

NOVO

Digital Radiography

The Leaders in Portable DR Systems

Security



EOD & IED



Special Forces



Counter
Surveillance



Border Control



Customs

INNOVATIVE • COMPACT • RUGGED

• About NOVO

NOVO DR Ltd. is the leading developer and manufacturer of Portable Digital Radiography X-Ray Inspection Systems. We produce the latest generation DDA (Digital Detector Array) based radiography inspection systems for the Security, NDT and Science and Art sectors.

Combining our decades of experience and intensive in-house R&D, NOVO DR is taking portable digital radiography to the highest level possible while emphasizing the following strong points:

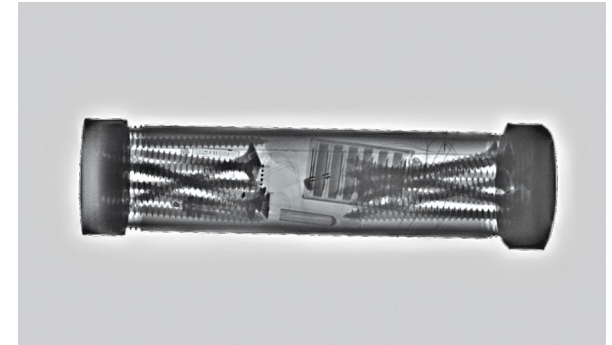
- Highest Image Quality
- Portability & Small Footprint
- Ruggedness
- Simple & Intuitive User Interface (UX)
- Field Work Optimization & Safety

• Applications

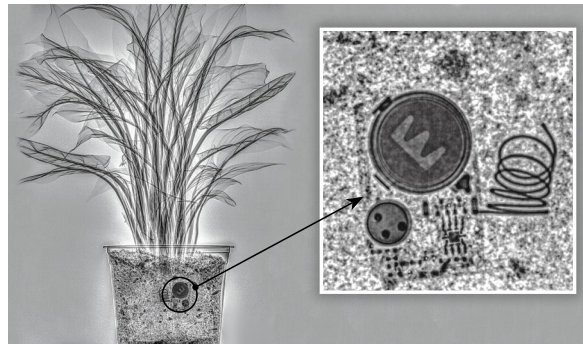
EOD



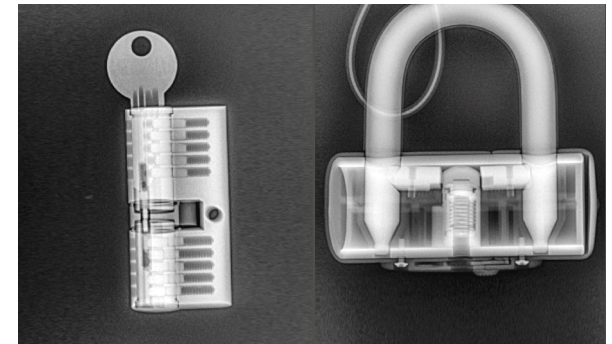
IED



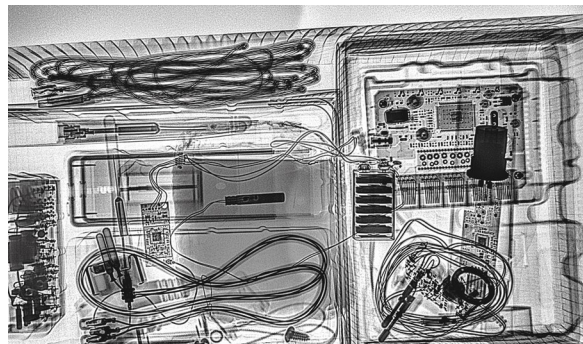
Counter Surveillance / VIP Protection



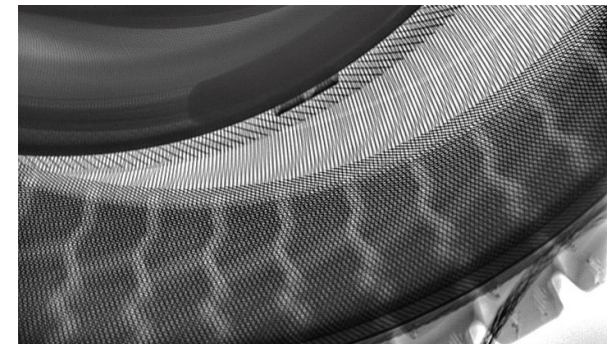
Special Forces



Customs



Border Control



• Highlights

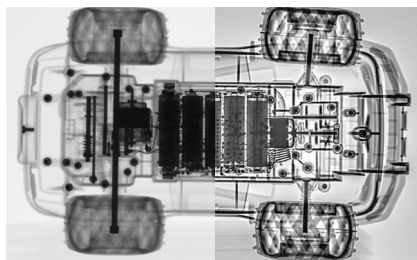


Highest Image Quality: 16-bit Latest Generation

State of the art Digital Radiography detectors that produce, exceptional high quality images with incredible detail and high penetration capabilities ideal for both conventional and CRBN threat analysis.

