



eskan™

**Electronic Surveillance,
Counter-Surveillance & RF Jamming**





Eskan provides professional and easy to operate solutions for surveillance, counter-surveillance and RF jamming – designed primarily for law enforcement agencies and military operations worldwide.

Electronic Counter-surveillance

Eskan equipment can uncover potential security breaches without alerting the covert surveillance operators. State of the art sweep equipment will identify previously unknown security weaknesses through body worn, portable or static detectors.

Audio surveillance

Eskan offer an impressive range of wired and RF audio surveillance products for mission critical operations.



Elektronische Überwachung und Lauschabwehr

Eskan bietet professionelle und einfach zu bedienende Lösungen für die Überwachung, Lauschabwehr und das RF-Jamming, die in erster Linie für Strafverfolgungsbehörden und den militärischen Einsatz auf der ganzen Welt entwickelt wurden.

Technische Überlegenheit durch innovatives Design

Als einer der führenden Hersteller von Überwachungs-, Lauschabwehr- und RF-Jamming-Ausrüstung hat sich Eskan einen ausgezeichneten Ruf erarbeitet für Produkte, deren Konzeption, Entwicklung und Fertigung ausschließlich in Großbritannien stattfindet und die sich durch ein außerordentliches Preis/Leistungsverhältnis und überdurchschnittliche technische Spezifikationen auszeichnen.



Surveillance et contre-surveillance électroniques

Eskan apporte des solutions professionnelles et conviviales pour la surveillance, la contre-surveillance et le brouillage RF, conçues principalement pour les forces de l'ordre et les théâtres d'opérations militaires du monde entier.

Supériorité technique par l'innovation dans la conception
Eskan, un des principaux constructeurs d'équipements de surveillance, contre-surveillance et brouillage RF, s'est forgé une réputation exceptionnelle pour la fourniture d'articles aux spécifications techniques supérieures, et avec un rapport qualité - prix sans pareil, conçus, mis au point, et fabriqués exclusivement au Royaume-Uni.

The equipment operates either inside or outside the target environment and can be used in most surveillance conditions including hostile environments.

RF jamming

Eskan's intelligent and adaptive jamming solutions, through programmable hand held, portable and vehicle based jamming equipment, have been developed to protect law enforcement and military personnel from the danger of explosive devices using RF triggered detonators, and to prevent radio frequency surveillance and tactical information leaks from cell phones.

Technical superiority through design innovation

As one of the leading manufacturers of surveillance, counter-surveillance and RF jamming equipment, Eskan has built a reputation for offering exceptional value with superior technical specifications for equipment designed, developed and manufactured exclusively in the UK.



Sorveglianza e controsorveglianza elettronica

Eskan offre soluzioni professionali e facili da usare per sorveglianza, controsorveglianza e jamming RF, progettate principalmente per le agenzie incaricate della sicurezza forze dell'ordine, enti governativi e per operazioni militari in tutto il mondo.

Superiorità tecnica attraverso un design innovativo

Eskan è uno dei produttori leader nel campo delle apparecchiature per sorveglianza, controsorveglianza e jamming RF e gode dell'ottima reputazione di offrire un valore eccezionale grazie un ottimo rapporto qualità/prezzo e ad apparecchiature dalle specifiche tecniche superiori progettate, sviluppate e prodotte esclusivamente nel Regno Unito.



Vigilancia y contravigilancia electrónica

Eskan ofrece soluciones profesionales y de fácil funcionamiento para vigilancia, contravigilancia e interferencias por RF; diseñadas principalmente para operaciones militares y de agencias de cumplimiento de la ley en todo el mundo.

Superioridad técnica mediante la innovación del diseño

Como uno de los fabricantes líderes de equipos de vigilancia, contravigilancia e interferencias por RF, Eskan se ha ganado una reputación por ofrecer un valor excepcional con especificaciones técnicas superiores de equipos diseñados, desarrollados y fabricados exclusivamente en el Reino Unido.



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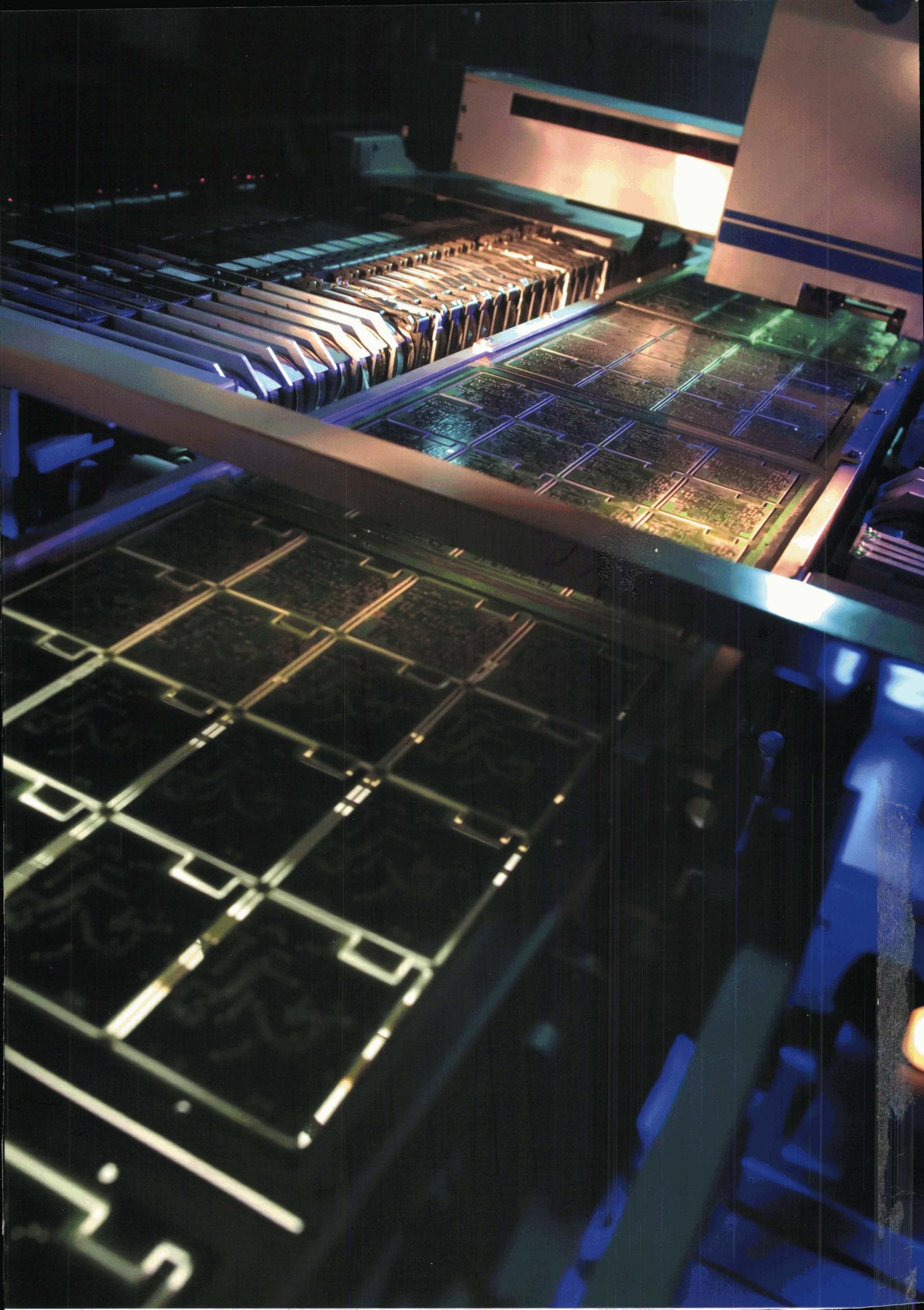
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Designed and manufactured
in the **United Kingdom**







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in the **United Kingdom**

Surveillance

Observer | 6

Multi-channel video receiver and recorder



Digital video and audio
receiver
16 recording channels
Designed for urban
operation

Observer 16

Multi-channel video receiver and recorder

A portable video receiver and recorder system with tactical surveillance at its heart. Operating with cameras, microphones and transmitters, the Observer 16 has been specifically designed for government security and law enforcement users.

All the receiving and recording components have been designed for rapid set-up and ease of use. The Observer 16 combines an 8 channel digital receiver, two diversity down-converters, two antennae and a 16 channel video recorder with 4 channels audio in one portable carrying case.

The colour LCD screen, for viewing live or recorded video, is conveniently mounted in the case lid and can be operated by a hand held remote control unit, by mouse operation or from keys on the case panel. This video surveillance system enables the operator to view and record wired video input on 15 channels and on one built-in RF channel on which the operator can view or record on any of the 8 radio frequency channels.

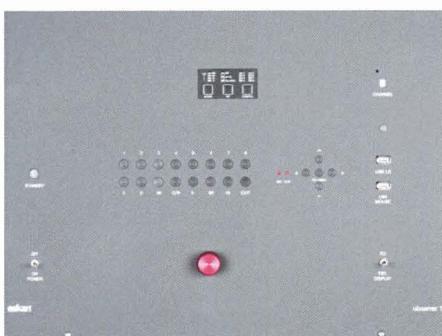
The Digital video and audio recorder system is supplied with a video transmitter, video camera and microphone transmitter. The system has been designed to provide high quality full frame rate video and audio even when not in line of sight particularly in urban environments.

The Observer 16 allows security and law enforcement officers to receive the good quality video images, in real time, direct from personnel, buildings and vehicles. The equipment is able to tune across frequencies which are only available for use by authorised government personnel.



Existing analogue systems can have difficulty with video noise and poor image quality when line of sight cannot be maintained. Narrow band modulation used by the system is more efficient and gives increased sensitivity and thus the range. In addition the COFDM modulation technique effectively eliminates the problems experienced from multi-path and reflections.

The video transmitter is lightweight and low-powered suitable for body-worn use. For vehicle transmissions there is an optional booster amplifier.



Key features

Transmitter

- Digital video transmitter
- Optional pack to increase output power

Receiver

- 8 pre-set channels for RF video and audio
- Highly sensitive digital receiver for maximum range
- Signal strength indicator
- Built-in connection to digital video and audio recorder
- 2 omni-directional antennas

Recorder

- 16 channel CIF resolution digital video recorder
- Local recording and playback
- RF video and audio channel
- Wired video input for 15 channels – 3 with audio
- Motion detection on all channels
- 320 gigabit recorded file storage
- H.264 compression
- Mouse and remote controller operation

External connections

- USB port for mouse operation
- USB port for copying files and downloading firmware updates
- 16 video input connections
- 4 audio input connections

Power

- AC mains power input for receiver and recorder
- AC mains power input for video transmitter

Security

- Two level permission password protection

Specifications

Technical - transmitter

Frequency Band:	2.28 to 2.55GHz,
Output Power:	100mW
Tuning Steps:	250KHz
Modulation:	Bandwidth 2.5MHz; Default: Short Range 2.5MHz, 16QAM, FEC2/3, 4.8Mb/s Normal Range 2.5MHz, QPSK, FEC2/3, 2.4Mb/s Long Range 2.5MHz, QPSK, FEC1/3, 1.2Mb/s
Video Line Standard:	PAL/NTSC;
Video Resolution:	704, 528, 480, 352; Coding Mode MPEG2;
Delay:	43ms to 120ms depending on mode;
Frame Rate:	Full/Half/Quarter/Eighth (selectable)
Audio Input:	Line Level or Microphone;
Sample Rate:	NICAM 32KHz, 16KHz, 8KHz switchable; Bits per Sample NICAM 12 or 8 bit switchable; MPEG L1 or L2 64kbits - 384kbps
Encryption Format:	ABS 32 bit

Encryption Format:	ABS
Channels:	8

Physical - receiver

Controls:	On Screen Display Spectrum, RX SNR, RX Power
Power:	AC Input 110/240V; DC Input 11 to 16V
Battery:	emergency backup
Operational temperature range:	-10 to +50 deg C
Technical – recorder	
Recording medium:	Minimum 320 gigabit Internal SATA HDD
Playback:	Real time monitoring; playback saved recording
Video:	16 channel composite video input 1.0V p-p, impedance 75, BNC
Video standard:	PAL, 25f/s, CC IR625 line, 50 scene; NTSC, 30f/s, CCIIR525 line, 60 scene
Audio:	4 channel audio input, impedance 600, RCA
Record style:	Simultaneous recording
Audio compression:	ADPCM
Picture compression:	H.264
Video display:	4/9/16 switch
Resolution:	CIF
Inputs:	1 channel RF video and audio; 3 channels video and audio; 12 channels video.

Physical – recorder

Indicators:	On screen recording indicator; motion detection alarm
Controls:	Front panel system on/off, front panel receiver and recorder operation; hand held remote control; USB mouse.
Data interface:	1 USB port for data copying and firmware upgrades;
Power supply:	External input 12V DC from public mains 100V AC – 240V AC; internal rechargeable emergency battery
Operational temperature range:	-10 to +50°C

Physical Observer 16 system

Size:	67 x 51 x 21cm
Weight:	22 kg
Safety standards:	EN 301 489-1 & EN 301 489-5; EN 61000-3-2:2000; EN 61000-3- 3:1995; EN 55022:1998; Class B; EN 61000-4-2:1995; EN 61000-4-3:1996; EN 61000-4- 4:1995; EN 61000-4-5:1995; EN 61000-4-6:1996; EN 61000-4- 11:1994; EN 60950:2000; EN 302 064-1

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Designed and manufactured
in the United Kingdom

eskan[®]

Surveillance

EURX 30

Video transmitter/receiver

Remote control of camera transmitters
Encryption for increased security
Digital audio channel



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EURX 30

Video transmitter/receiver

Secure, flexible and in control

The EURX 30 is a robust portable surveillance system which allows the operator to control video and audio from the receiving location. Camera selection, scrambling and output power can be controlled from the receiver enabling the operator to be more effective in accomplishing missions.

Remote visual and audio surveillance

Using the remote control facility the operator can select one of up to three attached video cameras on each transmitter. The video signal can be scrambled and the digital audio signal encrypted remotely to prevent unauthorised access. This is enabled with a separate control frequency making the EURX 30 ideal for covert visual and audio surveillance.

Portable for static and mobile use

The system is designed for static or mobile use, with a dedicated antenna and power unit for each. Video and audio signals are both received through the same optimised antenna. This easy to operate system consists of two transmitters each with remotely controllable on/off and high/low level power settings and a receiver/control which has the capacity to control additional video transmitters.

