Sophisticated Electronic Equipment for the Security Field

- MONITORING SYSTEMS
- JAMMER
- ENCRYPTION
- FACILITY & PERSONAL PROTECTION
- SEARCH AND RESCUE
- VOICE LIE DETECTOR
- DETECTORS & DEACTIVATORS
- INFORMATION DEFENSE & OFFENSE
- CAMERAS
- AUDIO
- VIDEO

- Data protection solutions for organizations and for private customers
- Services and products cover all areas of security
- Our products are being sold to top security organizations

ELKAT works in cooperation with leading global enterprises in order to develop and provide first-class solutions of encryption, tapping, jamming, surveillance and explosives- and drugs detection.

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ELKAT SINCE 1985 Security Engineering Ltd.

Company Profile

ELKAT is a leading Israel integrator and distributor of sophisticated electronic equipment for the security field. We also offer protection solutions for organizations and for private customers.

ELKAT's services and products cover all areas of security, from consulting to VIP-protection; from quality investigation equipment to highly advanced electronic surveillance systems. Our products are being sold to top security companies around the world.

ELKAT has the ability to provide emergency and security solutions: threat assessment and gap analysis, plans and procedures, crisis management, emergency operations centers, security planning and design, training and exercises, VIP protection courses and training.

ELKAT works in cooperation with leading global enterprises in order to develop and provide first-class solutions of encryption, tapping, jamming, surveillance and explosives- and drugs detection.

With more then 20 years of experience in the security protection field, we have the needed experience, know-how and perceptive to answer the demands of any client. We understand the complexity and sensitivity of the field and guarantee top-level service to our business clients.

Companies, businesspeople and other institution, who are looking for confident protection again unsolicited infiltrations and sabotage of their enterprises, will at ELKAT find the perfect partner who will listen, advice and find suitable solutions to reduce risks and losses, discover frauds and eliminate threats.

Please contact us at:

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Monitoring

EKMS 1701 – GSM 5.1 Half Active

- Passive intercept of A5/2 GSM conversation
- Invisible active intercept of A5/1 GSM conversation
- Passive intercept of SMS
- Archived Data Base Recording
- Exportable Recording Files
- Portable and Tactical
- CTS GSM provides the following features
- Control of Forward and Reverse Voice Channels
- Control of SMS messages
- Automatic computation of session key (Kc) in real time for A5/1 and A5/2 algorithms without disclosing traces to subscriber
- Recording to Hard Disk of Voice Sessions, SMS messages and call related information
- Subscribers location finding relative to the base station
- Possibility of substituting dialed number to diverted number, if accepted by network
- Proper operation of system through Frequency Hopping mode
- Targeting feature by capture of user information through software application and adjusted handset
- Full targeted recording through TMSI, IMSI and IMEI

The system specification

•The CTS GSM intercept is supplied with the following parts and accessories :
Single or Dual Band GSM Receivers built into lightweight portable box
Single or Dual Band GSM BTS booster built into lightweight portable box
IBM Laptop computer with 2Gb Ram and full operating software for GSM Intercept
Dual band GSM high gain directional antennas
220 V and 12V power supply and conversion
•The system can be delivered with specification for 4-32 Duplex channels .
•The number of simultaneous targets/calls that can be recorded is equal to the number of duplex channels.

The System Main Application Window

1. *Indicator of BTS operation*
2. *Indicator of Cipher operation*
3. *Registered Subscribers List*
4. *Button to call up BTS operation*
5. *Recorder window*
6. *Target Window*
7. *Active BTS window*
8. *Paging Channel*
9. *Mobile stations window*
10. *Protocol window*

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Monitoring

EKMS 1704 - CDMA 2000

The system contains:

- *Subsystem of data registration*
- *Subsystem of data processing*
- *Subsystem of data storage*

The system realizes the following features:

- Fast scanning of the selected frequency range and identification of basic stations by short code displacement
- Automatic adjustment on synchronizing channel and determination of system time, station number, and current parameters of long and short codes.
- Automatic adjustment on dialing and access control channels.
- Automatic adjustment on traffic channels which are selected by base station.
- Supervision over forward and reverse channels.
- Call selection by IMSI and ESN
- Determination of the mobile radiated rating which is selected by base station.
- Passive automatic decrypting and decoding of the signals in real time
- Automatic detecting, decoding of sessions and recording them on the PC hard drive
- Automatic registration of call related traffic transmitted messages
- Displaying and recording to the magnetic media of phone conversations protocols and of call related events that take place in the system controlled area, including classification according to phone numbers and dates.
- Direction of receiving device (scanning, adjustment to channel frequency and Pilot PN offset)
- Displaying of the current status of receivers and selection parameters
- Conservation of connection criteria and results of related data base selection that provides:
- Daily automatic dividing
- Classification and retrieval by selected criteria
- Reproduction of the registered voiced data
- Recording of the system work related events

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Subsystem of data storage is developed for voiced, signal and auxiliary data keeping and also for its granting to the data processing stations on inquiry. The subsystem stores the most important system information: voiced files, signal tables, events tables, configuration of the system and its status, reports etc. Aim of the data processing subsystem is to grant data to operator and to provide means for information processing and reports writing. The subsystem itself is a number of work stations used for reproducing and processing of speech (work places). All the stations are connected to the local network and include speech reproducing devices that are designed for specific tasks.

Data processing subsystem provides:

- Processing storage and tract status stocking
- Registration and stocking of users who have access to data handing, distribution of users` functions implementation;
- Creation and elaboration of files that include documentary information
- Reproducing of audio data
- Facsimile handing
- Special elaboration and analyze of incoming and (or) registered voiced and facsimile data through standard and special software that is oriented on implementation of such tasks (Sound Forge, Cool Edit etc.)
- Opportunity of functioning in subsystems created by user for client's data base supplement
- Registration of information related to user's work
- Listing of tasks processing information
- Protection of data from unsanctioned access
- Recording of sessions selected by user to an optical RW media, with possibility of their further handing on computers with compact-disk reader.
- Adjustment of subsystem parameters
- Listing of event registration
- