

BCS

EOD EQUIPMENT



MILITARY



EOD



PRODUCTS

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EOD BOMB SUIT

The BCS EOD is a contemporary up-armoured Bomb Disposal Suit which is in use in dozens of countries worldwide, both in armed forces service and with diverse government internal security agencies as well as prominent high profile Non-Governmental Organisations (NGOs)

Designed from the outset to be (Economic, Efficient & Effective) compliant, the BCS suit arguably provides the best value and the highest level of protection of any comparable bomb suit currently manufactured, offering maximum comfort and flexibility to the operator.

Available in any size, the BCS EOD Bomb Disposal Suit ballistic levels and materials used in the various components of the suit have been tested and evaluated to the internationally recognised Standard NATO (North Atlantic Treaty Organisation) Agreement (STANAG) 2920 by which all ballistic apparel is judged today. All the ballistic inserts used in the BCS EOD Bomb Disposal Suit are made of waterproof-treated Kevlar HT which are enclosed in a special water-resistant and anti-ultraviolet light membrane. The outer cover is made of flame-retardant NOMEX IIIA. In hot and humid countries, the BCS EOD Bomb Disposal Suit can be supplied in conjunction with a Cooling Suit, which incorporates a very powerful cooling pump.

Features

- Groin Plate Retracts For Easier Kneeling.
- Two Highlight LED Headlamp, Long Service Life, High Brightness.
- Helmet Remote Control Module To Better Control Helmet Functions.
- Ergonomic Design Allows An Operator To Use EOD Tools And Related Equipment.
- Optional Body Cooling System Provides Personal Cooling To Mitigate Risk Of Heat Stress.
- Available In Olive Drab (Standard Color), Navy Blue Or Desert Tan, Each With Black Webbing Trim.
- Protection From Blast Overpressure, Fragmentation, Impact (Acceleration, Deceleration) And Heat /Flame.
- Intelligent Hand Controller Design Makes Easy Operation Of The Communication Volume, Ambient Sound Volume, Fan Speed, Headlamp Brightness, Wireless Communication Mode.



Complete System

- Bomb Suit
- Colling Suit
- Helmet with Visor
- Air Cooling Fan
- Neck Protector Plate
- Chest Protector Plate
- Jacket with attached Collar
- Shoulder Protectors
- Spinal Protector
- Hand Protectors
- Flexible Groin BlastPlate
- Trousers with Knee Protectors
- Shoe Covers
- Molle Strips

EOD Bomb Jacket

The BD3000 Bomb Disposal Suit is a long-sleeved, side opening design filled with flexible Kevlar armor. Provision is made on the front for the attachment of rigid chest and groin blast plates by means of integral pockets with webbing and Velcro securing straps. Pouches for working tools, blower and radio are attached to the front and back of the outer cover. The high collar provides overlap protection to the helmet, visor and neck-guard. Immediate removal of the suit is achieved by use of the quick-release straps attached to the sides and shoulder.

EOD Trousers

Trousers have fully adjustable supporting braces and wide Velcro waistband catering for small, medium, and large sizes. Affixed to the front of the trousers is a flexible groin protector retained in position by Velcro and elastic. At the rear of the legs a full-length Velcro strip is used in conjunction with the retaining straps to fix the articulated flexible armor in position. The over boots are an integral part of the trousers and are held in position by Velcro, leather, and webbing straps.

EOD Suit Materials

Ballistic Inserts: Multi-layer water-repellent Kevlar stitched for an enhanced protection level.

Outer Cover: Washable fire retardant Nomex IIIA.

Cooling Suit

The Cooling Suit is designed to offer a safe and cool environment for people who must maintain a high level of efficiency and concentration under extreme heat. The system is ideally suited for persons involved in bomb disposal and surveillance operations.

When wearing a bomb suit in hot climates it is advisable to wear a liquid cooled body under suit. The Cooling Suit uses water to remove body heat produced during strenuous work, especially in hot environments. Years of research have made this the only safe system available for specialized tasks such as IED-EOD and chemical clean-up operations, as it does not require a hazardous pressurized canister, or toxic cooling agents. The Cooling Suit is ideal for use under EOD Bomb Disposal Suit.