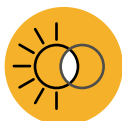


Genie

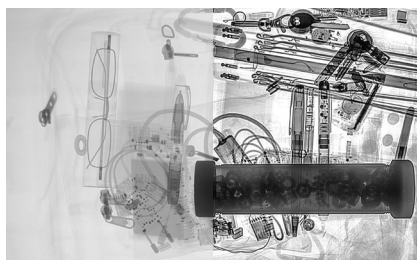


Before

After

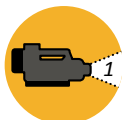


HDR

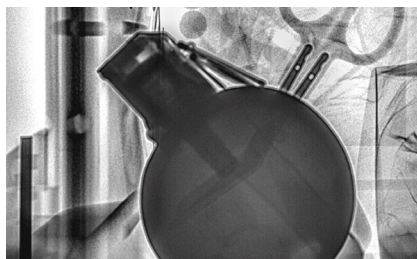


Before

After



One Pulse Image



Cutting Edge Detectors: Thinnest, Lightest, most Durable

- Unmatched Image Quality!
- Steel Penetration* Over 3.3" (>85mm)
- 16-bit Latest Generation
- Thickness 0.6" (15.6mm)
- Drop Tested 27.6" (70cm)
- Load Proof 330 lbs. (150 kg)
- Lightest in the Market

* Tested with Golden XRS-3 at ~10" (25cm)



NOVO 15WS
3.5 lbs. (1.6 kg)

NOVO 22WS
6.1 lbs. (2.8 kg)



Versatile System Casing: Complete System in a Single Case

Each system contains:

- Detector
- Tablet & NOVO's Touch Software
- X-Ray Source
- Controller
- Accessories



Urban

Tactical

Ultimate

Patrol

Rover



Most Rugged System:

Suitable for all Terrain and Weather Conditions

- Usage in Extreme Weather Conditions
- MIL-DTL 38999 Connectors
- Titanium Magnetic Connectors
- Proprietary Design Cables
- MIL-STD-810G Tablets
- Drop Tested Detectors
- Rugged Cases



Parallel Multi Location Control & Display:

Use one tablet closer to the inspected object and a second tablet from a greater distance. Both tablets can be used to:

- Control the System
- Display X-Ray Images
- Image Enhancing, Storage & Sharing.



Touch Software:

Simple User Friendly Touch Interface

- Operating & Controlling the System
- Powerful Automatic Enhancing Algorithms
- Optimal Viewing Experience
- Variety of Tablets; rugged 7" up to a 20" 4K display.
- Windows® 10

Windows 10



7"

10.1"

12"

14"

20" 4K



Longest Battery Life:

Over 16 Hours of System Operation

While out in the field battery longevity can be crucial, with over 16 hours of operation with a single full charge, you can focus on what's important.

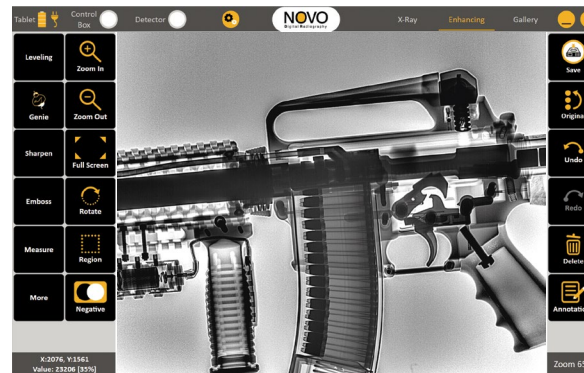
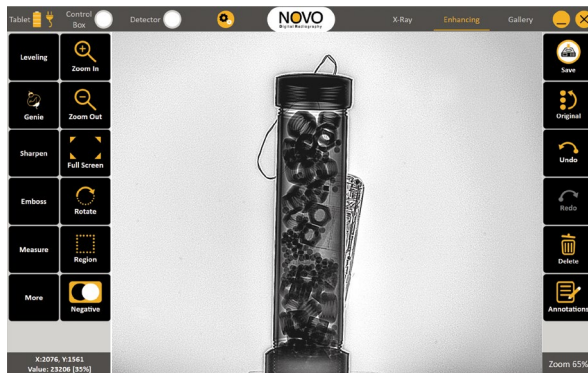
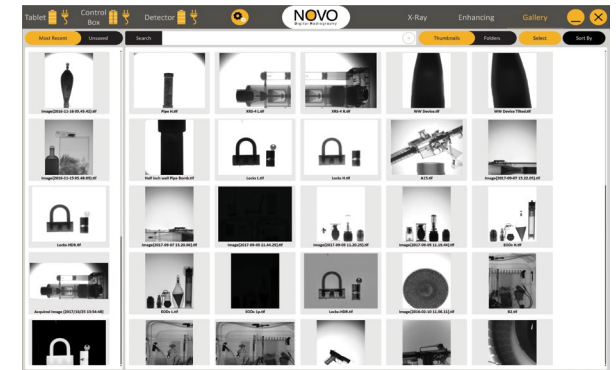
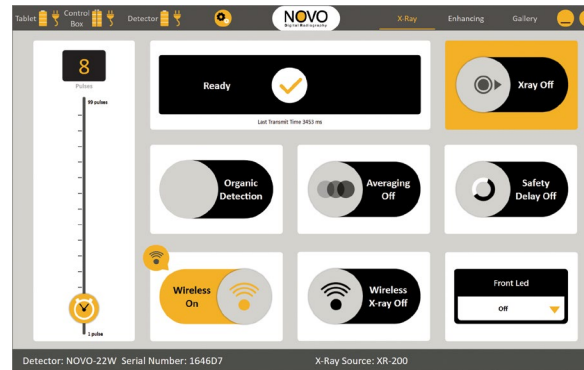


