

# VIKEN

DETECTION

One Sense Ahead

21 North Avenue  
Burlington, Massachusetts 01803  
United States

Ship To  
Jack County Sheriff's Office  
1432 FM 3344  
JACKSBORO, Texas 76458  
United States

Quote #: Q-03201-1  
Prepared For: DAVID VANDERKAAY  
Date: 2/15/2022 9:50 AM  
Expires On: 4/16/2022

Phone: 617-467-5526  
Fax: 617-467-5024  
Email: sales@vikendetection.com

Bill To  
Jack County Sheriff's Office  
1432 FM 3344  
JACKSBORO, Texas 76458  
United States

SALESPERSON	PHONE	EMAIL	LEAD TIME	PAYMENT TERMS
Rebecca Tamez		rtamez@vikendetection.com	3-6 months After Order Acceptance	Prepaid, Net 30 subject to credit approval

PRODUCT CODE	FAMILY	DESCRIPTION	QTY	UNIT PRICE	EXTENDED
12-100066	Handheld Backscatter Devices	Nighthawk-BTX Series Backscatter Handheld Imager: 140 kV Tube   Wide Area Detector   +Pb Trap Detect ***Compatible with Broadwing-DTX Dynamic Transmission Detector Accessory (Sold Separately)***	1	\$51,000.00	\$51,000.00
***UNIT COMES WITH 2 YEARS OF WARRANTY				Discount:	\$6,000.00
				Total:	\$45,000.00

PRODUCT CODE	FAMILY	DESCRIPTION	QTY	UNIT PRICE	EXTENDED
12-100008	Accessories	Spare Battery Pack 14.4V (VIKEN Yellow)	2	\$250.00	\$500.00
				Subtotal:	\$500.00
				Total:	\$500.00

PRODUCT CODE	FAMILY	DESCRIPTION	QTY	UNIT PRICE	EXTENDED
9-000001	Training	Training	1	\$5,000.00	\$5,000.00
				Discount:	\$2,500.00
				Total:	\$2,500.00

PRODUCT CODE	FAMILY	DESCRIPTION	QTY	UNIT PRICE	EXTENDED
10-000002	Shipping and Handling	Domestic 3 Day Shipping	1	\$200.00	\$200.00
Subtotal:					\$200.00
Total:					\$200.00

Subtotal:					\$56,700.00
Discount:					\$8,500.00
Total:					\$48,200.00

Please note that applicable sales taxes have not been included in the total price. This will be the buyer's responsibility unless a copy of a tax exempt certificate has been provided.

Signature: \_\_\_\_\_

Effective Date: \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

Name (Print): \_\_\_\_\_

Title: \_\_\_\_\_

Purchase Order  
Number: \_\_\_\_\_

Sales Tax Exempt? \_\_\_\_\_

Yes / No (If Yes, attach copy of  
sales tax exempt certificate)

THE FOLLOWING TERMS/CONDITIONS, TOGETHER WITH ANY OTHER TERMS/CONDITIONS SPECIFICALLY AGREED TO IN WRITING BY SELLER, SHALL APPLY TO ALL ORDERS ("Order(s)") FROM, AND SALES OF PRODUCTS ("Products") OR SERVICES ("Services") TO BUYER. ANY ACCEPTANCE OF ANY ORDER OF BUYER IS CONDITIONED UPON THESE TERMS/CONDITIONS. ANY ADDITIONAL OR DIFFERENT TERMS/CONDITIONS PROPOSED BY BUYER IN ANY DOCUMENT ARE OBJECTED TO AND SHALL NOT BE BINDING UPON SELLER. No Sales person is authorized to bind Seller to any promise or understanding not expressed herein.

#### **TAXES**

In sales transaction instances where Sales Prices do not include applicable taxes or duties, the Buyer is solely responsible for paying all applicable taxes and duties. Under these circumstances, where the VIKEN DETECTION Sales invoice excludes State, County, and/or Local Sales Tax, it should be inferred that either (1) VIKEN DETECTION has not attained NEXUS status in the State where the Buyer resides, and the Buyer is solely responsible for calculating, remitting and filing the appropriate tax and duties incurred, or (2) The Buyer has declared tax exemption status, and has forwarded the applicable Exempt certificates to VIKEN DETECTION, prior to the Sales invoicing transaction. VIKEN DETECTION will add sales taxes to the sales price where required by applicable law and Buyer will pay such taxes unless Buyer provides VIKEN DETECTION with a duly executed sales tax exemption certificate. If Buyer is required by law to withhold any amount of tax from its Payment to VIKEN DETECTION, Buyer will take all reasonable steps to minimize such withholding tax, provide VIKEN DETECTION with a receipt or certificate as evidence the tax has been paid, and reimburse VIKEN DETECTION for the amount of withholding so that VIKEN DETECTION receives Payment for the full value of the invoice.

#### **PRICES**

All prices are subject to change without notice in the event of any changes in cost of materials or labor, specifications, quantities, delivery schedules, customs duties, other factors beyond Seller's control, or in the event of delays caused by instructions of the Buyer, or failure of the Buyer to give Seller adequate information. Prices do not include taxes, including but not limited to Value Added Tax (VAT), or governmental charges.

#### **DELIVERY**

Delivery dates are approximate and are dependent on prompt receipt by Seller of all necessary information. Seller may deliver all or any part of Products/ Services as early as 30 days in advance of agreed schedule. The point of delivery shall be "Exworks" Seller's premises, unless otherwise specified by Seller. Upon delivery, title to Products and all risk of loss or damage thereto shall pass to Buyer. Where Buyer notifies Seller that it cannot take timely delivery of the Products, Seller may place such Products in storage, at the risk of Buyer, and Buyer shall reimburse Seller for all expenses incurred in connection with such storage. Buyer shall dispose of the packing materials for Products at its own expense, and shall defend, indemnify and hold harmless Seller from any legal obligations in connection with such packing waste.

