives trace detector (ETD). It features FLIR's proprietary TrueTrace™ technology to detect a broad range of chemicals used in the manufacture of homemade, commercial, and military explosives with best-in-class sensitivity. On-screen prompts quide users quickly through operation.

At less than 1.5 pounds and featuring a durable, ergonomic design, the Fido X2 offers maximum portability. Intended to be used at security checkpoints or during periods of high alert. Fido X2 screens vehicles and personal belongings for explosives residue that might indicate contact with explosives or incendiary devices. With analysis provided in ten seconds or less, law enforcement officers can quickly and accurately screen for threats to mass transit, sporting arenas, and critical infrastructure with confidence.

Fido X2

# Fido X3 Explosives Trace Detector

Building on the success of the hundreds of Fido detectors fielded in U.S. Airports, the Fido X3 was designed with transportation security in mind. The newly redesigned Fido X3 is the lightest and most sensitive Handheld Explosives Trace Detector on the market. With its magnesium case and splash-proof seal, the Fido's ruggedized design meets the rigorous MIL-STD 810-G specifications. The Fido X3 has an 8 hour battery, starts from cold in under 5 minutes, and clears in seconds, so you spend less time waiting and more time sampling.

Adding to the capabilities of the previously fielded Fido NXT, the Fido X3 adds broad threat detection including Ammonium Nitrate, TATP, and emerging liquid threats like Hydrogen Peroxide and Nitro methane. With FLIR's exclusive Sensing Element technology, the detection channels can be controlled to alert on the threat materials you care most about. As new threats emerge, the Fido X3 will be field upgradable to incorporate new detection chemistries that are specifically designed to detect the new threats.



### X-Sorber

Collecting and analyzing air samples is easy with the **Griffin X-Sorber**. Sample collection starts via a single button command. Users can hand-carry the X-Sorber while sampling, utilize the clip accessory for hands-free operation in the field, or employ the "leave and retrieve" technique.

The X-Sorber is extremely portable allowing users to expand their operational area. Sample collection is made possible in remote locations where the terrain proves too difficult for navigation with a vehicle or impossible to reach on foot when transporting heavier equipment. Because the X-Sorber provides a plug and play connection with the Universal Sampling Port (USP), no special sample preparation steps are required.



#### Griffin G400 Series



The FLIR Griffin G400-series GC/MS (Gas Chromatograph / Mass Spectrometer) products provide labquality chemical identification in a field-ready package. Each Griffin GC/MS model is equipped with a rugged, internal shock isolation system that is tested to rigorous MIL-STD-810G standards. They are built to operate in mobile labs, reconnaissance vehicles, deployable lab containers, and other portable platforms. Hassle-free, interchangeable sampling tools differentiate each GC/MS model. Every Griffin 400-series GC/MS contains an industry standard injector port.

The FLIR Griffin™ G460 GC/MS (Gas Chromatograph / Mass Spectrometer) provides lab-quality chemical identification in a field-ready package. Unlike other transportable GC/MS systems, the Griffin G460 contains an integrated standard liquid injector and integrated thermal desorber. This means it is ready at all times to accept both liquid and vapor samples. It also means operators only need to transport one piece of equipment to the site of action. The Griffin G460 system provides ultimate sampling flexibility while improving response times over standalone thermal desorbers.

Completely redesigned from the ground up, the lightweight and rugged new Fido® NXT delivers fast, accurate and consistent explosives detection capabilities for combat, physical security and anti Fido NXT -terrorism operations. The expanded detection capabilities and reduced size of the Fido NXT enables the system to be easily integrated into existing security measures.

The Fido NXT features a simplified user interface with a GO/NO GO response suitable for novice users. Additional response information is available via the administrator mode for fully trained operators and system administrators. The system provides on-screen prompts for the majority of user actions to overcome issues related to intermittent usage and the associated loss of training knowledge enabling both novice operators and explosives experts to use the device with confidence. Encased in a ruggedized magnesium shell, the Fido NXT operates in all environments and has passed one meter drop testing. This extremely sensitive device can operate for a full eight hours on a single battery and requires no calibration. The Fido NXT starts up quickly, in less than five minutes, and swiftly clears down after an explosives alert to permit rapid throughput.



