



X-SPECTOR

YOUR IDEAL SOLUTION FOR PORTABLE X-RAY DETECTION

Address the possible threat just once - receive accurate information that will ensure you make the right decision

- BOMB DETECTION
- DRUG SEARCH
- CUSTOMS CONTROL
- COUNTERSURVEILLANCE

- Fully battery operated, small and light
- Amazing flexibility with a clear image
- Ultra light constant potential X-ray set
- No X-ray tube replacement needed
- kV and mA outputs that can be selected from the PC
- Mini focal spot, wide angle beam
- Multi energy - multiple images
- Powerful database management tools
- Optional wireless communication

X-SPECTOR SYSTEM

Through the development of the X-Spector, ICM delivers a state-of-the-art, fully digital X-ray system that combines an exceptional constant potential X-ray source with a hi-tech, laptop extendable, image capture unit.

The X-Spector not only sets a new standard for image quality, but also provides E.O.D. technicians, customs, police, the army and other law enforcement agents with all of the necessary features to enable them to respond more efficiently and in a safer manner to incidents that potentially threaten the security of the general public.

IMAGE CAPTURE UNIT (ICU)

The X-Spector image capture unit is PC based and comprises both a web server and powerful software for image processing. The Intranet communication system, which comes with a wireless option, ensures that all images are transferred to a laptop at a very quick rate.

This means that a connection can be made to any kind of laptop without the need for additional software. The image quality is maximised through the application of a high resolution fluoroscopic capture screen and a camera that incorporates matched spectral output and response characteristics. Meanwhile,

the unit is powered by an NiMH battery, which can be recharged in just one hour.

UNIQUE FEATURE

As a result of the ICM X-ray generator, the user is able to select the energy output of the X-ray source. This enables the operator to undertake progressive depth penetration studies while avoiding the possibility of missing either soft or dense materials.

Moreover, this unique feature has been integrated into the software, which automatically delivers 4 images at different energy levels with just one click and the need to wait a mere 20 seconds.

PORTABLE AND AUTONOMOUS

The entire system can be both stored and transported in a single IP66 carrying case, making it possible to deploy quickly and easily on site. The batteries allow up to 200 images in one charge and can be recharged within just one hour when using the ICM fast battery charger. This charger not only optimises their charge but also extends the lifetime of the batteries by fully discharging them prior to recharging.

RESULTS



XSPECTOR technical specifications :

XSPECTOR	Regular size	Large size
Large active window area	250 x 325 mm ² / 9.8 x 12.8 in. ²	285 x 380 mm ² / 11.2 x 15 in. ²
Overall dimensions	350 x 450 x 170 mm ³ / 13.8 x 17.7 x 6.7 in. ³	420 x 450 x 170 mm ³ / 16.5 x 17.7 x 6.7 in. ³
High performance CCD camera	768 x 576 pixels, 8 bit resolution	768 x 576 pixels, 8 bit resolution
Penetration (with CP120B)	12 mm / 0.47 in. of steel	12 mm / 0.47 in. of steel
(with CP160B)	21 mm / 0.83 in. of steel	21 mm / 0.83 in. of steel
Operating time	2h30 continuous	2h30 continuous
Battery type	36 V, 1400 mAh NiMH	36 V, 1200 mAh NiMH
Weight	9.7 kg / 21.4 lbs	10.2 kg / 22.5 lbs

CP120B & CP160B	CP120B	CP160B
Wave form	Constant potential	Constant potential
Maximum kV	120 kV (kV adj.: 40 to 120 kV)	160 kV (kV adj.: 40 to 160 kV)
Maximum mA	1.5 mA between 40 and 80 kV	0.5 mA
	1.0 mA between 81 and 120 kV	
Exposure time	adjustable from 1 s. to 300 s.	adjustable from 1 s. to 300 s.
Pre-warning time	adjustable from 0 s. to 99 s.	adjustable from 0 s. to 99 s.
Focal spot size	0.8 x 0.5 mm ² / 0.031 x 0.019 in. ²	0.8 x 0.7 mm ² / 0.031 x 0.027 in. ²
Beam angle	50° x 50°	60° x 60°
Tube life	> 10 years of daily use	> 10 years of daily use
Leakage dose 1m	1250 µSv/h	2000 µSv/h
2 batteries (1 spare)	36 V 1400 mAh NiMH	36 V 1400 mAh NiMH
Max. capacity / 1 batt.*	14 min cont. X-ray generation	14 min cont. X-ray generation
Charger type	Intelligent fast battery charger	Intelligent fast battery charger
Charging time	1h	1h
Weight (including battery)	7.1 kg / 15.6 lbs	9.3 kg / 20.5 lbs

Imaging Station		
Type	Notebook	
Processor	Intel Core 2 Duo T7250 (2.0 GHz)	
Screen	114.1" WXGA LCD Screen	
Ram	1024MB DDR2 800 MHz RAM	
HDD & DVD Drive	250GB HDD - 24X CD-RW / 8X DVD	

Carrying Cases Type

IP66 Hermetic case for the whole set (800 x 580 x 480 mm³ / 31.5 x 22.8 x 18.9 in.³)

Options

- Wireless mode
- Spare batteries for the X-ray source
- 50 m or 100m Ethernet cable for zero RF emission
- 200 m fibre optical cable for zero RF emission
- Process Free Films (8"x10", 10"x12" or customized sizes)
- 30m ON/OFF cable for the use of PF Films
- Personal dosimeters
- External camera
- Tripods

Software features

- Pan & Zoom
- Reverse black and white
- Pseudo colour
- Deep focus
- Histogram
- Contrast stretch
- Grid
- Rotation
- Low battery alarm
- On-screen measurement
- Annotation tools
- Time study (four successive images)
- Penetration study (four successive images at different energy levels)
- X-Ray source parameters adjustable (kV, mA and time)
- Compatible with all OS and web browsers

* Up to 200 images at 80 kV - 0.5 mA

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