Features summary

- Remote control of transmitters
- Remote switch on/off and power level
- Remote camera selection
- Scrambled video and audio encryption
- Easy to operate
- Up to three cameras on each transmitter
- Digital audio channel

Specifications**Technical - video transmitters EURXT1, EURXT2**

Frequency range:	350 – 390 MHz
Power output:	EURXT1 3W EURXT2 100mA (into 50 ohms load)
Frequency stability:	+/-5ppm
Modulation:	Analogue FM
Video bandwidth:	15 MHz
Video input:	1Vpp
Video impedance:	75 ohms
Subcarrier frequency:	5.5 MHz, 6 MHz
Pre-emphasis:	CCIR 405-I or 725/6 specification

Physical - transmitters

Size:	EURXT1 84 x 60 x 28 mm EURXT2 54 x 55 x 16 mm
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Technical - Audio

Frequency range:	350 – 390 MHz
Power output:	100 mW (into 50 ohms load)
Frequency stability:	+/-5ppm
Bandwidth:	200 Hz – 9 kHz (-3 dB)
Sampling:	20.3 kHz 8 bit quantization
Audio modulation:	Digital FM on subcarrier frequency 5.5 MHz
Audio input type:	mono

**Technical - Receiver/control unit**

Receiver sensitivity:	7 uV – dropouts threshold
Antenna input/output:	50 ohms BNC
Remote control output:	1 W (149.125 MHz)
Video Output:	1 V pk-pk / 75 ohms
Audio output:	0.7V / 1 kilo ohm
Power supply:	8 – 18V

Physical – Receiver/control unit

Size:	170 x 54 x 172 mm
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Case contents

EURX 30:	Receiver / control unit
Transmitters:	Mini and power transmitters
Antennas:	1 x mini transmitter; 1 x power transmitter; 1 x receiver; 1 x vehicle antenna
Power supply:	100 – 240 V A converter; vehicle power adapter

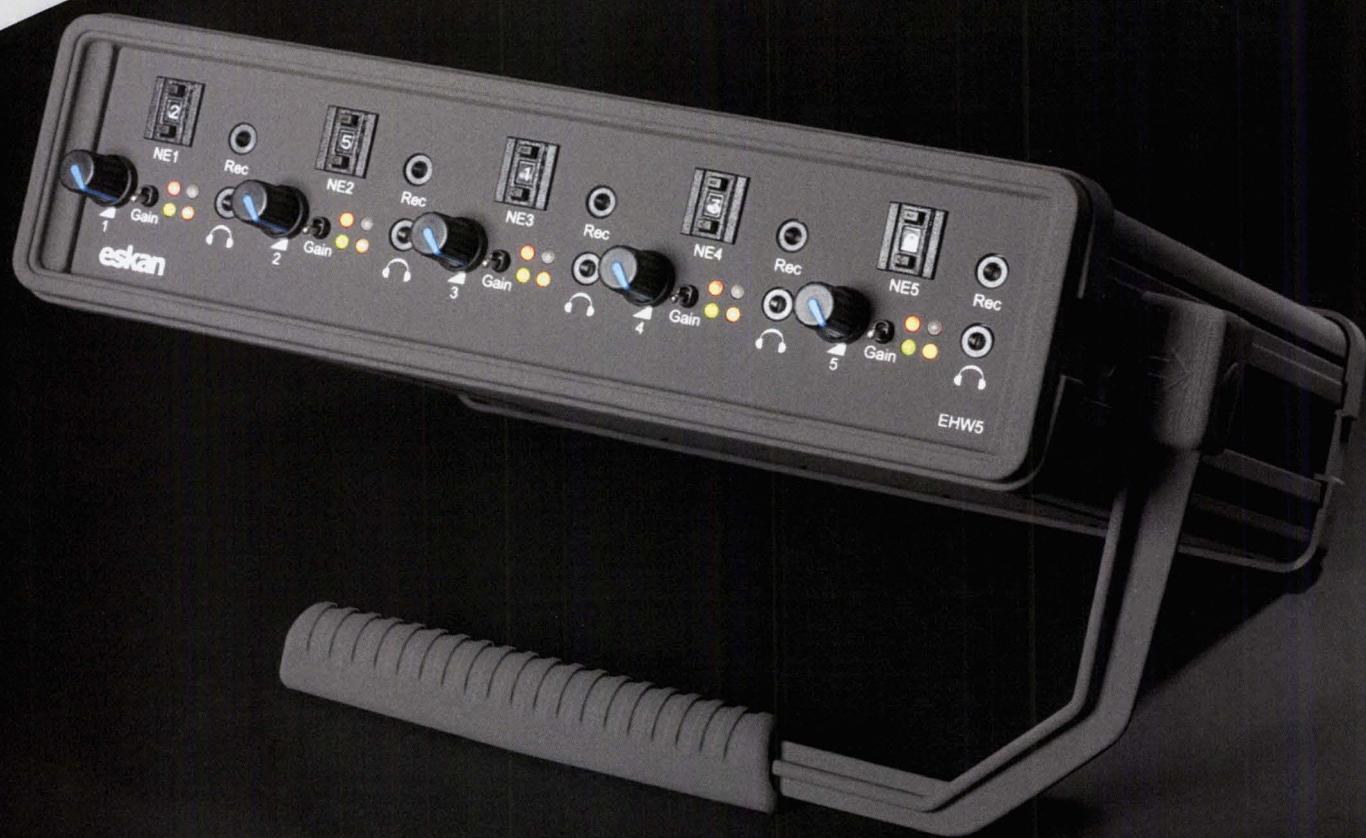


Designed and manufactured
in the United Kingdom

Surveillance

EHW 5

Multi-channel wired audio system



Designed for long term surveillance
Instantly understandable voice signals
Easy to operate and link with video recording
Immune to RF detection and jamming

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EHW5

Multi-channel wired audio system

Covert audio surveillance of up to locations in an area of up to 5.6 kilometres from the control unit is provided by the EHW 5 system. For each of the channels there is a choice of miniature microphones which are powered by the central surveillance control unit. The system is quick easy to set up and operate.

The microphones can be covertly installed in the locations to be monitored, using existing or new wiring. The digital Noise Reduction facility enables conversations to be understood even when there is a high background noise whether deliberately introduced or natural.

Each of the channels can be individually tailored to the ambient noise and voice levels of the locations being monitored. The system guides the operator through the set up with visual indicators for each channel

enabling the best signal to be obtained. In quiet conditions the Highly Sensitivity miniature microphones can enable breathing to be detected within 2 metres.

Visual indicators show when voice or other activity is present in the target area, and provide alerts when a line fault occurs or if a microphone becomes disconnected. The system operates over a wide area using standard telephone wire.

As well as live monitoring, the output from the Channel outputs are designed for high level recording equipment and for direct connection to multi-channel audio/video recorders covering the same areas.

This multi-channel audio surveillance operation is difficult to detect as it is immune to RF detection systems and RF jamming.

This system is also available with 10 channels (EHW-10)

Features summary

- Designed for long term surveillance
- Instantly understandable voice signals with Digital Signal Processing
- Easy to operate with Visual indicators for voice or other activity
- High sensitivity miniature microphones individually controlled
- Direct connection to recording output and VCR/DVR systems
- Microphones powered from central system
- 5.6 kilometre surveillance range with standard telephone wire
- Immune to RF detection and RF jamming

Specifications

Technical - Control unit

Frequency response: +/- 3 dB from 300 Hz to 4 kHz

Microphone supply: Current limited supply

Background noise suppression: up to 35 dB

Headphone outputs: 30 mW / 30 ohm earpiece

Recording outputs: rear 1V max > 10 k ohms load; front 50 mV max with 2 k ohms load

Recording output impedance: 600 ohms nominal

Channels: 10 microphones.

Size:

280 x 310 x 70mm (w x d x h)

Weight:

2.1 kg (includes converter and cables.)

Technical – microphones with pre-amplifier

Line driver capability: Up to 5.6 km with standard telephone wire

Power supply: from control unit via telephone wire used for signal

Audio dynamic range: > 70 dB (90 dB with Noise Reduction activated)

Audio response: flat within +/- 3 dB from 300 Hz- 4 kHz

Physical – microphones with pre-amplifier

Sizes:

option A: REMIC EX2A (10 x 35 mm) with 100mm lead to microphone (3.8 x 6.8 x 12 mm); or option B: REMIC IN2A combined pre-amplifier/microphone (10 x 7 x 35 mm).

Alternatives for very quiet environments:
REMIC EX2AHS or
REMIC IN2AHS
microphone/ pre-amp versions.

Weight:

4 gm including 0.5m line connection lead.

Contents

EHW-10: Control unit

Power supply adapter: 110/250V AC with 1.8m mains input & DC output leads.

Microphone / Pre-amplifiers: 10

Instructions: Installation and User guide



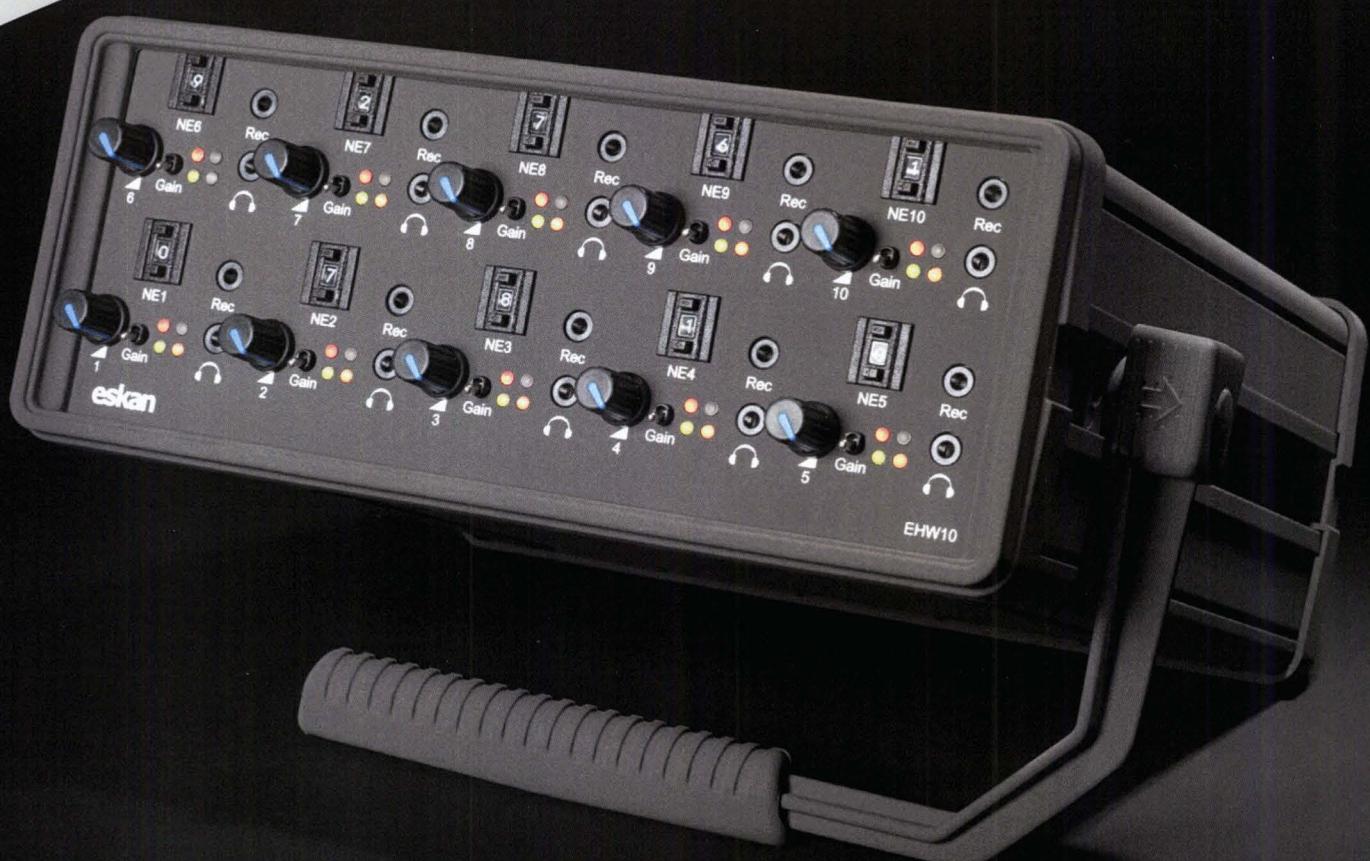


Designed and manufactured
in the **United Kingdom**

Surveillance

EHW 10

Multi-channel wired audio system



Designed for long term surveillance
Instantly understandable voice signals
Easy to operate and link with video recording
Immune to RF detection and jamming

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EHW 10

Multi-channel wired audio system

Covert audio surveillance of up to locations in an area of up to 5.6 kilometres from the control unit is provided by the EHW 10 system. For each of the channels there is a choice of miniature microphones which are powered by the central surveillance control unit. The system is quick easy to set up and operate.

The microphones can be covertly installed in the locations to be monitored, using existing or new wiring. The digital Noise Reduction facility enables conversations to be understood even when there is a high background noise whether deliberately introduced or natural.

Each of the channels can be individually tailored to the ambient noise and voice levels of the locations being monitored. The system guides the operator through the set up with visual indicators for each channel enabling

the best signal to be obtained. In quiet conditions the Highly Sensitivity miniature microphones can enable breathing to be detected within 2 metres.

Visual indicators show when voice or other activity is present in the target area, and provide alerts when a line fault occurs or if a microphone becomes disconnected. The system operates over a wide area using standard telephone wire.

As well as live monitoring, the output from the Channel outputs are designed for high level recording equipment and for direct connection to multi-channel audio/video recorders covering the same areas.

This multi-channel audio surveillance operation is difficult to detect as it is immune to RF detection systems and RF jamming.

This system is also available with 5 channels (EHW 5)

Features summary

- Designed for long term surveillance
- Instantly understandable voice signals with Digital Signal Processing
- Easy to operate with Visual indicators for voice or other activity
- High sensitivity miniature microphones individually controlled
- Direct connection to recording output and VCR/DVR systems
- Microphones powered from central system
- 5.6 kilometre surveillance range with standard telephone wire
- Immune to RF detection and RF jamming

Specifications

Technical - Control unit

Frequency response: +/- 3 dB from 300 Hz to 4 kHz

Microphone supply: Current limited supply

Background noise suppression: up to 35 dB

Headphone outputs: 30 mW / 30 ohm earpiece

Recording outputs: rear 1V max > 10 k ohms load; front 50 mV max with 2 k ohms load

Recording output impedance: 600 ohms nominal

Channels: 10 microphones.

Physical – Control unit

Controls: (for each channel)

3 level microphone sensitivity switch; 10 level Noise Reduction selector; Headphone volume control.

Indicators: (for each channel)

Red LED for remote line fault; Orange and Green LED for microphone sensitivity level setting; yellow LED for channel activity.

Connectors - output: (for each channel)

3.5 mm jack and Phono for high output recording; 3.5 mm jack for low output recording; 3.5 mm stereo jack headphone monitoring.

Connectors - input:

For each channel: 3.5mm Mono jack socket for remote line connection to microphone / pre-amp unit; 12V power: 2.1 x 5.5mm Barrel Connector.

Power supply:

110/25V AC 50 Hz to 60 Hz < 20 W, or 12V DC, 0.5 amps max.

Size:

280 x 310 x 104mm (w x d x h)

Weight:

2.8 kg (includes converter and cables.)

Technical – microphones with pre-amplifier

Line driver capability:

Up to 5.6 km with standard telephone wire

Power supply:

from control unit via telephone wire used for signal

Audio dynamic range:

> 70 dB (90 dB with Noise Reduction activated)

Audio response:

flat within +/- 3 dB from 300 Hz - 4 kHz

Physical – microphones with pre-amplifier

Sizes:

option A: REMIC EX2A (10 x 6.5 x 35 mm) with 100mm lead to microphone (3.8 x 6.8 x 12 mm); option B: REMIC IN2A, combined pre-amplifier/microphone (10 x 7 x 35 mm). Alternatives for very quiet environments: REMIC EX2AHS or REMIC IN2AHS microphone/ pre-amp versions.

Weight:

4 gm including 0.5m line connection lead.

Contents:

EHW 10 Control unit

Power supply adapter:

110/250V AC with 1.8m mains input & DC output leads.