#### **PAYMENT**

1. The term of payment shall be net 30 days from date of Seller's invoice, unless otherwise specified. Payments shall be made by Buyer without any deduction or set-off. Unless otherwise agreed, payment shall be made in U.S. dollars. Seller may charge late payment fees at the rate of 1.5% per month, or the highest rate permitted by law, whichever is less, accruing daily.
2. If the financial condition of Buyer is unsatisfactory to Seller, Seller may require full or partial payment in advance, or satisfactory security, in the form of a letter of credit or otherwise. In the event of bankruptcy or insolvency of Buyer, Seller may immediately cancel any Order then outstanding.
3. Buyer grants Seller a purchase money security interest in Products located in the United States, or Services, as well as any proceeds, for the purpose of securing the obligations of Buyer hereunder. Buyer authorizes Seller to execute on Buyer's behalf and file such financing statements as Seller deems appropriate to perfect and notify Buyer's creditors of Seller's security interest.

#### **VARIATIONS IN QUANTITY; CHANGES**

Buyer shall accept delivery of quantities greater or smaller than the quantity specified in Order(s), provided that any such variation shall not exceed 5% of the quantity originally specified. Seller shall not be required to give notice of any such variations other than in the applicable shipping notice and invoice. Seller reserves the option to make changes to Products or Services which do not affect form, fit, or function, and shall deliver Products to the latest configuration part number at the time of delivery.

#### **EXPORT CONTROLS; FCPA; ANTI-BOYCOTT**

1. Buyer shall not make any disposition of the Products, by way of transshipment, re-export, diversion or otherwise, except as applicable U.S. export laws and regulations may expressly permit, and other than in and to the ultimate country of destination specified on Order(s) or declared as the country of ultimate destination on Seller's invoices or in the End Use Statement that Buyer supplies Seller. Seller shall not be named as shipper or exporter of record or U.S. principal party in interest (USPPI) unless specifically agreed to in writing by Seller in which case, Buyer shall provide Seller with a copy of the documents filed by Buyer for Export clearance purposes. At Seller's request, Buyer shall supply end use and end user information to determine export license applicability. Failure of Buyer to comply with this section shall constitute a material default allowing Seller to cancel related Order(s) without liability.
2. Buyer warrants that it shall not violate or cause the Seller to violate the U.S. Foreign Corrupt Practices Act of 1977 (FCPA), as amended, the United Kingdom Bribery Act (UKBA) of 2010, as amended, or their respective implementing regulations in connection with Buyer's sale or distribution of

the Products and/or Services, and that Buyer does not know or have reason to believe that any consultant, agent, representative or other person retained by Buyer in connection with the sale and/or distribution of Products/Services has violated, nor caused Seller to violate the FPCA and/or the UKBA. Where Buyer learns of or has reason to know of any violation of FPCA and/or or UKBA in connection with the sale or distribution of Products/Services, Buyer shall immediately advise Seller.

3. Buyer further warrants that Buyer shall not violate or cause Seller to violate the U.S. Anti# boycott Provisions of the U.S. Export Administration Regulations issued pursuant to the U.S. Export Administration Act of 1979, as amended, in connection with Buyer's purchase of Products/Services and that Buyer shall not request or require Seller to make statements or certifications against countries that are not subject to boycott by the U.S.

#### WARRANTIES

1. Seller warrants that Products manufactured by Seller, when delivered, shall be free from defects in material/workmanship. Seller's obligations under this warranty shall be limited exclusively to repairing or replacing, at Seller's option, any part of Products which, if properly installed, used and maintained, proved to have been defective in material or workmanship within 1 year from the date of shipment. Seller warrants that Services shall be performed in accordance with generally accepted industry practice. Seller warrants for a period of 1 year from the date of shipment that software or firmware, when used with Products, shall perform in accordance with Seller's published specifications. Seller makes no warranty, express or implied, that the operations of the software or firmware shall be uninterrupted or error#free, or that functions contained therein shall meet or satisfy the Buyer's intended use/requirements. Buyer shall notify Seller of any defect in the quality or condition of Products (including software/firmware) or Services within 7 days of the date of delivery or performance, unless the defect was not apparent on reasonable inspection, in which case, within 7 days after discovery of the defect. If Buyer does not provide such timely notification, it shall not be entitled to reject Products (including software/firmware) or Services, and Seller shall have no liability for such defect.
2. Seller's warranty obligations shall not apply to Products which (1) have been altered or repaired by someone other than Seller, or (2) have been subjected to misuse, neglect, or improper use or application, or (3) are normally consumed in operation, or (4) have a normal life inherently shorter than the warranty period stated therein.
3. No Products may be returned unless authorized in advance by Seller, and then only upon such conditions to which Seller may agree. Buyer must obtain a Return Material Authorization (RMA) number from Seller prior to any return shipment, and such RMA number must appear on the shipping label and packing slip. Buyer shall be responsible for returned Products until such time as Seller receives the same at its facility, and for all charges for packing, inspection, shipping, transportation or insurance associated with returned Products.
4. This section VI sets forth the exclusive remedies and obligations for claims based upon defects in or nonconformity of Products/Services, whether the claim is in contract, warranty, tort (including negligence of any degree or strict liability) or otherwise. **THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, WHETHER ORAL, WRITTEN, EXPRESS, IMPLIED OR STATUTORY. NO IMPLIED OR STATUTORY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE SHALL APPLY.**

#### PATENTS/INDEMNITY

If Buyer receives a claim that Products, or part thereof manufactured by Seller infringes a patent, Buyer shall notify Seller promptly in writing and give Seller information, assistance and exclusive authority to evaluate, defend and settle such claim. Where Buyer has furnished specifications/designs for the manufacture of the allegedly# infringing Products, Buyer shall defend, indemnify and hold harmless Seller against third#party claims for infringement arising out of Seller's use of such specifications/designs.

#### LIMITATION OF LIABILITY

The total liability of Seller on any claim, whether in contract, tort (including negligence of any degree and strict liability) or otherwise arising out of, connected with, or resulting from the manufacture, sale, delivery, resale, repair, replacement or use of any Products/Services, shall not exceed the price allocable to the Products/Services or part thereof which gives rise to the claim. **IN NO EVENT, WHETHER AS A RESULT OF BREACH OF CONTRACT, WARRANTY, TORT, (INCLUDING NEGLIGENCE OF ANY DEGREE, STRICT LIABILITY OR PATENT INFRINGEMENT) OR OTHERWISE, SHALL SELLER, ITS AFFILIATES, SUBCONTRACTORS, OR SUPPLIERS BE LIABLE FOR ANY LOSS OF PROFIT OR REVENUES, LOSS OF USE OF THE PRODUCTS OR SERVICES, OR ANY ASSOCIATED EQUIPMENT, COST OF CAPITAL, COST OF SUBSTITUTE GOODS, FACILITIES, SERVICES OR REPLACEMENT POWER, DOWNTIME COSTS OR CLAIMS OF BUYER'S CUSTOMERS FOR DAMAGES OR FOR ANY SPECIAL, PROXIMATE, CONSEQUENTIAL, INCIDENTAL, INDIRECT OR EXEMPLARY DAMAGES.** If Buyer transfers title to, or leases Products sold hereunder to, or otherwise permits or suffers use by, any third party, Buyer shall obtain from such third party a provision affording Seller and its subcontractors/suppliers the protection of the preceding sentence. Any action against Seller must be brought within 18 months after cause of action accrues.

