CITY OF JOPLIN, MISSOURI

JOPLIN

BID PACKAGE

#2026-RFP-09

for

BODY SCANNING SYSTEM

JOPLIN POLICE DEPARTMENT- Jail Division
303 E. 3rd Street
JOPLIN, MO 64801

NOTICE TO BIDDERS

The City of Joplin, Missouri will accept sealed bid proposals until Thursday, January 15th 2026 at 5:00 pm at the Joplin Police Department- Jail Division located at 303 E. 3rd Street, Joplin, Missouri, 64801 to PURCHASE the following:

BODY SCANNING SYSTEM

Specifications and bid forms are available from Mark St. Peter (Jail Administrator Joplin Police Department, by calling 417-623-3131 ext. 1463 or by writing to the address indicated above. Any bids received after the specified deadline will be returned to the vendor.

The City reserves the right to evaluate all bids, to reject any or all bids and re-bid at a later date. The City may waive any irregularities in the bid or negotiate variances from specifications, and make awards that are in the best interests of the City. The City will have final decision in all matters regarding acceptance of bids and issuance of awards.

The City encourages minority and female owned businesses to submit bids on all City purchases.

Leslie Haase, CPA
Finance Director

Publication Date: ***December 18, 2025***

INSTRUCTIONS TO BIDDERS

The City of Joplin, Missouri proposes to PURCHASE the following:

BODY SCANNING SYSTEM
General Description and Specifications

-Provide a Body Scanner to the Joplin City Jail that performs Vertical Scanning using X-ray beams that show images of the inmate's full body including below their feet and above their head. Understand and will comply

-Provide a Body Scanner that has a Operator's control Kiosk that can be operated up to 10 feet away from the Body Scanner. Understand and will comply

-The Body Scanner needs to use low dose imaging that adheres to the "As Low As Reasonably Achievable" concept that meets American National Standard regulations N43.17-2009. Understand and will comply

-The Body Scanner needs to be able to allow the addition of a name to the images, time/date stamp on the images and be able to show the institution name, JMS number and operator's name. Understand and will comply

-Due to limited space available in our jail the Body Scanner must be able to fit in an area that is 36" X 75" (3 ft X 6ft 3in) and function on standard 110 volt electrical systems. Understand and will comply

-The body scanner will need to be waterproof up to 4 inches from the ground. Understand and will comply

-Provide training for the City's Jail Staff on the use of the Body Scanner. Understand and will comply

-Provide a 5-year warranty on all equipment. Understand and will comply

-Provider must agree to accept NET30 Purchase Orders. Understood and will comply

***MARK BID ENVELOPES: "BID #2026-RFP-09* - JAIL BODY SCANNER, Due Thursday, January 15, 2026 AT 5:00 PM"**

Questions concerning the specifications and bidding procedures should be directed to Mark St. Peter, Joplin Police Department- Jail Division at 303 E. 3rd Street, Joplin, MO, 64801 or by phoning 417-623-3131 ext. 1463.

CITY OF JOPLIN, MISSOURI
BID PROPOSAL RESPONSE FORM

Body Scanning System

CITY OF JOPLIN, MISSOURI

BID PROPOSAL RESPONSE FORM

BID # 2026-RFP-09

Body Scanning System

Manufacturer: Tek84

Total BID PRICE: $ 181,500

Estimated Completion Time following receipt of purchase order: 30-60 days

COMPANY NAME: Tek84

ADDRESS: Tek84

13495 Gregg Street

Poway, California 92064

***MARK BID ENVELOPES: "BID #2026-RFP-09* - JAIL BODY SCANNER, Due Thursday, January 15, 2026 AT 5:00 PM"**

Body Scanning System:

JOPLIN POLICE DEPARTMETN
ATTN ; JAIL DIVISION
303 E 3RD STREET
JOPLIN MO. 64801

Quote 12/17/25

Mark St. Peter Jail Administrator
Joplin Police Department
303 E 3rd St Joplin, MO 64801
Phone: 417-623-3131 Ex 1463
mstpeter@joplinmo.org

Quo# 2025-03-31

Please see the quotation below for the Tek84 Intercept Body Scanner. The scanner includes all that is listed below as well as (1) built in camera to include a photo of the subject with each scan (2) Your agency's logo on the scanner as well as on each scan report. (3) Training by a medical professional on the use of the product, required radiation training and expert training on reading the scan results. (4) A one-time grab or your JMS database to upload the current list of subjects currently and previously in your facility. (5) 6 years warranty parts and labor

Qty	Part Number	Description	Net Each	Ext Price
1	SSD-018-0100	Tek84 Intercept Whole Body Security Scanning System High Strength Aluminum Unibody Frame. 106Kv Monoblock Oil Cooled Generator. 34" X 72" X 90" (79" top removed) foot print. 4 Second Scan Time. Variable Scanning Dosage from 0.25 uSv to 8.0 uSv Tethered Ethernet Connected Work Station with 27" Vertically Mounted Touch Screen Monitor. PC with Win OS and (2) 1 TB HDD. RAID. 1 million image storage capacity. Transportable on Built in Heavy Duty Caster System. Corner Mounting Feet. 16 million Grey Scale Levels. 110 V/60hz. 1Kva	139,000.00	139,000.00
1	INT-Training	2 plus days of Formal, Classroom and Hands On Training.	Included	Included
1	INT-WARRANTY	Initial One (1) Year Parts and Labor on Entire System from Time of Delivery	Included	Included
1	INT-Shipping	Freight from San Diego, CA to Joplin, Missouri	$ 2,500.00	$ 2,500.00
5	INT-EXT-WAR	5 Years of Additional Warranty Starting in Month 13*	$ 40,000.00	$ 40,000.00
1	INT-Install	Complete Installation of Entire Systrem with Radiation Survey	Included	Included
		Total		**$ 181,500.00**

By execution of this agreement, by an authorized signature, the customer agrees to purchase the products specified subject to the terms and conditions set forth in the agreement and subject to Tek84 and conditions available at www.Tek84.com.

This quote will expire on: 12/31/25
Delivered-at-place: Joplin, Missouri
Terms: Net 30
Taxes: Circle one Exemption certificate attached Tax rate provided here:
*if taxes apply, please request updated quote

Accepted By:

Printed Name and Title:_____

Authorized Signature_____

Date_____

Prepared by:

Brian D. Hall R.T. (R) (QM) Midwest Regional Sales Manage

Brian D Hall

brian.hall@tek84.com

12/17/2025

CITY OF JOPLIN, MISSOURI

BID PACKAGE

#2026-RFP-09

BODY SCANNING SYSTEM

JOPLIN POLICE DEPARTMENT- Jail Division
303 E. 3rd Street
JOPLIN, MO 64801

Full Body Scanner with Installation

From Tek 84 Inc.



Tek84

Advanced Security Screening

Tek84 is pleased to offer the Joplin Police Department our Intercept™ Full-Body Scanner for security scanning purposes. Please review our company profile, background, and formal quotation, as well as our response to your requirements.

Qualifications and Experience

The Joplin Police Department has an unprecedented opportunity to move with Tek84 and implement the next generation of Full-Body Scanning for Contraband Detection with the Intercept™ System. The existing technology in use until now was patented in 2006 and has largely gone unchanged since then. Excellent for its day, but its day has passed. As a comparison, in 2006, the only "Smart" phone was the Blackberry 8700, and it did not even have a camera. "Flip" phones were the norm. The Apple iPhone was still a year away.

Would you prefer a phone that uses the best of today's technology as a resource for your needs, or would you rather have one of these old phones? This same type of comparison is true for the Tek84 Intercept™ as it relates to all the other outdated Full-Body Scanning technology.

Tek84 roots and predecessor organizations trace back to 1991 and were all chartered by Dr. Steven Smith. He is the inventor of the Secure 1000 Back Scatter Scanning System, which the TSA widely used at airport passenger checkpoints for several years after 9/11. It was an excellent tool for discovering hidden objects that may be underclothing at or near the skin's surface. Dr. Smith is also a committee member that developed the current ANSI STD 43.17-2009 Radiation Safety for Personnel Security Screening. This is the standard that is used for all Security Full-Body Scanning in the United States.