The outstanding cooling capability allows technicians to work with greater efficiency and concentration, two factors vital to the success of any delicate operation.

The Cooling Suit offers protection against heat and flash fire balls. The cooling suit comprises of a one-piece garment covering the upper body upper arms and legs, as well as a close-fitting open-faced hood for head, a cooling pump and pouch, two water bottles, battery pack and carrying bag. One size fits all.

Performance

Heat Removal Rate: 270 watts (full suit)

Endurance Min: 45 min at 35°C

Cooling Unit

Control: On/Off / Flow rate control

Pump: 12V

Cold Source: Solid ice and water

Power: 12V from suit power supply

Weight: 1.3kg for the full suit

Construction: Insulated, padded pouch with tough nylon case Fastens to bomb suit with straps and clip

Ice Bottle: 2-liter capacity

Battery: Lead-acid rechargeable battery



EOD Face Helmet

The bomb disposal helmet is designed to integrate with the BCS 3000 Bomb Disposal Suit for complete protection EOD / IEDD blast protection. It enables bomb disposal technicians to work with IEDD equipment in an increasingly harsh environment. The helmet features two brightness adjustable LED lights, while the operation of the LED lights can be controlled by a standard equipped remote controller. The helmet has built-in headphone and microphone, which enable the communication between the operator and the controller through external communication system.

The built-in air ventilation system can direct the flow of forced fresh air to the operator. The remote controller is designed to control all the helmet functions, communication, cooling pump, fan speed, etc. Power Pack: 12V DC auxiliary output socket to power.



Helmet Features

- Locking Visors can be taken off during rest.
- Complete Environmental Awareness System and communications.
- Superior balanced protection against over pressure, fragmentation, impact, and heat.
- Novel retention system stabilizes helmet at critical moment in case of blast or blunt impact.
- Includes a Remote-Control Module with an adapter for the Helmet, to provide tactile control and visual status of all helmet functions.

Helmet Materials

Molded: GRP skin with elastomeric aramid core and inner lining.

Visor: Anti-Ballistic hardened acrylic/polycarbonate laminate.

Suspension Harness: Webbing & Ballistic Nylon.

Communications Specification

Compatible with any communication system.

Communications System

Communications System: wireless and wire mode, 100 meters cable reel with headset.

Air Blower: 200 liters per minute minimum, speed adjustable.



EOD Blast Plate

Armored composite material plates with closed cell, linear foam.

Specification

Color: OD Green, Navy Blue, Desert Tan, ACU available.

Weight of Suit: Approx 30kg with armored blast plates.

Ballistic Insert V-50 Ratings

Component:	V-50 Rating (m/s)
Suit:	600 m/s
Helmet:	600 m/s
Helmet Visor:	750 m/s
Blast Plates:	groin, chest, and neck 1600m/s
Thigh Front:	650m/s
Shin Front:	600m/s
Foot Cover:	450m/s

EOD PORTABLE JAMMER

Portable Jammer BCS- ALBPG

The Portable Jammer is used for blocking the signal ranges from various remote-control devices and wireless signals, like cellphone, walkie talkie, remote control device etc. in certain area to make a relatively safe working environment for bomb technicians.

This portable jammer's frequency range covered most of the commercial signal frequency from 20MHz to 2700MHz.

Such As:

GPS

WI-FI

Beep-Pager

Clusters Phone

Wireless Phone

PHS Mobile Phone

Remote Controller

Digital Walkie Talkie

450mhz Mobile Phone

All 2G,3G,4G Mobile Phones

The jamming modules integrate into the only one portable PELICAN waterproof case.

Working Power: 110/220V 50-60HZ.

Weight: \leq 38Kg (without antenna) .

Size: 630 x 492 x 352mm.

GSM Jamming Distance: Under field strength of -60dBm.

Blocking Distance

Standard Antenna: Up to 40 meters

Extra High Gain Antenna: Up to 70 meters.



EOD PORTABLE GROUND PENETRATING RADAR

The Ground Penetrating Radar was originally developed to meet a UK MOD requirement to locate plastic landmines. Since then, the technology and equipment has advanced significantly and now has a myriad of uses both within the military and public sector, including Police and Military Search, VIP Protection, Counter Surveillance and commercial surveying.

By sending ultra-wide spectrum RF energy pulses into the medium under investigation, the system is able to generate images of sub-surface features regardless of the material composition. Plastic, wood, metal, voids, concrete, rock...as long as there is a difference between the object and the surrounding material, the system can create an image.

A metal detector sends energy into the earth in a small number of frequencies (up to 17). When the transmitter passes over a metallic object, that object becomes energized and then in turn emits a signal of its own. The metal detector then receives this signal and translates this energy into a user recognizable tone. The Ground Penetrating Radar works on the same basic principles. However, by sending microbursts of a wide range (thousands) of frequencies, the Radar is actually able to detect a number of materials whether conductive or not.

- **Detection Performance Index**

For Mines Anti-Infantry Mine

Detection Distance:	> 18 cm.
Positioning Deviation:	2 cm.
Probe Rate:	Detection Rate > 99%.
False Alarm Rate:	False Alarm Rate < 1%.

For Unexploded Bombs

Detection Distance:	> 50 cm for (60mm metal cylinder). > 1 m (for 155mm, metal cylinder).
Positioning Deviation:	10 cm.
Probe Rate:	Detection Rate > 95%.
False Alarm Rate:	False Alarm Rate < 10%.

General Performance Indicators

Operation Weight:	< 4.2 kg.
Continuous Working Time:	> 6 Hours.
Alarm Mode:	Vibration, Image, Sound, Binary.
Soil Adaptability:	Clay (Neutral), Sandy Soil, Magnetic Soil and Laterite.

Environmental Suitability

Operating Temperature:	-40°C ~ + 50°C.
Storage Temperature:	-50°C ~ + 70°C.



EOD NON-LINEAR JUNCTION DETECTOR

We are leading supplier of Non-Linear Junction Detectors, and our product is made up of good quality. BCS non-linear junction detector (NLJD) is used for search and location of electronic devices both in active and switch-off state.

The detector operation is based on the property of semiconductor components to generate a response at the 2d and 3d harmonics when radiated by a microwave probing signal.

Semiconductor components of artificial origin will have a higher level second harmonic while semiconductor components of natural origin (e.g. oxide films) will have a higher level third harmonic respectively.

An NLJD analyzes the 2d and 3d harmonics response of the radiated objects, which enables a quick and reliable identification of electronic devices and natural oxide semiconductors.

The NLJD automatically finds the best receiving frequency channel free of noise and distortion providing flawless operation even in the complicated electromagnetic environment. Digital processing of a demodulated signal used gives maximum sensitivity.

A high gain parabolic antenna (20 dB gain at 3600 MHz) used in the device increases detection range of non-linear elements and provides their exact localization in space.

For operator's convenience the detector is equipped with a laser pinpointing to indicate the place to which the maximum power of the probing signal is directed.

Main Uses

It is mainly used to detect the electronic remote control and blasting IEDs hidden in the walls, floor, ceiling, sofa or outside areas.

System Composition

The equipment is mainly composed of the antenna probe, receiver, and control module. And by the telescopic rod connected probe and controller, convenient search indoor ceiling and other heights.

The antenna emits 2 and 3 times of harmonics and displays the receiving signal strength of 2 and 3 times on the display screen to determine the hidden location and distance of the suspicious object.

Main Features

Light weight, suitable for long-time tasks, long detection distance, large search range, high efficiency, suitable for the field or a large range of explosive search missions. It can be detected whether the explosion starting device is turned on or not.