Microphone / Pre-amplifiers:

10

Instructions:

Installation and User guide



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Designed and manufactured
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Surveillance

EPR 8D

Digital transmitter/receiver



8 dedicated digital audio channels
Remote control of transmitters
Pocket sized receiver for covert operation
Easy to operate

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EPR 8D

Digital transmitter/receiver

Multi-channel surveillance

An easy to use LCD display enables the surveillance operator to monitor up to eight channels. On screen information includes channel identification, signal strength and transmitter status (battery level, on/off) which supports a successful surveillance operation. When a record of the surveillance activity is needed the EPR 8D is equipped with a recording output facility.

Digital system with remote control

Using the controls on the receiver unit, the operator can switch between continuous VOX and off modes, and change the output power settings for each of the transmitters. This robust receiver unit is powered a mains

power adapter or by internal rechargeable batteries which provide up to 8 hours use. Included with the system is a magnetic mount vehicle antenna.

Features summary

- 8 dedicated digital audio channels
- Remote control of transmitters
- Continuous or voice activated (VOX) monitoring
- Pocket sized receiver for covert operation
- Easy to operate
- LCD menu driven display
- Magnetic mount vehicle antenna
- Robust system



Specifications

Technical – transmitter ERPT 1

Frequency range: 410 – 430 MHz
Power output: 5 mW to 100 mW

Sensitivity: 7 dBm +/- 2 dBm to 20 dBm
+/- 2 dBm m

Power consumption: 38 mA at 10 mW; 69 mA
at 100 mW

Modulation: GFSK

Band rate: 57.6 kps over the air

Antenna impedance: 50 ohms

RF bandwidth: 200 kHz

Audio bandwidth: 300 Hz to 5 kHz

Technical – transmitter ERPT 2

Frequency range: 410 – 430 MHz
Power output: 1 mW to 100 mW

Sensitivity: 0 dBm +/- 2 dBm to 20 dBm
+/- 2 dBm m

Power consumption: 30 mA at 1 mW; 74 mA
at 100 mW

Modulation: GFSK

Band rate: 57.6 kps over the air

Antenna impedance: 50 ohms

RF bandwidth: 200 kHz

Audio bandwidth: 300 Hz to 5 kHz

Physical - transmitters

Power Sources: External 3.5 V – 7.5 V supply

Sizes: EPRT1 70 x 24 x 8 mm
EPRT2 34 x 11 x 4 mm

Technical – Receiver

Frequency range: 410 – 430 MHz

Receiver sensitivity: -105 dBm +/- 2 dBm

Remote control power output: 100 mW (20 dBm +/- 2 dBm)

Modulation: GFSK

Baud rate: 57.6 kps over the air

Antenna impedance: 50 ohms

RF bandwidth: 200 kHz

Audio bandwidth: 300 Hz to 5 kHz

Physical - receiver/control unit

Power Sources: Internal 3 x AAA battery
External 3V – 6V via 1.3mm connector

Size: 98 x 73 x 28 mm



Designed and manufactured
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Surveillance

ESK 10

Receiver and recorder



10 channel receiver
Long distance wired monitoring
Built-in recording and playback
Easy to operate

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ESK 10

Receiver and recorder

10 channel receiver

The ESK 10 surveillance database has a receiver with 10 selectable pre-set channels giving access to discreetly placed room microphones or telephone transmitters. As soon as the microphones transmitting on the pre-set frequencies have been installed, the ESK 10 can monitor and record the results.

Easy recording and playback.

This all in one receiver/recorder is easy to set up and to operate.

After selecting one of the 10 pre-set channels the operator can digitally record either RF or wired input using the menu driven LCD screen. As well as monitoring a conversation, the operator can instantly playback a recording.

Wired monitoring

Where wired monitoring is preferred the ESK 10 will provide a long term wired monitoring solution for locations at distances of up to 2km and, where practical using existing cabling.

Features summary

- Radio Frequency or wired microphone input
- 10 pre-set RF channels
- Room and telephone monitoring
- Built-in recording for instant playback
- Designed for easy set up and use
- High quality audio

Specifications

Technical - receiver

Frequency range:	350 – 650 MHz
Sensitivity:	>0.4 uv@12 dB SINAD
Modulation:	Narrowband FM
Modulation acceptance:	8 kHz
Adjacent channel rejection:	>50 dB
Spurious rejection:	>80 dB
RF image:	>80 dB
IF image:	>90 dB
Channels:	One from 10 pre-set

Physical

Controls:	on/off, volume, pre-set channel selector
Indicators:	LED carrier signal, low battery, power on/off
Connectors:	Antenna MCX, headphones 3.5 mm jack stereo, recording 3.5 mm jack stereo, DC power input 1.3 mm jack
Power:	External 12V DC through 2.1 mm DC socket
Size:	180 x 86 x 264 mm
Operational temperature range:	-10 to +65°C

Contents

ESK10:	Control unit
Headphones:	stereo
Power supply:	Input 100 -240V AC output 12V DC
Case:	Lightweight carrying case

Technical - wired input

frequency response:	100 Hz – 10 kHz
Microphone supply:	Constant current
Signal to noise ratio:	>60dB @ 0dBm output, 1 kHz
Output impedance:	8 ohms

Technical - recorders

Recording medium:	Internal hard disk
Playback:	Real time monitoring; playback saved recording
Sample rate:	8 kbps
Frequency response:	>50 Hz ...3.6 kHz at -1 dB
Dynamic range:	>60 dB
Total recording time:	Standard internal 250 hours



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Designed and manufactured
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Surveillance

HWMS-40

Multi-channel wired audio system



**Designed for long term surveillance
Instantly understandable voice signals
Easy to operate and link with video recording
Immune to RF detection and jamming**

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HWMS-40

Multi-channel wired audio system

Covert audio surveillance of up to 40 locations in an area of up to 7 kilometres from the control unit is provided by the HWMS-40 system. For each of the 40 channels there is a high sensitivity miniature microphone which is powered by the central surveillance control unit. With one or two intelligence operators, the system is quick and easy to set up and operate.

Once the microphones have been covertly installed in the locations to be monitored, using existing or new wiring, the HWMS-40 system will enable conversations to be understood even when there is deliberately introduced background noise.

Each of the 40 channels can be individually tailored to the ambient noise and voice levels of the locations being monitored. The system guides the operator through the set up with visual indicators for each channel enabling the best signal to be obtained. In quiet conditions the highly

sensitive miniature microphones will enable breathing to be detected within 2 metres.

Visual indicators show when voice or other activity is present in the target area, and provide alerts when a line fault occurs or if a microphone becomes disconnected. The system operates over a wide area using standard telephone wire.

While voice activity is being closely monitored by an operator, two supervisors can each select and listen to any of the 40 channels. As well as live monitoring, the output from the HWMS-40 is designed for high level recording equipment and for direct connection to multi-channel audio/video recorders covering the same areas.

This multi-channel audio surveillance operation is difficult to detect as it is immune to RF detection systems and RF jamming.

Features summary

- Designed for long term surveillance
- Instantly understandable voice signals with Digital Signal Processing
- Easy to operate with Visual indicators for voice or other activity
- 40 high sensitivity miniature microphones individually controlled
- Direct connection to recording output and VCR/DVR systems
- Microphones powered from central system
- 7 kilometre surveillance range with standard telephone wire
- Immune to RF detection and RF jamming

Specifications

Technical - Control unit

Frequency response: +/- 3 dB from 300 Hz to 4 kHz

Microphone supply: Constant current

Background noise suppression: up to 35 dB

Headphone outputs: 30 mW / 30 ohm earpiece

Recording outputs: rear 1 V max > 10 k ohms load; front 50 mV max with 2 k ohms load

Recording output impedance: 600 ohms

Channels: 40 microphone

Physical - Control unit

Controls:

For each of 40 channels: 3 level microphone sensitivity switch; 10 level Noise Elimination selector; headphone volume control. Supervisor channel selection buttons, time-out restore and headphone volume control.

Indicators:

For each of 40 channels: Yellow LED for each active channel; Red LED for remote line fault; Orange and Green LED for microphone sensitivity level setting; Blue LED for Noise elimination On/off. LCD supervisor display with time-out.

Connectors - output:

3.5 mm jack recording sockets for 40 channels; 3.5 mm jack headphone monitoring sockets for 40 channels; 2 supervisor 3.5 mm headphone sockets.

Connectors - input:

40 RJ11 microphone / pre-amp lead connectors

Power supply:

110/240 V AC 50 Hz to 60 Hz < 100 W, or 12V DC 4 amps max

Size:

295 x 520 x 300 mm (hxwxw)

Weight:

12 kg

Technical – microphones with pre-amplifier

Line driver capability: Up to 7 km with standard telephone wire

Power supply: from control unit via telephone wire used for signal

Audio dynamic range: > 70 dB (90 dB with Noise elimination activated)

Audio response: flat within +/- 3 dB from 300 Hz- 5 kHz

Physical – microphones with pre-amplifier

Sizes:

option A: REMIC EX2AHS (10.8 x 5.5 x 35 mm) with 100mm lead to microphone (3x2x7 mm); or option B: REMIC IN2AHS combined pre-amplifier/microphone (10.8 x 6 x 35 mm). Alternatives for noisier environments: REMIC EX2A or REMIC IN2A microphone/pre-amp versions

Weight: 4 gm including line connection leads

Contents

HWMS-40: Control unit

Power supply adapter: 110/240 V AC with 2 metre mains lead

Headphones: 2 sets with jack plugs

Microphone / Pre-amplifiers: 40 x miniature REMIC EX2AHS (or alternative option)

Line cable connection:

500 mm telephone pair leads with RJ11 connectors for each of 40 channels (to allow alternative methods of connection)

Installation and operating manual





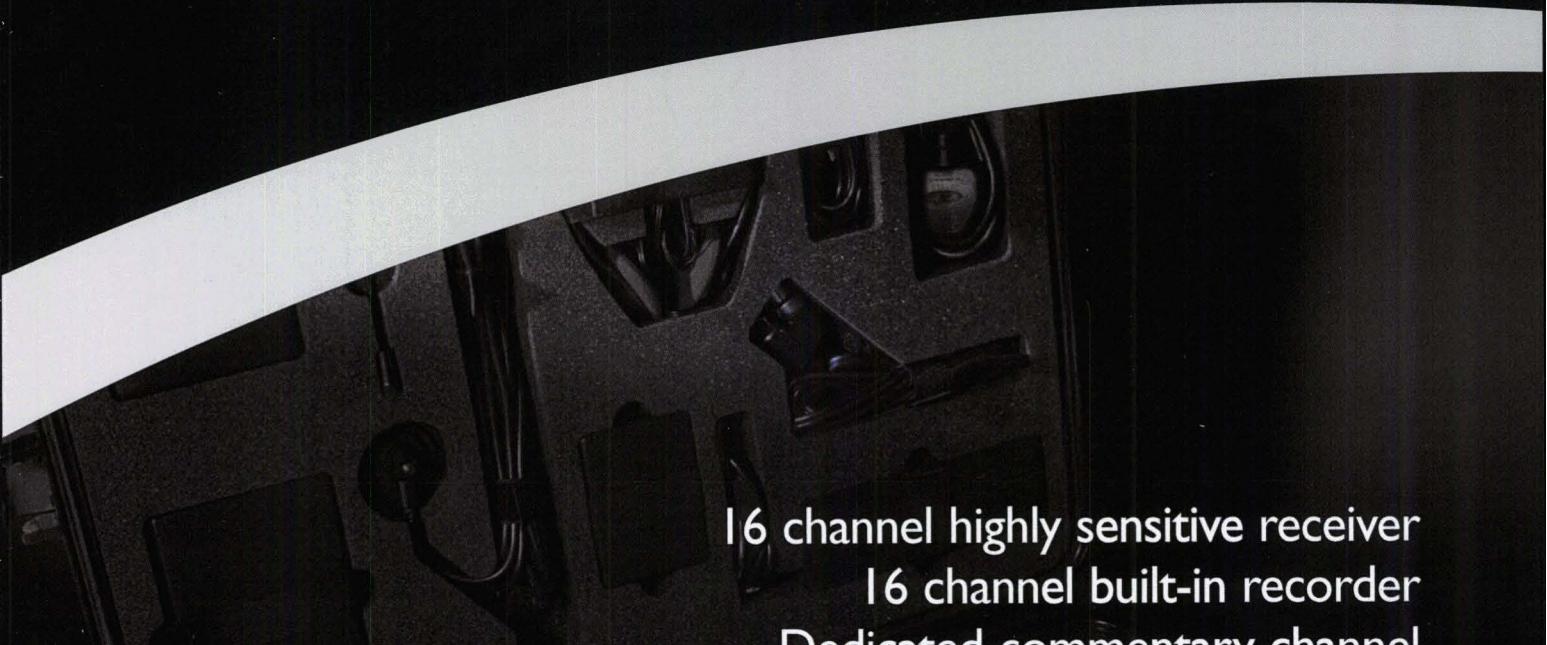
Designed and manufactured
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Surveillance

ESK I 500

Multi-channel receiver and recorder



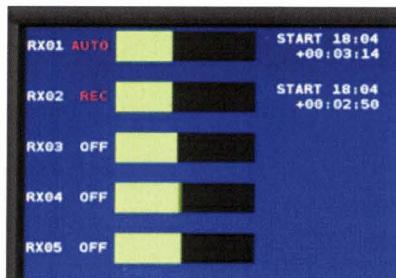
16 channel highly sensitive receiver
16 channel built-in recorder
Dedicated commentary channel
16 channel wired microphone input



ESK 1500

Multi-channel receiver and recorder

For a truly comprehensive and customised surveillance operation the ESK1500 provides all that is necessary to receive and record multiple transmitted or wired signals.



16 built-in receivers and recorders

The ESK 1500 remote surveillance database has 16 built-in receivers each with 16 selectable pre-set channels giving access to discreetly placed

room or telephone transmitters. As soon as the microphones transmitting on the pre-set frequencies, or wired microphones, have been installed, the ESK1500 can monitor and record up to 16 channels simultaneously.

Additional channel for operator commentary

During the monitoring and recording process the operator can listen to any of the channels through a loud speaker or the headset provided as well as viewing all the activity on a colour LCD screen.

When a voice transmission occurs the operator has a separate channel to record a commentary. Each of the ESK1500s 16 channels can set to automatic (triggered by voice transmission) or manual recording.

Highly sensitive and portable

The highly sensitive nature of the receivers allows the ESK1500 to be operated at an increased distance from the target areas. The unit is portable and is supplied in a purpose built carrying case using one antenna for all 16 receivers. The ESK1500 is equipped with a four hour emergency battery to enable surveillance to continue during power interruptions.

Data storage and network connection

The total recording time on the standard recorder is 4000 hours available between all of the 16 channels, giving 250 hours per channel with equal usage. All recordings are held on the internal hard disk

and are saved as time and date stamped files for audio evidence.

The recorded data for each channel can be downloaded to a USB memory stick or managed by a PC on a direct or network connection. Files can also be deleted via the PC connection to create additional recording space on the internal hard disk.

Remote file management

Recorded files can be managed on the system, by direct PC connection or via a network. Data can be transferred from the ESK1500 even when the carrying case is closed.





Noise elimination and encryption options

The carrying case has built-in, multi-level password protection to ensure that all the data is secure. The ESK1500 can convert the received clear signals into encrypted data (optional) and, if the audio

signal is not understandable the ESK1500 has instant playback features which can eliminate background noise (optional) without compromising the original data.

Features summary

- 16 channel digital recorder
- 16 channel highly sensitive receiver
- Separate channel for operator commentary
- 16 channel wired microphone input
- 16 channel receiver output
- 4000 hours built-in recording facility
- USB and Ethernet connections
- Time and date stamped files for use as evidence
- Flexible power input and internal battery
- Multi-level password protected
- Encryption and noise elimination options.