• NOVO Touch Software

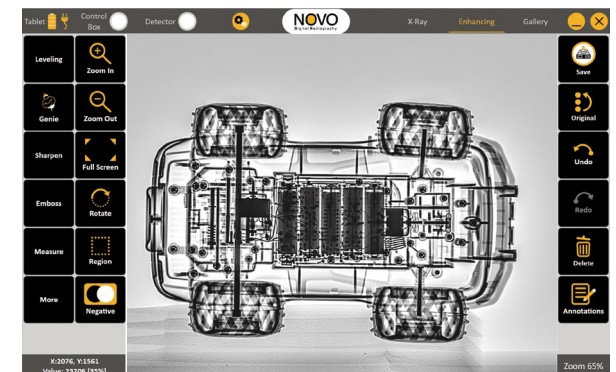
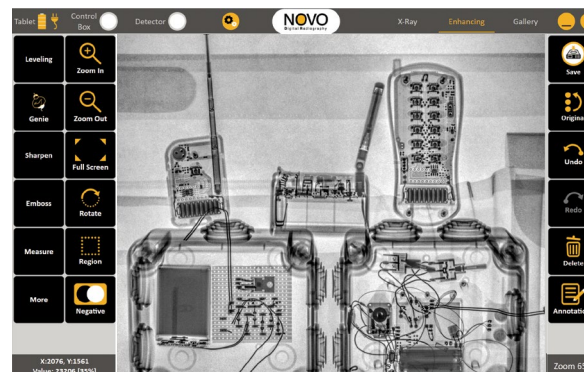
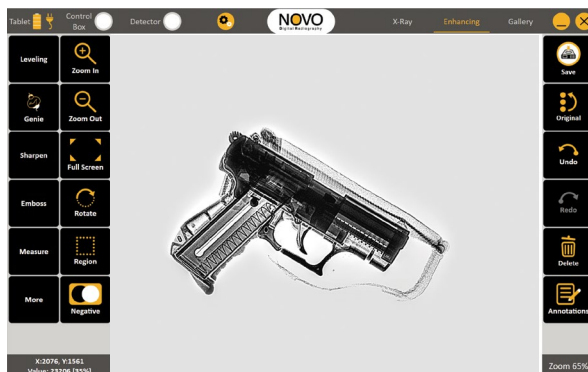


The NOVO Touch Software is NOVO's proprietary software developed to provide the best user experience and functionality in harsh & extreme field conditions.

- User friendly, native touch interface
- Built in tools such as the Genie, HDR, subtraction and manual & automatic stitching
- Intuitive operation for grabbing X-Ray images, annotating, archiving and sharing information
- Controls hardware features
- Compatible with the latest touch screen technology & standard PC's
- Supports Windows® 7-10



Compatible with XTK Software



• NOVO Unique Software Features



The Genie Enhancement Feature

Proprietary, State-of-the-art algorithm that provides an unprecedented, perfect image with ALL the information shown at once



HDR Feature

View Easy & Hard to Penetrate Materials with High Dynamic Range Images



Steel Pipe Bomb inside a Backpack

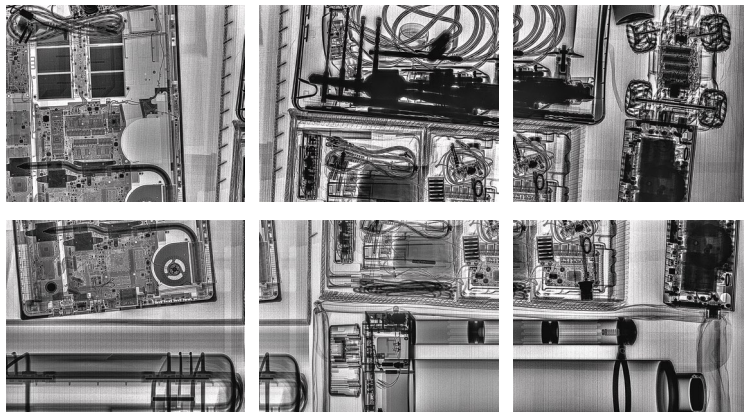


Electronic Device inside a Plant



Stitching Feature

Stitch Multiple Images using our Easy To Use, Manual Stitching Feature or our Extremely Fast, Automatic Stitching Feature



Before
Multiple
X-Ray Images



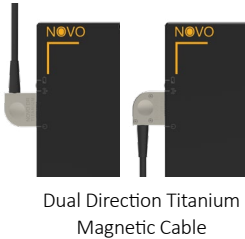
After
One Large
X-Ray Image

• Components

Detectors

The NOVO 15WS and NOVO 22WS Detectors provide outstanding image quality in a rugged, durable, thin design and are the latest in DR imaging technology.