In 2018 Tek84 recognized that the existing scanning technology was a "force fit" into the corrections world and established a Core Development Team to come up with a new type of scanner that would be able to utilize the best features of transmission imaging and also include the "voice of the customer" to assure that necessary correctional screening procedures could be followed without massive upheaval to jail and prison operations.

The result is the patented Tek84 Intercept™.

The **first** and most noticeable feature of the Intercept™ is its size. Or, more specifically, lack thereof. The footprint is 34" x 72". It has casters built into the unit with stabilizer feet that drop down for positioning and security. It is transportable. With the 10" "cap" off, it moves through a 34.25" Wide x 80" High door. It is 90" tall (7'6") fully assembled. It weighs 720 lbs. Installation takes less than two hours per unit, not a few days. Tek84 also quickly developed and incorporated an optional FDA-approved embedded thermal scanner when our customers asked for it. No other Full-Body Scanner has any of these features, much less all of them. Please compare and check others against these important facts.

The **second** unique feature is that the scanned subject is not transported on a conveyor or moving platform. There are no visual moving parts at all. The subject merely stands still on the marked footprint location. This dramatically simplifies the process as officers no longer have to worry about ensuring the subject is cooperative with taking a "ride" on a full-body scanner—a vast improvement to the entire booking process.

The **third** feature which sets the Intercept™ apart from its competition is that it is the only one with a portable viewing station with a 27" touch screen monitor with its pixel size mated to the number of detector diodes that do the imaging. Remember, a monitor is only as good as the capability of equipment it is viewing. Think of a picture taken via the old chemical process and then scanned by a 5K scanner. It sounds like an extraordinary claim, but the resulting image will be the same. Controls are intuitive and straightforward. It is connected to the base unit via one Cat5 cable. It can be relocated very simply as needed to accommodate your needs and various layout conditions. It can even be removed from its pedestal and mounted on a countertop if desired. Image files are simple to download and utilize for training, investigation, or prosecutorial purposes.

The **fourth** unique and new feature is that the Intercept™ scans with no distortion or magnification. The generator and detector are always equidistant from the subject and travel from below the foot to above the head, known as Vertical Scanning. All other systems use a "fixed" generator beam or one that merely moves left to right from a fixed vertical height. That process causes objects inside or on the body to "appear" in locations nowhere near their actual location. This is especially true as the beam gets to the lower and upper body. Our goal at Tek84 is to help you find the hidden

contraband in the simplest way possible. Trying to interpret a distorted image is not the simplest way possible. Additionally, overall throughput is improved when the image is easier for an operator to review.

The **fifth** differentiator of the Tek84 Intercept™ is that it is the safest system sold today. The ANSI Std N43.17-2009 states..." When using transmission systems, to minimize the effective dose received, persons undergoing screening should be positioned facing away from the source of radiation." The Intercept™ is the only scanner that images Posterior to Anterior as the standard process. All other manufacturers have ignored this safety requirement unless the governing agency forces them to adhere to the standard and scan with the subject facing away from the radiation source. Due to the fixed beam configuration of other systems, scanning in the reverse position creates an even worse distortion of the scanned image. This is hugely important since the body and skull protect the most susceptible areas (eyes, breast, gonads, thyroid- located on anterior of the body) from the ionizing radiation.

To further add to the safety of the process, Tek 84 has "Dual Virtual Wall Technology" to assure that the subject is standing in the correct position closest to the detector and away from the generator when being scanned. This system notifies the operator if the subject is out of position. No other manufacturer offers this feature.

The Intercept™ design offers an "exclusion" zone (the area where operators/bystanders should not be standing while the x-ray is on) equal to the unit's footprint. This creates a safer environment for all and much more effective utilization of your floor space. The Intercept™ design also prevents the subject from escaping the system in any direction other than the exact method they entered. One way in, one way out. It is typically placed against a wall or corner, so there is no encumbrance to a field of view.

And the final differentiator at Tek84 is the people that work with us and our commitment to excellence. Our CEO, Dr. Steven Smith, was a police officer for five years before starting his journey to help fellow officers make their jobs safer by using this equipment. The core development team has nearly 100 years of combined experience working in the security field. Our training manager worked in medical radiology for several years before moving over to security full-body scanner training. Tek 84 is not a company that manufactures various x-ray systems and makes Body Scanners. We make only different types of Body Scanners. It is our focus and core competency.

To summarize, we believe the Tek84 Intercept™ has made a huge step forward in the advancement of Security Full Body Scanning Technology as a law enforcement and correctional "tool" and that it will be the correct choice for the Joplin Police Department to include this "tool" in its arsenal moving forward. Tek84 will train you with people certified in medical radiology. This training will take place over three days on your shifts and in small group sessions. Tek84 will also walk through the registration process with the State of Kansas.

Over 875 customers in North America in a little over four years of production would indicate that the Intercept™ is has become the Whole-Body Scanner of choice for Correctional Facilities across the United States.

The Tek84 Intercept™ is designated as MADE IN AMERICA. No other manufacturer can make this claim. Tek84 invites you to our California factory to see our 70 team members and the units being manufactured and to talk to our software engineers. Be sure to review other's capability at doing this as you do your due diligence.

Description of Firm:

Tek84 Inc. is a "C" Type corporate entity formed in 2019 in the State of Delaware, Headquartered at 13495 Gregg St., Poway, CA 92064.

Predecessor Tek84 Engineering Group LLC was formed in 2009 and has manufactured and designed Body Scanning Equipment since then.

Tek84 Federal EIN Number is 27-0910092

Tek84 nor its predecessors have been disbarred, declared ineligible, or voluntarily excluded from doing business with another government entit

A. SPECIFICATIONS/SUBMITTALS:

1. **General**:

The Full Body scanner with installation will be provided will meet all specifications within this RFP.
The Intercept™ Full Body Scanner meets all the specifications within this RFP.

The Department will be using the scanner for detection of contraband among the inmate population at the Joplin Police Department. Vendors must adhere to federal, state and local requirements listed within these documents.
Agreed and Comply

2. Scanner Specifications:

The scanner shall meet the following requirements:

Uses an X-ray beam that images subjects above their head to assure accurate proportional imaging, no magnification or distortion and does not require the subject to move on a platform or conveyor belt during the imaging process

Meets Specifications: The Intercept™ scans with no distortion or magnification. The generator and detector are always equidistant from the subject and travel from below the foot to above the head, called vertical scanning. The subject stands still during the scanning process and is not required to move on a platform or conveyor belt.

a. Has an ultra compact 34" x 72" x 90" inch footprint design
Meets Specifications: The Intercept™ footprint is 34 inches x 72 inches x 90 inches

b. Has an exclusion zone equal to the 34 inch x 72 inch footprint
Meets Specifications: The Intercept™ exclusion zone is equal to the 34 inch x 72 inch footprint of the unit itself.

c. Is waterproof up to 4 inches or higher from the ground
Meets Specifications: The Intercept™ is proven waterproof up to four inches in height from the ground.

d. Has dual virtual technology to make sure that the subject is standing centered or in the correct position in the machine to reduce radiation dose exposure and radiation dose falls within ANSI/HPS N43.17-2009 guidelines.
Meets Specifications: The Intercept™ has Dual Virtual Wall Technology that ensures the subject is standing in the correct position while being scanned to minimize radiation dose as per ANSI/HPS N43.17-2009.

e. Has a low imaging dose of at least 0.25 uSv per scan to ensure that subject is not harmed by radiation.
Meets Specifications: The Intercept™ dose rates of 0.25, 0.50, 1.00, and even 2.00 uSv with optional 4.0 and 8.0 Usv for large subjects if necessary. These dose rates are accumulated for each individual scanned on a one-year running basis. The Intercept™ will not allow a scan if the 250uSv per year ANSI standard or a self-imposed limit has been reached to ensure the subject is not harmed by radiation.

f. Has the capability to provide a photo, 3 images, scan number, time date stamp, comments, unit name, institution name, Jail Management System number and operator embedded on jpg for evidence purposes.
Meets Specifications: The scan record includes an embedded photo of the person just before being scanned, the date/time stamp of the image, either one, two, or all three x-ray image types
(Hi-Res, 3D, Detail), the operator, the jail location, a description of the suspect item, the scan number, and the dosage.

g. Is mobile can be moved but is considered stationary when the wheels are raised off the floor
Meets Specifications: The Intercept™ is transportable and not permanently anchored to the floor.

h. Has at least a four second scan time.
Meets Specifications: The Intercept™ has a four second scan time.

i. Has a high-resolution monitor, clearly showing objects hidden under the clothing and within body cavities.

