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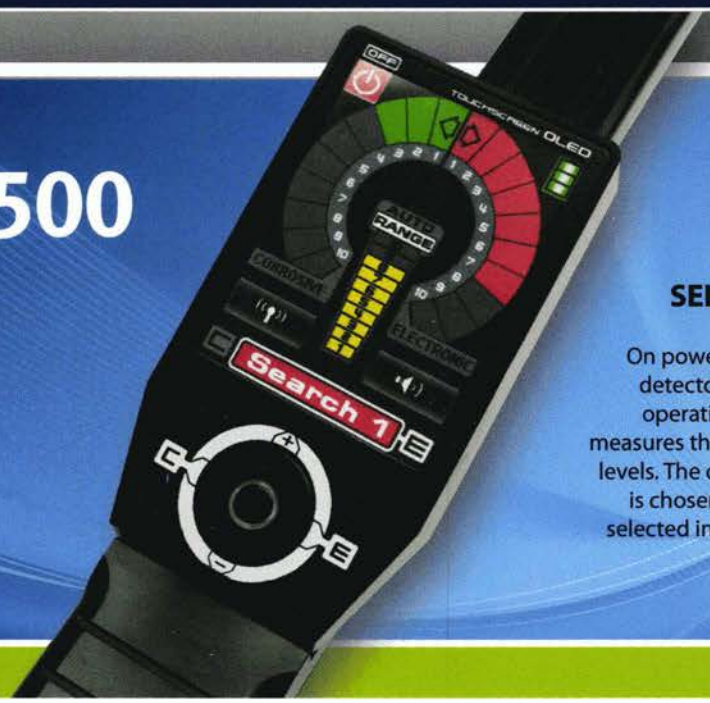
HAWK XTS-2500
Non-Linear Junction Detector



AUTOMATIC FREQUENCY SELECTION (AFS)

On power up the HAWK XTS detector scans all available operating frequencies and measures the ambient RF signal levels. The optimum frequency is chosen and automatically selected in less than a second.

Features

- Excellent detection range, ERP up to 4W coupled with -133dBm sensitivity
- Automatic DSP power control to prevent saturation of targets and provide more accurate analysis
- 2.4GHz operating frequency, automatic frequency selection
- Dual Harmonic with discrimination algorithms and differential audio tone minimizes false alarms
- Continuous wave (CW) transmission removes risk of missing a target due to sweeping to quickly
- Bright AMOLED full colour touch screen display, plus wireless bluetooth headphones
- Single scroll wheel for operation of major functions, simple user interface to enable quick evaluation of targets
- Light weight, balanced ergonomic design for ease of use, Quick fit Lithium-ion battery with fuel gauge

Applications

- Detection of surveillance devices - Technical Surveillance Counter Measures
- Detection of Mobile Phones in Prisons
- Detection of remote-controlled detonators
- High Risk Search Capabilities
- Protecting the railways from attack
- Detection of buried ammunition and arms caches
- Search operations in a conventional military context and in aid to the civil power