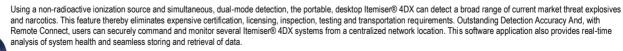


The HazClass® Kit 1 is a hazardous materials test kit designed to provide first responders a rapid and easy method to determine if unknown or suspicious materials present a possible chemical, radiological or biological hazard to the responder, population or surrounding environment. The procedure is not designed to identify the chemical, but to determine if a possible hazard may exist. The HazClass® Kit 1 maybe used by any personnel with basic HazMat training skills

The Haz Class® Kit 1 can be used in any situation where hazardous materials may be of concern.

The HazClass® Kit 1 can be used for the determination of EPA-RCRA Characteristic Hazardous wastes which are Ignitability, Corrosivity and Reactivity. The HazClass® Kit will help in the determination of certain DOT classes, material compatibilities, and labeling for transportation and disposal.

## Itemiser 4DX



An automated internal calibration eliminates cost of purchasing and managing calibration traps. The folding monitor screen automatically shuts off backlight to extend life of display. A regenerative dryer increases uptime and eliminates cost of monthly dryer material replacements. The 4DX decreases the labor required to initiate and manage maintenance.

#### Chameleon

Military, law enforcement, first responders and emergency personnel know—the most effective missions are the safest. And only known dangers can be proactively mitigated. Yet, some of the most dangerous threats—like toxic, airborne chemicals—are often unseen. Whether investigating a potential chemical suicide, raiding a possible meth lab or conducting military reconnaissance in a hostile theater, ensuring safe breathing conditions is paramount to the safety of all involved. There are many chemical detectors on the market; choosing the right one is critical.

Chemical detection has never been easier. If half of the viewing window changes color - the chemical is present; it really is that simple. No power, no calibration. The **Chameleon's** rugged design allows for use in extreme heat and extreme cold conditions and in wet or dry environments. Even after immersion in water, just shake off the residual water and detect the invisible threats.

#### **SPECIFICATIONS**

Cassette Shelf-Life: 24 months room temperature\*
Cassette Service Life: 24 hours\*

Temperature Range: -30 C to 50 C (-22 F to 122 F)

Humidity Range: 20 to 100%RH

Immersion: Salt Water:

Salt Water: 1 Hour Fresh Water: 1 Hour





#### **AVAILABLE KITS**

HazMat Detection Kit | Clan-Meth Lab Detection Kit Chemical Suicide Detection Kit I Arson Investigation Kit



#### Trace-X

Explosives remain the (HMEs) and Improvised Explosive Devices (IEDs) have become a fact of modern life. Military, law enforcement and intelligence personnel have a dual-role: uncovering the bomb networks before the weapon of choice for terrorists around the world. While once the domain of international terrorist organizations, bombs are now a threat from local, home-grown terrorists as well. Sadly, Home Made Explosives e bombers do harm, and investigating an incident after it occurs. Traditional electronic explosive detection devices require a great deal of specialized training, a large budget and regular maintenance. While colorimetric explosive detection kits have existed for some time, they often require the user to mix chemicals, perform serial analyses, perform multiple swabs or tests, and then use a chart to interpret the results. Said plainly, existing colorimetric kits are difficult to use, especially in stressful situations; it's hard to interpret results correctly when bullets are flying. Even worse, existing colorimetric kits can expose the user to dangerous chemicals, and expose the kit to contamination from the environment or the user. leading to unreliable results.

The TraceX Explosives Kit is much more convenient. Simple to use and low cost, it can be used by every warfighter or law enforcement officer. With a single swab, the TraceX Explosives kit detects all the major families of explosive materials and their precursors. Thanks to the TraceX's simple color-change alert system, a single color indicates the presence of a particular family of explosive material. No longer does the user have to conduct serial tests, and then try to interpret the results. The video to your right shows a TraceX Explosives kit detecting Nitrates. The TraceX Explosives kit was developed by Morphix Technologies under contract from the US Department of Defense, and meets their demanding requirements. It is small enough to fit in a cargo pocket, lightweight and rugged. Each kit comes in its own disposable protective plastic case, so you know it will be ready to use when needed. No more broken ampoules from rough handling. And, the innovative collection system protects the sample from user contamination, so you can have confidence in the result.