Meets Specifications: The Intercept™ includes a portable viewing station with a 27" touch screen monitor. The pixel size is *mated* to the number of detector diodes that do the imaging. This provides the highest resolution possible and the best opportunity for the operator to detect hidden objects.

j. Has a pass-through beam not an angled beam for more accurate imaging.

Meets Specifications: The generator and detector are always equidistant from the subject and travel from below the foot to above the head, providing the most accurate imaging possible. All other systems use a "fixed" generator beam or one that merely moves left to right from a fixed vertical height. That process creates an angled beam and causes objects inside or on the body to "appear" in locations nowhere near their actual location. This is Vertical Scanning.

k. Has the capability of plugging into a standard outlet with no additional electrical upgrade needed.

Meets Specifications: The system operates on a standard 110V15A duplex receptacle, probably already available at your desired location. There is no need for special power requirements.

l. Preferably manufactured in the US.

Meets Specifications: All Tek84 products, including Intercept™, are 100 percent developed and assembled in the United States at our manufacturing plant near San Diego, California.

B. DELIVERIES:

1. Product shall be delivered FOB destination, freight prepaid, on ground or inside delivery to the following location:
   a. Joplin Police Department
      303 East 3Rd Street
      Joplin, Missouri 64801
      Agreed and Will Comply

2. Deliveries are required Monday-Friday only between the hours of 7:30am-11:20am and 12:30pm-3:30pm. All deliveries must be confirmed 24 hours in advance. This may be modified by the Joplin Police Department
   Agreed and Will Comply

D. WARRANTIES:

The contractor warrants that:

1. All supplies are merchantable, of good quality and free from defects whether patent or latent in material or workmanship.
2. All supplies to be provided to the COUNTY are fit and sufficient for the purpose intended.
3. Warranties shall be submitted with this RFP.5 years of extended warranty added to RFP
   Agreed and Will Comply

E. MAINTENANCE:

Contractor shall supply Five additional years of maintenance on the equipment included in the pricing.
Agreed and Will Comply

F. SAFETY DATA SHEET:

It is required by law that all hazardous materials must be identified and be accompanied with a "Safety Data Sheet" (SDS) at time of delivery.
Agreed and Will Comply

G. INSPECTION:

All materials furnished are subject to inspection and approval by the Joplin Police Department.
Agreed and Will Comply

H. **INSTALLATION:**

In addition to a complete visual inspection of the equipment, vendor shall install equipment and make sure it is functioning properly prior to the County signing off on installation for payment.

Agreed and Will Comply

I. **TRAINING:**

Vendor shall include training on the full body scanner in the pricing of the equipment to assure that the staff are able to adequately use the equipment.

Agreed and Will Comply: Tek84 trainers are medically certified in radiology. There are three levels of training. Basic user and radiation safety training take approximately 2 hours. The additional training for Management (Train the Trainer) and Super Users (Administrators) typically follows immediately after their user training. Anyone trained at the Management level will be instructed in the "Train the Trainer" format to become the trainer for new employees. Instructors will work around your shifts to minimize or eliminate overtime. Everyone that completes the training will be provided a certificate. Typical Training plan is to travel to site on Monday, and train in these small group sessions all day Tuesday, Wednesday, and part of Thursday. Tek84 will train as many people as requested, all we ask is that those trained will be directly associated with the process and able to use the Intercept as soon after training as possible. Two plus days of training are included.

J. **REJECTED MATERIALS:**

The vendor shall immediately remove any rejected or defective material/products delivered to the facility at his or her own expense. Rejected materials shall never again be offered to the COUNTY. Vendor will be responsible for all costs and transportation charges incurred in replacing materials that do not meet all specifications.

Agreed and Will Comply

K. **SUBSTITUTE PRODUCTS:**

No Substitutions will be accepted or Brand Name or Equal without the consent of the COUNTY User, The Joplin Police Department who is placing the order. If substitute products are delivered without approval, it will be the responsibility of the vendor to pick-up those products at no charge or penalty to the COUNTY.

Agreed and Will Comply

L. **SERVICE REPRESENTATIVE:**

The vendor must provide a knowledgeable representative to respond to all questions regarding orders and billing by phone, fax, or e-mail within twenty-four (24) hours.

Agreed and Will Comply: Tek84 has several layers of responsive customer support to meet the needs of Morrison County.

Tek84 24/7 toll free number is 866-266-7779.

M. **COMPLAINTS:**

Vendor will respond to complaints within twenty-four (24) hours with a reasonable and acceptable solution. Contractor shall be required to rectify any problems including billing issues within fifteen (15) business days of said notification.

Agreed and Will Comply

N. **CONTRACT AUDITS**

Vendor agrees that the **AGENCY** or its delegate will have the right to review, obtain and copy all records pertaining to performance of the contract. Vendor agrees to provide the **AGENCY** or its delegate with any relevant information requested and shall permit the **AGENCY** or its delegate access to its premises, upon reasonable notice, during normal business hours for the purpose of interviewing employees and inspecting and copying such books, records, accounts and other material that may be relevant to a matter under investigation for the purpose of determining compliance with this requirement. Vendor further agrees to maintain such records for a period of three (3) years after final payment under the contract.

Agreed and Will Comply

TECHNICAL APPROACH

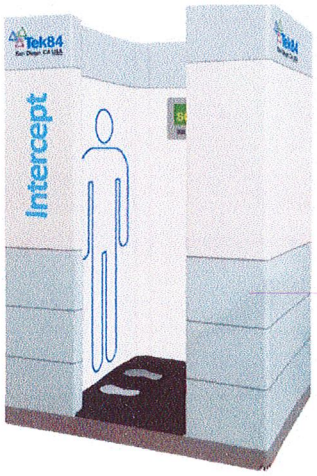
Scope of Project and How the Tek84 Intercept™ meets or exceeds all project requirements.

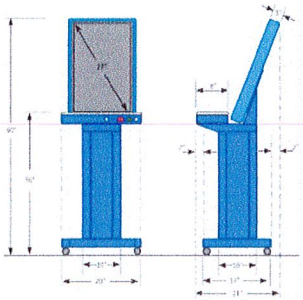
Tek84 proposes to manufacture, ship, deliver, install and provide training on our Intercept™ Full Body Scanner. This product has been customer tested and utilized in over 2,000 locations beginning in Jan 2019. Please compare this install base with the install base of the make and model of any competitive non-moving subject unit offered. There is no comparison. The full load rate of the Intercept™ is 180 scans per hour or 4,320 scans in a twenty-four (24) hour period.

The Tek84 Intercept™ has no visible moving parts such as a conveyor belt or moving platform that can cause safety incidents and fail. The subject does not need to risk falling from a moving platform or taking an often-undesired ride on a conveyor belt. The subject simply stands still for four seconds while the system performs its work. The framework of the Intercept™ is made from heavy-duty aircraft aluminum with unibody construction. The Intercept™ has a 34" x 72" footprint and takes up less floor space than many desks. The unit arrives in two crates, nearly fully assembled, and comes with built-in casters to quickly move the unit into location.

The operating kiosk is connected to the Intercept™ with one (1) CAT5E cable. The kiosk has a 27" touch screen monitor with no need for a keyboard or mouse to operate the system. Just simple and intuitive touch screen commands.

