

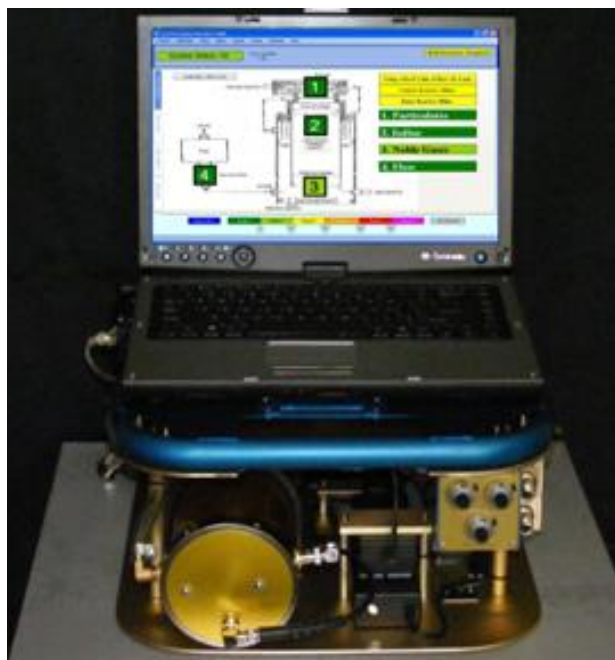
PORTABLE ISOTOPE IDENTIFIER

Search Tool / Sample Counting System

Model - RAD-ID-TA

FEATURES:

- HIGH GAMMA SENSITIVITY
- MULTI-CHANNEL ANALYZER (MCA)
- WORKS WITH VARIETY OF PROBES
- RADIONUCLIDE LIBRARY TAILORED TO CUSTOMER REQUEST
- SIMULTANEOUSLY MEASURES ; DISPLAYS; ALARMS 1 - 3 SEPARATE DETECTORS
- PC INCLUDED
- COMPUTER INTERFACE – USB OR ETHERNET (Easy Integration into SCADA System)
- DATA LOGGER – BUILT IN
- DYNAMIC BACKGROUND SUBTRACT
- USEFUL AS SMART SURVEY METER OR AS SAMPLE COUNTER
- SET UP PARAMETERS CAN BE PASSWORD-PROTECTED
- LIGHTWEIGHT, COMPLETE PORTABLE SYSTEM – HAND CARRY; OPTIONAL CART
- IP52



**RAD-ID-TA WITH
3 DETECTOR HOLDER**

The RAD-ID-TA Portable Isotope Identifier is sensitive & versatile; a complete sample counting system.

GENERAL DESCRIPTION:

The RAD-ID-TA Portable Isotope Identifier Advantages:

- Identifies principal nuclides in sample
- Identifies principal nuclides in air
- Visual energy spectrum aids understanding of radiation environment.
- Identification aids in finding the source of radiation.
- Enhanced sensitivity
- Settable to areas of interest
- Built in gain stabilizer for better utility in different temperatures.
- Radionuclide Library Tailored To Customer Request
- In cases of illegal dumping perpetrators can be inferred from isotope identifiers.

The RAD-ID-TA incorporates the Multi-Channel Analyzer (MCA) which provides analysis. RAD-ID-TA can be used as both a sample counting system &/or a search tool in addition for monitoring hood, glove box, packages or other hazardous situations.

The RAD-ID-TA assures safety against radioactivity contamination with a real-time constant check.



TECHNICAL ASSOCIATES OVERHOFF TECHNOLOGY

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Divisions of  US NUCLEAR CORP

PORTABLE ISOTOPE IDENTIFIER Search Tool / Sample Counting System

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PROCESS – FOR EXAMPLE:

Search Tool: Use the PGS-3L or other Scintillation Probe to identify radiation sources.

Sample Counting System: Place sample into Sample Drawer with the PGS-3L attached. (See diagram)

GAMMA DETECTION:

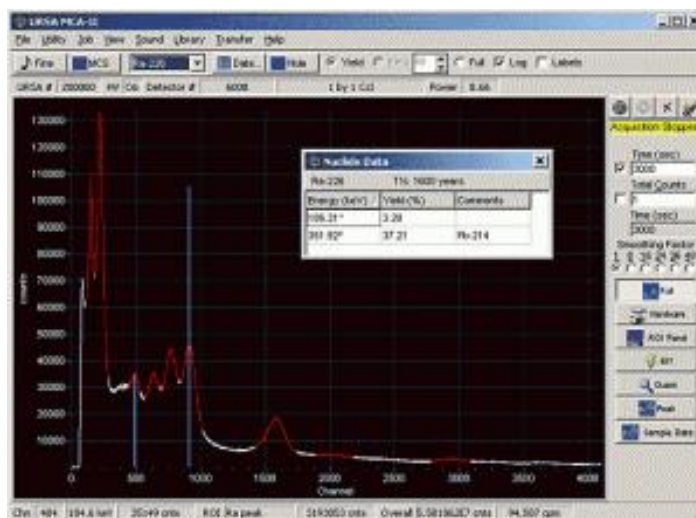
Gamma emitter content is measured using a PGS-3L or other Scintillation detector with the MCA (Multi Channel Analyzer) with greater than 512 channels with a user settable energy range & readout. For example the MCA can be set to show Gamma peaks from 15 KeV to 3.5 MeV.