#### 20/20 Bio-Check Kit

20/20 Gene Systems' **BIOCHECK™ Kit** helps first responders quickly determine-by looking for a color change--whether a suspicious powder may contain a bio terror agent. This is only a first step in determining wheth-

er a pathogen or toxin may be present.

The product works primarily by using PurpleHaze™ Technology to identify protein, found in all living material. All biowarfare agents—including Anthrax and Ricin— contain protein. On the other hand, many harmless substances frequently mistaken to be potential bio-terror agents, such as powdered sugar, drywall dust, cornstarch, and many cosmetics—do not. The BIOCHECK™ Powder Screening Test Kit also includes a test to determine pH. A positive with this test further rules out any materials not containing bio hazardous materials; these don't normally survive acidic and basic environments.







#### Pro HazClass Kit

**Biological Protein Screening Test** 

- A Test for the Presence of Protein and pH
- Will Indicate if a Possible Bioterrorism Agent or WMD is Present
  - Very Economical and Simple to Use
- Fast and Reliable Powder Test Kit In a Durable Re-Usable Case

#### **BENEFITS**

- Save resources, time and reduce citizen concern over false alarms
- Used by 100's of first responder teams nationwide
- Rules out 87% of powders that cause citizens to call 911\*
- Simultaneously screen for the possible presence of multiple agents
- · Laboratory proven to screen for Anthrax\*\*
- Reduces your need for expensive, time-consuming agent identification
- Results in 5 minutes!



## **Coriolis MICRO**

The Coriolis MICRO is an innovative biological air sampler for bio-contamination assessment, mainly dedicated to air quality control and air quality monitoring in environmental and pollution research, pharmaceutical, food and veterinary industries, biomedical and health environment.

Based on a wet cyclonic technology, combined to a high air flow rate, Coriolis MICRO offers the most efficient particles

collection in 10 minutes. The sample liquid output is compatible with any type of analysis to obtain reliable results in only few hours.

**Coriolis RECON** 

The Coriolis® RECON is a ruggedized bio-aerosol sampler, dedicated to CBRN Recon teams or first responders, with quick deployment in case of bio-threat suspicion. Coriolis® RECON is efficient, portable and has been ruggedized for unfamiliar environment. Coriolis® RECON offers flexibility with a choice of operating modes; Autonomous sampling, Biological sentry mode, Long time surveillance.

A Long Time Monitoring Option is available for the Coriolis® RECON. This option is ideal for the monitoring of a special area like Remote Base Surveillance. This option adjusts automatically the volume of collection liquid for long sampling during up to 6 hours. The volume of liquid inside the cone is always optimal for an efficient sampling.



## IBAC 2 (Fido B2)

The IBAC® 2 is a fully automated biological agent detector that alarms in less than 60 seconds when an airborne bio-threat is present. Its IBAC™ technology uses UV-Laser induced fluorescence to discriminate biological organisms from background particles, reliably detecting all four classes of bio-agents at concentrations below 100 ACPLA with low false alarm rates. The IBAC® 2 system can operate independently, as part of a network configuration to form the "first tier" of a building protection system, or via battery power module for mobile detection capability. Its four stages work together continually to monitor the environment for the presence of bio-threats, alarm upon detection, collect and preserve samples for confirmatory analysis, and transmit data to command and control centers. From long-term, fixed installations to short, mission-based tactical applications, the IBAC® 2 offers a flexible, field-ready solution for bio-aerosol monitoring.

#### **APPLICATIONS**

- Building Protection
- Special Event Monitoring
- Mission-Based Incident Response
- Force Protection
- Mass Transit Security
- Mobile Labs
- Integrated CBRNE Systems





#### **BENEFITS**

- Provides affordable, real-time warning capability for biological aerosol threats
- Most mature and widely deployed bio-trigger device on the market today
- Detects all four classes of bioorganisms: spores, vegetative, virus, and toxins
- Autonomous 24/7 operation with no consumables or regular maintenance
- Alarm automatically triggers sample collector for subsequent identification
- Alert algorithms validated for both indoor and outdoor environments
- Integrates with most facility monitoring and control systems
- Government validated with over 1,000 sensors deployed in relevant

Sold as an option for the Fido B2 (IBAC) system, the C100 is a modular tactical sample collector for eventual threat analysis and identifica-

C100 tion.