#### EXCUSABLE DELAYS

1. Seller shall not be liable for delays in delivery or failure to perform due directly or indirectly to causes beyond Seller's reasonable control including but not limited to: acts of God; war; terrorism; civil commotion; riots; embargoes; government regulations, orders, instructions or priorities; port congestion; acts of or failure to act on the part of Buyer or its agents/employees; fires; floods; sabotage; nuclear incidents; earthquakes; storms; epidemics; strikes; lockouts or other labor difficulties; shortages of or inability to timely obtain proper labor, materials,



- components, shipping space or transportation, fuel, supplies or power at current prices; or due to limitations imposed by the extent of availability of Seller's normal manufacturing facilities.
2. If a delay excused per the above extends for more than 90 days and the parties have not agreed upon a revised basis for continuing providing Products/Services at the end of the delay, including adjustment of the price, then either party (except where delay is caused by Buyer, in which event only Seller) upon thirty (30) days' notice may terminate the Order with respect to the unexecuted portion of the Products/Services, whereupon Buyer shall promptly pay Seller its reasonable termination charges upon submission of Seller's invoices thereof.

#### **SOFTWARE/TECHNICAL/PROPRIETARY INFORMATION**

1. Buyer shall not acquire any rights to any software which may be delivered with Products, except as granted in Seller's standard software license. Any software license granted in connection with Products shall be an interim license, which may be withdrawn, pending payment for Products in full.
2. The purchase of Products shall not include any right to supply of technical information such as drawings or specifications.
3. Proprietary information, including drawings, documents, technical data, reports, software, designs, inventions and other technical information supplied by Seller in connection herewith (hereinafter called "Data"), shall remain Seller's sole property and shall be held in confidence by Buyer. Data shall not be reproduced, used or disclosed to others by Buyer without Seller's prior written consent. Upon completion of Order, Buyer shall promptly return all Data to Seller together with all copies or reprints thereof then in Buyer's possession or control, and Buyer shall thereafter make no future use, either directly or indirectly, of any Data or any information derived therefrom without Seller's prior written consent. The foregoing shall in no way obligate Seller to provide or supply Data.

#### **DIES, TOOLS, PATTERNS**

Seller's charges for dies, molds, patterns and the like represent the Buyer's proportionate cost thereof, it being expressly understood that they remain the property of Seller. Modifications made to dies, molds, patterns and the like in order to manufacture Products shall be at the discretion of Seller.

#### **GENERAL**

1. The rights and obligations of the Buyer and Seller hereunder shall be governed in all respects by the law of the Commonwealth of Massachusetts, U.S.A. The exclusive forum for adjudication of any disputes shall be the federal or state courts of the Commonwealth of Massachusetts, and Buyer/Seller hereby consent to personal jurisdiction and venue in such courts in any proceeding. The United Nations Convention on the International Sale of Goods shall not apply.
2. These Terms and Conditions of Sale together with any other terms specifically agreed to in writing by Seller constitute the entire agreement between Buyer and Seller and supersede any prior or contemporaneous representations, agreements, proposals, warranties, or understandings, oral or written, express or implied. No waiver, modification, amendment, rescission or other change to these Terms and Conditions of Sale shall be binding unless specifically agreed to in writing by an authorized representative of Seller.
3. The invalidity, of any part hereof shall not affect the validity of the remainder. The failure of Seller to assert any right at any time hereunder shall not prevent Seller's subsequent assertion of the same or different rights.
4. Buyer may not assign this contract without the prior written approval of the Seller.

#### **PROHIBITION FOR HAZARDOUS USE**

Products sold hereunder are not intended for application in, and shall not be used by Buyer in construction or application of a nuclear installation or in connection with use or handling of nuclear material or for any hazardous activity or critical application, where failure of a single component could cause substantial harm to persons or property, unless Products have been specifically approved for such activity or application. Seller disclaims all liability for loss or damage resulting from such unauthorized use and Buyer shall defend, hold harmless and indemnify Seller against any such liability, whether arising under breach of contract, warranty, tort (regardless of the degree of fault or negligence), strict liability or otherwise.

Where Seller approves the application of the Products in a nuclear facility, the Buyer shall, before such use or provision, arrange for insurance or governmental indemnity protecting the Seller against liability and hereby releases and agrees to indemnify the Seller and its suppliers for any nuclear damage, including loss of use, in any manner arising out of a nuclear incident, whether alleged to be due, in whole or in part to the negligence or otherwise of the Seller or its suppliers.

#### **STATUTORY REQUIREMENTS**

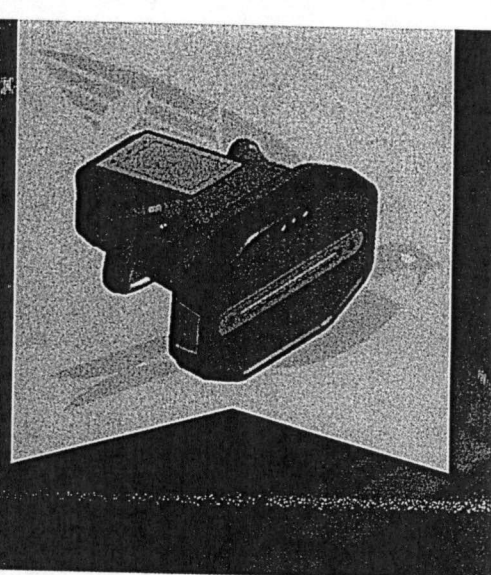
Seller reserves the right to make any changes in the general specifications of the Products which are required for the Products to conform to any statutory requirement.