Please see the examples below:



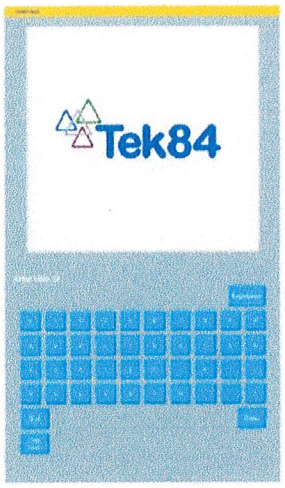




The system operates on a standard 110V15A duplex receptacle which is probably already available at your desired location. There is no need for special power requirements.

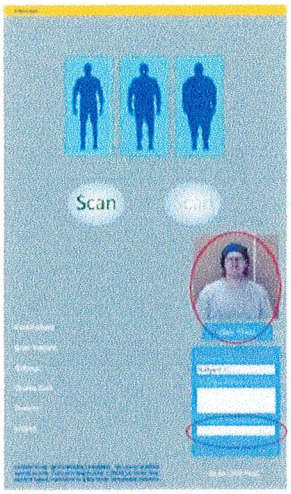
The Intercept™ is simple to operate and simple for the subject. Log in can be done using a quick four-digit pin code or name and password on the touch screen of the provided operating kiosk. There is no warm-up period required for the system to be ready. The system is also self-calibrating and requires only one Preventative Maintenance per year.

Once logged in, the subject name or JMS # is selected, and the operator presses the scan button two times.



User Log in via pin number or name/password

User Data Base and User Level (User, Manager, Super User) Can be pre loaded into system



Subject selected via JMS # or name

Existing Subject Data Base can be pre loaded into system

If already in use, tie in to Bar Code or RFID can also be done.

Take photo of subject if desired

Accumulated dose of each subject is always shown

Press "Scan"...

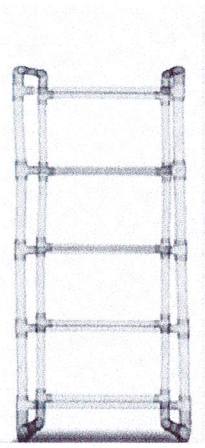
The Operator decides the best technique for scanning based on the subject's size and the frequency with which the subject will be scanned during the year. The scanned image immediately populates after the 4-second scan. The techniques available are dose rates of 0.25, 0.50, 1.00, and even 2.00 uSv if necessary. These dose rates are accumulated for each individual scanned on a one-year running basis and will not allow a scan (or will take a scan w/o the generator on- your choice) if the 250uSv per year (ANSI STD limit or your self-imposed 250 uSv limit has been reached. That would equate to 1,000 or 400 scans annually on the lowest (0.25uSv) setting. The computer has a MINI ITX Industrial Motherboard w/ Intel Core i5-6500 3.3 GHz Processor, and the HARD DRIVE is 1TB 2.5 SATA, 5400 RPM x 2Ea for RAID 1 million images of storage.

IMPORTANT TECHNICAL NOTE

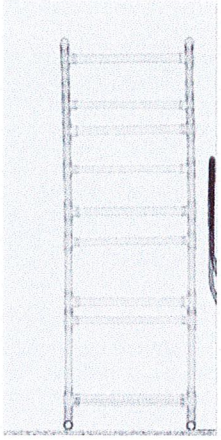
Because the Intercept™ scans directly perpendicular to the body on a vertical axis from below the foot to above the head. The Intercept™ provides no distortion or magnification of the image compared to systems that "fix" their generated beam on a horizontal plane. It also requires less dose to go through the body and present a good image as it has to pass through less mass than a fixed beam with a diagonal passage through the body. See the example with PVC "bread rack" below.



Test Object



Tek84 Intercept

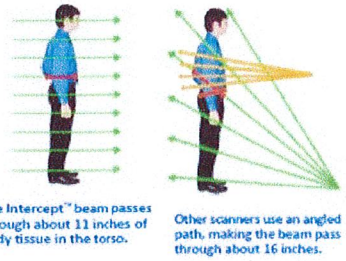


Fixed Beam X Ray

Intercept™

High-Security Contraband Detection

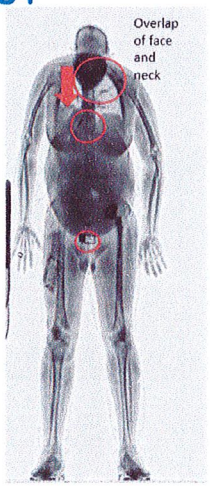
Image Distortion



Some have recognized this poor design and then simply duplicated it creating 2x the generators and detectors that can fail and vastly increasing the dose of ionizing radiation

08/06/20 Tek 84 Confidential 10

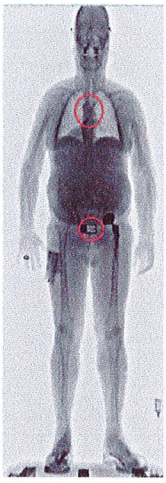
Tek84



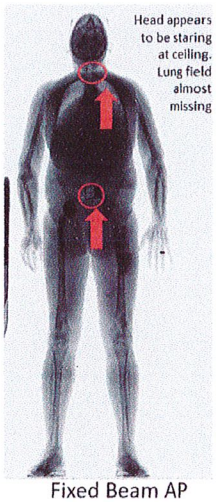
Fixed Beam PA



Intercept PA

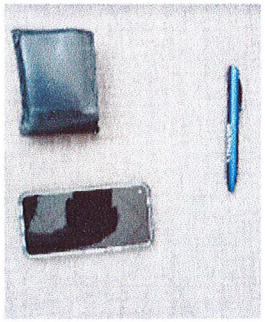


Intercept AP



Fixed Beam AP

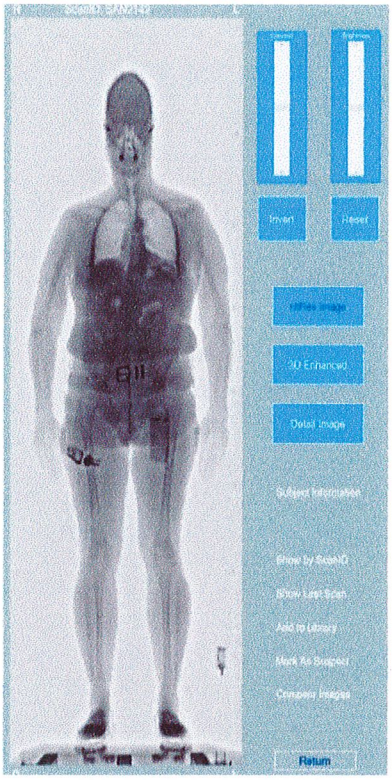
PA = Beam goes through posterior to anterior. AP is the opposite. ANSI requires PA. If the "easy" things are hard to locate, how are you going to find the hard-to-find things?



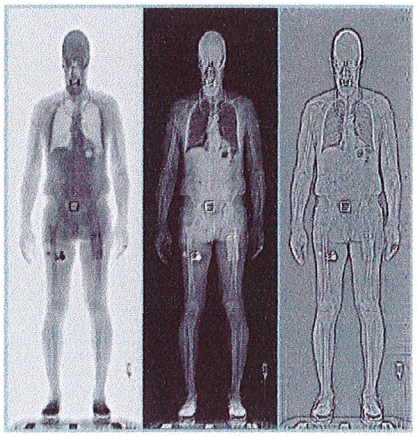


- *And see examples with a person standing in the same exact position each time. Look how the objects on the person "move" in the fixed beam scan and are in the correct position on the Intercept™. PA means that the generated beam passes through the posterior of the person being scanned and then the anterior. AP means just the opposite. As you can see, PA using a fixed beam system causes overlap in head, neck, and shoulder area. The ANSI/HPS N43.17-2009 Section 6 states," The radiation dose delivered to a scanned individual shall be as low as reasonably achievable (**ALARA**) while meeting the required detection performance. When using transmission systems, to minimize the effective dose received, **persons undergoing screening should be positioned facing away from the source of radiation."** The Intercept™ is the only Full Body Scanner designed to scan the subject facing away from the generator. (Posterior to Anterior – PA) The skull and body thickness protects the eyes, gonads, breast, and thyroid from the X-ray beam. SAFER…*

After pressing the scan button, the resultant image is produced (shown below)....and the image can be manipulated in any number of ways to identify potential anomalies and contraband best. The Windows 10 Operating System utilizes 24 bits configured to provide **16 million variations** of gray shades to enhance the image contrast and brightness.