The collector is based on ICX Technologies rotating impactor technology and is designed to sample the ambient air at a nominal flow-rate 150 liters per minute (lpm), depending on the model. The impactor rotates at high speed, both entraining air into the system and collecting particles onto the surface. Following sampling, the rotating disk is rinsed using pre-measured, individually-packaged fluid to extract the collected particles from the impactor into a small liquid volume of buffered saline.





Rapiscan 618XR

The Rapiscan 618XR is a compact and versatile X-ray screening system with exceptional image quality and excellent detection capabilities. The 618XR is designed for rapid relocation and can be wheeled through narrow doorways, making it an excellent system for schools, hotels, convention centers and event-based security environments.

Like all systems in the 600 series family of X-ray scanning solutions, the Rapiscan 618XR is built on a standardized platform that makes it easy to install and maintain, and comes with features such as dual-energy detection, a streamlined, ergonomic design, and Rapiscan's feature-rich OS600 system software.



## Rapiscan 622XR

The Rapiscan 622XR offers high performance threat detection and lower total cost of ownership. With a tunnel opening of 750mm x 550mm, the Rapiscan 622XR can accommodate a range of parcel and baggage sizes for checkpoints. The 622XR's innovative design allows for bidirectional operation, while its dual energy detection provides automatic material discrimination so that screeners can identify the material composition of the scanned object. In addition, it offers options like an adjustable control panel stand and swind-open, easy-access panels.

The Rapiscan 622XR, complies with U.S. Code of Federal Regulations (CFRs) on performance standards for ionizing radiation-emitting products, electronics products, radio frequency devices, qualification of screening personnel, occupational noise exposure and occupational safety and health standards



The new Rapiscan 620XR hp is a high performance 620 mm by 420 mm tunnel aviation checkpoint screening system with best in class image quality and excelent threat detection alert capabilities. SINERGY™, Rapiscan's latest proprietary image enhancement tool, utilizes the new innovative dual-mode X-ray imaging technique (DMxT) to emphasize the detail in specific regions of images by enhancing the visibility of thin metal therefore increasing operator recognition of potential threats in cluttered images. The Rapiscan 620XR hp complies with all European Commission Aviation Security Screening requirements and French Civil Aviation Authority (STAC).



Detection of Explosives and Narcotics Alert - Target™ and NARCScan™ are designed to assist operators in the detection of a range of explosives and narcotics respectively in real time during the scanning process by marking a potential threat on the X-ray image. Rapiscan detection algorithms are based on regulatory material analysis techniques.

## Scanmax 25

The **Scanna Scanmax 25** has a large capacity x-ray mail screening chamber of 56 x 42 cm making it the perfect postal x-ray scanner for checking bundles of letters, courier deliveries, york trays, parcels and handbags. Scanmax 25 produces an extremely detailed x-ray image of an item's contents which is displayed on screen for fast and easy viewing. Scanmax 25 software offers a range of color density based contrasts, allowing operators to quickly and accurately distinguish between legitimate harmless items and malicious mail and be able to instantly confirm a parcel's safety.

operators to quickly and accurately distinguish between legitimate harmless items and malicious mail and be able to instantly confirm a parcel's safety.

Scanmax 25 is a freestanding postal security x-ray screening cabinet combining a large screening chamber with a compact physical size. It is designed for ease of use by non-technical staff and the front loading door and small footprint mean it can be located virtually anywhere in the workplace. Images are automatically enhanced for optimum clarity with the option to be shown in negative. There are also several image enhancement ortions for bighlighting low medium and bigh density materials as well as for defining power.

ment options for highlighting low, medium and high density materials as well as for defining powders, syringes and circuitry. Image enhancements are made using a simple handheld mouse. All images are stored on screen until the next x-ray exposure is made.

#### Mini-Z



Meet the world's first handheld Z Backscatter imaging system — MINI Z. We took the same technology that made the ZBV® system the top-selling cargo and

vehicle inspection system in the world, and miniaturized it. The MINI Z system provides effective detection of organic threats, contraband, and explosives for public safety, customs and border enforcement, and security officials.