#### **GOVERNMENT CONTRACTS**

Only Federal Acquisition Regulation ("FAR") supplement clauses expressly accepted in writing by Seller shall be included or incorporated by reference herein. Seller shall not be bound by and makes no representation of compliance with any FAR or FAR supplement clauses that Seller shall not have expressly accepted in writing.

# NIGHTHAWK-BTX™

Most Advanced Version of Viken's Handheld X-Ray  
Backscatter Imaging System



BACKSCATTER  
**B**  
TRANSMISSION  
**T**  
XRF Pb DETECT  
**X**

## MULTI MODALITY

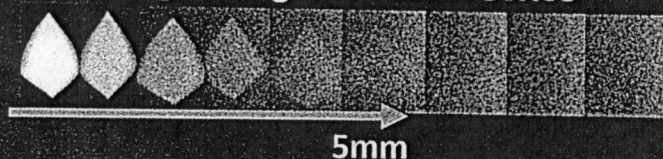
### SAFER THAN EVER

Targeted X-ray shielding to optimize  
image and reduce undesired scatter.

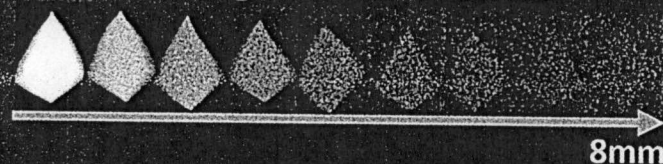
### SEE DEEPER & DARKER

Improved penetration & resolution.

#### Original Nighthawk/HBI Series



#### New Nighthawk-BTX Series



Upgrades, tools, and supplemental accessories sold separately.  
Tx and XRF modalities require featured upgrades and accessories.

## +KEY UPGRADES

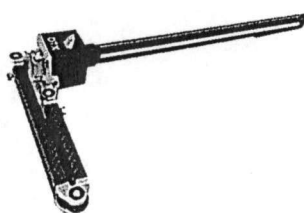
Featured

**Pb TRAP DETECT** - Don't second guess the  
results. Use true XRF technology to automatically  
identify lead traps.

## +PERFORMANCE IMAGING TOOLS

WINGBAR TABLET - Remote 10.1" tablet

**BROADWING-DTX (NEW!)** - Quick connect  
on the fly dynamic Tx imaging. See what you've  
been missing without missing a beat. Fit in places  
traditional panels cannot. Avoid panel setup and  
positioning time.



The **NIGHTHAWK-BTX** is  
the only series compatible  
with **BROADWING-DTX**.  
Request a datasheet for  
more details.

## +SUPPLEMENTAL ACCESSORIES

TACTICAL BACKPACK

SUNSHIELD

SPARE BATTERY PACK

2, 4, AND 6-BAY CHARGERS

For more information on **Nighthawk-BTX™** contact us at [sales@vikendetection.com](mailto:sales@vikendetection.com)

**VIKEN**  
DETECTION

## COMMON NIGHTHAWK-BTX™ SPECIFICATIONS

All versions of the Nighthawk-BTX series scanners include the following standard options:

BATTERIES	14.4V (YELLOW) Battery Pack 120 kV = 4-6 hours   140 kV = 3-5 hours at typical duty cycles	CAMERA	5MP Color Front Facing Camera
DISPLAY	6in   High Resolution   Color   Touch LCD	SCANS	Up to 16in (41cm) / s   Max Scan 30s
OPERATING CONDITIONS	-4°F (-20°C) to 140°F (60°C)	SAFETY	Configurable Single/Dual Trigger Modes Top, Side, and Front X-ray Indicator Lights X-Ray Beam Arming Interlocks Front Facing Flashlight Dual X-ray Demarcation Lasers
CONNECT	Wifi / Wifi Direct Bluetooth GPS USB-C Dual Front Accessory Interfaces 4G/5G Compatible with Hotspot*	SYSTEM	Android Based Application
IMAGING	5 Color Viewing Modes Automatic Contrast Optimization Manual Contrast Adjust Image Annotation Suspicious Image Flag 4 Image Enhancement Filters	COMPLIANCE	ROHS   CE (pending)
		STANDARD ACCESSORIES	Lockable Rolling Weatherproof Case Adjustable Safety Strap Checkshield 2x Battery Packs 110/220V AC 1-Bay Battery Charger Interface Cable User Guide
		SUPPORT	Complimentary Software Updates Training Services Available Extended Warranty Available

\*Hotspot / Cellular plan not provided by Viken.

## MODEL SPECIFIC SPECIFICATIONS

MODELS	NHBTX-120W5	NHBTX-120W7	NHBTX-140W7	NHBTX-140W10
TUBE	120kV / 5W	120kV / 7W	140kV / 7W	140kV / 10W
DIMENSIONS	W=281 / H=196 / L=224 [mm]		W=281 / H=196 / L=270 [mm]	
WEIGHT	9.5 lb [4.3kg]	11.5 lb [5.2kg]	10.7-11.5lb [4.9-5.2kg]	10.7lb [4.9kg]
PENETRATION	5.5mm	6mm	7mm	7.5+mm
COST	\$\$	\$\$\$	\$\$\$	\$\$\$\$
WARRANTY	2 Year Free	2 Year Free	2 Year Free	1 Year Free

\*Weight includes battery and +Pb Threat detection upgrade..

## CONFIGURABLE UPGRADES & OPTIONS

Customized at the factory for your needs

+Pb TRAP DETECT	Automatic True XRF Lead Detection and Identification
TRIGGER MODE	Single or Dual Trigger Type *
WIRELESS	Wireless Enabled / Disabled **

\* Single trigger mode not available in all countries.

\*\* Wireless can be physically disabled for sensitive environments (EOD).