A simple press of the touch screen in any area of suspicion will Zoom that specific body part for further inspection. Pressing the image again will return it to full scale. Panning can be done by simply adjusting the area where the button is pushed to the left or the right.
Additionally, the images can be portrayed in Hi-Resolution, 3D, or Detailed techniques, as shown below. Each of those images can be, in turn, reversed in polarity. If an anomaly of note is discovered, the image can be marked as "suspect." It can also be added to the library of images that can be used to help operators define and compare two different people with similar anomalies.



The Intercept™ has three types of user levels. Screener (User), Management (or train the trainer), and Super User. Each subsequent level has additional *selectable* screens available to them according to your need. SuperUser has every screen available to it.

Selectable features according to your needs are shown here.

Permission	Management	Screener
Add/Modify User	☑	☐
Add Subject	☑	☑
Edit Subject	☑	☑
Edit Scan Data	☑	☐
Export Images	☑	☐
Add Library Images	☑	☐
Maintain Library	☐	☐
View Reports	☑	☐
Export Reports	☑	☐
Upload/Down Users	☐	☐
Upload/Download Subjects	☐	☐
Create Gain Tables	☐	☐
System Configuration	☐	☐
Authorize USB	☐	☐
Perform System Updates	☐	☐
Upload/Download Native Files	☐	☐
Access Service	☐	☐
Set Facility Information	☐	☐
Disable Prea Bypass	☐	☐
Allow Printing	☑	☑

If the Joplin Police Department wishes to print or save an image to the authorized flash drive provided with the Intercept™, it is a straightforward process.

The toolbar at the bottom of the Scan Report has functions accessible with permission.



Figure 59: Scan Report Toolbar

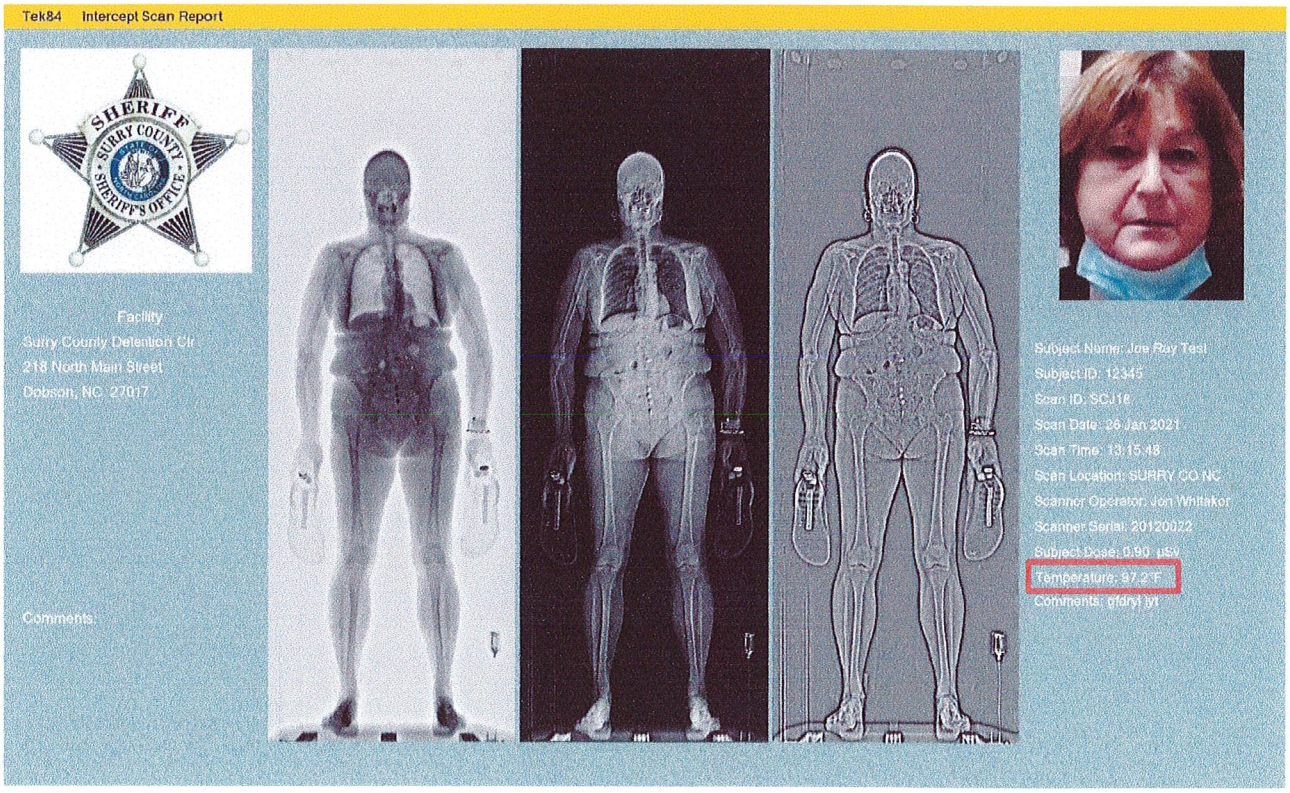
Along the right side of all reports is a vertical scroll bar. Use the vertical scroll bar to scroll to the bottom of lengthy reports.

11.3.1.1 Export Image File

Export Image File refers to exporting the native file of the scan. The native file is Tek84's proprietary image format and can only be viewed on Intercept. This function requires permission.

Insert an authorized USB device into the USB port in the control panel. Select Export Image File.

The image file that gets downloaded appears as shown. This one has the optional thermal scanner, which also provides the temperature of the subject.



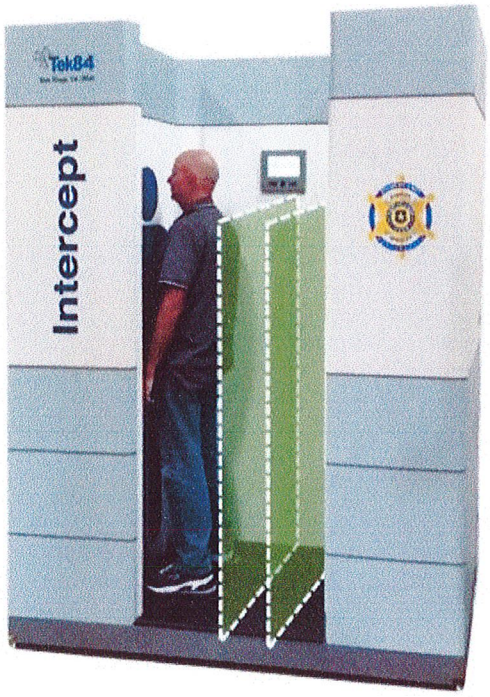
It includes an embedded photo of the person just before being scanned, the date/time stamp of the image, either one, two, or all three x-ray image types (Hi-Res, 3D, Detail), the operator, the jail location, a description of the suspect item, the scan number, and the dosage.

Databases

Both subject and user databases can be uploaded into the Intercept™ utilizing this same flash drive apparatus and a simple text, comma-delimited file. The upload takes less than one minute to perform and can be done by the Tek84 Trainer with the data that the Joplin Police Department provides.

New subjects and new users can be enrolled as well within about a minute.

The Tek84 Intercept™ is also equipped with Dual Virtual Wall Technology. This technology prevents the subject from being out of position when being scanned.