The MINI Z system is a compact, single-sided imager that scans objects in hard-to-reach areas, giving better visibility into suspicious bags, walls, furniture, small boats, aircraft, vehicle tires, and car interiors. Unlike density meters, trace detectors, or portable transmission X-ray systems, the MINI Z system produces an easy-to-interpret image to quickly locate organic contraband behind non-metallic surfaces.



Scansilc The Scanna Scansilc is a range of high performance flat panel portable X-ray systems offering high defini-

tion image quality for multiple defense and security field applications including IED search and investigation, unattended baggage checks, vehicle inspection cell searches and for detecting weapons and contraband material. Scansilc systems also have applications within the fields of forensics and counter surveillance (TSCM).

The flat slimline panel design allows operators to carry out X-ray work in difficult to access areas, while the different image panel sizes provide options for lightweight back-

packable systems for rapid deployment tasks and larger image panels for screening larger objects such as unattended bags.

## Scanmail 10K

The **Scanna Scanmail 10k** is a compact desk-top electronic

mail screener for security checking letters and small packages. Scanmail will automatically find highly explosive letter bombs and bomb making components such as detonators, batteries and circuitry. It will also find other common mail delivered hazards such as razor blade letters and cutting devices whilst reliably ignoring office clutter such as paperclips and staples.



Over 10,000 units used in government, police, high security locations and corporate mailrooms. Scanmail 10K is used throughout the world in high security locations as well as in private residences and royal palaces. Scanmail 10K was also the machine that saved the life of one of the Unabomber's intended victims by successfully intercepting one of his postal devices.

#### Scantrak



The **Scanna Scantrak** is a portable digital X-ray system with a range of different sized image capture units (ICUs). It is used by a variety of users which include police, military, customs and public safety agencies as well as prison and building managers to search and examine items safely in situ.

Scantrak is easily set up and deployed within minutes by one person and can be configured for a variety of operating environments. It is supplied with a choice of X-ray generators, different size Image Capture Units (ICUs), standard, notebook or ruggedized laptops and has wireless and ROV capabilities. Operators can control the X-ray generator and capture images safely from the

laptop using proprietary Scanview software. Images are transmitted instantaneously via a data transmission cable or through an optional wireless network. Multiple exposures can be taken without the need to re-approach the target.

Scanview software allows images to be enhanced, stitched, rotated and stored for evidential purposes. Areas of interest can be isolated for closer scrutiny whilst measurement and grid tools help with Bomb Disposal tasks. Images can be annotated and exported in windows formats for report writing or printing.

The RadComm RC99 is designed to provide an economical and extremely robust system for covert radiation monitoring of vehicles at a permanent control points or for security operations at special events. The sensitive and durable Polyvinyl Toluene (PVT) sensors are concealed in our specially designed housing allowing for inconspicuous monitoring of radioactive material or threats. Our unique configuration enables the end user to deploy the system quickly and easily in any environmental conditions.

As the vehicle slows and passes over the RC99, the sensor detects elevated levels of gamma radiation and instantly notifies the operator with an audible or visual alarm. The user can segregate the suspect vehicle, driver and passengers and move the response to the next level

While the system is operated with a user friendly and rugged controller box, operated and monitored with a simple, user-friendly control box, a wireless configuration is available as an option to further ensure the covert nature of the RC99.



#### **PM700**

The Rapiscan-TSA PM700 automatically scans pedestrian traffic without the need for frequent calibration. They are intended for applications where the relatively low energy emissions from 235U and 239Pu are the main concern. They are currently in use at uranium enrichment plants, weapons manufacturing plants, weapons storage sites, nuclear laboratories, nuclear waste disposal and storage sites where detection of Special Nuclear Materials (SNM) is essential. The TSA PM700 monitor is a stand-alone pedestrian radiation portal monitor (RPM) with excellent sensitivity and reliability.



## Metor 6M

The Rapiscan Metor 6M is a multi-purpose multi-zone walk-through metal detector used primarily for weapons detection. Typical applications include passenger screening at airports and seaports, visitor screening at courthouses, federal buildings and prisons, access control in conferences, public buildings, sporting or other special events, stadiums and concerts, employee and visitor screening in power plants or factories, loss prevention in different industrial applications as well as screening in hotels, restaurants, casinos, and night clubs.