## MODEL NUMBER BREAKDOWN

NHBTX-AAABC

SERIES NAME

TUBE VOLTAGE

120 = 120kV  
140 = 140 kV

TUBE POWER

5 = 5W  
7 = 7W  
10 = 10W

DETECTOR TYPE

S = Standard Area  
W = Wide Area

# VIKEN

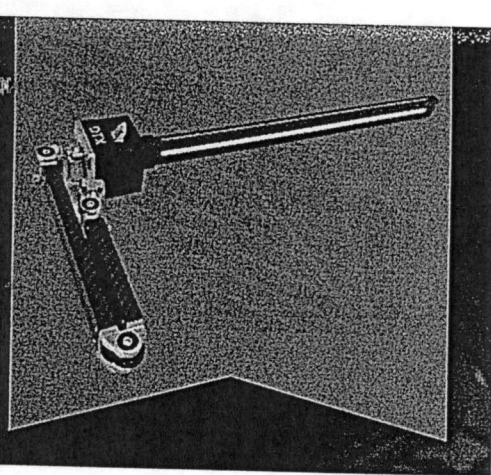
DETECTION

For more information on Nighthawk-BTX™ contact us at [sales@vikendetection.com](mailto:sales@vikendetection.com)



# BROADWING-DTX™

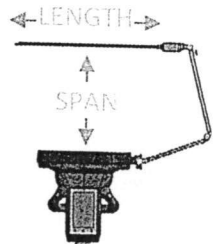
High Value Transmission [Tx] Accessory Compatible  
With Viken's Nighthawk-BTX Series Imaging system



## KEY SPECIFICATIONS

WEIGHT	1.25lb [0.6 kg]
SPAN	0-16in [0-405mm] Clearance
LENGTH	16in [405mm] Detection Bar
PENETRATION	20mm Steel*

\*Penetration based on NHBTX-140W10 model



Images show the same packed luggage scanned in Bx and Tx mode with Nighthawk-BTX equipped with Broadwing-DTX.

### A WHOLE NEW WAY TO SEARCH

# DTX

DYNAMIC TRANSMISSION

## STREAMLINE

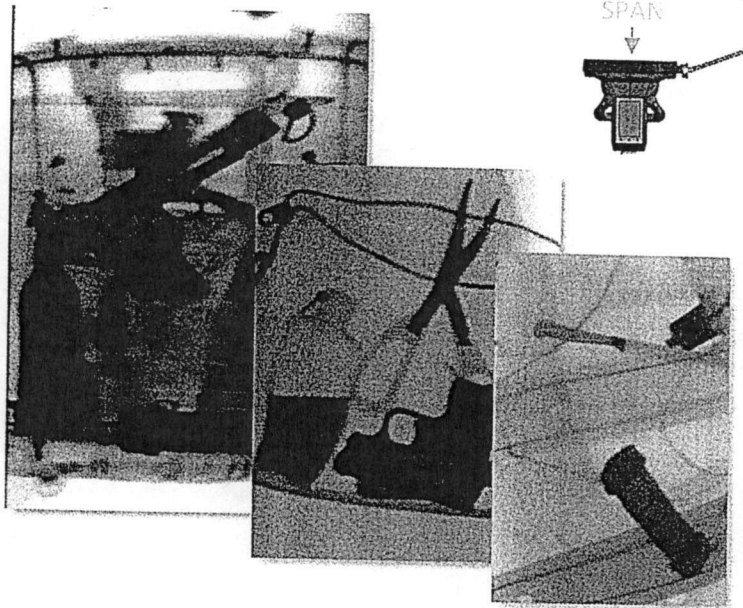
Slimline bar fits places panels won't and doesn't weigh you down.

## SEAMLESS

Tool free quick connect accessory for on-the-fly transmission imaging.

## SIMPLE

No need to connect loose wires or charge separately. Doesn't rely on wireless signals. Perfect for use in sensitive environments (EOD).



## MISSION READY PACKAGES

Savings on all the tools you need to accomplish the mission.

### CPAK (COMING SOON)

NIGHTHAWK-BTX  
+Pb TRAP DETECT



BROADWING DTX



### DPAK (COMING SOON)

NIGHTHAWK-BTX  
+Pb TRAP DETECT



BROADWING DTX



FOXHOUND



For more information on Broadwing-DTX™ contact us at [sales@vikendetection.com](mailto:sales@vikendetection.com)

# VIKEN

DETECTION

# VIKEN

## DETECTION

formerly HEURESIS

Lt. David Vanderkaay  
Jack County SO  
940-229-0048

Subject: Sole Source Procurement

Date: February 15, 2022

Dear Lt. Vanderkaay,

Viken Detection is currently the leading supplier in the world of Handheld X-ray instruments. We are the only manufacturer able to provide lead detection and the DTX Transmission Arm capability on our units. To date we have shipped more than 1300 instruments and we are larger than all other suppliers combined. We are also very proud to have been selected by US Customs and Border Protection to receive a sole source, contract valued at more than \$28.8M. To date we have delivered 430 instruments to both the Office of Field Operations and the Border Patrol. We have also recently secured a \$2.9 million sole source contract with DEA. We also have a very rich history of providing systems to HSI, FBI, Secret Service, DoE, DoS, CIA, and DEA offices around the country and we are very anxious to continue to provide you with the industry's best detection equipment.

There are several things that make the Viken detection equipment sole source, but the 2 most prominent and important features are our ability to detect lead and provide simultaneous Backscatter and Transmission X-Ray images using an attached accessory – the DTX arm. Below is some additional information on both features.

**Lead Detection** - The Nighthawk - BTX includes a 120 or 140 KeV X-ray source designed to deliver high quality Backscatter Images. These X-rays are purely for imaging purposes and are not capable of locating concealed lead compartments in a particular conveyance. Recognizing this as a major vulnerability, CBP collaborated with Viken Detection to develop a field ready solution. To accomplish this Viken detection has added **internal Cadmium Telluride detectors** which allows the user to be instantly alerted if Lead is detected. This feature provides true material identification for lead. No one else in the industry has the capability. The Nighthawk Imaging platform can be outfitted with this capability at order placement, or it can be added at a later time. In either case Viken Detection is the only supplier in the world that can offer this capability. This is vitally important because of the limited training that officers receive and their relative inexperience looking at X-ray images. If an officer were to scan a conveyance that contained a lead compartment, they would see a completely black image on their operating screen. This is because X-rays are absorbed by the lead, and they are unable to penetrate this medium. An inexperienced officer may logically conclude that no threat exists. However, with the Viken Detection Nighthawk imager if lead is detected, during scanning, the user receives an immediate signal indicating that lead is present. The vehicle can then be moved to secondary inspection for further screening. Viken Detection is the only vendor that offers this unique feature.

330 Nevada Street, Newton, MA 02460 / 617.467.5526 / [vikendetection.com](http://vikendetection.com)



# VIKEN

## DETECTION

formerly HEURESIS

**Viken DTX Transmission Arm** – Realizing that there is a strong need for agencies to have transmission x-ray capability, we have designed the DTX Transmission Arm. This accessory (sold separately) attaches to the BTX unit and allows for simultaneous Backscatter and Transmission scanning. The BTX unit comes equipped to add the DTX arm at any time. This unique accessory eliminates the need to place a transmission panel behind the object being scanned because it is attached to the unit itself. The ability to have Transmission x-rays technology gives officers a much better view and clearer image into items that contain a lot of organic material, for instance, a backpack loaded with clothing items. The DTX transmission arm will better help to identify contraband and items concealed within the backpack without every having to touch it. We are the only manufacture of this all-in-one platform.

Should you have any further questions please do not hesitate to contact me.

Best Regards,

Rebecca Tamez  
Senior Director of Sales  
Viken Detection Corporation  
361.688.6216  
[rtamez@vikendetection.com](mailto:rtamez@vikendetection.com)

330 Nevada Street, Newton, MA 02460 / 617.467.5526 / [vikendetection.com](http://vikendetection.com)



HBI-120 Backscatter X-Ray Imager

Size and weight	24 cm (9.4") x 22 cm (8.7") x 17 cm (6.7"); 3.0 kg (6.6 lbs.)
X-Ray Generator	5 W, 120 keV x 42 µA fixed voltage and current, shielded x-ray generator and shielded scanning x-ray beam optics
Display	Transflective 720 x 1,280 pixel color touchscreen LCD
Scanning Speed	6" to 12" (15 to 30 cm) per second — scan smoothly a at 6" (15 cm) per second for optimal image quality
Batteries	Rechargeable Li-ion battery pack; 4-hour life with typical 25% duty cycle
Data Storage	More than 10,000 x-ray scans
Data Management	Image comparison; image colorization; histogram stretching; histogram enhancement. Heuresis Data Management Software for PC
Standard Accessories	Rugged locking carry case with wheels; adjustable carrying strap; 110/220 V AC battery charger; two rechargeable Li-ion battery packs; User's Guide; electronic training materials.
Operating Conditions	At start up: -20 °C (-4 °F) to 60 °C (140 °F); after warm up: -40 °C (-40 °F) to 60 °C (140 °F); in any non-condensing atmospheric condition; the unit is splash and dust proof, IP54 rated.
Storage Conditions:	-20 °C (-4 °F) to 60 °C (140 °F)

Heuresis HBI-120 Brochure rev. M

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Make Your Missions More Effective and Efficient

- **Borders and Checkpoints**
  - Scan tires, bumpers, body panels, interiors and contents of passenger vehicles — determine whether to clear or seize a vehicle in minutes.
- **Counterintelligence and VIP Security**
  - Scan vehicles, rooms and furniture for threats and surveillance devices.
- **Maritime and Aviation Drug Enforcement and Counter-Smuggling**
  - Scan boat bulkheads, hulls and holds for drugs, currency and voids.
  - Screen airliners, cargo planes and small aircraft — scan interiors, hulls, wings, service ports and landing gear for smuggled contraband.



HBI-120 Scanning Penetration

The ability to see hidden objects with the HBI-120 depends on the density, elemental composition and thickness of what you are scanning. The chart below left shows the thickness of different materials through which you can see hidden organic materials scanning with the HBI-120.

Material	Imaging Capability through Material
Steel	2.3 mm (0.09")
Aluminum	13 mm (0.5")
Concrete	15 mm (0.6")
Carbon Fiber	32 mm (1.3")
Typical Plastic	51 mm (2.0")
Sheetrock / Drywall	28 mm (1.1")
Typical Wood	76 mm (3.0")
Ceramic Tile	10 mm (0.4")
Rubber	51 mm (2.0")



Frequently Asked Questions

How does the HBI-120 Backscatter Imager work?

Backscatter imaging uses Compton x-ray scattering from objects irradiated with high-energy photons to find hidden materials. X-rays scatter more from low-density materials mainly made of light elements; this makes backscatter imaging especially useful for finding organic materials — including hidden narcotics and other controlled substances; firearms and ammunition; currency and other contraband; IED's and other chemical explosives; and hidden microphones and other surveillance devices.

How quickly can you scan with the HBI-120?

- Recommended scan speed is 6" (15 cm) up to 12" (30 cm) per second — typical scans take <10 seconds.
- Scan with a uniform motion at 6" (15 cm) per second for the highest quality images.
  - Scanning faster than 12" per second produces compressed images; scanning slower than 6" per second produces elongated images.

How long does the battery pack last?

The HBI-120 uses rechargeable Li-ion battery packs — each pack lasts about 4 hours at a typical 25% scanning duty cycle.

Can you scan people with the HBI-120?

The HBI-120 is not designed to scan people. Always treat radiation with respect. The HBI-120 must be used in accordance with the manufacturer's instructions (please see the HBI-120 User's Guide) and all local laws and regulations. Do not point the unit at anyone and keep your hands away from the front of the unit when the x-ray generator is running.

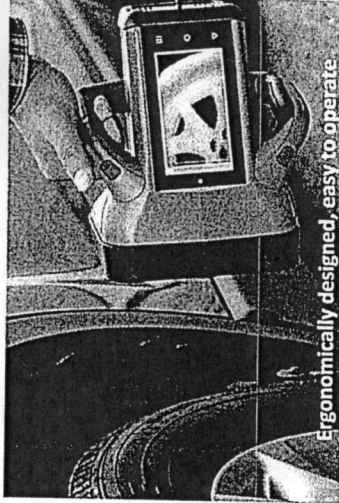


DRIVEN BY A PASSION FOR INNOVATION

HBI-120 Backscatter X-Ray Imager

- Rugged, compact, lightweight, ergonomic
- Performance, ease-of-use, features and flexibility that help you perform missions better, faster and more cost effectively
- Android™ OS; hi-res color touchscreen, laser scanning guides, camera and flashlight
- Wi-Fi, Bluetooth™, image colorization and histogram stretching
- Finds threats and contraband behind up to 0.09" (2.3 mm) steel — more than twice the thickness of motor vehicle body panels

To see demonstration videos of the HBI-120 in use, please go to: <http://bit.ly/2sJyC0o>



Ergonomically designed, easy to operate

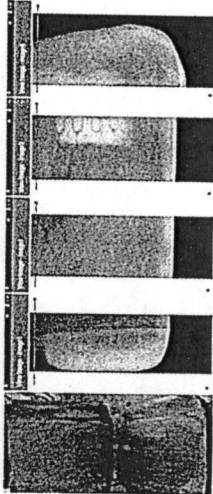
Heuresis Corp. makes handheld x-ray instruments for security, environmental and industrial applications — tools designed to help to make the world cleaner, safer and more secure — that can help you perform missions better, faster and more cost effectively.