Technical Specifications

Transmitter	
Power Output	Auto or manual range control Adjustable from 2mW to 2W/4W ERP (0 dBm to 33/36 dBm ERP)
Frequency Range	10 spot frequencies within 2410-2485MHz
Frequency Bandwidth (for each frequency)	Approx. +/–6KHz (6dB down) and +/–10KHz (40dB down)
Filtering	10 Section filtering
Signal Type	CW (Continuous wave transmission)
Modulation	Selectable FM, 1KHz tone (Listen ID mode)
Receiver 1 – (E) Electronic - 2nd Harmonic	
Audio Output	5 Selectable modes linked to internal speaker or headphones
Demodulation	AM, FM and Tone (5Hz to 1KHz)
Sensitivity	Detection at -133dBm (DSP for optimisation of detection range)
Frequency Range	4.820 to 4.970GHz
Filtering	10 Section filtering
Receiver 2 – (C) Corrosive - 3rd Harmonic	
Audio Output	5 Selectable modes linked to internal speaker or headphones
Demodulation	AM, FM and Tone (5Hz to 1KHz)
Sensitivity	Detection at -133dBm (DSP for optimisation of detection range)
Frequency Range	7.230 to 7.455GHz
Filtering	10 Section filtering
Display Screen	
Type	AMOLED – Active Matrix Organic Light Emitting Display
Viewing Angle	180 Degrees
Lifetime	55,000 Hours
Screen Information	Transmit power level – Auto or Manual operation. Circular graphical display for Electronic (E) and Corrosive (C) signal levels
Five Operational Modes Displayed: (1) Search 1 – Comparison of Electronic (E) and Corrosive (C) signal levels (2) Search 2 – Unprocessed Electronic (E) and Corrosive (C) signal levels (3) Listen ID – Transmitter FM modulation and Receiver FM demodulation selected (4) Listen FM – FM demodulation (5) Listen AM – AM demodulation	
Touch Screen Volume Selection – 10 levels and audio mute **Touch Screen Frequency Selection** – 10 frequencies displayed **Touch Screen Power Off Control** – slide tab to power OFF	
Battery Level Status Indicator 3 levels and battery level warning screens at 9 minutes and 60 seconds operating time remaining	
Threat Indicator Located on Antenna Head	

Controls	
Display Handle	5 way scroll wheel for Range level adjustment, Auto or Manual Range control and selection of operating modes (E) or (C)
Antenna	
Frequency Coverage	2.400-2.500GHz 4.800-5.000GHz and 7.200-7.500GHz
Gain	Transmitter 8dBi – Circular polarisation Receivers 6dBi – Circular polarisation
Charger	
Type	Smart technology stand alone desktop charger
Input Voltage	100-240V AC, 2.50 Amps DC
Charge Current	Variable up to 2.0 Amps
Communication	SMBus between charge and battery
Charge Time	Approximately 2.5 hours
Display	LEDs to indicate charge status
Battery	
Type	Lithium-Ion Battery
Voltage	7.5V DC
Capacity	5,000mAH
Run time	4 Hours (2W)
Display	Full gauge to indicate battery capacity
Bluetooth Wireless Headphones	
Range	Up to 8m
Run time	8 Hours
Control	Volume up/down, on and off
Frequency	2.400GHz
Charger Voltage	100-240V AC
Test Target (Electronic)	
Detection Range	Minimum of 1.0m – in Electronic mode and maximum power (In open space)
Test Target (Corrosive)	
Detection Range	Minimum of 0.5m – in Corrosive mode and maximum power (In open space)
Operational Environment	
Operating Temperature -5°C to + 50°C	
Storage Temperature -20°C to +60°C	
Relative Humidity up to 95%	