The latest features for advanced security are available on the Metor 6M. Calibration guard, power guard and ready-state violation all protect against unwanted tampering to the machine. Fully configurable user levels allow for unprecedented control over who can view and change settings on the Metor 6M. Automated sensitivity and floor sensitivity functions make the calibration process easy, eliminating the time consuming trial and error method.



Available in 32" and 36" widths, the Metor 6M has a random alarm function that enables security personnel to randomly choose individuals for an additional security check. With the new dual random alarm feature, people who cause a normal alarm are also subject to a random alarm. Metor 6M is built with intelligent and virtually invisible traffic counters which are integrated inside the coil panels. Counters are bi-directional with a decrease mode. Alarms, passengers and alarm rates can all be counted. With its immunity to electromagnetic interference and vibration, the Metor 6M is easy to install in the most demanding environments. Several units can be placed in close proximity to one another, increasing the level of flexibility when planning an installation site.



Hand-held metal detectors are an integral part of the physical security screening process. With the Metor 28 from Rapiscan, we have designed a unit that benefits security personnel as well as the person being scanned. Our unique angled design allows you to thoroughly scan an individual, while keeping your hand away from their body.

The Metor 28 is safe for people with pacemakers and will not affect magnetic recording media. The magnetic field strength of the Metor 28 meets with the limits set by international standards for human safety.

The circular opening assists in pinpointing metal objects with a comfortable handle for easy control and grip. It is lightweight, just 9.3 ounces (260 g) with the battery and wrist strap.

## Gatescan-P

The Scanna Gatescan-P is the world's most versatile walk-through metal detector as it can be can be deployed and transported to virtually any location and be up and running within five minutes by a single operator! It has multi-zone or zone specific detection and is designed for use in demanding environments. Gatescan P is ideal for sporting events, nightclubs, conferences, schools, VIP security or for any event or location requiring high discrimination metal detection combined with ease of use and total portability.

Gatescan-P is a remarkably user-friendly walkthrough metal detector that is straightforward to operate with minimal operator training required. When not in use Gatescan-P collapses into a compact, portable unit on wheels for easy transportation between sites.

Gatescan will operate for up to 40 hours on a single battery charge and can be completely recharged overnight. The unit can be charged whilst

erected using the mains charger or whilst collapsed using the mains charger with y-connector. Gatescan-P is available with a protective cover which protects the unit from dust, dirt and scratches during storage and transit. Gatescan-P can be used in or outdoors making it ideal for event security and it has a weather protective cover accessory which protects the arch during rainy conditions.

## **OREX** Modesty Clothing

OREX is the trade name for a line of garments and products that are uniquely and perfectly suited for the needs of all classifications of Emergency Responders. Although they are described as disposable, the performance and durability of the OREX fabric rival any cotton or polyester garment. Not only do they compete favorably in cost, the range of products that we offer exceeds that of any other product of this type. Our Personal Decon Kits are comprised primarily with OREX garments and towels and are priced at nearly half of our nearest competitor. Most noted for its light weight and comfort, the OREX products are engineered and manufactured from a special, degradable polymer that is environmentally friendly. Following use, the used products can be treated using a proprietary process that dissolves the product in high temperature water (> 190 degrees F.), decontaminates it and finally chemically converts it to carbon dioxide and water, much of which is returned to the environment for reuse







#### **PRODUCTS**

- Pre/Post Decon Kits
- Coveralls
- ♦ Regular—Zipper Front
- Splash Resistant—Zipper Front
- Lab Coats
- Towels
- Shoe Covers

- Scrubs
  - ♦ Long Pant
  - ♦ Short Pant
- ♦ Long Sleeve Top
   ♦ Short Sleeve Top
- Hoods
- Sheet Stock



# OREX Pre & Post Decon Kits

The OREX Personal Decon Kits address the procedural and logistic issues of mass decontamination operations while offering unparalleled cost-effectiveness. Ultra strong and absorbent towels along with our exclusive protective slippers add to the overall value and performance of the OREX kits. Other factors absent from products of this type have been garment durability and waste management of radioactively contaminated materials.