The HBI-120 achieves new benchmarks for handheld x-ray imagers in performance, versatility, affordability and ease of use. All Heuresis products are made in the U.S.A.

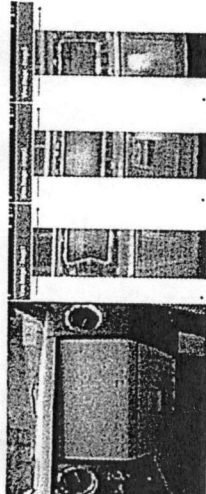
330 Nevada St., Newton, MA 02460 USA | Phone: +1-617-467-5526  
email: [sales@heuresistech.com](mailto:sales@heuresistech.com) | visit us at [www.heuresistech.com](http://www.heuresistech.com)

Explosives Detection

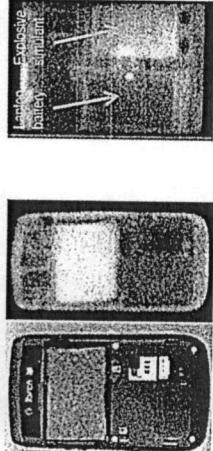
HBI-120 X-Ray Scans of Explosives Simulants



Semtex (RDX/PETN) simulant in a motor vehicle seat



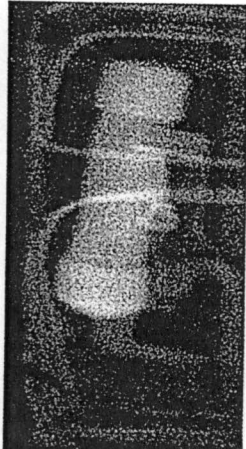
Semtex simulant in a motor vehicle dashboard



mobile phone IED simulant Laptop battery simulant



Pressure cooker IED simulant in a backpack



PVC pipe bomb IED simulant in a backpack

HBI-120 Direct Beam Radiation

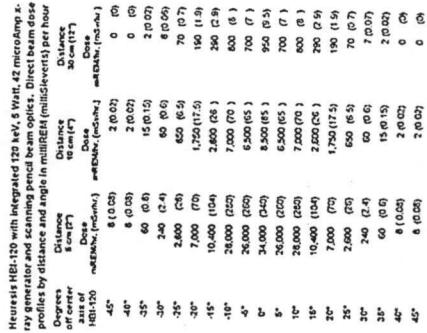
- The HBI-120 is not designed to scan people
- Do not point the unit at anyone and keep your hands away from the front of the unit when the x-ray generator is running
- Direct beam radiation in a 10 second scan 2" (5 cm) from the unit's face is ~20 millirem (0.2 millisieverts)
- Direct beam radiation in a 10 second scan 1 ft. (30 cm) from unit's face is ~0.6 millirem (0.006 millisieverts)
- Typical HBI-120 scans take <10 seconds
- The HBI-120's x-ray generator and optics produce a scanning pencil beam of 425 Million x-rays per second, scanning a 65° arc 150 times per second with a scan speed of 57 ft. (17.5 m) per second
- The scanning pencil beam x-rays range from 25 to 120 keV — mean x-ray energy is 43 keV
- The FWHM diameter of the scanning pencil beam at the unit's face is 0.13" (3.3 mm)
- 1 ft. (30.5 cm) from the unit's face, the beam FWHM diameter is ~0.5" (1.2 cm)
- 3 ft., 3" (1 m) from the unit's face, the beam FWHM diameter is ~1.2" (3.1 cm)
- 9 ft., 10" (3 m) from the unit's face, the beam FWHM diameter is ~3.4" (8.6 cm)

Other Sources of Radiation Exposure

- Typical bananas contain 45 µg of <sup>40</sup>K that produces 0.01 millirem (0.0001 millisieverts) of radiation; eating a banana a day will give you ~3.6 millirem (0.036 millisieverts) of radiation over the course of a year
- Radiation exposure varies with the duration, latitude and altitude of flights, but averages ~0.3 millirem (0.003 millisieverts) per hour of flying. Flying 30,000 miles (48,400 km) a year will expose you to 25 to 30 millirem (0.25 to 0.30 millisieverts) of radiation
- A typical barium enema gives a patient ~700 millirem (7.0 millisieverts) of radiation

HBI-120 Exclusion Zone

At a distance of 3 ft., 3" (1 m) from the unit's face, the maximum direct beam radiation is 85.5 mrem/hr (0.855 mSv/hr.) A member of the U.S. general public could be exposed at this distance to several 10-second scans each day and stay below the annual OSHA general public dose limit for non-natural radiation. A 3 ft., 3" (1 m) exclusion zone in front of the HBI-120 when scanning will provide members of the general public with more than adequate protection in typical operating conditions.



HBI-120 Backscattered Radiation

- As items are scanned, some x-rays will scatter back towards the operator
- Radiation decreases as the inverse square of distance — at twice the distance from the scanned item, there will be ¼ the backscattered radiation
- Backscattered radiation varies proportionately with the duration of each scan
- The intensity and energies of the backscattered x-rays will depend on the physical properties of items being scanned with the HBI-120 — mean energy of the backscattered x-rays ranges from 35 keV to 55 keV
- When the HBI-120 is used properly, the operator's hands will always be the parts of their body exposed to the most backscattered radiation from using the unit

The table below shows backscattered radiation at various points around the unit

Scanned object	Air (no object)	1.2 mm thick (11 gauge) steel	10 cm (4") thick (18 gauge) steel	1944 Toyota RAV 4
Left Foot	0.065 (0.00065)	0.175 (0.0175)	1.5 (0.15)	0.7 (0.07)
Top	0.035 (0.0035)	0.3 (0.03)	1.5 (0.15)	0.5 (0.05)
Right Foot	0.1 (0.01)	0.4 (0.04)	1.5 (0.15)	0.7 (0.07)
Bottom	0.1 (0.01)	0.7 (0.07)	1.5 (0.15)	0.7 (0.07)
All Triggers	0.15 (0.015)	0.4 (0.04)	1.5 (0.15)	0.7 (0.07)
All Hands	0.2 (0.02)	0.7 (0.07)	1.5 (0.15)	0.7 (0.07)