Intercept™
High-Security Contraband Detection

Key Features (continued)

- Dual Virtual Wall Technology
  - Detects when the subject is out of position.
  - Notifies the operator
  - Prevents Scanning
  - Stops in process Scans
  - ANSI 43-17 Compliant
  - Fully configurable for local requirements.

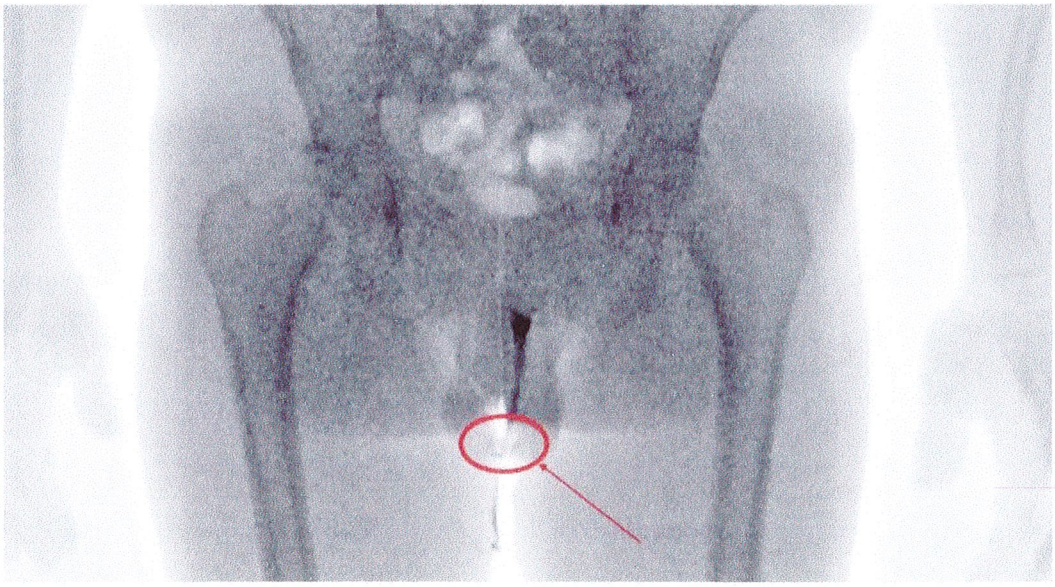
This is exclusive to Tek84, and no other competitor has this safety feature. Our system also constrains the subject on three sides while he is being scanned. This makes it much more difficult to escape than any other system on the market. Again, safer.

For the safety of the equipment operator and bystanders, the Tek84 Intercept™ has an exclusion zone equal to the unit's footprint. In other words, as long as the operator is not standing inside the unit while the system is on, they are in a safe position. See red arrows below.

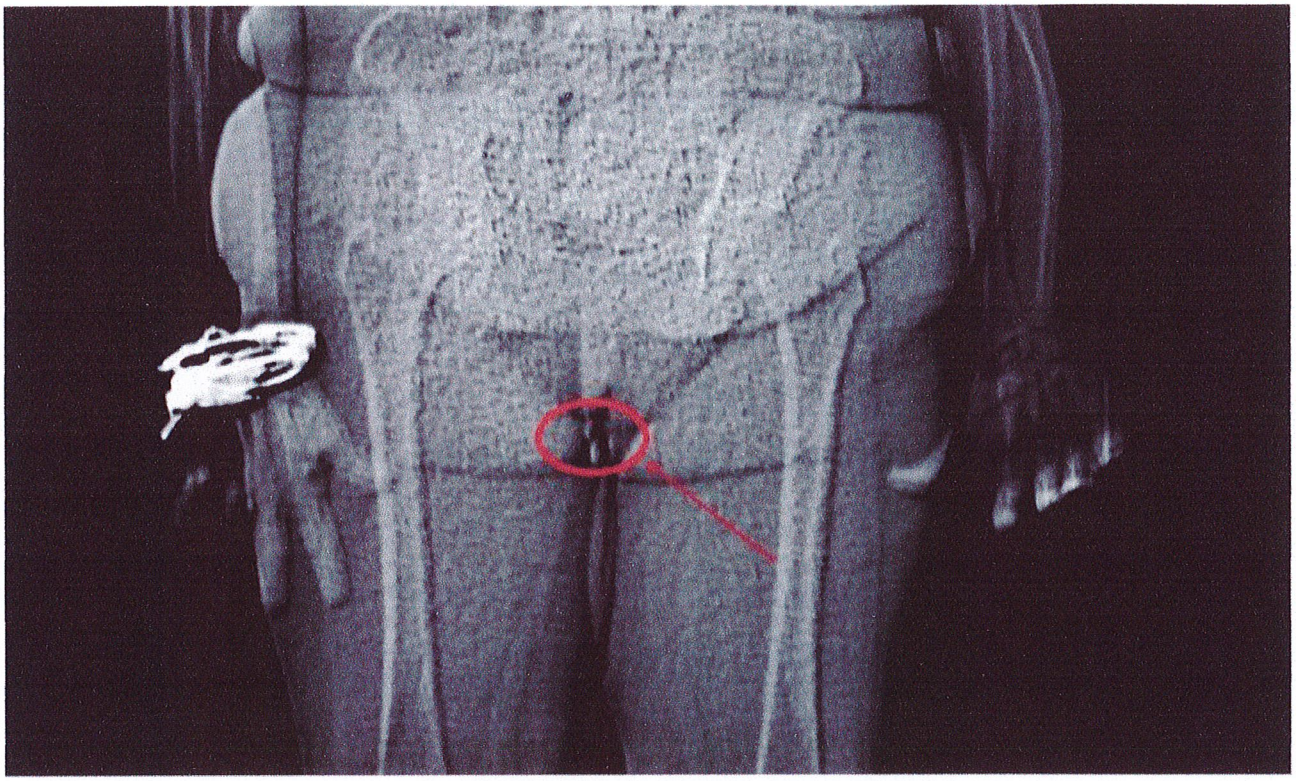


Images

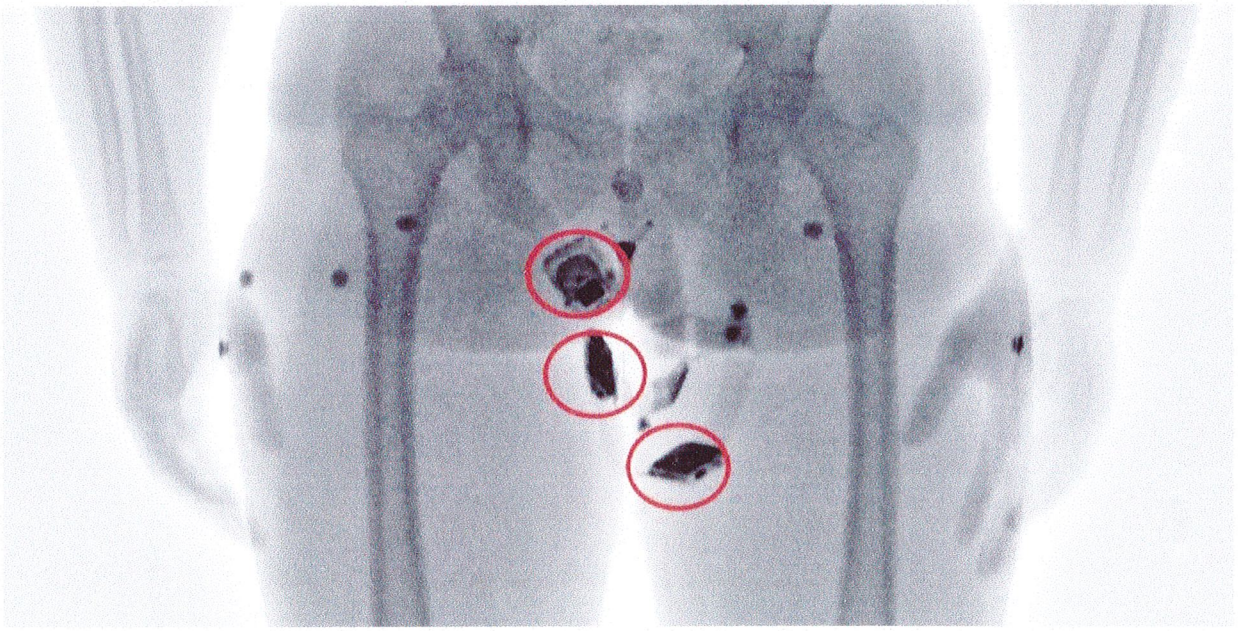
Below are just a few of the images from the Tek84 Intercept™ at various customers.



