PX-160P X-ray System

SECURITY DETECTION
METAL DETECTORS X-ray MACHINES

See it all, without breaking up the pallet

For organizations that handle a high volume of palletized freight, the PX-160P X-ray system enables fast, accurate screening of an entire pallet in one efficient operation. Superior performance is ensured by L-3's innovative imaging technology, convenient heads-up operator controls, and many features that can be customized for the user's unique environment.

Compared to systems that require pallets to be broken down prior to screening, the PX-160P greatly accelerates the inspection process. Furthermore, by maintaining the integrity of the pallet, the system makes it easier to confirm the contents of a shipment, detect tampering, facilitate storage, and more easily ensure security.

The PX-160P includes a heavy-duty conveyor expressly designed to facilitate easy loading and unloading of pallets via a forklift.

APPLICATIONS

- Threat detection
- Manifest & declaration verification
- Contraband detection
- Theft prevention
- Regulatory compliance/inspection

COMPLIANCE

- ISO 9001, CE, EUR 1
- Radiation Safety: U.S (21CFR1020.40)
- Film: Ten passes of ISO 1600/33DIN high-speed photographic film
- Operational: U.S. FAA Standards, "Use of X-ray Systems" (Federal Standards 14 CFR 108.17 and 14 CFR 129.26)

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The Operator Interface:
Simplicity Redefined

L-3's patented operator interface provides a simple, flexible, and powerful way for users to control the system and make maximum use of imaging information. Ergonomically designed to promote rapid learning and ease of use, the interface combines three-button conveyor control with a touch-sensitive pad that allows continuous heads-up operation using icons displayed on the viewing screen.

Superior Imaging:
See What You've Been Missing

Effective screening starts with advanced imaging capabilities. The PX-160P dual-energy folded detector array includes 1,280 diodes, delivering high-resolution images in a large-size X-ray screening solution.

Based on research by the International Commission on Illumination (CIE), PX-160P incorporates Transparent Color™, L-3's innovative image processing technique. This unique imaging approach combines the science of the human eye's response to color and the display characteristics of a CRT monitor. With Transparent Color™, operators can interpret threat objects with a much higher degree of confidence due to the crisp, clear, and robust color images that are now possible.

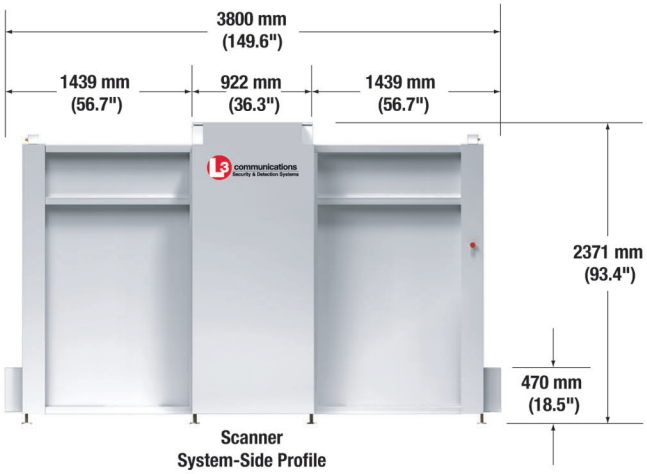
Networking:
Connecting the Dots

Operating on a Windows® platform, the networked PX-160P allows data and images to be accessed in real time by a centralized supervisor workstation. This enables one person to perform key tasks for multiple units, including: second-level screening of suspect objects, centralized monitoring of operators' performance using the Threat Image Projection feature, and administration of all PX systems on the network. The result is that oversight of screening and administrative operations can be streamlined, and costs can be kept in check.

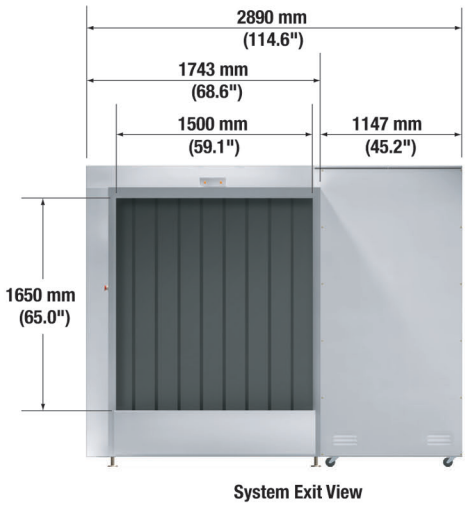
Operational Flexibility:
Go Configure

The PX-160P system can be tailored to meet a range of needs.