Specifications

Technical - receivers

Sensitivity: -118 dBm for 20 dB SINAD CCITT

Bandwidth: UHF 401-416 MHz without re-alignment

Spurious response: > 70 dB

Blocking: > 70 dB +/- 1 MHz
 > 74 dB +/- 2 MHz
 > 86 dB +/- 5 MHz

Intermodulation: > 40 dB at 50 kHz

Minimum programmable channel step: 5 kHz

Channel spacing: 50 kHz

Co-channel rejection: 7 dB

Adjacent channel: > 50 dB at 50 kHz

IF Frequencies: 45 MHz and 455 kHz

Spurious emissions: < ETS 300-220

Mute response time: < 2ms

Maximum deviation: +/- 10 kHz

Receiver channels: 16

Physical - receivers

Controls: Volume, channel selection; 16 soft keys (one per channel) for LCD screen.

Indicators: LCD screen with activity bar for 16 channels; LED carrier signal on, power on; noise elimination on/off (optional)

Connectors: Antenna N-type, headphones 3.5 mm jack stereo or mono compatible.

Outputs: 16 channels for RCA connection

Analogue outputs: 16 x 3.5mm jack sockets for headphones

Technical - recorders

Recording medium: Internal hard disk

Playback: Real time monitoring; playback saved recording

Sample rate: 8 kbps

Frequency response: > 50 Hz ... 3.6 kHz at -1 dB

Dynamic range: >60 dB

Total recording time: Standard internal: 4000 hours from any channel (250 hours with 16 channels) extendable to order; plus external storage via USB or ethernet connection

Physical – recorders

Controls: playback saved recording; start, stop, pause, jump back and jump forward; auto/manual /off; record level to external recorder; Microphone commentary channel; continuous recording or push to talk

Indicators: LCD screen activity, audible tone and LED recording alerts

Connectors: Hardwired microphone input mixed into commentary channel

Microphone input for commentary: 3.5 mm stereo jack with phantom power for electret microphone

Inputs: 16 channels for RCA connection

Physical – ESK1500 receiver and recorder system

Indicators: Low battery (LCD warning)

Front panel controls: On/off (lockable); tactile switch for recorder control;

Data interfaces: 2 USB ports; Ethernet port

Power supply: External input 11.5 – 34 V DC from public mains 100V AC – 240V AC; external vehicle battery connector; internal rechargeable batteries (4 hours power supply)

Antenna: N-type connector

Operational temperature range: -10 to +60°C

Carrying case

Contents: Mains power AC/DC converter and cable; Vehicle battery lead and connectors; Wide-band antenna with stand and cable; Stereo headphones with microphone and jack plugs; USB to USB connecting cable; Microphone transmitter for telephone line.

Size: 67 x 51 x 21 cm

Weight: 26 kg

Security: Provision for padlocks; lockable on/off switch

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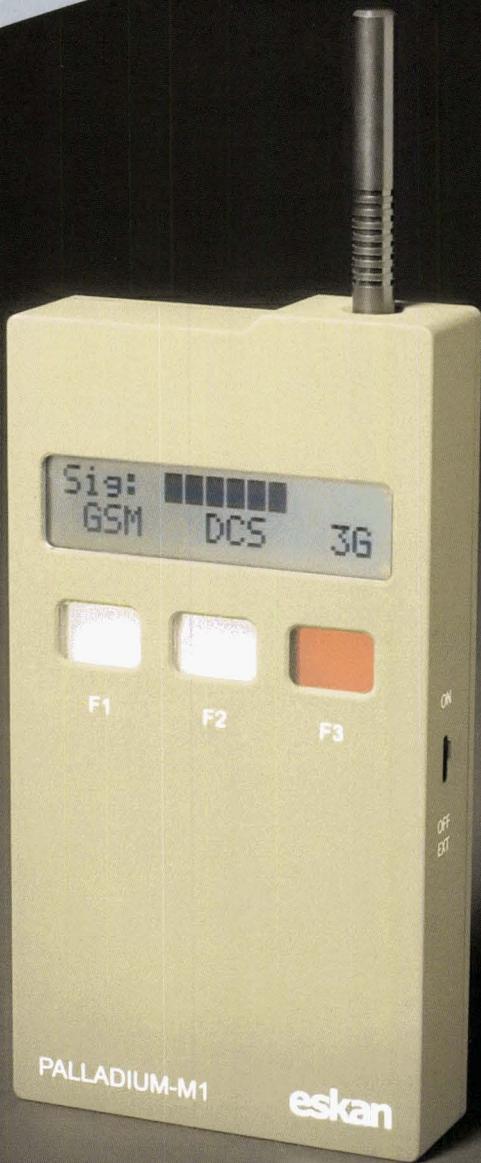
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Counter-surveillance

Palladium M1

Hand held cell phone detector



**Intelligent, dedicated
cell phone detector**

**Discriminates
between cell phone
and other signals**

**Easily understood
display and
intuitive operation**

Future proof with computer connection for firmware updates

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Palladium M1

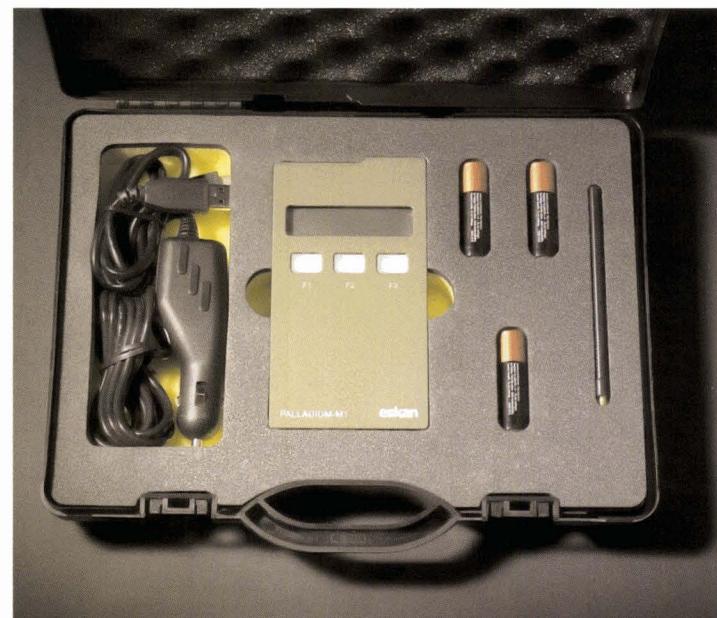
Hand held cell phone detector

Developed primarily for law enforcement and military agencies, the Palladium M1 is an intelligent hand held detector which monitors GSM and 3G bands for cell phone activity – to protect against information leakage or covert tracking operations. Any cell phone signals are confirmed through the built-in pulse timing analyser. The Palladium M1 detects cell phones whether they are in active or stand-by mode.

The Palladium M1 has a choice of detection alarm signals - visual, audible or both. Each has adjustable alarm thresholds which can be configured to operate for pre-selected transmission types.

Both alarm signals, thresholds and frequency bands are configured either through the user friendly display and illuminated programming keys or via a USB connection to a personal computer. The unit will remember the last configuration even when the batteries are removed. The USB computer connection has also been designed for downloading Palladium M1 firmware updates and for integration with other counter-surveillance systems.

The Palladium M1 is powered by internal batteries or from external sources.



Features summary

- Easily understood display and intuitive operation.
- Intelligent, dedicated cell phone detector
- Detects cell phone activity on GSM and 3G bands
- One multi-band antenna for all bands
- Future proof with computer connection for firmware updates
- Computer connection for remote control and system integration
- Detection configuration retained when batteries are removed
- Internal or external power supply

Specifications

Technical

Detection capability	GSM 850, GSM 900, DCS1800, PCS 1900 and UMTS (3G)	Power supply	3 x AA batteries, 4-5V external via USB connector; computer power via USB when connected. 12V DC via car adapter
Sensitivity	-75 dBm for GSM, -85 dBm for 3G	Size	135 x 72 x 22 mm
Dynamic range	>70 dB	Weight	300 gm (including battery)
Connectors	USB for programming and external power; MCX connector for antenna	Operational temperature range	-10 to +65°C

Physical

Controls	On/off; all parameters controlled via alpha-numeric display and illuminated soft keys	Unit	Palladium M1
Indicators	LCD	Accessories	Multi-band antenna, USB connector lead, 12V DC car adapter, 3 x AA batteries

Contents

Carrying case	Lightweight purpose built
---------------	---------------------------



Designed and manufactured
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Electronic surveillance

Palladium G12

Hand held RF detector



Discrete and continuous
monitoring for
surveillance devices
Vibration alert
Easy to operate with selectable antennas
The power and features of much larger systems

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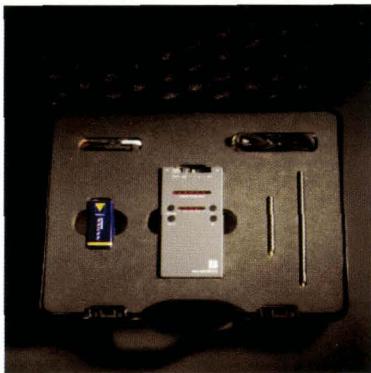
Palladium G12

Hand held RF detector

With discrete and continuous monitoring for surveillance devices in auto mute mode, the Palladium G12 will carry out a silent sweep without alerting the eavesdroppers. It is the latest in the range of innovative and sophisticated hand held and compact detectors which are easy to operate and have the power and features associated with much larger systems.

The vibration alert mode allows continuous live monitoring of meetings. When a radio frequency signal has been detected the Palladium G12 can confirm if there is a listening device, such as a modified mobile phone, being used in the meeting space.

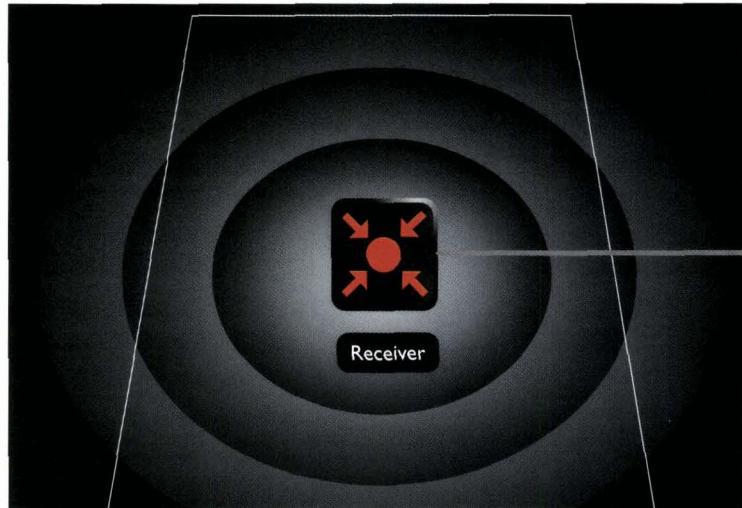
The 2 band Palladium receiver with its selectable antennas has excellent detection capabilities of high frequencies, and of lower power transmitters including RF devices operating on telephone wires.



The Palladium G12 can detect a radio link repeater being used to enhance the signal received from a room microphone; it can also be used for continuous discrete monitoring of tracking systems.

Features summary

- Initial auto mute gives an undetectable silent sweep
- Discrete operation
- Vibration alert
- Listening device confirmation facility
- Compact 2 band pocket Radio Frequency receiver
- Easy to operate with selectable antennas
- The power and features of much larger systems
- Detects radio frequency devices including tracking systems and modified mobile phones
- Detection of repeater stations



Specifications

Detection capability	RF: all transmitter types including AM, WFM, NFM, sub carrier, carrier only, SSB, DSBSC, scrambled, frequency hopping and other spread spectrum types. Mobile phone: GSM900, GSM1800 (ASM phase 2+), voice, fax, data, SMS and GPRS
Frequency coverage	10MHz – 12GHz
HF gain	>40db; with preamp >50db
RF input impedances	50 ohms
AF gain after detection	30db
Audio output	internal speaker headphone socket (3.5mm jack)
Output impedance	8 ohms
Output power	200 mw
Sensitivity controls	tuning knob adjusts core sensitivity level
Sensitivity	55dbm
Dynamic range	>60db
Visual indicators (LED)	power on; signal strength (6); high and low frequency selection low volume indicator; mute indicator low battery
Audio indicator	tone from internal speaker or headphone (bleep)
Controls	selection switch: band 1, band 2
Operation modes	off, detect, confirm, vibration alert (selectable by rotary switch) volume level switch; mute selection switch high and low frequency antenna selection switch
Power supply	9V, PP3 battery
Size	105 x 57 x 23mm
Weight	203 grams



Designed and manufactured
in the United Kingdom

Counter surveillance

Ranger 3

Detection
without trace



4 built-in receivers operating simultaneously

Ideal for monitoring sensitive sites

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Ranger 3

Detection without a trace

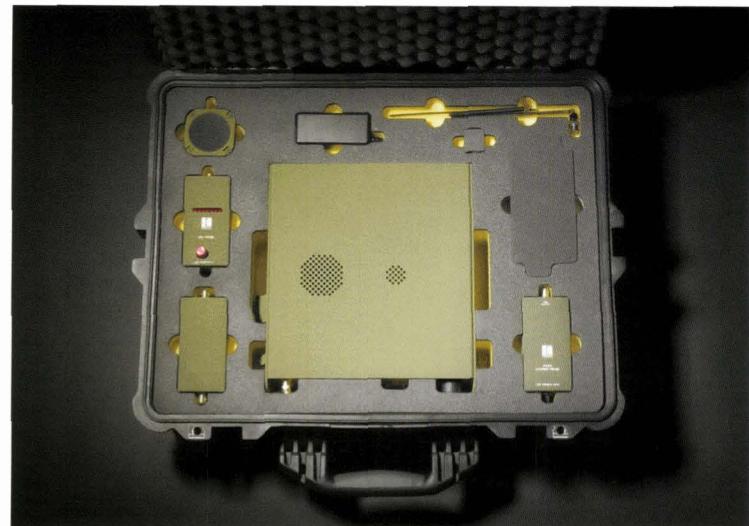
Ranger 3 can detect and analyse transmission devices without any trace of the detection. A silent sweep with an ultrasonic signal ensures discrete detection without alerting the surveillance systems which could compromise your confidentiality. Any surveillance agent will not be alerted by an ultrasonic tone. The sonic labelling technique, pioneered by Eskan in the Ranger, is a powerful method of detecting room transmitters - ideal when monitoring sensitive sites. It can locate a surveillance device and accurately display the distance from the receiver.

Comprehensive detection capability

Using 4 built-in receivers operating simultaneously Ranger 3 can detect the whole range of transmission and provides a detailed analysis including differentiation of signals, enabling detection of snugged transmitters operating in an environment in which there are much stronger radio frequency signals. The built-in receivers are wide frequency modulation; narrow frequency modulation; amplitude modulation and sub-carrier transmission.

Automatic and manual operation modes

The approachable menu driven, user friendly design and the range of soft-ware controlled manual modes of operation give the user a comprehensive and advanced toolkit. In the automatic mode a range of



detection and verification procedures are performed without further user intervention

Memorising Radio frequency environment

Storing a radio frequency map (signature) of up to 7 buildings using Ranger 3 will enable the operator to check if any additional equipment has been added to those environments.