Main Technical Performance Indicators

Detection Frequency:	2.4 ghz.
Pulse Output Power:	4Watt
Power:	Adjustable.
Sensitivity:	140 dbm.
Power Supply:	Rechargeable Battery.
Working Hours:	4 Hours.
Operating Temperature:	-30°C ~ + 50°C.



EOD ROBOT

- Trailblazer BCS-AVR10 EOD Robot

Trailblazer robot is a new generation of advanced digital robot, equipped with auxiliary arm, 7 degrees of freedom mechanical arm and adjustable auxiliary support wheel, which can complete explosive disposal actions that are difficult to complete for ordinary explosive disposal robot.

The robot has excellent off-road and climbing ability, can easily cross the steps, stairs, adapt to all kinds of gravel sand, grassland, and other terrain, can skillfully and efficiently perform various explosive disposal tasks, tactical tasks, nuclear and biochemical radioactive explosive cleaning tasks or other dangerous operation tasks.

Trailblazer uses a modular system architecture for compatibility with future enhancements and for ease of maintenance.

Modular Systems Include:

- Claw.
- Embedded PC.
- On-Board Cameras.
- Command Console.
- Vehicle Control Unit.
- Stalk Communication Mast.
- Other Modular Accessories.

Primary Features

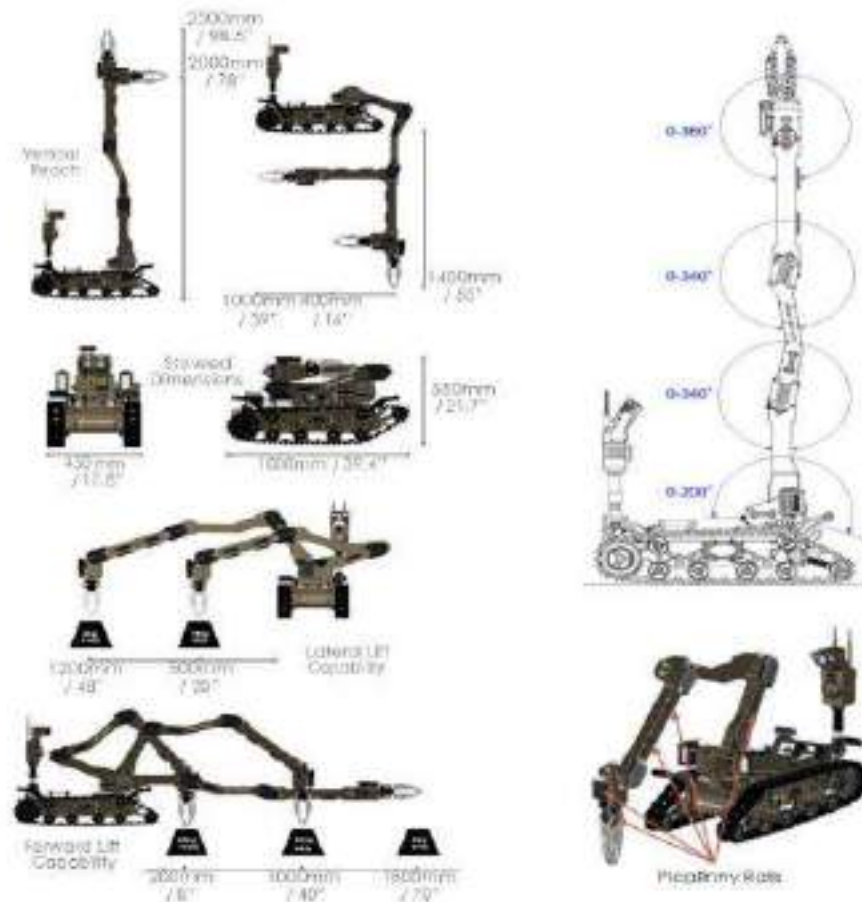
- Four standard cameras.
- Four independent firing circuits.
- Low profile to reach under vehicles.
- Compact storage for transportation.
- Wide tracks and distance control feature.
- Two-way directional audio communications.
- Ingress Protection IP66 (ROV), IP65 (Console).
- ascend and descend inclines greater than 45°.
- Turret and claw rotate 360 degrees in both directions.
- Two sets of three 12V sealed lead acid (SLA) batteries.
- Fourteen (14) I/O Ports for cameras, sensors, and detection devices.
- Low center of gravity and high-torque motors provide excellent climbing abilities.
- Outstanding capabilities for reach, lift, mobility, and deployment of EOD Tools & CBRN sensors.
- Manipulator Arm with 7 Degrees of Freedom, Standard preset configurations for Manipulator Arm.