- Lightest in the Market
- Dual direction Titanium magnetic cable connector
- Quick removable & rechargeable battery
- Wireless & wired operation
- Specifically designed for fieldwork & harsh weather conditions



Detector Model	NOVO 15WS	NOVO 22WS
Detector Imaging Area	9.1" x 11.2" (23.1cm x 28.4cm)	14.0" x 16.8" (35.6cm x 42.7cm)
Detector Size	10.6" x 13" (26.9cm x 33cm)	15.2" x 18.2" (38.5cm x 46.2cm)
Active Area (Imaging Area / Detector Size)	74% Active Area	85% Active Area
Detector Weight	3.5 lbs. (1.6kg)	6.1 lbs. (2.8kg)
Steel Penetration *	Over 3.3" (>85mm)	Over 3.3" (>85mm)
Detector Load Proof	330 lbs. (150kg)	330 lbs. (150kg)
Detector Drop Test	27.6" (70cm)	27.6" (70cm)
Detector Thickness	0.6" (15.6mm)	0.6" (15.6mm)
Bit Depth	16 bit latest generation	16 bit latest generation

* Tested with Golden XRS-3 at ~10" (25cm)

Tablets

NOVO offers a variety of tablets that can be operated from our customized case or used handheld.

- Pre-installed with the NOVO Touch Software
- Used to control the system's operation
- One or multiple parallel location control & display
- Ruggedized Tablets
- Rugged 7" up to a 20" 4K display
- A variety of Laptops Available
- Supports Windows® 10



	Panasonic Toughpad™ FZ-M1	Panasonic Toughpad™ FZ-G1	Panasonic Toughbook® CF-33	GETAC A140	Panasonic Toughpad™ 4K
Screen Size	7"	10.1"	12"	14"	20"
Screen Resolution	1280x800	1920x1200	2160x1440	1920x1080	3840x2560 (4K)
Screen Brightness (NIT)	500	800	1200	800	300
Multi-Touch	10 point, glove touch	10 point, glove touch	10 point, glove touch	multi touch screen	10 point touch
Operating System	Supports Windows 10	Supports Windows 10	Supports Windows 10	Supports Windows 10	Supports Windows 10
Weight	1.2 lbs. (0.54kg)	2.5 lbs. (1.1 kg)	3.4 lbs. (1.5 kg)	5.1 lbs. (2.3 kg)	5.27 lbs. (2.4 kg)
Military Standard	MIL-STD-810G	MIL-STD-810G	MIL-STD-810G	MIL-STD-810G	N/A
Dust & Water Resistance	IP65	IP65	IP65	IP65	N/A
Drop Rating	5 ft (1.5m)	4 ft (1.2m)	4 ft (1.2m)	4 ft (1.2m)	1 ft (30cm)

Cases

NOVO Offers a variety of customized cases for a wide range of applications.

- Customized internal & external design
- Rugged
- Covert and Smallest Foot Print
- Lightweight



NOVO's Customized Cases	Description	Case External Dimensions
Rover Case	Rugged iM2750 Pelican™ case	24.6" x 19.7" x 14.4" (62.5cm x 50cm x 36.6cm)
Patrol Case	NOVO's fully sized backpack	28.0" x 19.0" x 13.0" (71.1cm x 48.3cm x 33cm)
Ultimate Case	NOVO's Customized Ultimate backpack	23.0" x 17.3" x 9.45" (58cm x 44cm x 24cm)
Tactical Case	S115 Pelican™ backpack	18.0" x 13.0" x 10.0" (45.7cm x 33cm x 25.4cm)
Urban Case	5.11 Covrt™ 18 backpack	19.0" x 12.25" x 6.5" (48.3cm x 31.1cm x 16.5cm)

X-Ray Sources

NOVO's systems are designed to operate with the entire range of Golden Engineering X-Ray sources (both old and new generations).

- Specially designed connector/picatinny connects the Golden to the Control Box for quick deployment
- Operational safety distance is easily obtained with wired or wireless capabilities
- The Golden X-Ray sources are portable, battery operated, lightweight & contain no radioactive materials



	XR150	XR200	XRS-3	XRS-4
KVP	150	150	270	370
Weight	4.9 lbs. (2.2 kg)	10.7 lbs. (4.8 kg)	12.1 lbs. (5.5 kg)	22 lbs. (10.5 kg)
Size	9.1" x 3" x 4.1" (23.1cm x 7.7cm x 10.3cm)	10.7" x 4.3" x 5.8" (27.2cm x 10.8cm x 14.8cm)	14.2" x 4.3" x 5.8" (36.1cm x 10.9cm x 14.8cm)	17.4" x 5.4" x 7.9" (44.3cm x 13.8cm x 20.1cm)

Components - Controller

Control Box

The Control Box is NOVO’s fully featured Controller. It provides additional capabilities such as working with the Folding Slider and Lookout. In addition, it provides the utmost flexibility with system setups as it can work in wireless, hybrid & wired communication.



NOVO Control Box

Wireless Spark III

The Wireless Spark III is NOVO’s Extremely Lightweight Controller. Making it the Ideal controller when minimum weight on target is required.

