



**RS DYNAMICS**

**Science For Homeland Safety**

# **EXPLONIX**

Explosive and Radiological Material Sniffer/Identifier  
for  
**EXPERTS**



[www.rsdynamics.com](http://www.rsdynamics.com)



# Security Concept

## *miniEXPLONIX 2*

**FOR EVERYBODY'S USE**

fast multi-purpose  
explosive detector



## **EXPLONIX 2**

**FOR EXPERTS**

explosive and radiological material  
sniffer / identifier





# **EXPLONIX**

## **Main Features**

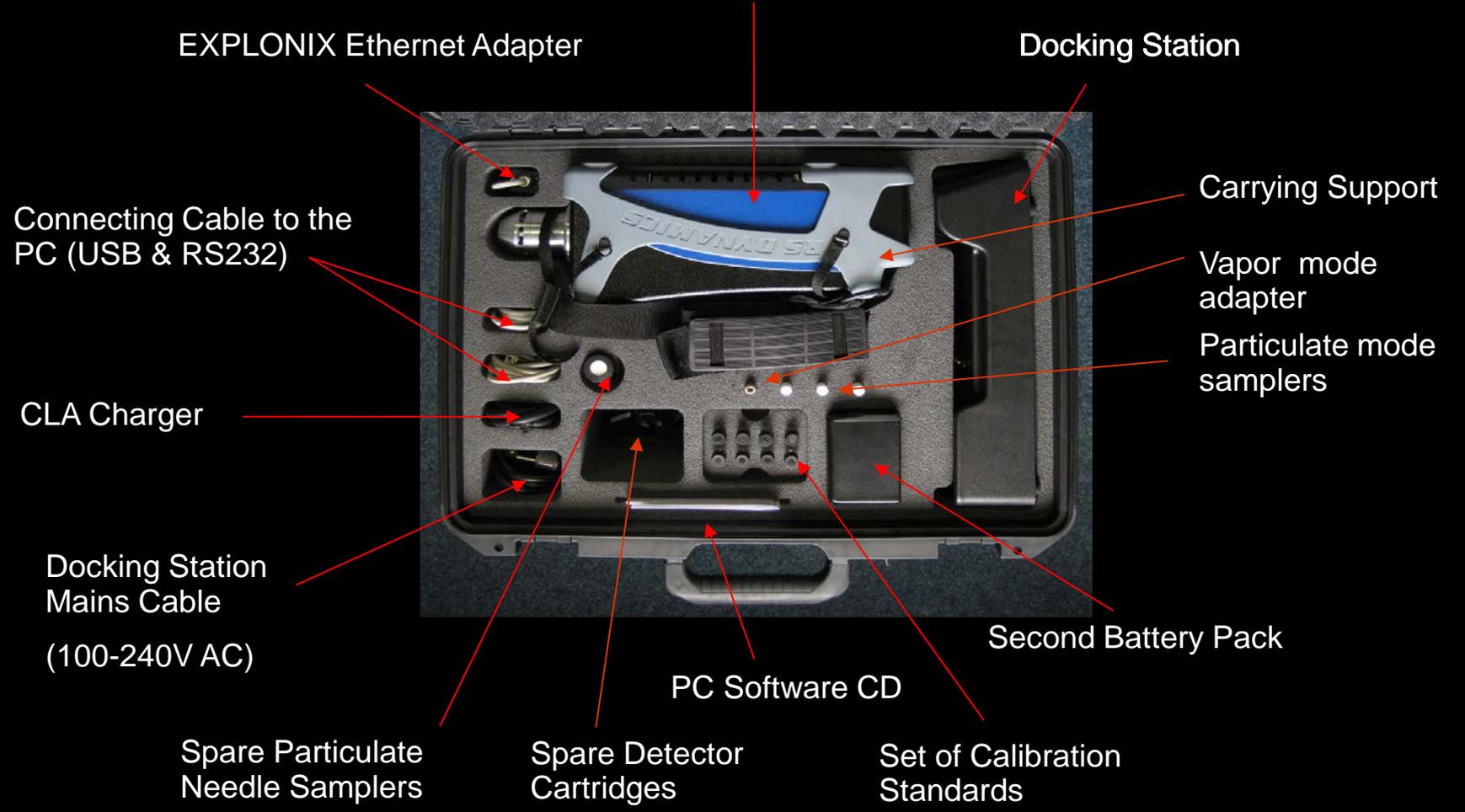
- Highly sensitive, portable, multi-functional
- Fast, reliable detection and identification of all ICAO standard explosives including all plastic types (even without taggant), home made (TATP) and post-explosion residues down to picogram reading
- Built-in fully featured Gamma-ray Spectrometer for isotope's identification



