



Finally... an ATD body scanner with reliable detection

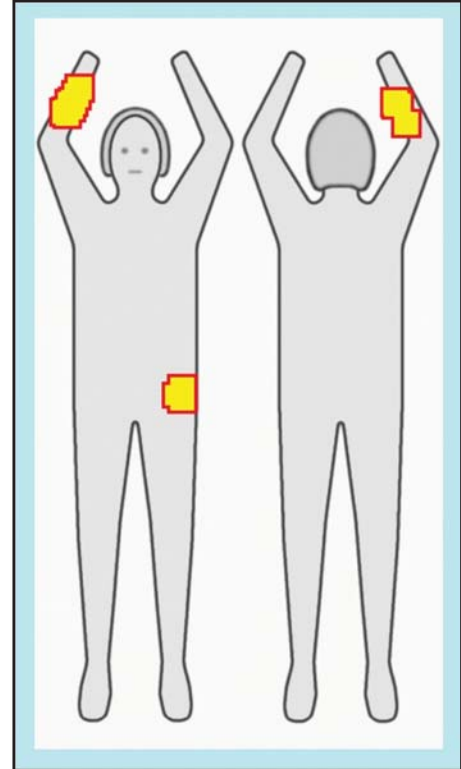


- ✓ Breakthrough ATD
- ✓ Low False Alarms
- ✓ High throughput
- ✓ Small footprint





Triple-mode Screening • Breakthrough ATD • Quick, Simple and Reliable



Actual ATD display from testing: Small derringer located on inside of right arm (detected in front and rear views); 100 gm C4 simulant inside front waistband;

Automated Threat Detection (ATD)

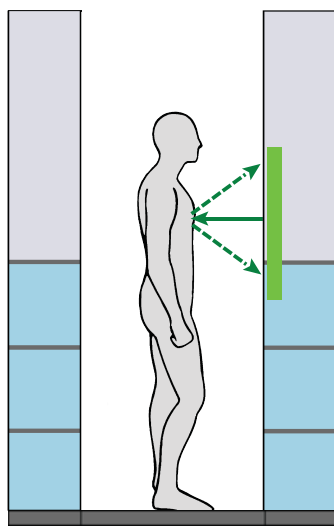
Body scanners detect weapons and explosives concealed on the persons entering security controlled areas. The best performance is achieved when an operator manually inspects the raw scanned image. However, privacy and manpower concerns have prompted the development of computer software for this task. Often called "Automated Threat Detection (ATD)," this software examines the computerized data from the scanner, detects hidden objects, and displays them as yellow boxes on a "stick-figure" body outline .

ATD has many advantages: improved privacy, faster screening, lower manpower costs, and overall simplicity. Most airport body scanners throughout the world now use ATD— but it has come at a terrible price. The US Government recently reported its testing results: ATD-equipped airport body scanners— using millimeter wave technology— missed 64 of 67 threats.

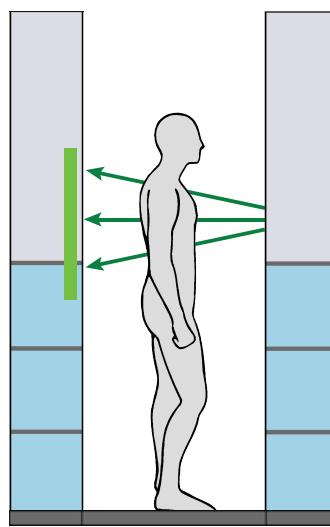
Defender uses a different technology, background-level x-rays, with far superior threat detection. Teamed with Tek84's recent breakthroughs in automated software, *Defender provides ATD simplicity, with excellent detection ability.*

Defender provides ATD simplicity, with excellent detection ability

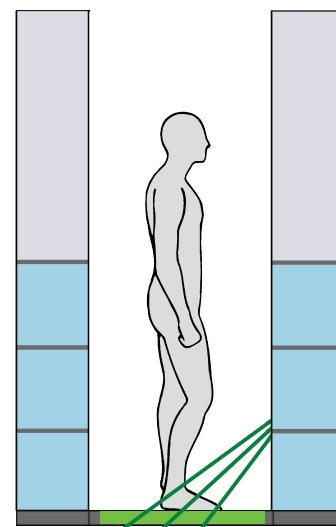
- **Metal and nonmetal threats**
- **Stick-figure display (ATD)**
- **7-second scan**
- **Compact 5'x5' footprint**
- **Unaffected by damp clothing**



