Todd Research
Detect & Protect

pitney bowes
Business Partner

EXPLOSIVE VAPOUR AND TRACE DETECTION

The **TR-TRACE** is a handheld mobile device which can detect and identify a wide variety of explosives including pure explosive and composite explosives under different humidity and pressure conditions in vapour or trace (particles mode).

The list of explosives includes **TNT, RDX, C4, Semtex, PETN, ANFO, EGDN, Nitro-glycerine (NG), Dynamite, DNT, Black Powder, Ammonia and Urea nitrates, HMTD, Tetryl** and mixtures thereof.

No expensive consumables necessary...

✓ *The cost of TR-TRACE's ownership is very low, as special consumables are not required. Regular aluminium foil swabs can be used for surface wiping in (particle mode).*
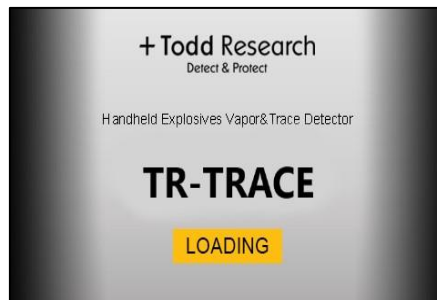
No radiation source onboard...

✓ *TR-TRACE does not contain any radiation sources. Corona discharge functions as the source of ionization.*

Quick & easy to use...

✓ *TR-TRACE warm up time is less than 1 minute.*

✓ *TR-TRACE operates on Field Asymmetric Ion Mobility Spectrometry principle.*
✓ *TR-TRACE has function of user authorization with the different access rights; the internal memory allows saving more than 100K results of analysis.*
✓ *TR-TRACE does not require a special calibration.*
✓ *TR-TRACE is equipped with a special electrostatic valve which filters the ions by their polarity. This valve significantly reduces false alarm rate from non-explosive materials.*
✓ *TR-TRACE is easy to use. It doesn't require any special training. Presence of explosive in the sample is visualized on the device's LCD display or on any Wi-Fi device that can work as a remote control.*
✓ *TR-TRACE is efficient both indoors and outdoors at temperatures above zero*

1. M-Ion detector
2. Power converter
3. Battery adapter
4. Accumulator battery
5. Battery charger
6. Operational manual
7. Heating-up module
8. Explosives test sample
9. Sample tube
10. Power cable
11. Aluminum based napkins
12. Container with paper based napkins

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Detect & Protect

Handheld Explosives Vapor&Trace Detector

TR-TRACE

LOADING

PRODUCT SPECIFICATIONS

Threshold sensitivity in vapor mode (for TNT at 20 °C and 80% humidity), g/cm^3	Better than 10^{-14} (1ppt)	Warm up time, minutes	not more than 1
Threshold sensitivity in particle mode (for TNT), pg	100	Analysis and results time, seconds	2 - 8
Technology	Field Asymmetric Ion Mobility Spectrometry (FAIMS)	False alarm rate	Less than 1%
		Time of continuous work in standalone mode, hours	not less than 2
Radiation source	NO	Display	109mm (4.3in) color TFT display with touch screen
Calibration	Not required		
Type of ionization	corona discharge	Available accessories	Sampling tube, remote preconcentrator, shoulder strap for carrying M-ION
Explosives detected	TNT, RDX, PETN, ANFO, EGDN, Nitroglycerine (NG), Dynamite, DNT, Black Powder, Ammonia and Urea nitrates, HMTD, Tetryl and mixtures thereof	Operating temperature, °C (°F)	from minus 0(32) to +55(131)
		Operation humidity at 25°C (77°F)	95% non-condensing
		Operation altitude, m (ft)	up to 5000 (16 404)
		Dimensions (L x W x H), mm (in)	400x160x110 (15,75x6,30x4,33)
Alarm type	Audio and visual, with substance identification	Weight, kg (lb)	3,0 (6,61)