Warranty

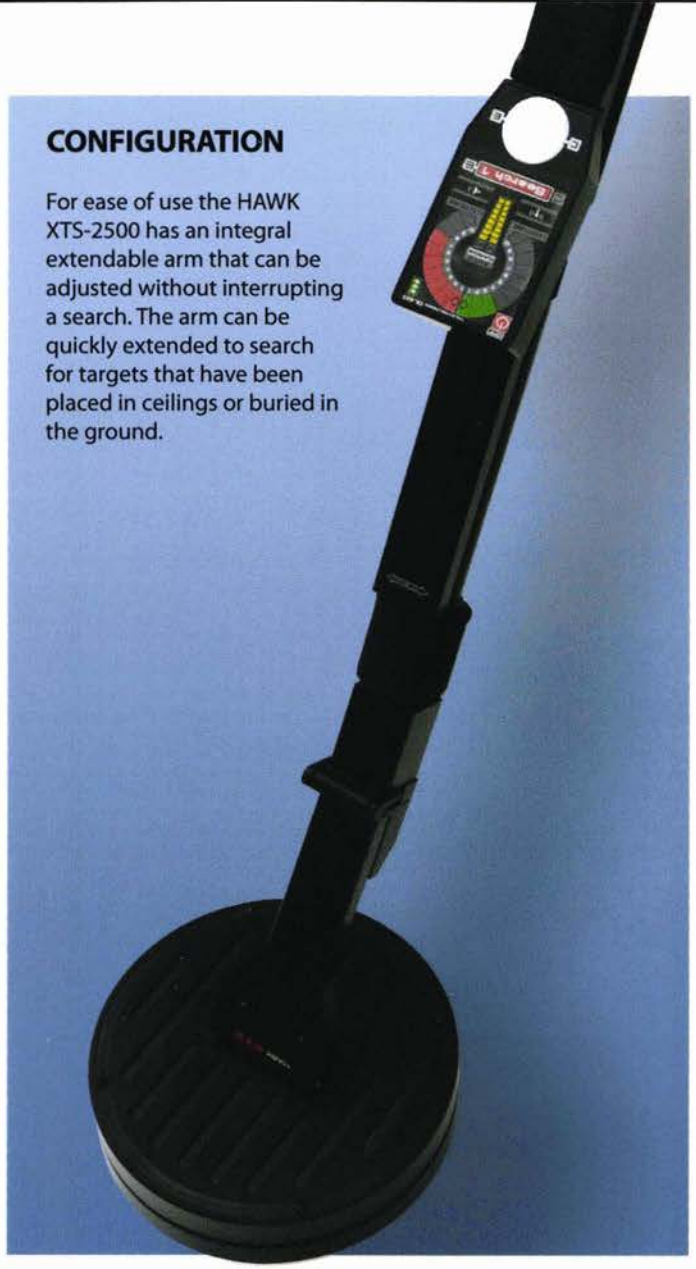
The HAWK XTS comes with a return-to-base warranty against defective materials and workmanship for a period of 2 years from delivery.

After Sales Support

Technical Support business hours (GMT)
Monday – Friday 8.30am – 5.30pm
E: technicalsupport@winkelmann.co.uk

CONFIGURATION

For ease of use the HAWK XTS-2500 has an integral extendable arm that can be adjusted without interrupting a search. The arm can be quickly extended to search for targets that have been placed in ceilings or buried in the ground.



Arm Support

"All-in-One" Configuration

Separated Configuration

Separation Lead

Physical Data

Transit Case
Black, moulded in structural resin with foam inserts
Dimensions 55 x 33 x 20cm
Weight 4.2Kg
Control Module
Black, machined aluminium case
Dimensions 26 x 5.5 x 4cm
Weight 0.7Kg
Display and Telescopic Antenna Module
Black, machined aluminium, carbon fibre and foam grip
Dimensions 64 x 8 x 5.5cm (Antenna head 16 cm diameter)
Dimensions 100 x 8 x 5.5cm (Extended)
(With the Control Module fitted and when extended the overall length is 126cm)
Weight 1.15Kg
110/240V AC Charger
Black, plastic housing complete with PSU and plug
Dimensions 18 x 9 x 5.5cm
Weight 0.7Kg
Earphone
Black, rubberised ear grip
Dimensions 6 x 4 x 2cm
Weight 0.02Kg
Battery Pack (2)
Black, Lithium-Ion battery
Dimensions 16 x 4 x 2cm
Weight 0.3Kg each
Screen Shade
Black, padded nylon
Dimensions 8 x 6 x 6cm (folded)
Weight 0.02Kg
Test Target (E)
Black, plastic case
Dimensions 9 x 6 x 2cm
Weight 0.06Kg
Test Target (C)
Black, plastic case
Dimension 9 x 6 x 2.5cm
Weight 0.04Kg
Arm Support
Black, aluminium and black, woven strap
Dimensions 14 x 13 x 7cm
Weight 0.07Kg
Separation Lead and Pouch
Black, 1metre lead and pouch for battery module
Dimensions (Pouch) 16 x 4.5 x 4cm
Operational Weight
Including battery and arm support 2.22Kg
Complete System
Total weight of all items in transit case 7.6Kg

Lightweight, collapsible, rugged design with telescopic antenna

The HAWK XTS-2500 is a portable, simple to use advanced Electronic Device Detector, also known as a Non-Linear Junction Detector (NLJD).