△ Backscatter



△ Forward-Scan



△ Ground-Level

Triple-mode Screening Provides Head-to-Toe Coverage

Defender™ scans in three separate ways: *Backscatter* to detect threats on the front and back; *Forward-Scan* for objects concealed on the sides and in loose clothing; and *Ground-Level* to inspect the ankles and feet. Other body scanners rely on a single mode to detect concealed objects, resulting in blind areas on the body. Triple-mode detection provides complete coverage from head-to-toe.

Metalic and NonMetalic Detection

Defender detects an extremely broad range of threats and contraband— from conventional handguns and explosives, to ceramic and plastic weapons, to bomb timers and cell phones. Full details about our testing results and protocols are available to qualified security professionals. Contact Tek84 for additional information.

Tested by a prominent government laboratory using actual weapons and explosives —



Derringer



Ceramic Knife



C4 Explosive



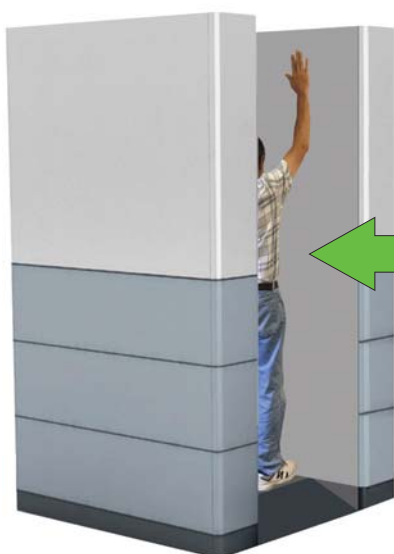
Bomb Timer



Plastic Handgun



Liquid Explosive



Defender™ uses about the same x-ray level as the stray emissions from airport baggage scanners.

Background-Level X-rays

Defender™ scans with background-level x-rays to provide greater performance than millimeter-wave scanners. Each screening is equivalent to about 15 minutes exposure to natural background radiation, or each 15 seconds during an airline flight. Radiation safety organizations classify these levels as *trivial* and *completely negligible*.

A good comparison is the stray radiation allowed for airport baggage scanners. Each passenger scanned with Defender™ receives about the same x-ray level as when they place their belongings on the conveyer belt.



Defender™ is used by multiple agencies in Israel: airports, government buildings and border crossings. It is the only body scanner certified for Israeli airport use.



Defender™ Specifications

Physical

Footprint: 60 x 60 inch (152 x 152 x 243 cm)
 Height: 95.5 inches (243 cm)
 Weight: 850 lbs (354 kg)
 Feet: Retractable leveling feet with rollers
 Access: Most service procedures are conducted from the scanning area; Defender can be installed against walls on three sides.

Electrical

Power: 100/120/230 VAC, 50/60 Hz, 800 watt
 Tolerant of poorly regulated power
 EMI/RFI: Tested to FCC PART 15
 Safety: Certified to UL61010-1

Environmental

Operating: 32-120°F (0- 50° C)
 Humidity: Less than 95%, noncondensing

Radiation Safety

Dose: 3.5 uRem (0.035 uSv) per screening, effective dose to subject measured in accordance with ANSI/HPS N43-17-2009
 Leakage: <0.1 mR (1 uGy) in any 1 hour at the footprint of the scanner.
 Standards: Complies with the ANSI/HPS N43.17-2009 radiation safety standard; and the IEEE N42.47-2010 performance standard

Screening

Scan rate: 7 seconds per screening, including ATR; 300 persons per hour
 Detection: Broad range of metallic and non-metallic threats; contact Tek84 for testing results

Ait84™ and Defender™ are protected by US Patent 9,453,936. Other Patents Pending. Ait84, Defender and ExpertATD are trademarks of Tek84 Engineering Group, LLC. 7/8/2018

Tek84

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Tek84 develops and manufactures innovative security products. Our engineers developed the world's first body scanner (1991); the highest resolution surveillance camera (2001); and the first drive-through car bomb detection portal (2009).