Features summary

- Discrete detection with sonic labelling
- No trace of the detection
- Ideal for monitoring sensitive sites
- Calculates distance from surveillance device
- Comprehensive detection capability
- 4 built-in receivers operating simultaneously
- Detailed analysis including differentiation of signals
- Detection of snugged transmitters operating in strong radio frequency areas.
- Automatic and manual operation modes
- Menu driven user friendly design
- Comprehensive and advanced toolkit in manual mode
- Automatic mode detection and verification procedures with no user intervention
- Memorising RF environment
- Storage of radio frequency map for 7 buildings
- Detects any additional equipment added to stored data

Specifications**Technical (control unit):**

Frequency coverage: VLF DC – 10 MHz
VHF 10 MHz – 3 GHz

Frequency stability: Quartz crystal stabilised tuning

Demodulators: FM, NFM, AM and SC

Selectivity: FM, SC 350 kHz, AM,
NFM 30 kHz

Sensitivity: VLF 2 uV
VHF -80 dBm

Tone frequency: Up to 20 kHz

Physical (control unit and probes):

Controls: On/off, view, SQU (squelch threshold), software controlled tuning and volume, 7 software controlled soft keys, tuning rate, squal (audible signal strength indication), display brightness

Indicators: Power on, 2 x 40 character LCD display, LED red TONE alert, SIGNAL alert, green battery alert and charging indicator

Connectors – input: BNC for whip or other antenna, VLF receiver, Mains charger, car cigarette lighter or 12V external

Connectors – output: Stereo headphones 3.5 mm jack, 7 pin DIN for probe external speaker

Power supply: Built-in 2.2 Ah Nicad battery pack
6 cells (over 8 hours operation)
internal charging circuit – constant 250 mA current from mains adapter or car cigarette lighter

Size: Control unit 253 x 95 x 280 mm

Weight: 3.8 kg (in carrying case)

Operational temperature: range -10 to +65°C

Contents:**Ranger 3 Control unit**

Probes: Mains carrier probe, RF probe, GHz probe, Ranging probe

Cable: RF and mains cables

Power supply: 12V DC

Headphones: stereo

Case: Sturdy carrying case



Designed and manufactured
in the United Kingdom

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Comprehensive surveillance

Phenix 909

with instant audio clarity



5 microphone transmitters for short and long term operations

Elimination of background and deliberately introduced noise

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With a choice of 5 microphone transmitters which can take power from

the public mains supply for long term use, be voice activated where battery power is the only option, or ultra small and concealed in everyday objects the Phenix 909 offers the surveillance professional a variety of solutions for placing microphone transmitters.

Understanding what the target is saying without using a laboratory to remove all the unwanted noise has been one of the major operational problems with receivers. The Kombat 60K pocket sized receiver instantly eliminates background noise and provides crystal clear and understandable voice quality reception. This is achieved by selecting one of the 8 levels of Digital Signal Processing (DSP) to match the environmental noise whether from air conditioning from a building site, or from deliberately introduced noise.

Higher sensitivity allows the operator to be further away giving more operational flexibility. This is achieved by several levels of RF amplification enabling

Phenix 909

with instant audio clarity



the receiver to respond to weaker signals, thus extending the range of the transmitters being used. The inbuilt filtering arrangements also give the operator a high degree of protection from interference.

With up to ten channels Kombat 60K is one of the smallest receivers of its type available. This one receiver allows the operator to monitor several rooms including use of the telephone with programmable channels.

Features summary**Transmitters**

- 5 microphone transmitters for short and long term operations
- Compact mains or mains equipment powered for long term use
- Voice activated microphone transmitter – preserving battery power to extend life
- Ultra small easily concealable coin cell powered
- Ultra slim suitable for pocket or handbag
- Working fountain pen with concealed microphone transmitter

Receiver

- Instantly understandable audio for tactical action
- Elimination of background and deliberately introduced noise
- Interference-free and crystal clear audio quality
- Pocket sized receiver for covert operation
- Up to ten highly sensitive dedicated channels
- Good reception even when the microphone source is distant
- 8 levels of Digital Signal Processing (DSP) noise elimination
- Visual power, signal and battery level alerts

Case

- Lightweight and compact for quick deployment

Specifications**Transmitters Technical:**

- frequency range:** 350 – 600 MHz;
power output: EMP22 30mW; XM51 vox 70mW; EC27 25mW; EC28 20mW; EPT60 15mW
frequency stability: +/-10ppm
Deviation: 4kHz.
Modulation: narrowband FM;

Physical:

- Microphones:** internal electret

- Antenna:** EMP22 connection to existing electrical wiring; XM51 vox semi-flexible screw-in; EC27 internal or flexible plug-in external; EC28 external; EPT60 integral internal

- Power supply:** EMP22 mains 110 or 220-240V AC; XM51 vox battery 3.6V Lithium (1/2 AA size); EC27 and battery EC28 3V Lithium CR2032; EPT60 3V (2 x 1.5V button cell)

- Sizes:** EMP22 20x 20 x 30mm; XM51 vox 30 x 25 x 20mm; EC27 27 x 24 x 11mm; EC28 64 x 24 x 8mm; EPT60 ball-point pen

- Operational Temperature range:** -10 to +60°C

Receiver Technical:

- frequency range:** 350 – 600 MHz;
Sensitivity: >0.4uv@12db SINAD;
Modulation: narrowband FM;

- Modulation acceptance:** 8kHz.
Adjacent channel rejection: >50db;

- Spurious rejection:** >80db;
RF image: >80db;
IF image: >90db;
Channels: up to 10

Physical:

- Controls:** on/off, volume ,noise elimination, channel selection.

- Indicators:** LED Noise elimination level, carrier signal, low battery, power on/off;

- Connectors:** Antenna MCX, Headphones 3.5mm jack stereo, recording 3.5mm jack stereo, DC power input 1.3mm jack.

- Power supply:** 9V; internal PP3 battery or external
Size: 80 x 58 x 20mm

- Operational Temperature range:** -10 to +65°C
Contents: Microphone transmitters: EMP22 mains transmitter; XM51 VOX voice activated room transmitter; EC27 coin cell transmitter; EC28 ultra slim transmitter; EPT60 pen transmitter; Kombat 60K receiver (with DSP); antenna; light weight case.



Designed and manufactured
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Counter surveillance

MDS4002

Multi detection system



Detecting the most sophisticated surveillance devices

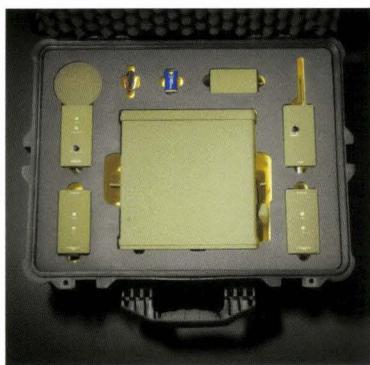
Operator friendly with automatic functions

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**Detecting the most sophisticated surveillance devices**

One of the MDS series of counter-surveillance systems, the MDS4002 has a user friendly menu driven toolkit and a range of probes to track down the most sophisticated surveillance devices.

Operator friendly with automatic functions

The system is automatically reconfigured as each probe is connected - leaving the operator to concentrate on the search itself. With the demodulation mode the presence of a surveillance device can be verified either manually or automatically.

Listening for audio transmitters

It is capable of detecting all types of transmitters - AM,WFM, NFM, sub-carrier, carrier only, single sideband, double sideband and suppressed carrier as well as scrambled, burst, frequency hopping and other spread spectrum transmitters. With the ability to reduce the effect of high powered signals, the MDS4002 can detect low power signals in the same area.

MDS4002

Multi detection system

Static or tracking transmitter detection

Following any routine sweep the MDS4002 can be set up on a permanent or semi-permanent basis to guard the area and to log any incidents. It is also designed to detect tracking mobile radio frequency and GPS transmitters.

MDS4002 probes

Understanding the Radio Frequency near-field is the main focus of the sweep operation which uses controlled filtering and amplification. The equipment will work in any environment to detect audio transmitters, RF and GPS tracking transmitters. It will detect low power transmitters designed to evade less sensitive systems, and will alert the operator to the latest generation of burst transmitters.

The Radio Frequency probe detects room, telephone and tracking transmitters while the Telephone analyser probe detects any transmitters on the line or modifications to the line.

Laser/infra-red probe detects transmitters and other devices operating on infra-red frequencies while the Microphone probe detects both active and non-active microphones which are a favoured method of long term surveillance. Hardwired systems are difficult to detect as they have no radio frequency leakage especially when the microphone and processing unit are located several miles apart.

Mains power carrier and Camera probe which has a permanent low frequency loop, will find devices using the mains power circuit as a transmission method. It can also be used to detect hidden cameras.

Features summary

- Permanent area guarding
- GPS and tracking mobile radio frequency transmission
- Easy to use with wide ranging probes
- Automatic reconfiguration for each probe
- Designed for the security professional
- Detection of room, telephone and tracking transmitters
- Sensitivity to detect low power transmitters
- Gives alerts for latest burst transmitters
- Detection of transmitters, current carrier devices and line modifications
- Detection of devices operating in infra-red frequencies
- Detects both active and non-active microphones.
- Hardwired systems with remote processing units can be detected
- Finds devices using the mains power circuit for transmission

Specifications**Technical (Control unit):**

Detection capability: All types of transmitters including AM,WFM, NFM, sub-carrier, single side band, double side band and suppressed carriers.
Scrambled, burst, frequency hopping and other spread spectrum types

RF receiver type: Single conversion super heterodyne, harmonics local oscillator

Frequency coverage: 10 kHz – 8 GHz

Dynamic range: >80 dB

Demodulators: AM,WFM, NFM and SC

Attenuators: 0,-30 dB at active whip

Sensitivity: -60 dBm

Tone frequency: - 1.5 kHz

Physical – (Control unit):

Controls: On/off, LCD: menu, next, select. Manual or automatic tuning, volume

Indicators: Power on, LCD display, manual tuning, Probe connection

Connectors – input: BNC 50 ohm, probes 5 pin, mains AC 3 pin, DC 2.1 mm 12V

Connectors - output: Stereo headphones 3.5mm, internal speakers: audio 8 ohm 300 mWV, tone 8 ohm 400 mWV

Power supply: 110 or 220 – 240V AC (internal selection), 12V DC external or internal rechargeable (constant current charging – 7 hours operating time)

Size: Control unit 250 x 240 x 65 mm

Weight: 8 kg (in carrying case)

Operational temperature: range -10 to +65°C

Contents:

MDS 4002: Control unit
Probes: RF,Telephone analyser; Laser/infrared, microphone, camera/mains carrier.

Cable: 1.5 metre RF probe lead, mains lead

Power supply: Input 100 or 220 – 240V AC, 12V DC external 12V DC internal rechargeable

Headphones: Stereo

Training unit: Test transmitter

Case: Lightweight carrying case



Designed and manufactured
in the United Kingdom

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Jamming

ESK823J

Hand held cell phone jammer



Jams all GSM
and 3G bands –
selectable by country

Adjustable output
power to control
jamming radius

Easily understood
display and intuitive
operation

Future proof with computer connection for firmware updates

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ESK 823J

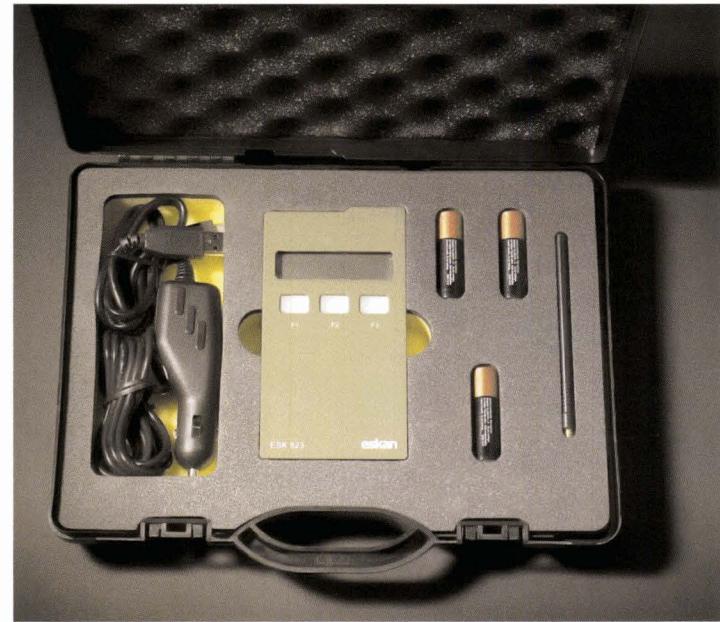
Hand held cell phone jammer

The ESK 823J has been designed assist law enforcement and military personnel who are engaged in digital warfare. Dedicated to the disruption of cell phone communication, the ESK 823J will prevent leakage of sensitive information via cell phones, disable satellite tracking device cell phone reporting systems, and prevent cell phone activation of remotely controlled equipment.

By disrupting network signals to nearby cell phones, the ESK 823J prevents the cell phones from establishing a call, or receiving or sending a text message. The ESK 823J can be programmed for accurate jamming of cell phones by selecting the country of use, and by selecting the output power to control the jamming radius. Concentration on the required frequency bands and control of output power extends the working life of the jammer's batteries.

Both output power and accurate frequency band selection are configured either through the user friendly display and illuminated programming keys or via a USB connection to a personal computer. The unit will remember the last configuration even when the batteries are removed. The USB computer connection has also been designed for downloading ESK 823J firmware updates and for integration with other counter-surveillance systems.

In addition to variable output power and frequency band selection, the ESK 823J offers a choice of jamming techniques including



frequency hopping and digitally generated pseudo-random frequency modulation (PRFM).

ESK 823J offers continuous protection from information leakage, satellite tracking and remote control activation by cell phone, and is powered by internal batteries or from external sources.

Features summary

- Easily understood display and intuitive operation.
- Fully programmable for accurate disruption of cell phone activity
- Selection of cell phone network by country
- Adjustable output power to control jamming radius
- Configurable jamming techniques including frequency hopping and digitally generated modulation
- One multi-band antenna for jamming on all bands
- Jamming configuration retained when batteries have been removed
- Computer connection for remote control and system integration
- Future proof with remote firmware update facility
- Internal or external power supply

Specifications

Technical

Jamming capability

All current cellular standards including: GSM 850, GSM 900, DCS 1800, PCS 1900, UMTS (3G). Upgradable to future standards via firmware.

Output power control

0 dBm (1mW) – 30 dBm (1W) in 3dB intervals.
Up to 10W with optional RF amplifier

Jamming techniques

Frequency hopping
Pseudo-random frequency modulation (PRFM)
USB for programming and external power; MCX connector for antenna or RF amplifier

Connectors

Physical

Controls

On/off: all parameters controlled via alpha-numeric display and illuminated soft keys

Indicators

LCD

Power supply

3 x AA batteries, 4-5V external via USB connector; computer power via USB when connected, 12V DC via car adapter.

