



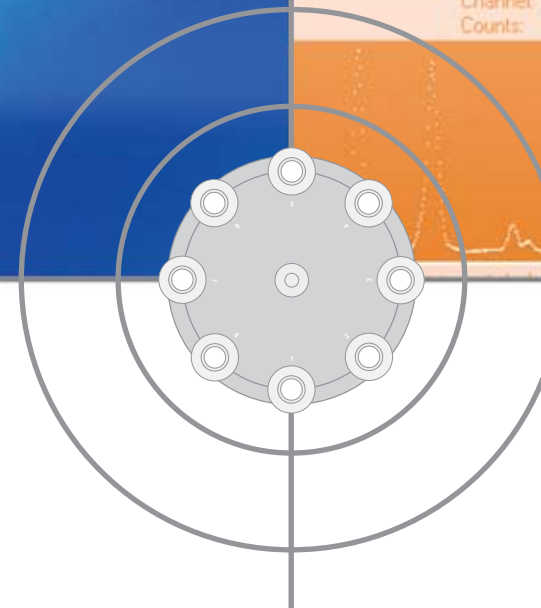
ANALYTICAL INSTRUMENTS GROUP



ProSpector

analytical equipment

EDXRF Handheld Alloy Analyzer



G.N.R. is proud to introduce **The new ProSpector**, the latest XRF system to join our family of portable, Energy Dispersive X-Ray Fluorescence (EDXRF) spectrometer systems. Like all G.N.R. products, this portable, handheld EDXRF elemental analysis system is designed to be intuitive and user friendly.

The system utilizes a 7.2 Vdc Li-ion battery. Under normal use, it has an operating time of 8 hours before charging is required. **The new ProSpector** operates at a high voltage of 40 kV but can be set for up to 50 kV, and has a detectable range of Cl to U. The light

element option has a detectable range from Mg to U. **The G.N.R. ProSpector** operates under control of the HP iPAQ PDA with 4-inches high resolution touch-screen display, providing high flexibility and usability of the system. The optional lab stand allows using the new **ProSpector** as a laboratory grade instrument under PC or laptop control.

All equipment includes on-site service support by a team of engineers with many years of solid EDXRF experience.

On-site instant analysis without sampling:

- ⊙ Ferrous and nonferrous alloys sorting
- ⊙ RoHS, WEEE and Proposition 65 Compliance testing
- ⊙ Lead determination in paint, toys, furniture and clothing
- ⊙ Soil and sediments analysis
- ⊙ Mining and geology
- ⊙ Art and archeology

Basic user specifications

Standard Element Detection Range	From Cl (Z=17) to U (Z=92)
Optional Light Elements	From Mg (Z=12) to S (Z=16)
Battery Operation Time	Up to 8 hours
Dimensions	242 mm (L) x 230 mm (H) x 78 mm (W)
Weight (with battery)	1230 g (1440 g)

Technical characteristics

X-ray tube	W anode, 40 kV max (50 kV max optional), 100uAmp max optional Ag anode for light element analysis 5 filter positions
X-ray detector	
Detector type	solid state Si-pin-diode with thermo-electrical cooling (optional SDD)
Active area	6 mm ² (optional 25 mm ²)
Energy resolution	<165 eV at 5.9 keV (<140 eV for SDD)
System electronics	
Pulse processor	Digital pulse processor based on 80MHz DSP Pile-up rejection Pulse shape selector Automatic adjustment to count rate
MCA	4096 channels
Data processing	624 MHz PDA
Display	High resolution 4 inches color touch-screen
Software	
Supported operating systems	Windows CE/Mobile for PDA Windows XP/Vista/7 for PC
Quantitative analysis algorithms	Fundamental parameters empirical calibrations