The Personal Decon Kit utilizes patented OREX products that are made from a special, degradable polymer that is tough, breathable, and environmentally friendly. Following deployment, used products can be treated offsite using a proprietary process that dissolves the product, decontaminates it, and ultimately converts it to carbon dioxide and water. Responsiveness and commitment to the end-user is further illustrated by the fact that LAURUS provides the only Decontamination and modesty clothing specifically designed for the smaller (child's) user. Until now, a forgotten patient group that will require more privacy and durability capabilities than any other users.

Unparalleled comfort and modesty along with cost effective procurement make the OREX clothing and decon kits a logical and easy choice to make. Available through the LAURUS GSA schedule. Please call for quantity pricing and delivery times.

#### STANDARD KIT

- Personal belongings bag w/ name tag
- · Two part wrist ID bracelet
- · Pre decon white robe
- Bath size towel
- Scrubs: long pants. V-neck top
- · Hard sole slippers
- Double bagged and vacuum sealed
- Custom configurations and child sizes available!



## Calibrations & Maintenance

Calibrations Maintenance

LAURUS Systems can provide calibration and maintenance services for virtually any and all radiation instrumentation. We calibrate survey meters and dosimeters using NIST-traceable Cs-137 sources. Our contamination monitoring equipment calibra-

NIST-traceable Cs-137 sources. Our contamination monitoring equipment calibrations include complementary detector efficiencies using NIST-traceable radioisotopes commonly used in industrial, medical and research applications.

We are licensed to perform calibrations on instruments with fixed and loose contamination Additional calibration capabilities include scalers, high and low volume air samplers and lapel air samplers. Neutron detector calibrations are now available!

Instrument receipt, inspection, calibration and return shipment is normally completed within 4 business days. Expedited same day and next day service is also available upon request. Calibration certificates are issued with each instrument, listing as-

found and as-left data, with indications of any out-of-tolerance conditions. Our custom instrument calibration tracking database logs all calibration history data and provides automatic calibration-due reminders to customers.



#### Fast turn-around

Most instruments are calibrated within 4 days

#### Competitive pricing

Most calibration prices are the lowest in the industry **High volume** 

Thousands of instruments processed annually

#### Established reputation

30 years of experience in instrumentation services





#### **RFPAIRS**

**GS**A

A highly-trained staff of service technicians have experience repairing all major manufacturers radiation detection instruments. We offer repair services for both portable and installed radiation monitoring equipment, and are licensed to repair instruments with fixed and loose contamination. On-site repair service is also available. We normally perform repairs down to the component level, with a focus on minimizing costs to our customers.

Our calibration laboratory maintains an inventory of common repair parts and procures additional OEM parts from manufacturers as needed. Most repairs will be performed within 3 weeks, depending upon OEM parts availability.

All repairs and maintenance are done at an authorized service center for Mirion (including MGPI, Rados and Rotem). Additionally, we perform all levels of repair on instruments manufactured by Ludlum Instruments, Thermo Fisher Scientific, Canberra, Victoreen, NDS, SAIC, and many other manufacturers.

#### Our service benefits include:

- Instrument repairs for all major manufacturer's instruments
- · Repair data captured electronically and detailed in reports
- Instrument calibration services that are fast and economical

Our services are available on many State Contracts as well as through our GSA Contract. All of our maintenance and service associates are ready to serve you professionally and efficiently.

Instruments from LAURUS Systems, such as electronic alarming dosimeters and survey meters come with a one year manufacturer warranty. The manufacturers recommend calibration on a yearly basis for most instruments. There is no other regular maintenance or adjustment needed on the radiation detection instruments.

LAURUS Systems has built a reputation on exceeding customer expectations regarding instrument support and service. We can also create Maintenance Service Agreements to meet specific needs and requirements. Please contact us for pricing and return information.



**DosiFFR** 

**DosiFFR** is the perfect solution for first responders, hazmat teams, laboratories and industrial users looking for a simple, userfriendly way to configure a dosimeter based on their specific requirements. DosiFFR is a streamlined Windows-based software application that enables users to manage dosimeter, personnel and exposure data. The single workstation system provides for straightforward log-in/log-out of personnel and the configuration of

DMC2000, SOR and DMC3000 electronic self-reading dosimeters.

DosiFFR is the perfect solution for first responders, hazmat teams, laboratories and industrial users looking for a simple, user-friendly way to configure a dosimeter based on their specific requirements.