- Easy customization of software-based controls and tools allows the system to be adapted to diverse operational requirements and evolving security challenges.
- Bidirectional operation allows the system to be incorporated, without modification, into environments that require two-way screening, such as loading docks.



Scanner
System-Side Profile



System Exit View

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L-3's patented operator interface combines 3-button conveyor control with a touch-sensitive pad that allows continuous heads-up operation using icons displayed on the viewing screen

Operator Tools:
Focus on What Matters Most

Numerous features enhance the operator's ability to readily identify and examine suspect objects and detect the subtle but telling details that indicate a true threat, such as the wires associated with explosive devices.

- With diverse image analysis tools, operators can more easily distinguish between organic and inorganic materials and objects having a similar appearance. Image enhancement tools provide varied methods for optimizing images to more readily spot possible threats.
- The Operator Assist option compares scanned objects to data on known threats and highlights suspect items for further examination.
- An Image Archive option supports storage of up to 20,000 images, with image retention determined by user-defined expiration dates or on a first-in, first-out basis.

Features

Imaging Features

- Continuously variable contrast adjustment
- Tri-material discrimination
- Pseudo color imaging
- Zoom 2X - 16X or continuous zoom to 64X
- Edge enhancement
- High/low penetration mode
- Reverse video
- Organic/inorganic stripping
- Transparent Color™
- Best image resolution in its class

Standard Features

- Uninterruptible power supply (UPS) and input line filter
- Patented, heads-up operator display interface with touch pad control
- Configurable operator interface
- Single 17" color monitor
- Remote desktop operator display

Optional Features

- Single 22" color monitor
- 2.0 m entry/exit roller table
- Operator Assist® (OA)
- Image Archiving (IA)
- External UPS
- Color printer

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SPECIFICATIONS:

GENERAL

Dimensions: 3800 mm (149.6") L x 2371 mm (93.4") H x 2890 mm (114.6") W

Tunnel Opening: 1500 mm (59.1") W x 1650 mm (65.0") H

Conveyor Height: 450 mm (17.7")

Power Requirements: (2) 220-240 VAC, 50/60 Hz (30 amp max)

Conveyor Speed: 136mm per second (5.4" per second)

Conveyor Capacity: 3000 kg (6600 lb)

X-RAY

Voltage: 160 kVp constant potential tube

Duty Cycle: 100%

Cooling: sealed oil bath

Beam Orientation: horizontal

X-ray Sensor: 1280 photo diodes in folded array (L-shaped) configuration

PHYSICAL SPECIFICATIONS

Weight (Uncrated): approx 4000 kg (8,818.5 lb)

Weight (Crated): (1) approx 3,835 kg (8,454.7 lb); (2) approx 676 kg (1,490.3 lb)

Construction: steel frame and panels on casters

ENVIRONMENTAL

Operating Temperature: 0°C to 40°C (32°F to 104° F)

Storage Temperature: -20°C to 50°C (-4°F to 122°F)

Humidity: 95% non-condensing

Airborne Noise Level: <70dB (A)

IMAGING AND PERFORMANCE

Resolution: 36 AWG guaranteed, 38 AWG typical

Penetration: 27 mm of steel guaranteed

Contrast Sensitivity: at least 22 levels visible using a step wedge

Video Resolution: 1280 x 1024/24 bits

Video Display: 17" SVGA high-resolution, flicker-free display

Computer Processor: Intel Pentium®

RADIATION SAFETY

All L-3 Communications Security and Detection Systems' X-ray systems are certified to be in full compliance with all radiation safety requirements and external emissions limits as specified in the United States Code of Federal Regulations, Title 21, Section 1020.40 (21CFR1020.40) that apply to our products. Typical leakage radiation is less than 0.1 mR/hr compared to maximum of 0.5 mR/hr permitted by the Federal Standard.

OPERATIONAL STANDARDS

Complies with published International Standards including the U.S. Federal Aviation Administration Standards, *"Use of X-ray Systems"* (Federal Standards 14 CFR 108.17 and 14 CFR 129.26).

FILM SAFETY

Ten passes of ISO 1600/33DIN high-speed photographic film.

DESIGN POLICY

L-3 Communications Security and Detection Systems reserves the right to change specifications in the course of continuous improvement. Specifications are provided for reference only and actual equipment may differ slightly from the description given. Typical dimensions are within ± 5% of nominal values.