# EXPLONIX

## Content of the Case

### EXPLONIX



EXPLONIX Ethernet Adapter

Docking Station

Connecting Cable to the PC (USB & RS232)

Carrying Support

Vapor mode adapter

Particulate mode samplers

CLA Charger

Docking Station Mains Cable (100-240V AC)

Second Battery Pack

PC Software CD

Spare Particulate Needle Samplers

Spare Detector Cartridges

Set of Calibration Standards



# EXPLONIX

## Sampling principles

- **Continuous Vapor Mode** with instant reading and fast (1s) response
  - **Infrared** (releasing traces of even non-volatile explosive traces)
  - **Cold** (sucking micro-particles from the air)
- **GSR Mode** for gun shot residues detection (sucking micro-particles from the surface (clothes) )
- **Particulate Mode** with detailed identification (collecting samples from surface of objects)



# EXPLONIX

## Continuous Vapor Mode

- Infra-red Continuous Vapor mode enables the fastest screening of surveyed subjects; it is very efficient for fast localization of explosives traces while securing high sensitivity and prevention of the system overload.
- Provides instant 1-second reading and displays the volume of possible explosives material on the screen.





# **EXPLONIX**

## **Continuous Vapor Mode**

- Infra-red sampling using swipe sampling provides unbeatable capability to sample all kinds of explosives, even non-marked, low vapour pressure explosives like SEMTEX, C4, etc.





# EXPLONIX

## GSR Mode

The innovative GSR Mode offers identification of shooters. Using the high-flow sampling of particles from the parts of the human body, it provides reliable identification of persons shooting before (sampling of clothes, hair or beard).



After collecting the sample, final evaluation of explosives is performed in under 30 seconds providing identification of NC while securing ultra-low false alarm, high overload resistance and excellent self-cleaning capabilities.



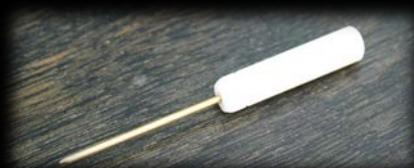
# EXPLONIX

## Particulate Mode

Analytical Particulate Mode facilitates a highly effective sampling method.

The needle sampler can collect the traces even in the tiniest crevices or on flat smooth surfaces without any need for gloves and facilitates reliable detection even in heavy rain.

New “Needle Sampler” offers effective pre-separation of interfering compounds during analysis and excellent self-cleaning capabilities.





# EXPLONIX

## Particulate Mode



Needle Sampler easily penetrates to tiniest crevices like knob holes, mobile phones/PDA's keyboard gaps, where more amount of traces may be found



# EXPLONIX

## Internet Communication

- Internet communication between a control computer and a remote EXPLONIX located anywhere world-wide using a direct Internet connection - no computer needed
- Remote operation via wire or wire-less Ethernet, Internet, possible Cell GSM (GPRS, HSCSDA modem) provides full remote control of all operations, set-up, configuration and calibration, data download, measured data evaluation system, upgrade and system check from manufacturer
- EXPLONIX\_VIEW Windows XP/Vista/7/8 software provides user-friendly communication between the instrument and any PC platform giving comfortable configuration and full remote control via cable, direct instrument connection to the Internet or GSM network



EXPLONIX Internet Communication Bridge



# EXPLONIX

## Bar Code Reader (Optional)

- Built-in Bar-Code reader for instant identification of scanned subjects (baggage).
- Both the measured data together with baggage identification are automatically stored and sent wirelessly to the airport logistic data system.

Perfect solution for airport applications!

EXPLONIX automatically transmits the laser beam reading the bar code





# **EXPLONIX**

## **Integrated GAMA-RAY Spectrometer - Identifier (Optional)**

- Background continuous checking of GAMMA-RAY radiation
- Detection of radioactive contraband or “dirty” bomb
- Visual and audible alarm
- Identification of radioactive source (radionuclide, radioisotopes)



# EXPLONIX

## Applications

- Rapid hand-held detection, identification and location of contraband explosives
- Easy checking of passengers and baggage
- True Continuous Vapor Mode screening for fast localization and detection of explosive traces
- Easy integration with other security technologies (X-Ray scanners, bomb-squad robots)
- Detection of Gun Shot Residues
- Continuous radioisotopes detection and identification



# EXPLONIX

## Applications