New Variable-Position Track Stance Control

- Maintenance Position for changing tracks.
- Driving Position for maximizing track tension.
- Raised Position for climbing stairs or raised obstacles.
- Tracks can be adjusted to any position between 'Raised' and 'Lowered' to aid with mobility.
- Lowered Position for greater stability when lifting or delivering heavy payloads and descending stairs.



Physical Properties



Manipulator Assembly

- Seven (7) degrees of freedom.
- Seven factory presets assist the end user with rapid positioning of the manipulator assembly for storage battery access and weapon loading.
- Eleven picatinny rails are mounted on the arm assembly, for optional cameras and accessories.

Firing Circuits

Four (4) independent firing circuits with safety features to attach four separate electrically initiated payloads. Two on the left-hand side of the Upper Arm, One on the Wrist, and One in the Claw.

Cameras & Illumination

Stalk Camera has 2 high-intensity LEDs.

Turret Camera includes built-in IR illumination.

Wrist Camera also includes built-in IR illumination.

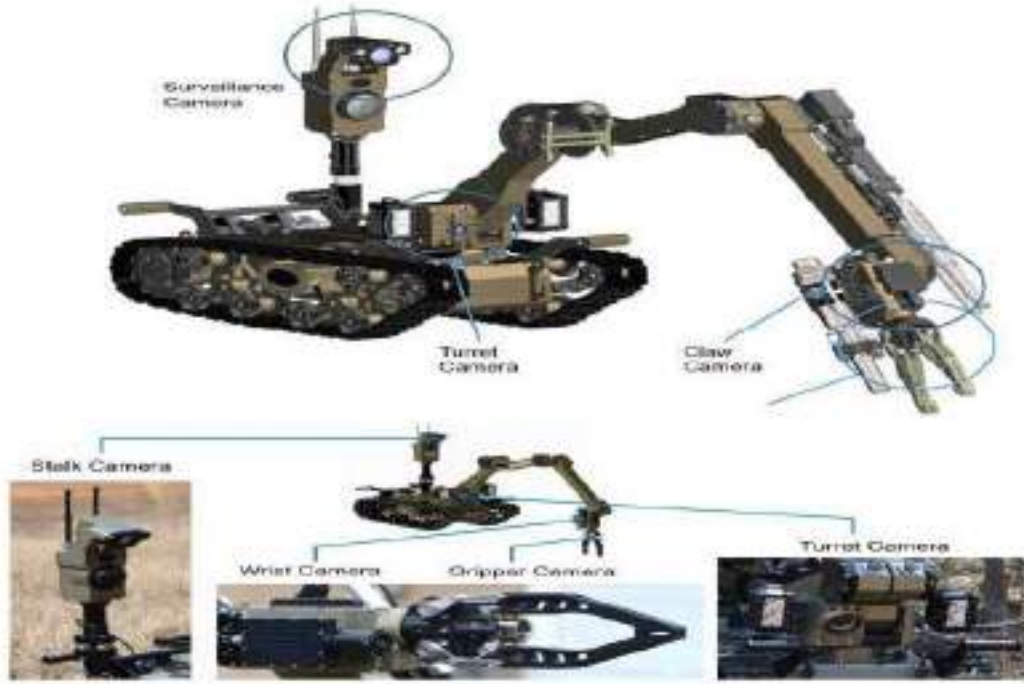
Wrist Camera brings clear vision at night with 0.5 lux performance.