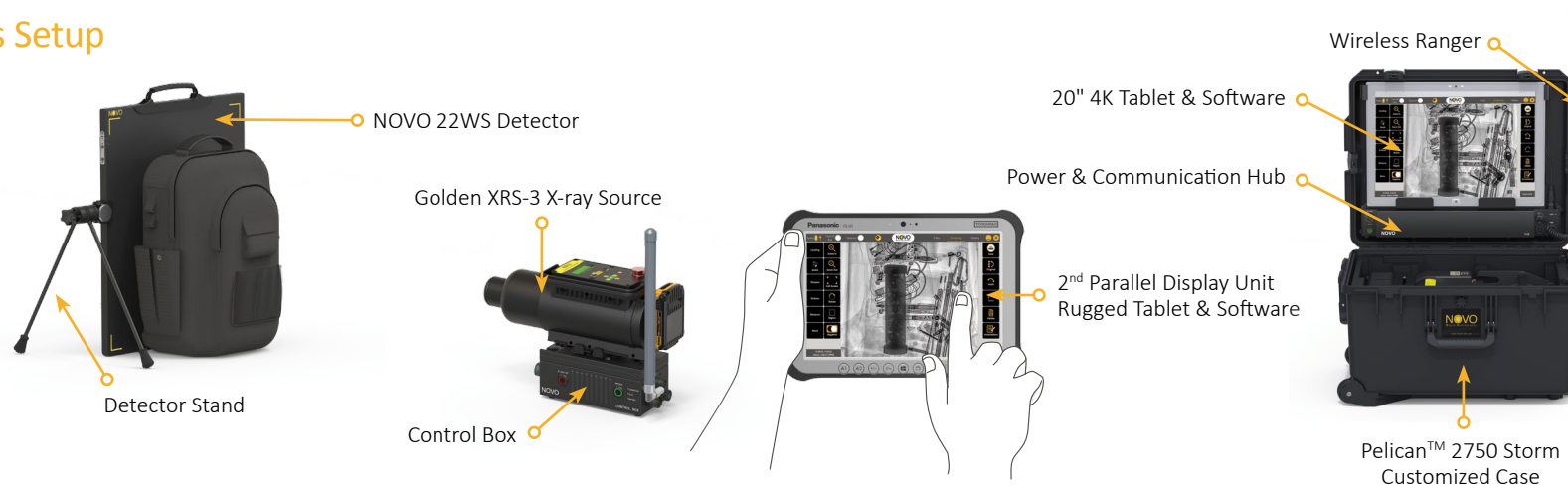


NOVO Wireless Spark III

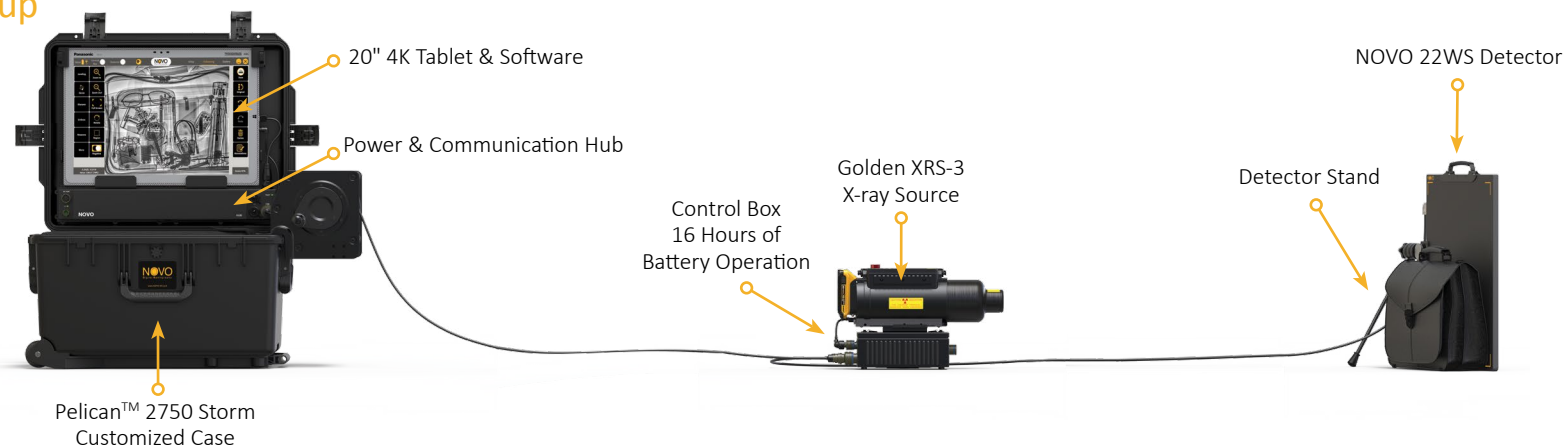
	Weight	Unlimited operation with AC	Built-in Battery	Wired/Hybrid	Wireless	Supports All Golden Sources	Picatinny quick connection to source	Elevates X-Ray Source	MIL-DTL 38999 connectors	Weatherproof design	LED Indications	White LED flashlight	Infra-red flashlight	Siren Indication when X-Ray fires	Supports Parallel Multi Location Control & Display
NOVO Control Box	5.3 lbs. (2.4 kg)	✓	16 hours	✓	400m Line of Sight	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
NOVO Wireless Spark III	0.7 lbs. (0.3 kg)	✗	6 hours	✗	400m Line of Sight	✓	✓	✗	✓	✓	✓	✗	✗	✗	✗