Size

135 x 72 x 22 mm

Weight

300 gm (including battery)

Operational temperature range

-10 to +65°C

Contents

Unit

ESK 823J

Accessories

Multi-band antenna, USB connector lead, 12V DC car adapter, 3 x AA batteries

Carrying case

Lightweight purpose built



Designed and manufactured
in the United Kingdom

eskan™

Jamming

ESK803J

Hand held satellite tracking jammer



Jamming over GPS
and GLONASS bands

Adjustable output
power to control
jamming radius

Easily understood
display and
intuitive operation

Future proof with computer connection for firmware updates

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ESK 803J

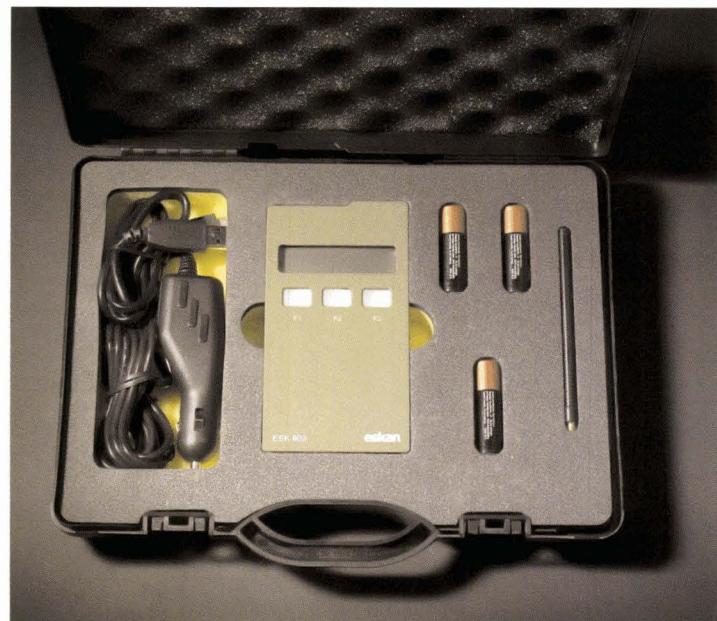
Hand held satellite tracking jammer

Whether for VIPs, yourself, valuable or sensitive cargo, protection against covert tracking devices is provided by the ESK 803J. This hand held jammer will prevent satellite positioning signals from reaching the tracking device. The ESK 803J also prevents the production of a tracking log which could have been downloaded at a later date.

This system is not restricted to GPS: the standard unit supports both GPS and GLONASS. Other bands can be programmed to order.

The output power of the ESK 803J, dedicated GNSS jammer (Global Navigation Satellite System), can be accurately programmed to control the jamming radius. Both output power and accurate frequency band selection are configured either through the user friendly display and illuminated programming keys or via a USB connection to a personal computer. The unit will remember the last configuration even when the batteries are removed. The USB computer connection has also been designed for downloading ESK 803J firmware updates and for integration with other counter-surveillance systems.

In addition to variable output power and frequency band selection, the ESK 803J offers a choice of jamming techniques including



frequency hopping and digitally generated pseudo-random frequency modulation (PRFM).

ESK 803J offers continuous protection from satellite tracking and is powered by internal batteries or external sources.

Features summary

- Easily understood display and intuitive operation.
- Fully programmable to prevent all GPS/GLONASS reception
- Individual or simultaneous multi-band jamming
- Custom band jamming available
- Adjustable output power to control jamming radius
- Selectable jamming techniques including frequency hopping and digitally generated modulation
- One multi-band antenna for jamming on all bands
- Jamming configuration retained when batteries have been removed
- Computer connection for remote control and system integration
- Future proof with remote firmware update facility
- Internal or external power supply

Specifications

Technical

Jamming capability

GPS bands L1 and L2 and GLONASS bands L1 and L2 selectable, other GNSS bands on request

Output power control

0 dBm (1mW) – 30 dBm (1W) in 3dB intervals.
Up to 10W with optional RF amplifier

Modulation

Frequency hopping
Pseudo-random frequency modulation (PRFM)

Connectors

USB for programming and external power; MCX connector for antenna or RF amplifier

Physical

Controls

On/off; all parameters controlled via alpha-numeric display and illuminated soft keys

Indicators

LCD

Antenna

Multi-band

Power supply

3 x AA batteries, 4-5V external via USB connector; computer power via USB when connected, 12V DC via car adapter.

Size

135 x 72 x 22 mm

Weight

300 gm (including batteries)

Operational temperature range

-10 to +65°C

Contents

Unit

ESK 803J

Accessories

Multi-band antenna, USB connector lead, 12V DC car adapter, 3 x AA batteries

Carrying case

Lightweight purpose built



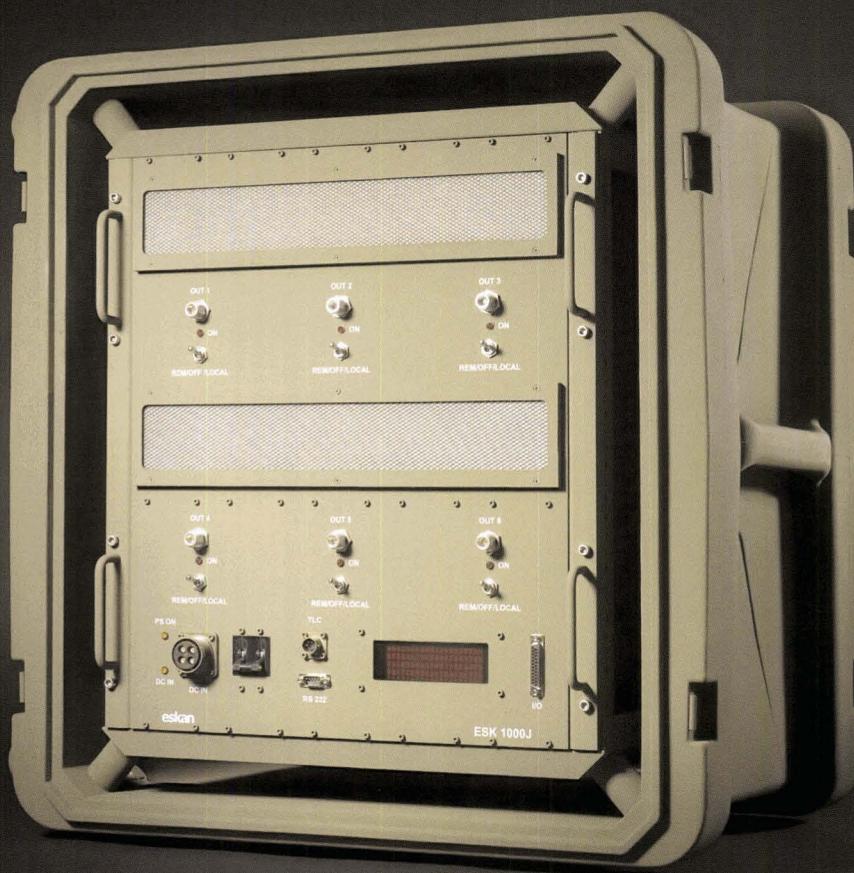
Designed and manufactured
in the United Kingdom

eskan™

Jamming

ESKI 1000J

**High powered digitally programmable
broadband jammer**



**Protection from
remotely controlled
explosive devices**

**Convoy and VIP
protection**

**Enemy communication
disruption**

**Programmable
authorised
communication
windows**

**Computer connection
for firmware updates**

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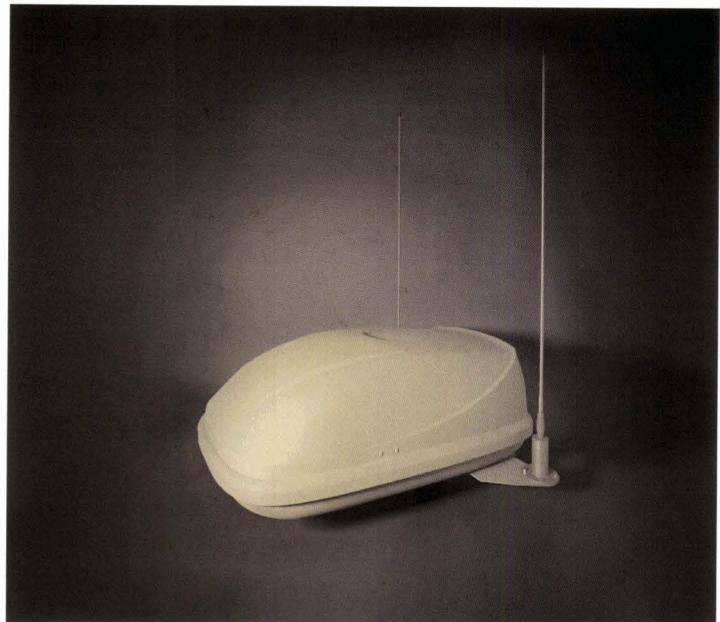
E info@Eskan.com

ESK 1000J**High powered digitally programmable broadband jammer**

The protection of military or VIP individual vehicles or convoys from the threat of remotely controlled detonation of roadside bombs has become a priority in the modern world. To enable an effective response to this threat, Eskan have developed a high powered intelligent jamming system using direct digital synthesis (DDS) technology, which allows precise control of frequency sweeps and hopping.

The ESK 1000J digital jamming system covers continuously and simultaneously the full spectrum of the most used RF communication frequencies from 20MHz to 2500MHz. This includes a dedicated cell phone module. The operator can select up to 48 programmable channels for communication links within the jamming spectrum. Activation, operation and band control is from a wired remote control unit inside the vehicle. The system has an RS232 connection for programming by personal computer and for firmware updates.

This 550 watt RF jamming system is installed in the boot of the vehicle; and a set of high-gain, omni-directional antennas are mounted on the vehicle's roof. The unit's forced air cooling system ensures uninterrupted operation in temperatures of up to 55°C.



This is a fully independent jamming system designed for rapid transfer from one vehicle to another. Weatherproof and shockproof, the ESK 8000J works continuously while in transit in all weathers and ground conditions.

Features summary

- Protection from remotely controlled explosive devices
- Covers 20MHz – 2500MHz (other bands to order)
- 550 watts total output power
- High-power, multi-band, vehicle-installed jamming system
- Jams cellular, satellite, VHF/UHF and WiFi frequencies
- Supplied as a "kit" for easy vehicle installation/removal
- High-gain omni-directional antennas
- Wired in-vehicle remote control for system management
- Jamming configuration retained when batteries removed
- Jamming signal generated using direct digital synthesis (DDS) technology.
- Computer connection for firmware updates
- Forced air cooling system for high temperature operation

Specifications**Technical****Jamming capability**

Module 1: 20 - 100 MHz,
Module 2: 100 - 300 MHz,
Module 3: 300 - 500 MHz,
Modules dedicated to cell phones (with pre-set bands):
GSM CDMA 800 / 900 MHz,
GSM /PCS 1800/1900 MHz,
UMTS 2100 MHz,
Module 4: 500 - 900 MHz,
Module 5: 960 - 1800 MHz,
Module 6: 1900 - 2500 MHz,

Output power

Per module:
Modules 1, 2, 3 and 4
100W +/-1.5 dB
Modules 5, 6 and cell phone
30W +/-1.5 dB

Total output power:
Modules 1, 2, 3 and cell phone:
390W +/-1.5 dB

All Modules: 550W +/-1.5 dB

Jamming technology

Digital direct synthesis (DDS)
Field programmable gate array (FPGA)

Jamming radius

30m ≤ Radius ≤ 500m

Programmable windows

Max 48, minimum resolution 1MHz

Connectors – input

RS-232 for programming – parallel and remote

Connectors – output

N-type

Physical**Operation modes**

On/off, programmable via RS-232

Controls

On/off, band selection on unit or remote

Indicators

LED power on and function display, module on/off, low battery indicator

Antenna

Roof mounted box or separate

Power supply

24V DC

Operational temperature range

-10 to +55°C

Humidity

Up to 90%

Shock

Vibration and shock resistant (with mounting rack)



Designed and manufactured
in the United Kingdom

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Electronic surveillance

Kombat 60K

with instant audio clarity



10 channel receiver for
tactical action

Elimination of background and
deliberately introduced noise

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Kombat 60K

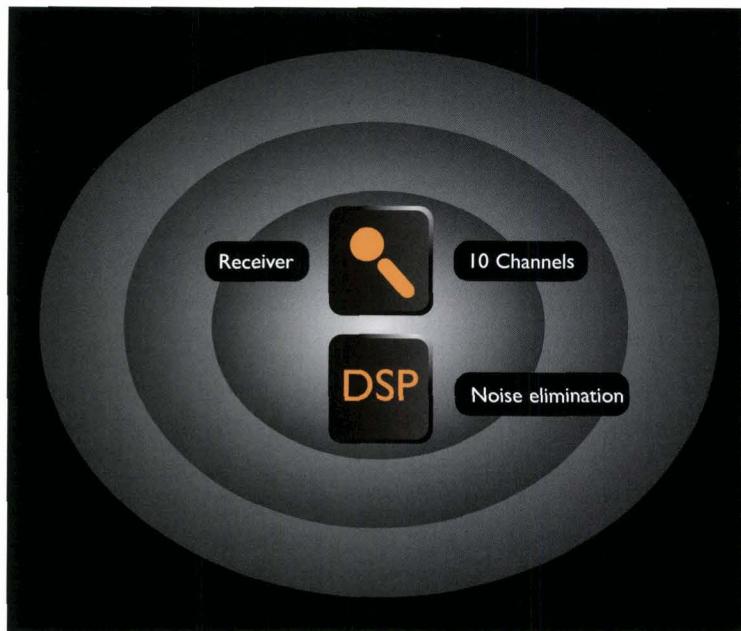
with instant audio clarity

The ability of the operators to understand what the target is saying without using a laboratory to remove all the unwanted noise has been one of the major operational problems with receivers.

Kombat 60K, the pocket sized receiver, instantly eliminates background noise and provides crystal clear and understandable voice quality reception. This is achieved by the operator selecting one of the 8 levels of Digital Signal Processing (DSP) to match the environmental noise whether from air conditioning, from a building site, or from deliberately introduced noise.

Higher sensitivity allows the operator to be further away giving more operational flexibility. This is achieved by several levels of RF amplification enabling the receiver to respond to weaker signals, thus extending the range of the transmitters being used. The inbuilt filtering arrangements also give the operator a high degree of protection from interference.

With up to ten channels Kombat 60K is one of the smallest receivers of its type available. This receiver allows the operator to monitor several rooms including use of the telephone with programmable channels.



Features summary

- Instantly understandable audio for tactical action
- Elimination of both background and deliberately introduced noise
- Interference-free and crystal clear audio quality
- Pocket sized receiver for covert operation
- Up to ten highly sensitive dedicated channels
- Good reception even when the microphone source is distant.
- Digital Signal Processing (DSP) for noise elimination
- Visual power, signal and battery level alerts

Specifications

Technical:

- Frequency range:** 350–600 MHz;
Sensitivity: >0.4uv@12db SINAD;
Modulation: narrowband FM;
Modulation acceptance: 8kHz.
Adjacent channel rejection: >50db;
Spurious rejection: >80db;
RF image: >80db;
IF image: >90db;
Channels: up to 10

Physical:

- Controls:** on/off, volume
Noise elimination
channel selection.
Indicators: LED Noise elimination level,
carrier signal, low battery,
power on/off.
Connectors: Antenna MCX, Headphones
3.5mm jack stereo, recording
3.5mm jack stereo, DC
power input 1.3mm jack.
Power supply: 9V, internal PP3 battery
or external
Size: 80 x 58 x 20mm
Operational Temperature range: -10 to +65°c

Also available with as standard model (Kombat 60), with decryption (Kombat 60.EN), with decryption and DSP Noise Elimination (Kombat 60K.EN)



Designed and manufactured
in the United Kingdom

Electronic surveillance

Acumen 303

with instant audio clarity



Body-worn or in-vehicle transmitter

Elimination of background and deliberately
introduced noise

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Acumen 303

with instant audio clarity

The ability of the operators to understand what the target is saying without using a laboratory to remove all the unwanted noise has been one of the major operational problems with receivers.