Teleview 2000



**TeleView 2000** is a software program designed for real-time monitoring of radiation detection devices providing the user timely display of dose and dose rate information from a variety of monitoring devic-

es. The software suite consists TeleCast, TeleView Client and TeleLog for a single station or enterprise application. It displays real-time data captured from electronic dosimeters, portable survey instruments and continuous air monitors capable of monitoring-up to 1000 transmitting electronic dosimeters, up to 256 continuous air monitors, up to 256 area monitors and unlimited client stations.

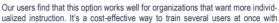
## **Computer Based Learning**



Laurus has developed a number of easy-to-use computer based individual training presentations and tutorials. Although not meant to replace face to face training, our affordable and easy to follow training programs offer users a suitable alternative for many of our widely used detection and monitoring instruments. These personal learning aids are very helpful for maintaining on-going equipment familiarization and refresher training. Convenient and economical instrument training is available anytime. anywhere.

## **On-Site Training**

You don't have to go anywhere to get face-to-face training. Whether it is instrument-specific or topical, our experienced team will bring knowledge to you. Your organization will benefit from on-site training with the equipment and systems that your own and use. This ensures that we thoroughly cover the topics and procedures that are important to you. We'll consult with you and evaluate your needs to utilize the ideal curriculum and hands-on exercises. When we leave, your employees will be confident with the systems and their ability to use them.



one-on-one instruction and can include or be exclusively a train the trainer scenario. This will allow selected personnel to more actively participate in the training process.

We also offer you the opportunity to come to our Ellicott City, Maryland training facility and learn from experienced Laurus employees and practice your skills on our equipment and instrumentation. By the time you go home, you will feel comfortable and ready to fully utilize your instruments and systems. Whether you're a new customer, an existing client, or in need of a comprehensive training program, Laurus face-to-face training is a great way to master our products and maximize end-user capabilities.



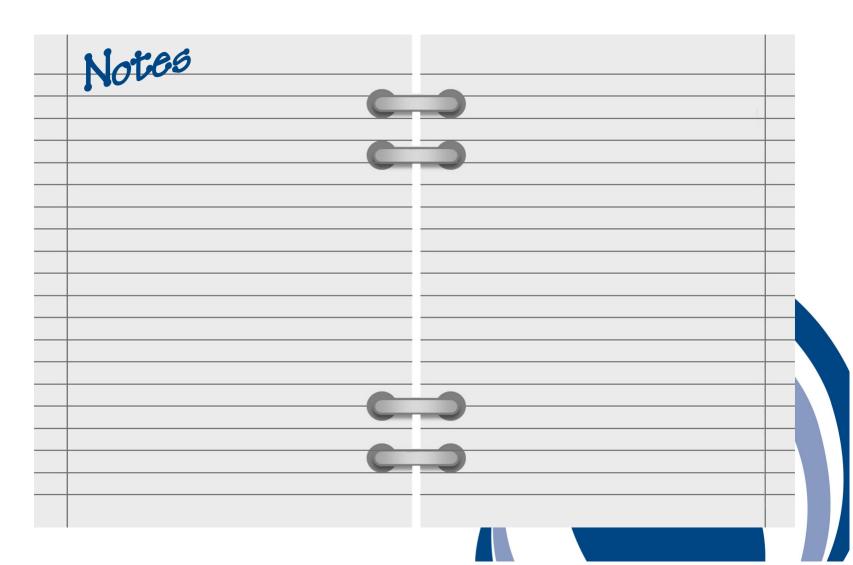
## **Custom Training Solutions**

Whether you are implementing the latest technology or preparing new employees to step into their roles within your organization, remember that your most valuable resource is the human one. When your team members are appropriately trained, they will be successful.

Laurus Systems offers solutions to training and performance issues brought about by technological, procedural, or regulatory changes. We are experienced in the instruments we provide as well as in the use of these technologies in the field. Our expertise goes beyond that however as we can provide practical training for virtually any radiation detection instrumentation. Likewise, we can provide programs to help your staff understand and better respond to the radiological issues

that they will face in a sensible and easy to comprehend format.

Our experienced staff and contract personnel will help your perform a needs analysis, create and implement a custom solution tailored to your needs, determine whether your training investment is achieving the desired results, and offer you a number of delivery options.





Use QR Code For Digital Datasheets

