

SEARCHER-2500

Non-Linear Junction Detector



Features

- Excellent detection range, ERP up to 2W coupled with -130dBm sensitivity
- 2.4GHz operating frequency
- Continuous wave (CW) transmission removes risk of missing a target due to sweeping to quickly
- Tactile bright AMOLED full colour touch screen display
- Quick set range control operation
- Single scroll wheel for operation of major functions
- Simple user interface for quick evaluation of targets
- Lightweight, compact and rugged design, quick fit Lithium-ion battery with fuel gauge

QUICK SET-UP

Quick-start operating system plus simple user-interface to enable easy evaluation of targets

Applications

- Mail screening for concealed electronic devices (suspect packages)
- Unobtrusive body-search for concealed recording devices or high value items
- Detection of concealed "bugging" devices in clothes
- TSCM (sweeps of hotel rooms or small offices)
- High risk search capabilities
- Detection of mobile phones



Technical Specifications

Transmitter	
Power output	Adjustable from 2mW to 2W ERP (0dBm to 33dBm ERP)
Frequency range	10 spot frequencies within 2410–2485MHz
Filtering	10 section filtering
Signal type	CW (continuous wave transmission)
Modulation	Selectable FM, 1KHz tone (Listen ID mode)
Receiver	
Audio output	4 selectable modes linked to the internal speaker or headphones
Demodulation	AM, FM, ID and TONE (5Hz to 1KHz)
Sensitivity	Better than -130dBm
Frequency range	4.820 to 4.970GHz
Filtering	10 section filtering
Display Screen	
Type	AMOLED - Active Matrix Organic Light Emitting Display
Viewing angle	180 degrees
Lifetime	55,000 hours
Screen information	Transmitter power level (RANGE) Circular graphical display for evaluation of the received signal level
Four operating modes:	
1.	SEARCH mode - Rising tone (5Hz to 1KHz)
2.	LISTEN FM mode - FM Demodulated
3.	LISTEN AM mode - AM Demodulated
4.	LISTEN ID mode - Transmitter FM modulated and Receiver FM demodulation
Touchscreen Volume Adjustment	
	– 10 levels and audio mute
Touchscreen Frequency Selection	
	– 10 spot frequencies available
Touchscreen Power Off Control	
	– Slide tab to turn Off and memorise settings
Battery level status indicator	
	– 3 levels and battery low warning screens
Controls	
	5 Way scroll wheel for Range level adjustment and operating mode selection
Antennas	
Transmitter	2400 to 2500MHz
Transmitter gain	8dBi - circular polarisation
Receiver	4800 to 5000MHz
Receiver gain	8dBi - circular polarisation
Charger	
Type	Smart technology, desktop charger
Input voltage	110 - 240V AC
Charge current	Variable upto 2 amps
Communication	SMBus between charger and battery
Charge time	Approximately 2.5 hours
Display	Indicates charge status
Battery	
Type	Lithium-ion battery

Voltage	7.5V DC
Capacity	5600mAh
Run Time	3-4 Hours (2W)
Display	Fuel gauge to indicate remaining capacity
Test Target	
	Electronic test target- minimum of 1m with maximum power
Wireless Headphones (optional)	
Range	Up to 10m
Run time	8 Hours (auto switch off)
Controls	Volume Up/Down and Power On/Off
Frequency	2400-2483MHz
Charger voltage	110 - 240V AC
Operational Environment	
	Operating temperature -5°C to +50°C
	Storage temperature -20°C to +60°C
	Relative humidity up to 95%



COMPACT DESIGN

The SEARCHER-2500 is the most compact handheld Non-Linear Junction Detector available on the market today.

For international sweep teams the SEARCHER-2500 is an ideal choice weighing only 725g. It has been designed to the very highest standards, in terms of functionality, ease of operation and reliability.



Physical Data

Transit Case

Black, moulded in structural resin with foam inserts
 Dimensions 40 x 30 x 20cm
 Weight 3.5Kg

Module

Black, machined aluminium and plastic housings
 Dimensions 26 x 16 x 10cm
 Weight 725g (without battery)

Handle Protector

Black, padded material and fasteners
 Dimensions 14 x 14 x 0.3cm
 Weight 5g

Battery Pack

Black, Lithium-ion battery
 Dimensions 15 x 4 x 2cm
 Weight 235g

110/240V AC Charger

Black, plastic housing complete with psu and plug
 Dimensions 18 x 9 x 5.5cm
 Weight 0.7Kg

Test Target

Black, plastic case
 Dimensions 9 x 6 x 2.5cm
 Weight 8g

Earphone

Black, plastic housings
 Dimensions 0.8m cable
 Weight 8g

Operational Weight

Including battery and handle protector 965g

Complete system

Total weight of all standard items in the transit case 5.2Kg

Warranty

The SEARCHER-2500 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

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).

ADVANTAGES OF 2.5GHz

The higher frequency of the SEARCHER-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.

Ideal for mail screening and unobtrusive body search



The SEARCHER-2500 is the most compact handheld Non- Linear Junction Detector available on the market today. For international sweep teams the SEARCHER-2500 is an ideal choice weighing only 725g.

It has been designed to the very highest standards, in terms of functionality, ease of operation and reliability.

SEARCHER-2500 is an essential part of the equipment used in counter measure and defensive search. Used for protecting airports, train stations, governmental, military or public buildings and organisations worldwide.

The SEARCHER-2500 is capable of searching for electronic devices such as mobile phones (even when switched off), covert surveillance devices (radio microphones, microphone amplifiers, digital recorders etc.) and high value electronics.

The SEARCHER-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 (covert electronic devices containing semi-conducting components) and determine if the area is free from bugging devices.

Technology

All modern electronic devices contain semi-conducting components. Using SEARCHER- 2500 it is possible to detect these components. When SEARCHER-2500 high frequency signal is transmitted towards a target, energy is re-radiated back at a different frequency. This energy can then be analysed to determine if a potentially threatening target has been discovered. ■

Product Codes

SEARCHER-2500 Non-linear Junction Detector - Full System

3-299-241 SEARCHER – 2500MHz – 2Watt max (ERP) - c/w handle protector, 110-240VAC charger, Lithium-ion battery pack (2), test target (E), earphone, screen shade, guidance manual & transit case with foam inserts

SEARCHER-2500 NLJD – Accessories, Upgrades & Components

SHR-TCF-SR01	Transit Case with Foam Inserts
SHR-BAT-SR02	Lithium-ion Battery
SHR-HPR-SR03	Handle Protector
SHR-CHR-SR04	110/240V AC Battery Charger
SHR-TST-SR05	Test Target
SHR-EAR-SR06	Earphone
SHR-SSA-SR09	Screen Shade
SHR-GDM-SR07	Guidance Manual
SHR-WIR-SR08	Wireless Headphones



For further information contact

Winkelmann (UK) Limited
Unit 63, Rowfant Business Centre
Wallage Lane, Rowfant, Near Crawley
West Sussex RH10 4NQ UK

T: +44 (0) 1342 719024
F: +44 (0) 1342 719030
E: sales@winkelmann.co.uk
www.winkelmann.co.uk