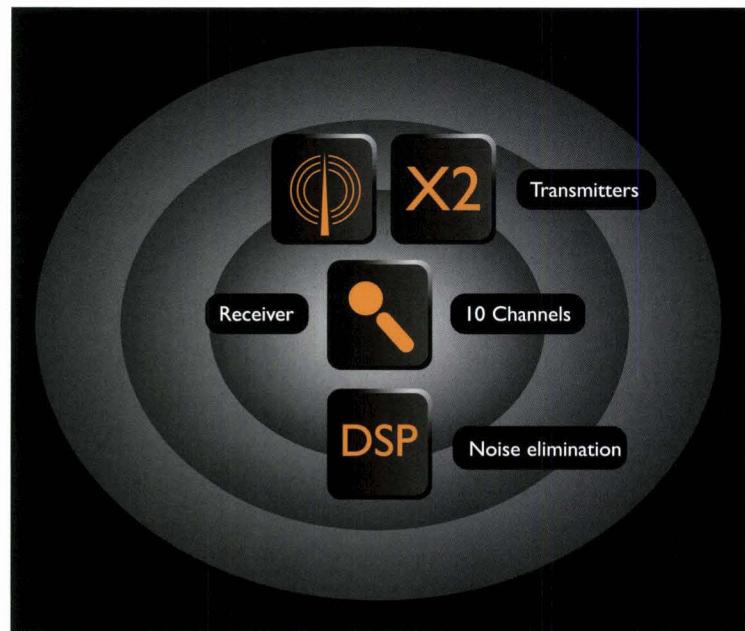


Kombat 60K, the pocket sized receiver instantly eliminates background noise and provides crystal clear and understandable voice quality reception. This is achieved by the operator selecting one of the 8 levels of Digital Signal Processing (DSP) to match the environmental noise whether from air conditioning, from a building site, or from

deliberately introduced noise.

Higher sensitivity allows the operator to be further away giving more operational flexibility. This is achieved by several levels of RF amplification enabling the receiver to respond to weaker signals, thus extending the range of the transmitters being used. The inbuilt filtering arrangements also give the operator a high degree of protection from interference.

With up to ten channels Kombat 60K is one of the smallest receivers of its type available. This receiver allows the operator to monitor several rooms including use of the telephone with programmable channels.



The microphone transmitters can be converted for body worn or in-vehicle use and there is a low and high power option. The lower power transmitter can also be used for telephone or room and telephone monitoring. For emergencies there is an emergency alert facility.

Features summary**Specifications****Transmitters**

- Mobile or fixed operation
- Converts for use as body-worn transmitter
- Room and telephone monitoring
- In-vehicle operation
- Emergency alert facility
- Choice of low and high power
- Flexible power supply options

Receiver

- Instantly understandable audio for tactical action
- Elimination of background and deliberately introduced noise
- Interference-free and crystal clear audio quality
- Pocket sized receiver for covert operation
- Up to ten highly sensitive dedicated channels
- Good reception even when the microphone source is distant
- 8 levels of Digital Signal Processing (DSP) for noise elimination
- Visual power, signal and battery level alerts

Case

- Lightweight and compact for quick deployment

Technical (Transmitters):

- frequency range:** 350 – 600 MHz;
power output: 150mw and 300mw
frequency stability: +/-5ppm
Deviation: 6kHz.
Modulation: narrowband FM;

Physical (Transmitters):

- Microphone:** internal or external electret
Adaptors: Body worn, Emergency alert button, telephone, room and telephone, car
Connectors: cable
Power supply: 7.5 12V;
Sizes: 10 x 25 x 25mm and 10 x 25 x 32mm
Operational Temperature range: -10 to +60°C

Technical (Receiver):

- Frequency range:** 350–600 MHz;
Sensitivity: >0.4uv@12db SINAD;

- Modulation:** narrowband FM;

- Modulation acceptance:** 8kHz

- Adjacent channel rejection:** >50db;

- Spurious rejection:** >80db;

- RF image:** >80db;

- IF image:** >90db;

- Channels:** up to 10

Physical (Receiver):

- Controls:** on/off, volume, noise elimination, channel selection.

- Indicators:** LED Noise elimination level, carrier signal, low battery, power on/off;

- Connectors:** Antenna MCX, headphones 3.5mm jack stereo, recording 3.5mm jack stereo,

- DC power input 1.3mm jack.

- Power supply:** 9V; internal PP3 battery or external

- Size:** 80 x 58 x 20mm

- Operational Temperature range:** -10 to +65°C



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Secure surveillance

Aztec 606

with instant audio clarity



Encrypted signal for high security

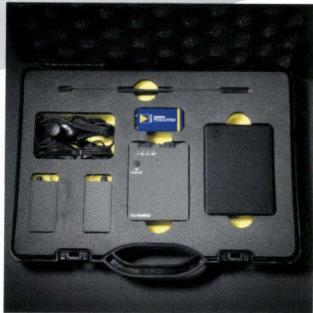
Elimination of background and deliberately
introduced noise

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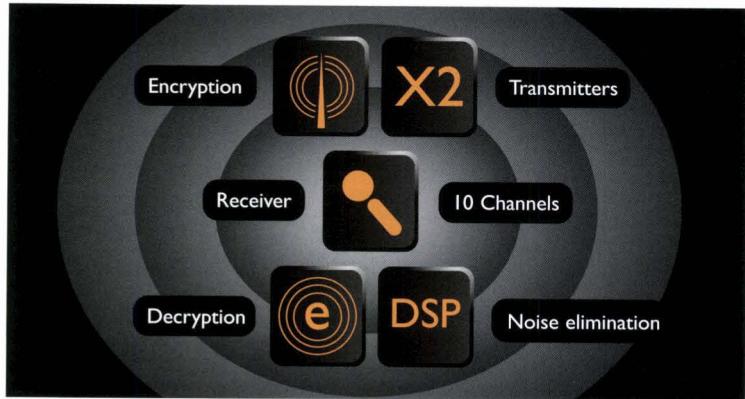
The ability of the operators to understand what the target is saying without using a laboratory to remove all the unwanted noise has been one of the major operational problems with receivers.

Kombat 60K.EN, the decrypting pocket sized receiver instantly eliminates background noise and provides crystal clear and understandable voice quality reception. This is achieved by the operator selecting one of the 8 levels of Digital Signal Processing (DSP) to match the environmental noise whether from air conditioning, from a building site, or from deliberately introduced noise.

Higher sensitivity allows the operator to be further away giving more operational flexibility. This is achieved by several levels of RF amplification enabling the receiver to respond to weaker signals, thus extending the range of the transmitters being used. The inbuilt filtering arrangements also give the operator a high degree of protection from interference.

Aztec 606

with instant audio clarity



With up to ten channels Kombat 60K is one of the smallest receivers of its type available. This decrypting receiver allows the operator to monitor several rooms including use of the telephone with programmable channels.

The encrypting microphone transmitters can be converted for body worn or in-vehicle use; there is a low and a high power transmitter to increase the range. For emergencies there is an emergency alert facility.

Features summary

Transmitters

- Encrypted signal for high security
- Mobile or fixed operation
- Converts for use as body-worn transmitter
- Room and telephone monitoring
- In-vehicle operation
- Emergency alert facility
- Choice of low and high power
- Flexible power supply options

Receiver

- Instantly understandable audio for tactical action
- Elimination of background and deliberately introduced noise
- Interference-free and crystal clear audio quality
- Pocket sized receiver for covert operation
- Up to ten highly sensitive dedicated channels
- Good reception even when the microphone source is distant
- 8 levels of Digital Signal Processing (DSP) for noise elimination
- Decryption capability
- Visual power, signal and battery level alerts

Case

- Lightweight and compact for quick deployment

Specifications

Transmitters Technical:

- frequency range:** 350–600 MHz;
power output: 75mw and 500mw
frequency stability: +/-5ppm
Deviation: 6kHz.
Modulation: narrowband FM;

Physical:

- Microphone:** internal or external electret
Adaptors: Body worn, Emergency alert button, car
Connectors: Antenna clip-on flexible cable
Power supply: 7.5 -12V;
Size: 10 x 25 x 51mm
Operational Temperature range: -10 to +60°C

Receiver Technical:

- Frequency range:** 350–600 MHz;
Sensitivity: >0.4uv@12db SINAD;
Modulation: narrowband FM;
Modulation acceptance: 8kHz.

Adjacent channel rejection:

>50db;

Spurious rejection:

>80db;

RF image:

>80db;

IF image:

>90db;

Channels:

up to 10

Physical:

- Controls:** on/off, volume, noise elimination, channel selection.

- Indicators:** LED Noise elimination level, carrier signal, low battery, power on/off.

Connectors:

Antenna MCX, Headphones 3.5mm jack stereo, recording 3.5mm jack stereo, DC power input 1.3mm jack.

Power supply:

9V; internal PP3 battery or external

Size:

80 x 58 x 20mm

Operational Temperature range:

-10 to +65°C

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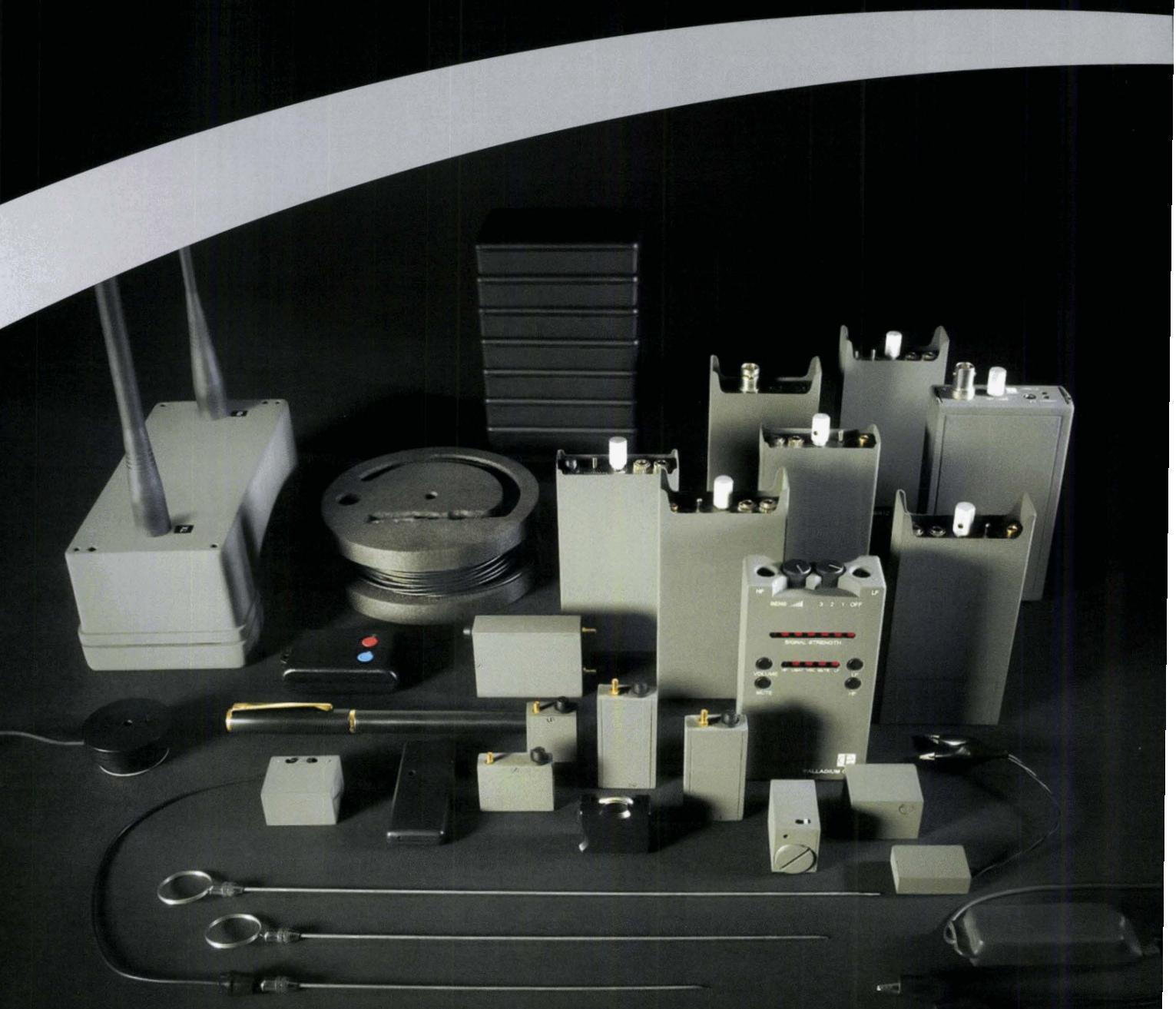
Designed and manufactured
in the United Kingdom

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Electronic surveillance

Agent Case AC01

The professional solution



All audio surveillance needs in one case
plus discrete and continuous monitoring

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AC01 Agent Case

Covert listening and counter-surveillance

The newly purpose built case provides solutions for virtually all the surveillance needs of the professional Agent. This equipment is complemented by a powerful hand held Radio Frequency detector which will alert the Agent to the RF environment. The AC01 includes:



Hard wired and contact microphones.

For listening through an accessible wall of the target room or building, the Agent Case provides a needle probe microphone which goes through the wall, an amplifier and sensitive transducer which can be fixed to the outside of the wall.

The single channel wired audio system, which is immune to Radio Frequency detection, has a miniature high sensitivity microphone, miniature coaxial cable and remotely powered amplifier which can be up to 2 km from the microphone.

Microphone transmitters:

With a choice of 14 microphone transmitters which can take power from the public mains supply or telephone line for long term use, be clear or encrypted for high security, be voice activated where battery power is the only option, or ultra small and concealed in everyday objects such as a key

fob or working pen, be body worn or static, the AC01 offers the surveillance professional a choice of ways of approaching the surveillance target.

Remote control and voice activation features give the security professional options for extending the surveillance period. Transmitters parasitically attached to the telephone line only work when the phone line is in use thus limiting the possibilities of discovery.

The operational versatility of the AC01 transmitters, whether body worn with or without an emergency alert button, in-vehicle or static is enhanced with the option of low power output or with high power output for increased range.

Receivers:

The high sensitivity of the receivers allows the operator to be further away giving more operational flexibility. This is achieved by several levels of RF amplification enabling the receiver to respond to weaker signals, thus extending the range of the transmitters being used. The inbuilt filtering arrangements also give the operator a high degree of protection from interference.

The multi channel UHF and VHF pocket sized receivers are supplied as a standard unit or with decryption and with a recording facility.

Radio repeater station:

The Mini-repeater extends the transmission range enabling listening outside the target area and is housed in a compact, waterproof box and can be sited outdoors for easy access and recovery. It is useful for increasing the range from telephone and other low power transmitters. The signal clear or encrypted is sent to the repeater and boosted to give long range VHF transmission to a suitable monitoring position.

The mini-repeater has internal batteries for ease of operation. Power consumption is extremely low and it can be left unattended for up to 40 days in standby mode.

Counter-surveillance equipment:

The Palladium G12 is designed for discrete and continuous monitoring for surveillance devices. It is a sophisticated hand held and compact Radio Frequency detector which will carry out a silent sweep without alerting the eavesdroppers. It is easy to operate and has the power and features associated with much larger systems.

The vibration alert mode allows continuous live monitoring of meetings.

When a Radio Frequency signal has been detected the Palladium G12 can confirm the presence of a listening device, such as a modified mobile phone, being used in the meeting space.