The HAWK XTS-2500 is capable of locating and confirming the presence of electronic components found in devices, regardless whether they are switched on or off.

The HAWK XTS-2500 allows the operator to search voids and areas where they are unable to gain physical or visual access, in order to detect electronic components and determine if the area is free from "bugging devices" or an Improvised Explosive Device (IED).

The HAWK XTS-2500 is lightweight, utilizes modern technology shaped to allow easy handling; single-body design containing transceiver, antenna and display assembly on a single extendible unit.

The HAWK XTS-2500 gives both audible and visual alarms to allow the operator to conduct searches in a covert environment.

During the life of the HAWK XTS-2500 it may be deployed on a range of domestic operations such as technical surveillance countermeasures (TSCM), sweeps and non-combat operations such as peacekeeping missions, and on civil emergency tasks, where it can provide RCIED/IED search-and-support to react to terrorism threats.

Technology

The HAWK XTS NLJD is used for the detection of electronic circuits commonly found in IEDs and radio transmitters. Most sophisticated electronic circuits contain semi conductors, which are non-linear junctions. The HAWK XTS can find these by emitting a very high frequency signal which simulate the non linear junction into emitting harmonic signals at two and three times the fundamental frequency. The XTS contains two highly sensitive receivers to pickup these harmonic frequencies and indicates the proximity of the device by means of a visual and audible alarm.

Training

Winkelmann and its Partners are able to offer full training in the operation of products together with general countermeasures training and seminars (Contact us about basic & advanced TSCM courses). ■

Product Codes

HAWK XTS-2500 Non-Linear Junction Detector - Full Systems

3-299-236	HAWK XTS – 2500MHz – 2Watt max (ERP) c/w control module, display handle/telescopic antenna head (8dBi), 110-240VAC charger, charger PSU and lead, Lithium-ion battery pack (2), earphone, test targets (E) and (C), bluetooth wireless headphones, screen shade, arm support, separation lead and pouch, mains adaptors, guidance manual & transit case with foam inserts
3-299-237	HAWK XTS – 2500MHz – 4Watt max (ERP) c/w control module, display handle/telescopic antenna head (8dBi), 110-240VAC charger, charger PSU and lead, Lithium-ion battery pack (2), earphone, test targets (E) and (C), bluetooth wireless headphones, screen shade, arm support, separation lead and pouch, mains adaptors, guidance manual & transit case with foam inserts

HAWK XTS-2500 NLJD – Accessories, Components & Upgrades

XTS-TCF-000	Transit Case with Foam Inserts
XTS-CON-002	Control Module
XTS-RFD-224	RF/Display and Antenna Module - 2500 MHz -2W
XTS-RFD-244	RF/Display and Antenna Module - 2500 MHz -4W
XTS-SEP-006	Separation Lead
XTS-PAB-008	Pouch and Belt to allow Module Separation
XTS-ARM-010	Arm Support
XTS-BAT-020	Lithium-ion Battery
XTS-CHR-030	110/240V AC Battery Charger
XTS-LEU-031	Mains Charger Lead - EU Plug
XTS-LUK-032	Mains Charger Lead - UK Plug
XTS-LUS-033	Mains Charger Lead - US Plug
XTS-EAR-040	Earphone
XTS-SSA-050	Screen Shade
XTS-TTE-060	Test Target - Electronic
XTS-TTC-070	Test Target - Corrosive
XTS-UGM-090	Guidance Manual
XTS-WIR-2500	Wireless Headphones for XTS-2500 only

ADVANTAGES OF 2.5GHz

The higher frequency of the XTS-2500 detector has an advantage on well-screened targets such as mobile phones and similar devices. The smaller waveform at 2.5GHz makes it more likely for the signal to get through gaps in the screening enclosure of the electronic device.

Wireless bluetooth headphones

Quick fit Lithium-ion battery with smart charger

For further information contact

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