Day / Night mode switching, with viewing distances of up to 5-10m.

Turret Camera has 2 LED Clusters controlled independently from other illumination.

4 cameras included: Turret, Stalk, Wrist, and Gripper; Several optional cameras available.

Gripper Camera provides an optimum view of the gripper when conducting manipulation tasks.



Audio System

A directional two-way audio (intercom) system for communicating with people near the robot.

Wireless System

Line of Sight: Up to 1000 mtrs.

Non-line of Sight: Up to 300 mtrs.

Diversity operating from 2.412 to 2.472 GHz.

Automatically selects the optimum channel to use to avoid contention.

A directional two-way audio (intercom) system for communicating with people near the robot.



Military Sales Army - Naval - Air Force

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Claw

Heavy-duty claw with 300mm(12in).

Firing port and reversible 24V DC power.

Multi-connector provides Power Over Ethernet (POE).

Opening optionally includes an integrated wire cutter and belt cutter.



Getac Command Console

GETAC Console controls the following: -

Drive Track Movement Manipulator Arm

Claw, Cameras And Optional Devices

As Well As Firing Tools.

The GETAC Console can view multiple cameras Including: -

X-Ray Images, Aiming Cameras, Etc.

Display Or Send Data.

From Multiple Sensors To A Secondary Computer System.

Console is housed in a ruggedized laptop, weighs only 6kg (13.2 lbs) for ease of mobility, and meets IP65.



Hand Control

Quick Start Controller permits direct controller-to-ROV communication for basic ROV positioning.

Two video hand controllers included allowing more natural operation of the ROV drive and manipulator systems.

Console Controller permits controller-to-GETAC console communication for deployment at up to full wireless range.



The Trailblazer Standard Package Includes The Following:

Tracked UGV.

UGV Hand Control.

RF Diversity Station with Tripod.

GETAC Command Console.

Protective Case for Command Console.

UGV Battery Charger 120/240 VAC.

Two sets of batteries (3x12V SLA batteries).

Command Cable 150m (492ft).

Tool Kit.

User manual.

Wooden transport crate.



Optional Extras

Disruptor mounting bracket: For disruptor RD4000 (Disruptor not included).



EOD ROV tool kit: Contains shovel, large and small hooks, knives, etc.

Attached on the claw.



X-ray mount: For portable X-ray detector (X ray not included).



Spare Parts Kit

- 1 Set Spare battery.
- 1 Set of Spare Tracks.
- 1 Set Spare Antennas.
- 1 Set of Spare battery charger.
- 1 Package of Spare Maintenance Tools.



EOD HANDHELD EXPLOSIVE DETECTOR

BCS ES11 Handheld Explosive Detector

Introduction:

BCS ES11 explosive detector is portable detector with highly sensitive detection. It is based on fluorescent conjugated polymers. The continuous working time of single battery is more than 10 hours. More than 40 kinds of explosives can be detected.

The product is calibrated automatically, can be widely used in civil aviation, rail transit, military border defense, public inspection law, customs, quality inspection and other fields.

Specification:

Technology

Analysis Time:	≤8s
Start-up Time:	≤30s
Sampling Method:	Particle and Vapor
Detection Sensitivity Particulate:	PPM
Vapor:	PPM
Operating TEMP:	-20°C ~ 60°C
False Alarm Rate:	≤ 1%
Display Screen:	3.5"LCD Color
Display Screen:	640*480
Com Port:	USB3.0
Sensor Consumption:	More than 500 times for alarm detection
Battery:	Two Li-ion Rechargeable Battery
Battery Working Time:	Single battery time up to 10 hours
Alarming Method:	Visual / Audible / Vibration
Dimensions:	≤326mm×89mm×65mm
Weight:	≤ 1.2kg including battery
Protection Level:	IP54

Amplified Fluorescent Polymer Quenching Sensor

Substances Detected

Type: Military, Commercial, and Homemade Explosives
Including: TNT, DNT, MNT, RDX, PETN, TATP, NG, Tetryl, HMX, C4, NA, AN, Black Powder, and others.