• Example Setups

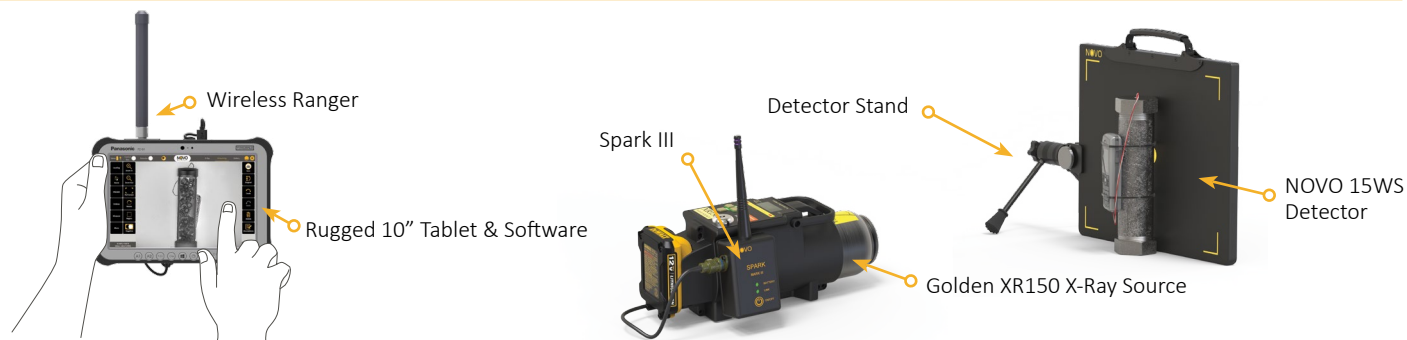
Control Box Wireless Setup



Control Box Wired Setup



Spark III Wireless Configuration



*Lightweight wired configuration is available using the Split Cable

• Systems

NOVO offers a wide variety of Systems suitable for the various Security applications. The following are NOVO's most popular Systems:

For special requests & custom configurations please contact us at: info@novo-dr.com

Rover 15

1. NOVO 15WS Detector
2. Detector Stand
3. Panasonic G1 10.1" Rugged Tablet & NOVO Touch Software
4. NOVO Control Box attached to Golden XRS-3*
5. Pelican™ 2750 Storm Customized Case
6. NOVO Wireless Ranger
7. 50m Comm. Cable on Removable Reel
8. NOVO Power & Communication Hub

**Fits the Golden XR150, XR200 & XRS-3 X-Ray Sources*



Tactical 15

1. NOVO 15WS Detector
2. Detector Stand
3. Panasonic G1 10.1" Rugged Tablet & NOVO Touch Software
4. NOVO Control Box attached to Golden XRS-3*
5. S115 Pelican™ Customized Backpack
6. NOVO Wireless Ranger
7. 20m Comm. Cable

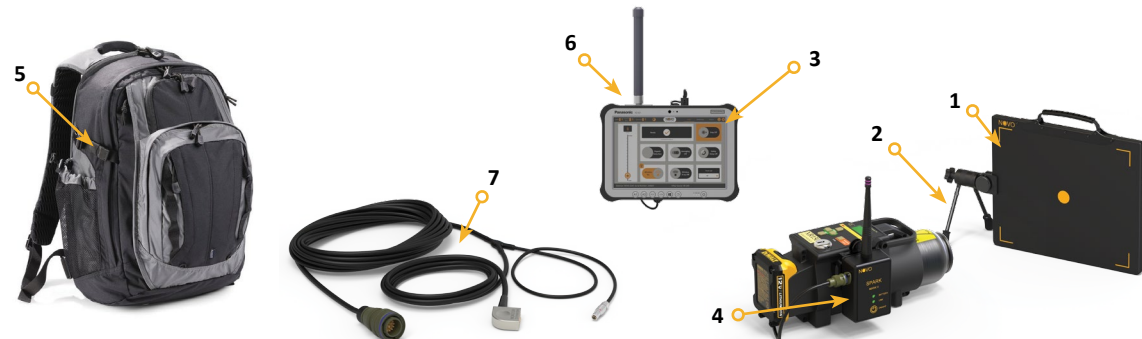
** Fits the Golden XR150, XR200 & XRS-3 X-Ray Sources*



Urban 15

1. NOVO 15WS Detector
2. Detector Stand
3. Panasonic G1 10.1" Rugged Tablet & NOVO Touch Software
4. NOVO Spark III attached to Golden XR150*
5. 5.11 Covrt™ 18 Customized Backpack
6. NOVO Wireless Ranger
7. 10m Split Comm. Cable

** Fits the Golden XR150, XR200 & XRS-3 X-Ray Sources*



Rover 22

1. NOVO 22WS Detector
2. Detector Stand
3. Panasonic G1 10.1" Rugged Tablet & NOVO Touch Software
4. NOVO Control Box attached to Golden XRS-3*
5. Pelican™ 2750 Storm Customized Case
6. NOVO Wireless Ranger
7. 50m Comm. Cable on Removable Reel
8. NOVO Power & Communication Hub

* Fits the Golden XR150, XR200 & XRS-3 X-Ray Sources



Rover 22 4K

1. NOVO 22WS Detector
2. Detector Stand
3. Panasonic 20" 4K Tablet & NOVO Touch Software
4. NOVO Control Box attached to Golden XRS-3*
5. Pelican™ 2750 Storm Customized Case
6. NOVO Wireless Ranger
7. 50m Comm. Cable on Removable Reel
8. NOVO Power & Communication Hub

* Fits the Golden XR150, XR200 & XRS-3 X-Ray Sources



Ultimate 22

1. NOVO 22WS Detector
2. Panasonic G1 10.1" Rugged Tablet & NOVO Touch Software
3. NOVO Control Box attached to Golden XRS-3*
4. NOVO's Customized Ultimate Backpack
5. NOVO Wireless Ranger
6. 20m Comm. Cable
7. Additional Accessories

* Fits the Golden XR150, XR200, XRS-3 & XRS-4 X-Ray Sources



• Accessories

Lookout

The NOVO Lookout is a Lightweight, 3 in 1 accessory enabling the following capabilities.

