

LRS-9000

Detects Explosives / Narcotics / Chemical Warfare / Toxic Industrial Chemicals



By Autoclear

RAMAN SPECTROSCOPY

ILLCIT SUBSTANCE DETECTION



Scintrex Trace's LRS-9000 is an advanced Raman spectrometer for on-site detection of illicit substances such as explosives, narcotics, chemical warfare (CW), or toxic industrial chemicals (TICs). The compounds library includes 300+ illicit substances and more can be added in a cloud service. The LRS-9000 is the one of the smallest handheld Raman spectrometers developed for first responders and forensic usage. Raman spectroscopy provides a molecular fingerprint of any compound through non-destructive analysis.

- > Smaller than a pack of cigarettes and weighs only 4.2 oz (118 g)
- > Rapid, accurate and easy to read results sent to a smartphone via Bluetooth
- > Non-contact sampling
- > Compound library supported by the cloud

APPLICATIONS:

- > First Responders
- > Military
- > Law Enforcement
- > Forensics
- > Customs and Borders
- > Transportation
- > Critical Infrastructure
- > High Security Events
- > Royal and Diplomatic Protection
- > Embassies and Consulates

LRS-9000 SPECIFICATIONS

ILLICIT SUBSTANCE DETECTION



The LRS-9000 uses a laser wavelength that allows the operator to safely analyze energetic material such as explosives. The device is smaller than a pack of cigarettes and weighs around 4 ounces, or 120 grams. It is the integrating of high end optical elements and proprietary Fluorescence Rectification (FR) components which allows proper analysis of colored material in complex mixtures.

Sample fluorescence is an intrinsic problem in Raman spectroscopy for real world applications, but this problem can be overcome with larger Raman devices which use different laser wavelengths. The LRS-9000 can accurately identify unknown colored samples and packages without the need of using multiple lasers.

A global leader in explosives, chemical and narcotics detection, Scintrex Trace is Autoclear's Canadian-based trace detection division. Like Autoclear's flagship X-ray systems, these products deliver unsurpassed accuracy, speed and reliability for detecting the most dangerous and cleverly concealed threats.

SPECIFICATIONS

Technology:	Raman Spectroscopy
Detectable Compounds:	Explosives, Narcotics, CW, TICs and other
Library:	300+ compounds, expandable library, cloud library supported
Sampling:	Non-contact sampling
Excitation wavelength:	785nm
Spectral range:	400 - 2350 cm ⁻¹ Raman shift
Spectral resolution:	16 - 18 cm ⁻¹ (Rayleigh criterion)
Unit Dimensions: (L x W x H)	7.0 x 5.6 x 2.7 cm 2.8 x 2.2 x 1.1 in.
Weight:	118 g (4.2 oz.)
User interface:	Bluetooth to a smartphone (iOS or Android)
Fluorescence Rectification:	Proprietary combined hardware and software method
Connectivity:	Bluetooth or USB
Power:	Integrated battery charged through USB



By Autoclear

www.autoclear.com

World Headquarters
10A Bloomfield Avenue
Pine Brook, NJ 07058 USA
Tel. +1 973.276.6000
+1 973.276.6161
Fax. +1 973.227.0832
info@autoclear.com

Autoclear/Scintrex
300 Parkdale Ave., Ottawa
Ontario, Canada K1Y 1G2
Tel. +1 613.224.1061
Fax. +1 613.224.2603
info@scintrextrace.com

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Manufactured in the USA by Autoclear/ Scintrex

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