EOD PORTABLE X RAY SCANNER

This device is a light weight, portable, battery powered x-ray scanning system designed in cooperation with the first responder and EOD teams to meet the need of the field operative. It is light weight and comes with user friendly software that helps operators in understanding the functions and operations in a less time.

Applied Scene:

- **EOD/IED**

Widespread use of explosives presents immense growing challenges and threats to civilians, law enforcement forces, military and police bomb squads and EOD teams worldwide.

The key objective of Bomb Disposal Operators is to accomplish their task as safely as possible. For that reason, EOD equipment, and specifically portable x-ray scanner systems play a crucial role in meeting this objective -providing real-time, high-quality images of suspect objects, while ensuring the safety of all parties involved.



- **Counter Surveillance**

The portable X-ray scanner system plays a crucial role in inspecting every objects - such as electronic devices, furniture, walls (concrete, drywall) and even inspecting an entire hotel room. When guarding a public figure, or an embassy, these items as well as innocent looking gifts or mobile phones must be inspected for the slightest alteration in their electronic components which may imply being used as a listening device.



- **Border Control**

The portable X-ray scanner systems are perfect for contraband – drugs or weapons, and IED detection by examination of suspected items across borders and perimeters. It allows the operator to carry the complete system in his car or in a backpack when needed. The inspection of suspected items is quick and simple and provides the highest image quality for on-the-spot decisions.



- **Customs Examinations**

In customs, check point officials must perform a quick, non-intrusive and non-destructive inspection of suspected vehicles and packages with whom they come across on a daily basis. The portable X-ray scanner systems offer an excellent inspection solution for check points that do not have large cargo or vehicle inspection systems or require a complementary solution. It is ideal for contraband inspection such as ammunition, weapons, drugs, jewelry and alcohol.



- **Features**

User-Friendly Software.

Can Be Assembled Rapidly On-Site.

Can Operate With Remote Control In The Rear.

Powerful Image Enhancement And Analysis Tools.

Intuitive Interface, Image Splicing Infinite, Simplicity Of Operation.

Imaging Plate Using Amorphous Silicon Technology, Whose Image Is Very Clear.



Technical Specification Of The Imaging Plate

Detector Type:	Amorphous Silicon with TFT
Detector Area:	433mm x 354mm (Standard)
Detector Thickness:	15mm
Pixel Pitch:	154 µm
Pixel Array:	2816X2304 pixels
Pixel Depth:	16 bits
Limiting Resolution:	3.4 lp/mm
Image Acquisition Time:	4-5s
Weight:	6.4kg with battery
Power supply:	220V AC/50Hz

Communication

Wired:	50 meters fiber on a roller, TCP/IP Ethernet
Wireless:	5G Wi-Fi, no less than 70m
Operating Temperature:	-10°C+55°C

Technical Specification-X-Ray Generator

Operating Mode Pulse, it launches 4000 pulses each time when charged fully

Working Hours:	More than 5 hours
Voltage:	150kV
Penetration:	50mm Aluminum Plate
Weight:	5Kg with battery

Technical Specification – Imaging Station (PC)

Type:	Laptop computer
Processor:	Intel Core i5 processor
Display:	13 or 14"
LED Display:	Full High Definition
Memory:	8GB
Hard Drive:	No less than 500GB
Operating system English:	MS Windows 10

Software

Automatic Optimization, Invert, Revert, Pseudo color image, Rotate, Flip Horizontal, Flip Vertical, Zoom, Deep Focus, Polygon.
On screen measurement, Merge, Save, 3D images.

System Comprises Of

Image Panel	1
X-ray Generator	1
Laptop	1
Module Box	1
(For Power Supply and Communication System)	
Ethernet Cable	1
X-ray Wire Controller with Cable	20 mtrs x 1
X-ray Wireless Controller	1
Image Panel Charger	1
X-ray Generator Charger	1
Laptop Adapter	1
Storage Box	1
Manual	1