Organic Detection

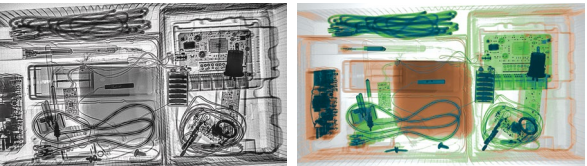
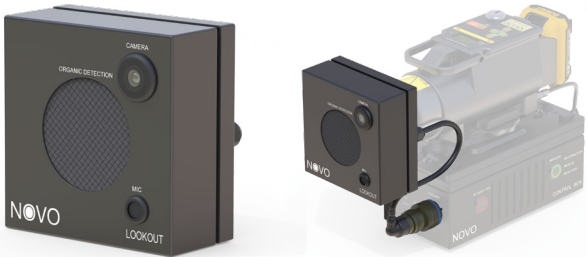
- Assists in identification of the content and nature of an inspected item by providing organic / in-organic detection
- A color X-Ray image is automatically displayed
- The Organic Detection Dual Energy Images comply with airport security standards

Live Video

- Provides a Live Video stream of the inspected item
- The Camera switches automatically between day / night mode (Infra-red)
- Provides a Still Image that can be grabbed and used for analysis and documentation

Live Audio

- Provides a Live Audio stream of the inspected environment allowing the operator to hear the Golden's "clicks" in addition to monitoring the sounds in the surrounding area
- Controlled completely by the NOVO Touch Software
- Compatible with Golden Engineering XR150, XR200 and XRS-3 sources



Folding Slider

The NOVO Folding Slider is the ideal solution for screening large objects.

- Screening area of 2X2 using the NOVO 22WS Detector
- Screening area of 3X2 using the NOVO 15WS Detector
- Controlled by the NOVO Touch Software
- Completely automated movement
- Automatically generates an outstanding high-quality mosaic image
- Small footprint for max portability & easy storage



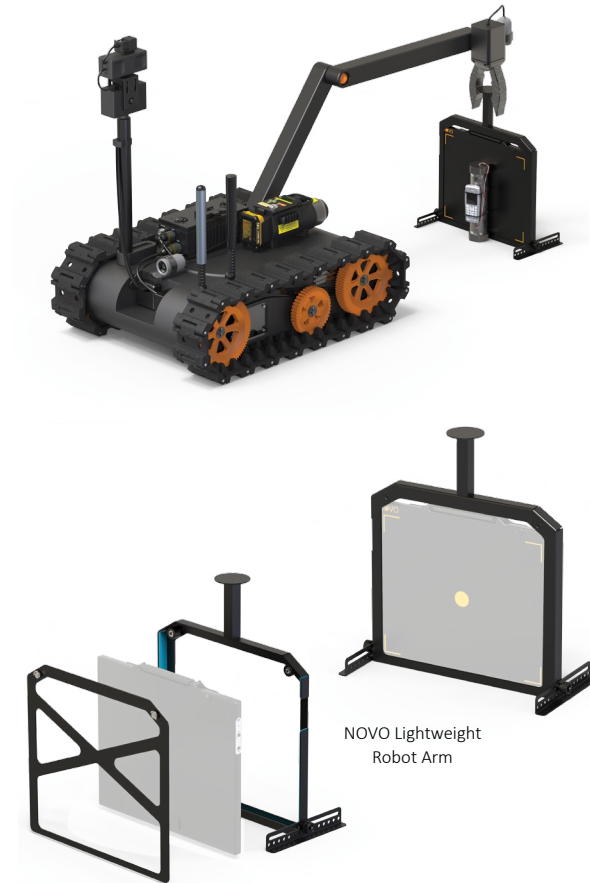
	NOVO 15WS Detector	NOVO 22WS Detector
Grabbing Size	3x2	2x2
Folding Slider ~Size (folded)	37.4" x 13.8" x 7.9" (95cmx35cmx20cm)	
NOVO Folding Slider Rugged 1740 Pelican™ Case	44.2" x 16.1" x 14.0" (112.2cm x 40.9cm x 35.6cm)*	

*External Dimensions

Robots Integration

NOVO's lightweight, small profile Detectors can be integrated with various robots while not effecting the robot's manipulation, flexibility and reach.

- Integration with both Small & Large robots
- Special Robot Arm for mounting the NOVO 15WS Detector
- NOVO's system can be controlled independently or channeled through the robot



Eagle - Long Range Wireless

The NOVO Eagle is an Extremely Long Range Wireless transceiver, which extends the wireless communication between the tablet and the inspection area – Detector and X-Ray Source.