Isotope Identification System – TA SMART-PEAK™

Software detects even low Gamma concentrations. The isotope identifier specifies & displays radioactive nuclides.

APPLICATION:

- Home & Security
- Emergency Response
- Medical – Nuclear Medicine / Imaging / Waste Management / Industrial Hygiene
- Environmental Monitoring
- Illegal Dumping of Medical or Industrial Waste
- Industrial Accident
- Roadside Chemical Spill
- Terrorist Action / Threat



RAD-ID-TA can be used to search a car or scan suspicious objects or search for a cache of radioactive materials

DESCRIPTION:

The RAD-ID-TA is a continuous duty, high capacity, rugged, portable system. It is a 3-channel monitor for SIMULTANEOUS measurement of Gamma & Neutron emitting isotopes.

Electronics are microprocessor based with portable PC display.

Detector heads are self-contained allowing change or addition of functions as needed & allowing rapid repair by substitution in the field. The system is covered by TA's unique module exchange warranty, in addition to the full one year warranty covering all TA products.

The entire system is extremely light & transportable, & comes complete with all cabling & connectors in place, fully tested & ready to operate. An optional cart is available.

System is 115V single phase; 220V **optional**, 50/60 Hz.



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SPECIFICATIONS:

•**Channels:** Three

•**Activity Detected:** Alpha, Beta, Beta-Gamma Background, Gamma, Neutron, Positron

OPTIONAL DETECTORS	Standard	Optional Alternative Detectors
Alpha	2" dia. GM 2mg/cm ² Model T-1190	Solid State Alpha Detector
Beta	2" dia. GM 6mg/cm ² Model T-1190	Beta Scintillator
Gamma	2" dia. Scintillation NaI(Tl)	BGO Scintillator
Neutron	He3	BF3
Positron	2" dia. Scintillation NaI(Ti)	Coincidence Sensor
Beta-Gamma Background	Small GM Tube	

OPTIONAL DETECTOR STYLES:

- 3" x 3" NaI (TI) spectroscopic grade crystal.
- LaBr (Lanthanum Bromide)

Energy Range: Gamma - 15 KeV – 3.5 MeV

Energy Resolution: 7% Nominal

Alarm: Audio & Visual (On Screen)

Battery Power: Built-in battery charger

High Voltage: Separately variable per detector from 0 to 1,500V (or 2,500V).

Readout Screen: Showing both real-time dose rate & accumulated doses for all channels.

Status Lights: "ON", "Alarm", "Fault".

Accuracy: ± 10% except for resolution loss & statistical variation.

Alarms: All alarms are easily set by user to any value within instrument range.

Alert Level Alarm: Automatic Reset.

High Level Alarm: High level alarm remains activated until RESET button is pushed.

Silent Alarm: **OPTIONAL**

3 Separate Alarms: 3 Channels

Alarm Indication: PC Screen displays & sounds all alarms.
MAL-Z Alarm module has lights & audio for each channel:
Red-High level / Amber-Low Level.
Audio: 1000Hz, greater than 80db & fail-safe & alarm relays for customer use.

Readout Units: User Selectable: **Search Tool:** mR/h; mRem/h; cps, mSv/h
Sample Counting System: µCi; Bq, cps

Display Update: Count time is user settable from 1 to 120 seconds

Trend Display: Graphic Display: 30 minutes, 8 hours, 24 hours, 30 days, 90 days, 1 year.

Self-Tests: Automatic self-test at start-up
Continuous self-tests & alarm for each detector.

Environmental: **Temperature:** 0°C to 45°C; **OPTIONAL:** -10°C to +50°C, **Relative Humidity:** 0 to 95%



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ELECTRONIC SYSTEM DESCRIPTION: (Microprocessor based)

Electronics is high quality Windows PC including:

Operating Software:	TAcquire™ custom software plus Excel Spread Sheet
Radionuclide Library:	Radionuclide Library Tailored To Customer Request
Data:	Stores Data to MS ACCESS Database. Data Files are Importable into Excel
CPU with Data Acquisition:	High Resolution COLOR display, Audio
Data Ports:	USB & Ethernet
USB-Flash Drive:	For data storage – 10 years storage
Terabyte hard drive.	Stores programs & 20 YEAR'S of Detailed DATA plus alarm record. Room for new software functions in the future. Specialized TAcquire™ software.
Power:	110 VAC - 60 Hz, 220 VAC optional 50/60 Hz Internal Battery Backup, Fail Safe
Special Safety Features:	All circuits fused. Loss of signal alarms.
Outputs:	Alarm condition outputs: 1. Logic Level Signal - From PC 2. Contact closure or opening - From Optional MAL-Z alarm module.
H& Carry:	System can be easily h& carried without cart.
OPTIONAL:	OPTIONAL: Cart Printer for hard copy

WEIGHT, DIMENSIONS, SHIPPING INFORMATION:

Dimensions:	Electronics: W 14.5" x H 10" x D 20".
Hand Carry Weight:	7 kg
Consumables:	System is shipped with planchettes & wipes.
Accessories:	System is shipped with all necessary accessories included & tested with system including all cables, connectors, & manual.