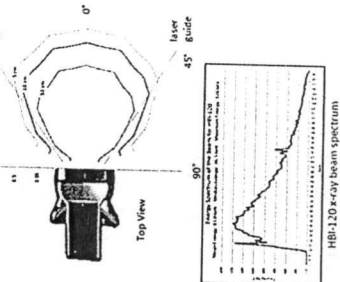
- Most countries have similar radiation safety regulations for the general public
- The U.S. Dept. of Labor OSHA guidelines for allowable radiation from non-natural sources for the general public is 100 millirem (1.0 millisievert) per year

Operator radiation doses are calculated below for different HBI-120 use scenarios	Hours per year HBI-120 is used by one operator	% of time scanning items	Annual operator's-hand doses, scanning typical samples, mrem (mSv)	General Public annual dose limit, mrem (mSv)
1,600 (32 h per week)	50% (heavy duty cycle)	50-90 ( 0.5-0.9 )	100 (1.0)	50-90
1,250 (25 h per week)	25% (typical duty cycle)	20-35 ( 0.2-0.35 )		20-35%
500 (10 h per week)	10% (light duty cycle)	3-6 ( 0.03-0.06 )		3-6%

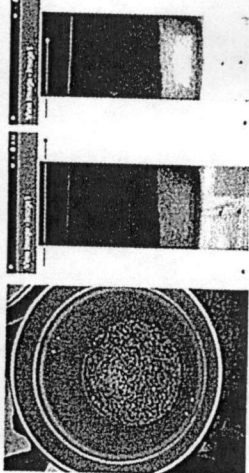
- Most HBI-120 operators — even operators who use the unit many hours each week and frequently scan items such as car interiors that produce relatively high backscatter radiation — will never be exposed on or any part of their bodies to annual radiation doses above those allowed to members of the general public

Contraband Interdiction

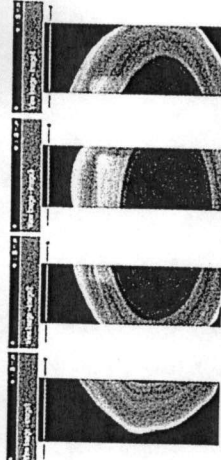
HBI-120 X-Ray Scans of Contraband



Narcotics hidden in a motor vehicle



Narcotics simulant in a metal can covered by pet food



Narcotics simulant hidden in a car tire



Cocaine simulant behind an aircraft ceiling panel



## **Heuresis Selected by US Customs and Border Protection for \$28.8 Million IDIQ Award to Provide Handheld X-Ray Imagers**



HBI-120 (Photo: Business Wire)

October 03, 2018 02:24 PM Eastern Daylight Time

NEWTON, Mass.--(BUSINESS WIRE)--Heuresis Corporation, a pioneer of handheld x-ray imaging and analytical devices, today announced it has been awarded a five-year Indefinite Delivery Indefinite Quantity (IDIQ) contract by U.S. Customs and Border Protection (CBP) to provide handheld reflective x-ray imagers, with a value of up to \$28.8 million.

"We are honored that CBP has selected Heuresis to support its security mission," said Jim Ryan, President and CEO. "Our innovative HBI-120 has proven to be a highly effective tool for drug and terrorist interdiction programs conducted by federal, state and international law enforcement agencies."

Last year Heuresis was awarded a DHS Science & Technology contract, with a value of up to \$4 million, for the development of a next-generation handheld reflective imaging instrument in support of advancing CBP requirements for conveyance and cargo inspection.

"Heuresis is committed to getting the most innovative technologies into the hands of law enforcement and public safety officers," said Dr. Peter Rothschild, co-founder and CTO. "We are proud of this achievement and excited about our new products launching next year."

#### About Heuresis

Heuresis provides enabling security imaging and material identification solutions that help law enforcement and safety inspection professionals keep the public safe from drug trafficking, terrorism and other hazardous threats. Our innovative handheld products, the HBI-120 and Pb200i (for lead-paint inspection), are the recognized leaders in their markets. Heuresis is headquartered just west of Boston, Massachusetts. For more information, visit [heuresistech.com](http://heuresistech.com).





## **Viken Detection Channel Partner, Federal Resources, Selected by US Drug Enforcement Administration (DEA) for a Five-Year \$2.5 Million Blanket Purchase Agreement**

### **Agreement to Fund Purchase of Viken Detection's Nighthawk-HBI™ Handheld Imagers for DEA Use**

June 16, 2021 09:15 AM Eastern Daylight Time

BURLINGTON, Mass.--(BUSINESS WIRE)--Viken Detection, pioneer of x-ray imaging and analytical devices, today announced its channel partner, Federal Resources, has been awarded a \$2.5 million contract from the U.S. Drug Enforcement Administration (DEA) for Viken Detection's Nighthawk-HBI™ handheld x-ray imager. The five-year Blanket Purchase Agreement (BPA) allows the agency the flexibility to deploy a unique array of technologies which have been designed to meet the specific needs of their diverse mission.

"Viken Detection is honored to support the DEA in its critical mission to disrupt the flow of illegal drugs in the United States," said Jim Ryan, CEO of Viken Detection. "The opioid crisis is ongoing, and Viken will continue to do its part to support the law enforcement agencies on the front lines."

Viken Detection's Nighthawk-HBI is a handheld backscatter imager that enables law enforcement officers and agents to quickly, safely and cost-effectively locate concealed narcotics, explosives and other contraband. Viken's technology has already aided in thousands of seizures in the U.S. and around the world.

Training will also be provided as part of the long-term contract. For more information about Viken Detection, please visit us at [www.vikendetection.com](http://www.vikendetection.com).

#### **About Viken Detection**

Viken Detection provides enabling security imaging and material identification solutions that help law enforcement and safety inspection professionals keep the public safe from drug trafficking, terrorism and environmental hazardous threats. The company's innovative handheld products, the HBI-120 & Nighthawk-HBI (handheld imagers) and Pb200i (lead-paint analyzer), are the recognized leaders in their markets. Viken Detection is headquartered just west of Boston, Massachusetts. For more information, visit [vikendetection.com](http://vikendetection.com).

#### **Contacts**