- 3.3km (2 miles) line of sight
- Fully wireless or hybrid communication
- Ideal for Urban scenarios with high RF interference
- Ultimate CBRNE accessory where long operation distances are required
- 1/4" standard threading for tripod connection
- 5 Hours of internal battery operation
- Allows for robot integration



Connection to X Ray
Via Picatinny



Tablet Side
(Up-range)



Detector Side
(Downrange)



Tablet Side
(Up-range)



Detector Side
(Downrange)

Fully Wireless
Configuration

*Tripods not included

Wireless Ranger

The NOVO Wireless Ranger is a wireless transceiver, which extends the wireless communication range between the tablet and the inspection area.

- Battery-free
- Lightweight
- Staggering 400m line of sight
- Built in magnets to mount on any ferromagnetic object - tablet, case, vehicle etc.



Communication Cable

The communication cable provides reliable and fast data transmission between the various system parts.

- Power Over Line for unlimited operation when using an external power source
- Lightweight, robust custom reel- connected to the case or as "stand-alone"
- Extension cables of 50m, 100m and 150m
- Maximum of 300m wired operation range



Built-in 50m Reel



Extension Reel

• Accessories

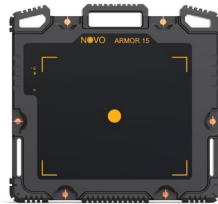
Armor Kit

The Armor Kit Contains the NOVO Armor, which provides additional mechanical protection to the NOVO 15WS & NOVO 22WS Detectors, the Armor Stand and a traveling soft cover.

- Newest shock absorbent technology case
- Water resistant design
- Supports wired & wireless communication
- Multiple positioning options
- Tripod connection using the Built-in 1/4" threads
- Simple Detector battery replacement



NOVO Armor 22



NOVO Armor 15



Soft Protective Cover

The Detector Soft Protective Cover provides additional protection for the NOVO 15WS & 22WS Detectors.

- Weather & impact protection
- Special opening for Tripod Mount access
- Various positioning options using a carrying strap or D-Rings
- Supports wired & wireless communication
- Lightweight & small footprint



Detector Stand

The Detector Stand is a custom-made accessory that firmly holds the Detector in an upright position (portrait or landscape).

- Low profile design
- Utmost flexibility in tight places
- Multiple positioning options - standalone (figure a) or leaning on a wall (figure b)



Figure a

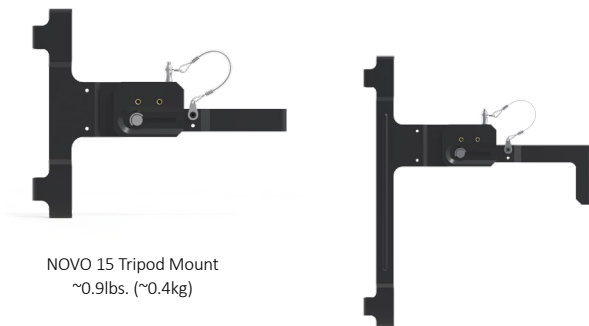
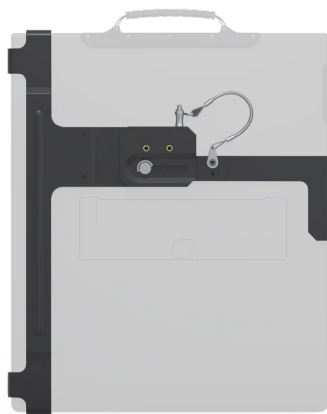


Figure b

Tripod Mounts

The Tripod Mount is a lightweight accessory that firmly holds the detector and provides various positioning options.

- Two 1/4" standard threads for tripod or manipulation arm connection
- Secured connection to the Detector using a safety pin
- Numerous positioning options



NOVO 15 Tripod Mount
~0.9lbs. (~0.4kg)

NOVO 22 Tripod Mount
~1lbs. (~0.5kg)

• Request a Quote

1. SELECT a popular system or fill in the form with your special request
 2. SEND us the form and we will send you a QUOTE
- info@novo-dr.com // Fax: +972-3-970-0989**

NOVO's Popular Systems:

Rover 15
Tactical 15
Urban 15
Rover 22
Rover 22 4K
Ultimate 22

Special Requests

Detectors

NOVO 15WS
NOVO 22WS

Controllers

Control Box
Wireless Spark III

Tablets

(with the NOVO Touch Software Pre-installed)

7" - Panasonic Toughpad™ FZ-M1
10.1" - Panasonic Toughpad™ FZ-G1
12" - Panasonic Toughbook® CF-33
12" - Panasonic Toughbook® CF-33 With Keyboard
14" - GETAC A140
20" 4K- Panasonic Toughpad™ 4K
Laptop

Cases

Rover Hard Case
Ultimate Backpack
Patrol Backpack
Tactical Backpack
Urban Backpack

X-Ray Sources

XR150
XR200
XRS-3
XRS-4

Comm. Cables

10m Cable
20m Cable
50m Cable
50m Extension Cable
100m Extension Cable
150m Extension Cable
Other

Accessories

Eagle -
Long Range Wireless
Folding Slider
Armor Kit
Soft Protective Kit
Lookout
Robot Arm
Tripod Mount

Comments, Remarks or Special Requests



The Leaders in Portable DR Systems

www.NOVO-DR.com

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