MANUAL INCLUDED

OPTIONS:

- Different detector types
- Cart
- MAL-Z alarm/relay module,
- Silent Alarm
- Ethernet & USB are included, **OPTIONAL** - interfaces for 4-20mA, RS-485
- Calibrated Radiation Standards (Cs-137, Ba-133)



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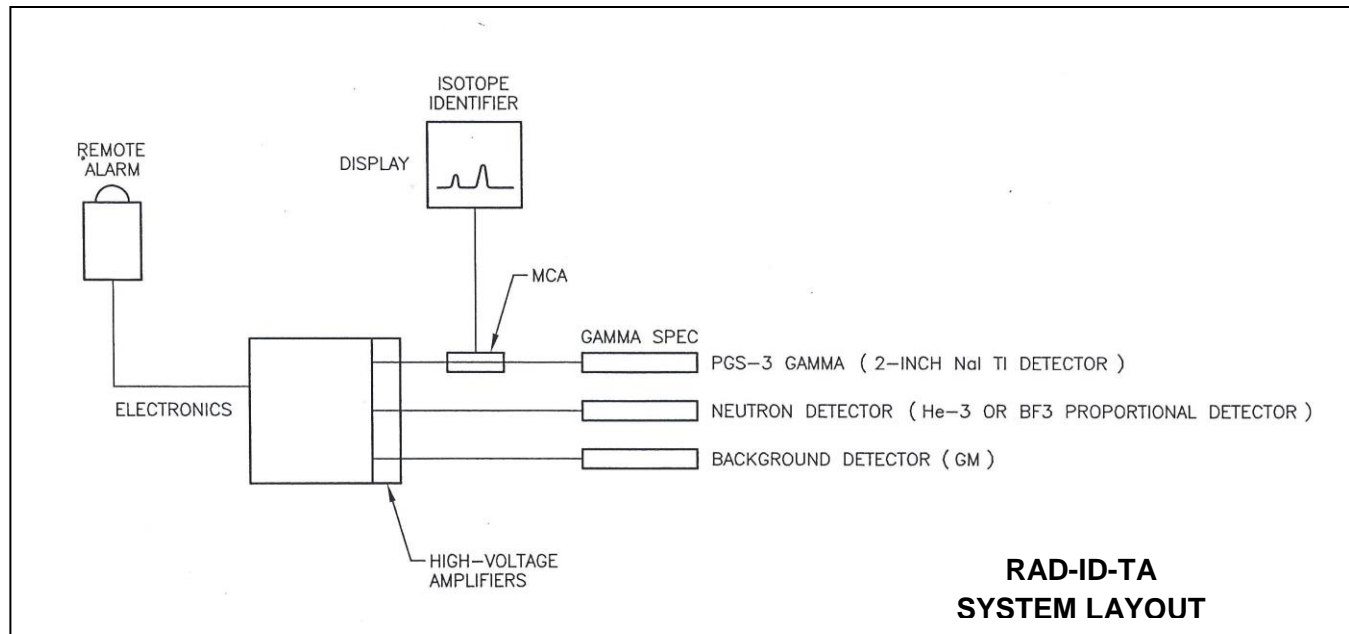
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FEATURES	TYPICAL (Open Market)	TECHNICAL ASSOCIATES RAD-ID-TA
Display	40 Characters	14" Color LCD Monitor
Dependable	NO	YES
Number of Simultaneous Measurement Channels	1	3
Microprocessor Speed	Various	2GHz
Data Storage Capacity		
Bytes	0.05 MB	1 TB
Years	83 days	20 Year Data
Precision: Data Storage Intervals	Every Hour	2x each minute
Removable Data Storage	NO	Flash Drive
Real Time Gamma Compensation	NO	10 µR/h to 25 mR/h
Data Archive & Retrieval:		
Any Day This Year	NO	YES
Any Month This Year	NO	YES
This Year to Date	NO	YES
Daily Average or Total	NO	YES
Monthly Average or Total	NO	YES
Full Year Average or Total	NO	YES
Ethernet & USB	NO	YES



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PGS-3L SCINTILLATION
PROBE

PGS-3L
DETECTOR ASSEMBLY



STG-ID
SAMPLE COUNTER
DRAWER



Easy Hand Carry



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