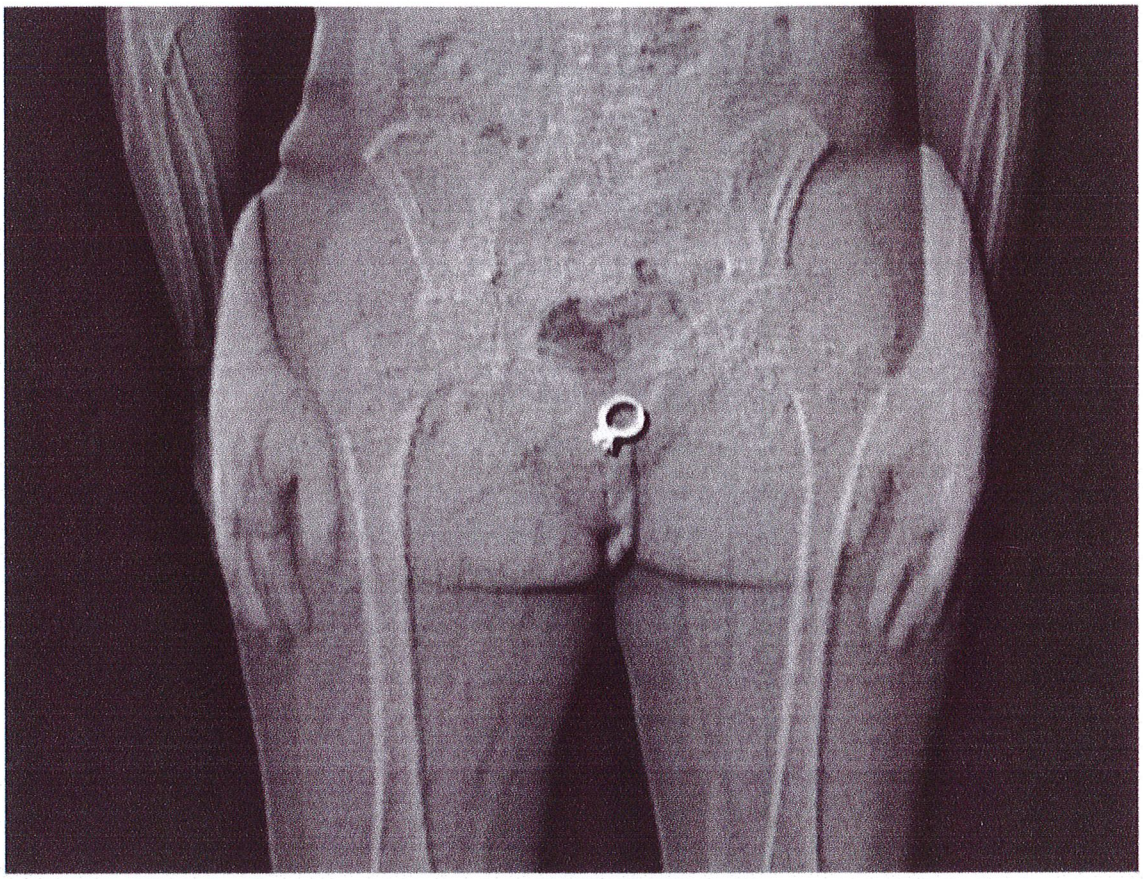
Fentanyl Pills

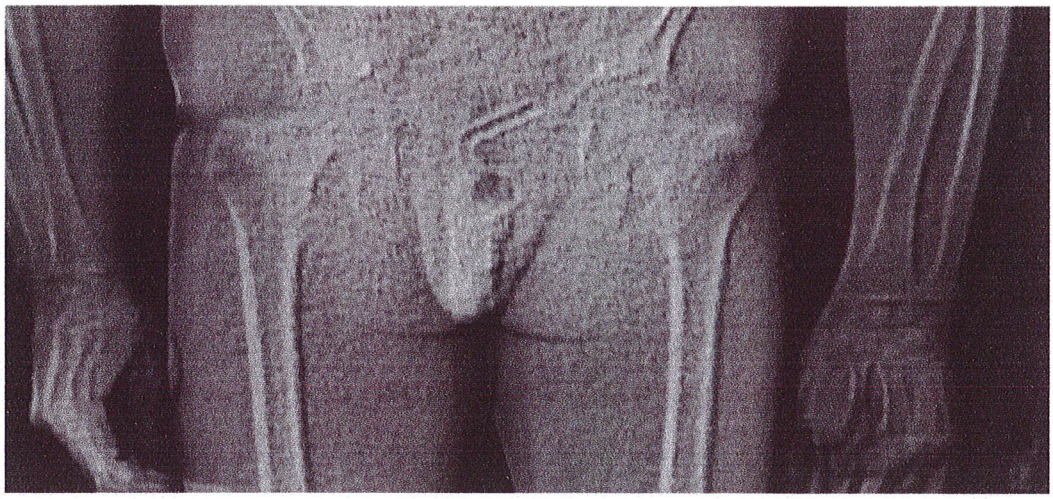


Meth inside



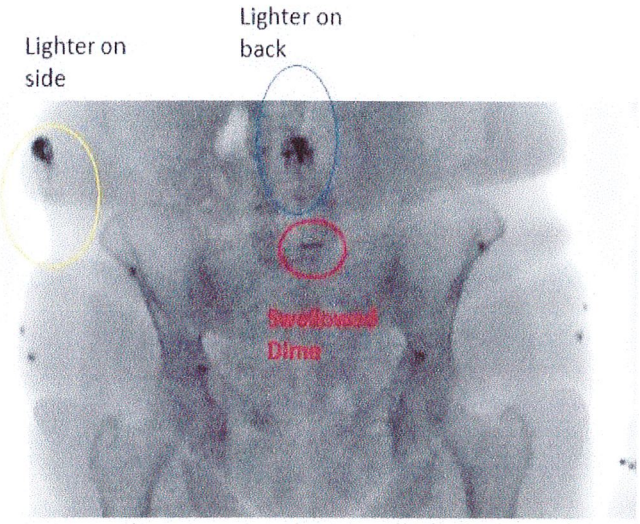
Apple i-watches missed during pat down



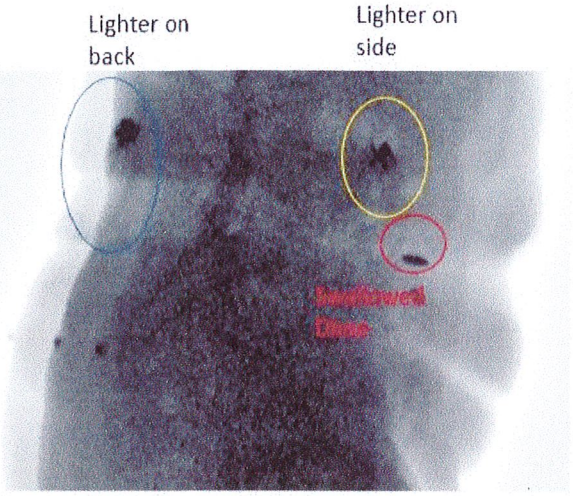


Keistered Crack pipe

ills in a pen



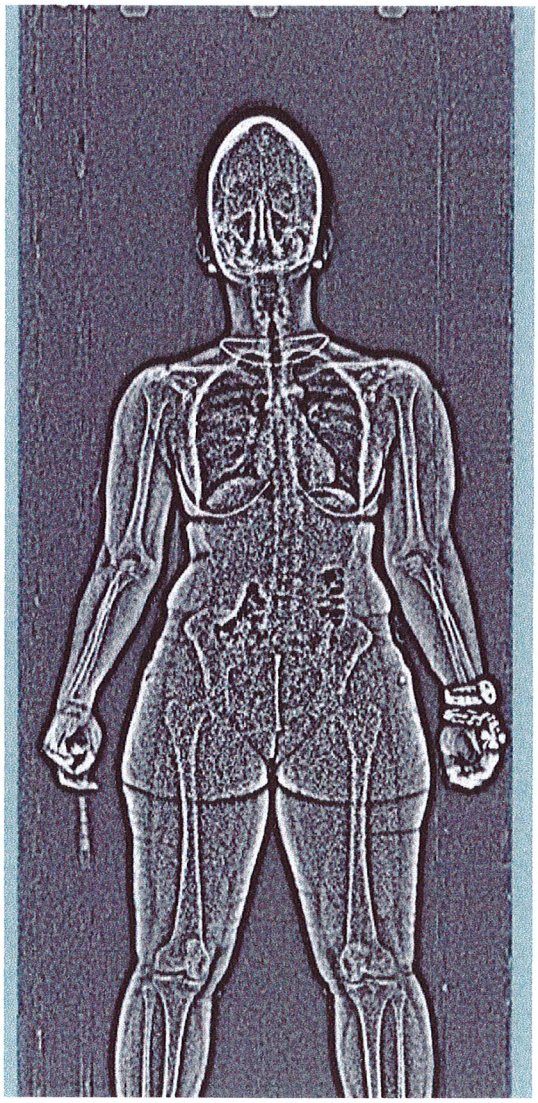
PA View Two lighters and swallowed dime

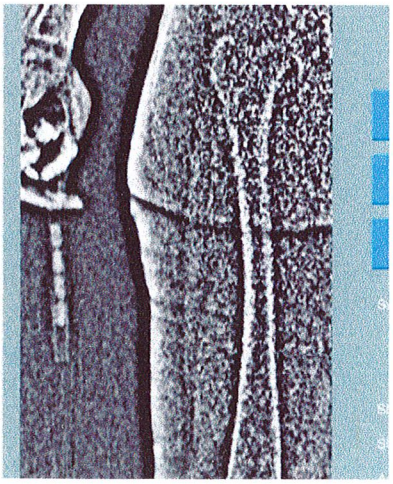


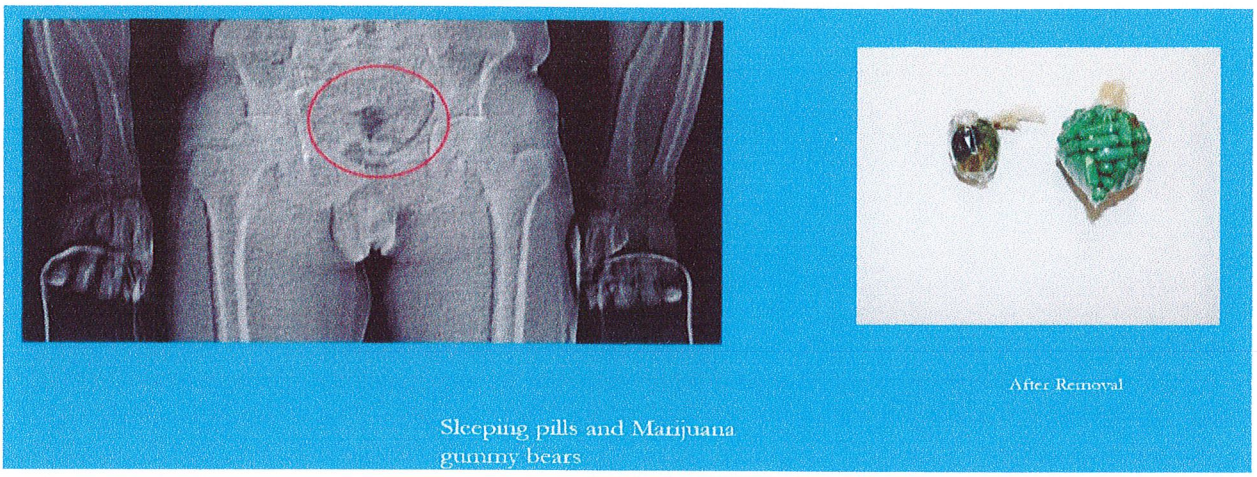
Profile View scan of same person

On Fixed beam systems this type of image comparison is extremely difficult because of the distortion









Training

All of our trainers are medically certified in Radiology. Tek84 believes that you should be trained by people that understand human anatomy and know what should and should not belong in the human body. To the extent that it is relevant, all HIPPA rules will be utilized

Tek84 has learned that comprehension and retention work best for our training if it is kept to groups of approximately four people at a time. There are three levels of training. Basic User training, including radiation safety training, takes about 2 hours per group. The additional training for Management (Train the Trainer) and Super Users typically follows immediately after their User training. Anyone trained at a management level will be instructed how to become the Trainer for future follow-up sessions to new employees.

Tek84 will work on your shifts and time to minimize your overtime. Everyone that completes the training will be provided with a training certificate. A post training question quiz will be administered to all those trained in compliance with many health departments across the United States.

Quote 12/17/25

Mark St. Peter Jail Administrator
Joplin Police Department
303 E 3rd St Joplin, MO 64801
Phone: 417-623-3131 Ex 1463
mstpeter@joplinmo.org

Quo# 2025-03-31

