

# XPOSE

PORTABLE X-RAY SYSTEM

Leidos' next-generation portable x-ray system images and reveals explosives, weapons and other contraband. Utilizing a computed radiography (CR) imaging plate and a patented digital radiography (DR) scanning system, the Xpose XP supports rapid deployment in extremely tight spaces and near real-time acquisition of small to large targets in a single approach.

## A POWERFUL, VERSATILE SYSTEM

The Xpose XP system is designed to help law enforcement, military, customs and security personnel search and render-safe explosives, weapons, narcotics and other contraband. The system can reveal the contents of parcels, baggage, boxes and crates, vehicle tires and body panels, aircraft walls and wings, building walls, and many other targets. The Xpose XP system can be a valuable aid in assessing and defusing improvised explosive devices (IEDs) and unexploded ordnance (UXO) by enabling target evaluation from a safe distance to identify the best method for defeat or disposal. The removable imaging plate fits easily into extremely tight spaces and completely down to ground level. Tiling CR imaging plates together enables single shot mosaics for large target captures. The system is an effective tool for non-destructive inspection of hardware components, assemblies and structures.



## DESIGNED FOR DISMOUNTED OPERATION

The Xpose XP system delivers high quality performance in a 3-piece kit weighing under 7 kgs. The rugged, lightweight, flat panel Imager comes fully integrated with wireless comms, replaceable internal battery and removable imaging plate. An X-ray source and remote controller complete the kit. No external antennas, cables or power supplies are required simplifying set up and time downrange. Optional Ethernet cable and mosaic kit add flexibility for multi-purpose capability in all conditions.

## SYSTEM COMPONENTS AND ACCESSORIES

**X-ray Source.** Standard 150KVP Golden Engineering source can penetrate more than 13mm (0.5 in.) of steel. Penetration up to 25mm (1 in.) of steel is achievable with higher power sources. A 40 degree beam angle enables close-up operation. Xpose XP also operates with continuous wave sources.

**Controller.** Rugged notebook, Toughbook® or tablet computer provides system control and image analysis using Leidos' powerful image processing software. User furnished Windows® controller and software is supported.

**Mosaic Kit.** Capture large targets using an XTK compliant carrier that holds up to four imaging plates with covers. Once the image is acquired, image plates are processed by a flat panel and imaging software to compose a single mosaic image.

**Transport Case.** The Xpose XP system is shipped with a rugged, weather-resistant Pelican® case and heavy-duty padded cut-outs to store the imager and the X-ray source, controller, cable reel, mosaic kit and batteries. An optional backpack carrier is available for dismantled transport.

## IMAGE PROCESSING SOFTWARE

The Xpose XP system software provides a variety of touch-enabled features to enhance items of interest in X-ray images, including zoom, pseudo color, contrast stretch, edge detection and sharpening, smoothing, embossing, and histogram equalization. These features can be applied to the entire image or just to a specific region of interest. The software provides point-to-point distance measurement and annotation. For data integrity, the system's image enhancement features do not affect the original image files.

Images are stored as standard 16-bit TIFF files on the controller. Individual images and accompanying data can easily be retrieved for later review, emailing or other uses. Xpose XP imaging software is compatible with user-provided personal computers and tables running XTK® software version 2.5 or higher.

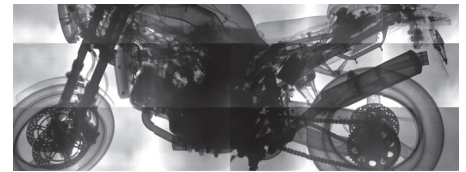
Imager Model	XP-17	XP-8
Imager Area	36 x 43 cm	20 x 36 cm
	14 x 17 in.	8 x 14 in.
Overall Dimensions	55 x 39 x 3 cm	33 x 39 x 3 cm
	22 x 15 x 1 in.	13 x 15 x 1 in.
Weight including battery	3.6 kg	3.2 kg
	8 lbs.	7 lbs.
Resolution	> 3.0 lp/mm	> 3.0 lp/mm
Operational Temperature	-20 to 50 C	-20 to 50 C
	-10 to 122 F	-10 to 122 F
Scan Capacity / Standby Time	90 scans / >12 hrs	180 scans / >12 hrs
Scan Time	<30 seconds	<15 seconds
Image Area (4 panel mosaic)	86 x 72 cm	40 x 72 cm
	34 x 28 in.	28 x 16 in.
Image Size	2800 x 3400 pixels	1600 x 2800 pixels
Image Sampling	200 DPI	
Detector	CMOS optical linear array; Phosphor digital imaging plate	
Operating System	Windows 7 and higher; Touch features enables for Windows 8+	
Cables – Imager to Controller – X-ray trigger	CAT5e Network Cable - 20m or 50m; up to 200m	
	4 or 5-pin Lemo connector 3m (10ft)	

## FOR MORE INFORMATION

[leidos.com/xpose](http://leidos.com/xpose) | [xpose@leidos.com](mailto:xpose@leidos.com)

## SPECIAL FEATURES

- › Mil-spec, IP-67, flat panel operates in any environment
- › Near real-time, high resolution imaging
- › Removable imaging plate (with sleeve) for anytime-anywhere image capture
- › Single shot mosaic capability
- › Secure wired or wireless control
- › XTK® ready (separate controller not required)



## IMAGING PERFORMANCE

- › Capture 0.08mm (AWG 40) wire
- › Capture 0.40mm (AWG 26) wire through 13 mm (1/2 in.) of steel
- › DR Quality Resolution up to 3.5 line pairs/mm
- › Total penetration over 25 mm (1 in.) of steel
- › Ground level imaging – with removable CR imaging plate
- › Large, single shot mosaic panels with CR imaging plates