The 2 band Palladium receiver with its selectable antennas has excellent detection capabilities of high frequencies, and of lower power transmitters

Features summary

Wired microphones and transmitters

- Equipment for virtually all surveillance needs
- Wired microphone systems immune to RF surveillance
- Microphone transmitters for long and short range operations
- Body worn with emergency alert
- Room and telephone microphone transmitters

Receivers

- Pocket size receiver with recording facility
- Multi channel UHF and VHF for repeater station
- Highly sensitive for increased range
- Decryption facility
- Repeater station to extend the range

Counter-surveillance

- Detects radio frequency transmitters including tracking systems and modified mobile phones
- Undetectable silent sweep
- Vibration alert mode
- Listening device confirmation facility
- Easy to operate with selectable antennas
- The power and features of much larger systems



Designed and manufactured
in the United Kingdom

eskan

Electronic surveillance

Rapid 100

**Miniature microphone
system**



**Rapid deployment
High sensitivity
Immune to RF detection**

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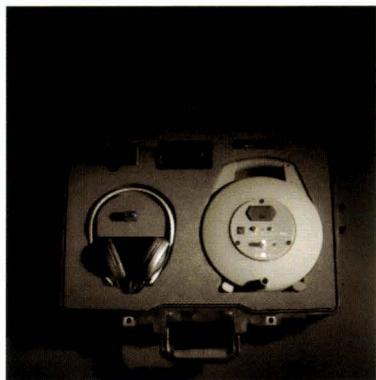
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Rapid 100

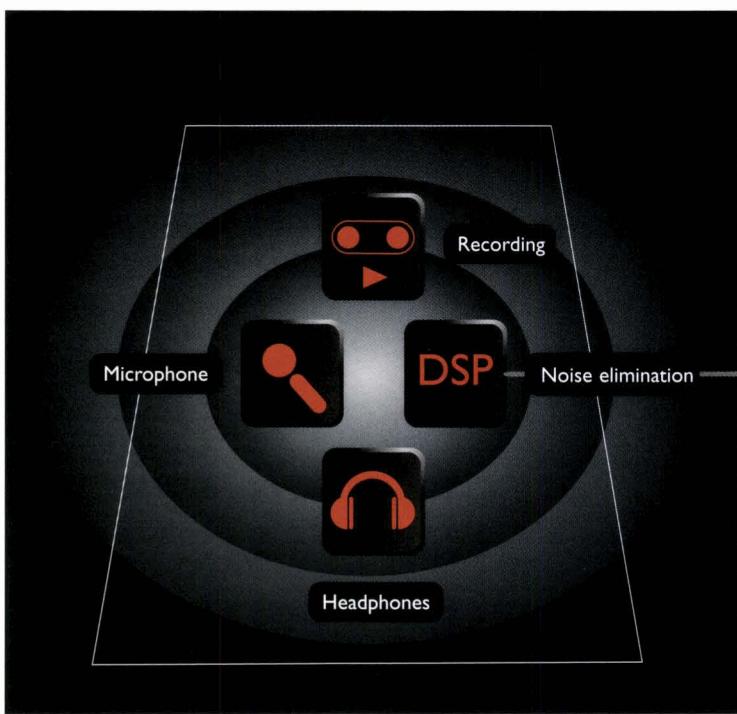
Miniature microphone system

Quick deployment

The Rapid 100 has been designed for responding to unexpected situations which require monitoring. With a high sensitivity miniature microphone and 100 metres of miniature coaxial cable for reduced visibility, the Rapid 100 is easy to set up for instant use.



The choice of 8 levels of Digital Signal Processing (DSP) enables the operator to enhance the intelligible voice signals and eliminate both background and deliberately introduced noise. And, as a wired microphone system it is immune to detection by radio frequency detectors.



Features summary

- High sensitivity microphone
- Quick set-up and ease of use
- 100 metres of miniature coaxial cable reduces visibility
- Immune to radio frequency detectors
- High quality audio from high sensitivity miniature microphone
- Choice of 8 DSP noise elimination levels to suit noise environment

Specifications

Microphone	miniature microphone
Frequency Response	100Hz to 15KHz
Noise Reduction	8 level DSP > 35dB per Channel
Controls	Volume Switches: Noise Reduction: 8 levels Gain: high and low Power: on/off
Indicator	Power on green LED Low battery red LED
Outputs	3.5mm jack sockets for headphone 3.5mm jack sockets for recording
Output impedance	8 ohms
Output power	1 watt
Power	Internal: PP3 battery (9V) External: 9V DC
Microphone supply	constant current
Control unit size	225 x 270 x 80mm
Microphone / pre-amp	size 35 x 8 x 5mm



Designed and manufactured
in the United Kingdom

eskan

Electronic surveillance

Kontact5

A comprehensive 'through the wall' system



Listen to your surveillance target
Know the exact location of your surveillance target

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Kontact5

Through the wall surveillance

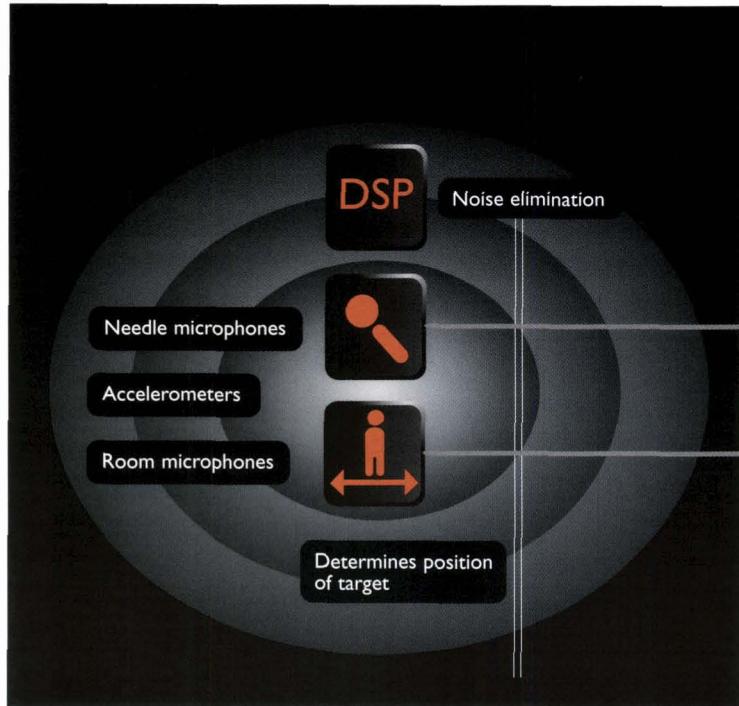
If your target is the other side of a solid wall even in poor surveillance conditions, you can listen locally or remotely. With a high degree of flexibility for temporary or permanent monitoring.

The accelerometer and control unit with 2 channels, each with 8 levels of DSP noise elimination to enhance the intelligible voice signals, are designed for instant stereo imaging over 12 metres apart giving an accurate picture of what is happening on the other side of the wall. DSP eliminates both background and deliberately introduced noise.

Kontact5 is also equipped with 3 different lengths of needle



microphones which can be used where there are keyholes or gaps in the wall, and with a discrete microphone for use where there is room access. All have excellent audio quality and enable remote listening up to 2 kilometres away from the target.



Features summary

- Sophisticated high gain amplifier and accelerometer
- Adjustable microphone sensitivity level on both (stereo) channels
- 8 level noise elimination with Digital Signal Processing (DSP)
- Background noise elimination on both (stereo) channels
- Through the wall contact microphone
- 3 Needle microphones for keyholes or gaps in the wall
- 2 reels of 25 metre miniature screened lead
- Lead length extendable up to 2 kilometres
- Standard discrete room microphone
- Instantaneous monitoring in adverse conditions
- One compact case containing all components

Specifications

Microphones	Contact Accelerometers 3 needle microphones Discrete room microphone
Frequency Response	30Hz to 8kHz
Controls	Noise Reduction: 8 level DSP > 35dB per Channel Volume: left and right Switches:
Noise Reduction	8 levels Gain: high, medium and low Power: on/off
Indicator	Low battery LED
Inputs	Accelerometer/needle microphone: left and right
Outputs	3.5mm jack sockets for stereo headphone 3.5mm jack sockets for stereo recording
Output	impedance 8 ohms
Output power	1 watt
Power	Internal: PP3 battery (9V) External: 9V to 12V DC
Control unit size	102 x 58 x 17mm

www.eskan.com



Designed and manufactured
in the United Kingdom

eskan

Electronic surveillance

Shadow 5000

Listening through the wall

The ultimate 'through the wall' system

Listen to your surveillance target

Know the exact location of your surveillance target

Eskan Electronics Ltd

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Shadow 5000

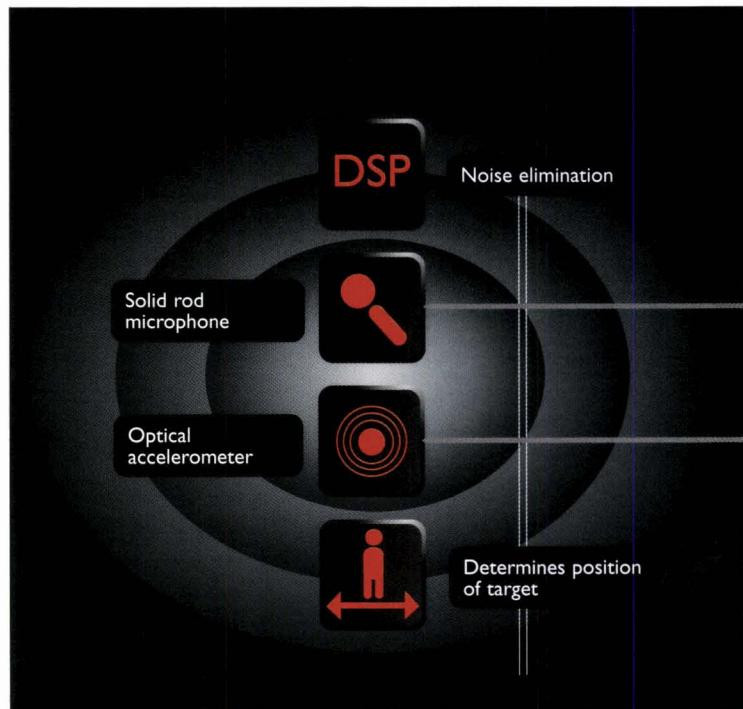
Listening through the wall

You don't need to know the type of wall in advance. If your target is the other side of a solid or cavity wall even in poor surveillance conditions, you can listen locally or remotely. Quick and easy to set up for temporary surveillance.

The optical accelerometers and control unit, with its 3 levels of DSP noise elimination to enhance the intelligible voice signals, are designed for instant stereo imaging over 12 metres apart giving an accurate picture of what is happening on the other side of the wall.



The Shadow 5000 is also equipped with solid rod microphones which use the wall as a sound receptor and do not need to go totally through the wall. The equipment is designed for use in most conditions including under water.



Features summary

- Sophisticated high gain amplifier with 2 optical accelerometers
- Excellent audio definition and frequency response
- Adjustable microphone sensitivity level for stereo imaging
- Wide stereo imaging – up to 12 metres apart.
- Instant monitoring in adverse condition
- Elimination of extraneous and deliberate noise
- 3 levels of noise elimination with Digital Signal Processing (DSP)
- Noise elimination on both stereo imaging channels
- Advanced technology microphones
- Solid Rod microphones use the wall as a receptor
- Waterproof and durable construction
- Supplied with 10 metres of connection cable for each microphone
- Specially designed carrying case.

Specifications

Microphones	Optical contact Accelerometers Rod sensors
Frequency Response	30Hz to 8kHz
Noise Reduction	4 level DSP > 20dB per Channel
Controls	Volume: left and right Switches: Noise Reduction: 4 levels Gain: high, medium and low Power: on/off
Indicator	Unit on / Low battery LED
Inputs	Accelerometer: left and right
Outputs	3.5mm jack sockets for stereo headphone 3.5mm jack sockets for stereo recording
Output impedance	8 ohms
Output power	1 watt
Control unit size	Power Internal: PP3 battery (9V) External: 9V to 12V DC 102 x 58 x 17mm

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Designed and manufactured
in the United Kingdom

eskan™

Electronic surveillance

EMCK

Transmitting over the public mains system



Transmitter and receiver - easy to install
and maintenance free

Elimination of background and deliberately introduced noise

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EMCK

Transmitting over the public mains system

Remote surveillance without dedicated wiring



Clear audio signals from a concealed micro-sized transmitter directly through the public mains electric system are interpreted by a matching receiver. No dedicated wiring is required and detection with conventional counter-surveillance

equipment is impaired as transmission is on Very Low Frequencies. With easy installation in the public mains supply systems from 100V AC to 260V AC this system can be used for long range surveillance. Once installed, no maintenance is required; power is supplied by the public mains system. A high level of RF drive is applied to maximize the receivable range in high interference conditions.

Remote receiver with noise elimination

This is a dedicated receiver that can be quickly connected to the mains ring for long range surveillance either in the same or neighbouring building, or tapped in the street. Three levels of filtering remove interference prevalent in the mains supply. The de-companding circuitry matching that of the transmitter ensures clear audio quality. Voice levels can be controlled automatically.

Noise elimination with Digital Signal Processing (DSP) enhances the intelligible voice signals by elimination of both background and deliberately introduced noise. This extensive filtering gives interference-free and crystal clear audio quality.

Adding an extra safeguard to your surveillance

There is an encryption and decryption option (EMCK.EN) to increase the security of the surveillance operation. Encryption prevents recognition of the transmitted signal and increases the difficulty in uncovering its presence.

Alternative mains carrier options

Both the clear (EMCK) and encrypted (EMCK.EN) systems are available without DSP (Digital Signal Processing) technology as clear (EMC) or encrypted (EMC.EN) where there is not a high level of background noise and the audio is understandable.

Features summary

Transmitter

- Micro sized transmitter concealed in equipment powered by mains electricity
- Transmission path is public mains power supply
- No dedicated cabling required
- Easy installation and operation
- Operating power (110/240 Volts AC) provided by public mains supply
- Transmission on Very Low Frequency band
- Impaired detection by conventional counter-surveillance equipment
- Safeguarded transmission with encryption option
- No maintenance required
- Long range surveillance with high level radio frequency drive
- Fast acting automatic voice level control (ALC)

Receiver

- High quality audio without the noise of the mains power line
- 8 levels of DSP to eliminate background noise
- Extensive filtering to remove interference

Specifications

Technical (Transmitter):

Frequency range:	60 – 450 kHz
Frequency stability:	+/-5ppm
Deviation:	6 kHz
Modulation:	Narrow FM

Physical (Transmitters):

Microphones:	External with 100mm lead Power supply 100 – 260 V AC
Size:	Control unit 50 x 34 x 23 mm
Operational temperature range:	-10 to +65°C

Technical (Receiver):

Frequency range:	60 – 450 kHz
Digital Signal Processing:	8 level >35 dB per channel
Demodulation:	Narrowband FM
Modulation acceptance:	6 kHz
Adjacent channel rejection:	>50 dB

Channels:	3
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Physical - (Receiver):

Controls:	on/off, volume, DSP noise elimination, sensitivity/interference switch, channel selection
Indicators:	LED 10 segment bar graph
Input:	mains power supply
Output:	Headphones 3.5 mm jack; recording 3.5 mm jack
Power supply:	110 or 240V AC
Size:	153 x 102 x 44 mm
Operational temperature:	range -10 to +65°C
Contents:	
Transmitters:	3 Mains carrier transmitters
Receiver:	EMC 3 channel receiver
Cable:	1 metre recording lead
Headphones:	Stereo
Case:	Lightweight carrying case