Please see the quotation below for the Tek84 Intercept Body Scanner. The scanner includes all that is listed below as well as (1) built in camera to include a photo of the subject with each scan (2) Your agency's logo on the scanner as well as on each scan report. (3) Training by a medical professional on the use of the product, required radiation training and expert training on reading the scan results. (4) A one-time grab or your JMS database to upload the current list of subjects currently and previously in your facility. (5) 6 years warranty parts and labor

Qty	Part Number	Description	Net Each	Ext Price
1	SSD-018-0100	Tek84 Intercept Whole Body Security Scanning System High Strength Aluminum Unibody Frame. 106Kv Monoblock Oil Cooled Generator. 34" X 72" X 90" (79" top removed) foot print. 4 Second Scan Time. Variable Scanning Dosage from 0.25 uSv to 8.0 uSv Tethered Ethernet Connected Work Station with 27" Vertically Mounted Touch Screen Monitor. PC with Win OS and (2) 1 TB HDD. RAID. 1 million image storage capacity. Transportable on Built in Heavy Duty Caster System. Corner Mounting Feet. 16 million Grey Scale Levels. 110 V/60hz. 1Kva	139,000.00	139,000.00
1	INT-Training	2 plus days of Formal, Classroom and Hands On Training.	Included	Included
1	INT-WARRANTY	Initial One (1) Year Parts and Labor on Entire System from Time of Delivery	Included	Included
1	INT-Shipping	Freight from San Diego, CA to Joplin, Missouri	$ 2,500.00	$ 2,500.00
5	INT-EXT-WAR	5 Years of Additional Warranty Starting in Month 13*	$ 40,000.00	$ 40,000.00
1	INT-Install	Complete Installation of Entire Systrem with Radiation Survey	Included	Included
		Total		**$ 181,500.00**

By execution of this agreement, by an authorized signature, the customer agrees to purchase the products specified subject to the terms and conditions set forth in the agreement and subject to Tek84 and conditions available at www.Tek84.com.

This quote will expire on: 12/31/25
Delivered-at-place: Joplin, Missouri
Terms: Net 30
Taxes: Circle one Exemption certificate attached Tax rate provided here:
*if taxes apply, please request updated quote

Accepted By:

Printed Name and Title:_____

Authorized Signature_____

Date_____

Prepared by:

Brian D. Hall R.T. (R) (QM) Midwest Regional Sales Manage

Brian D. Hall brian.hall@tek84.com

12/17/2025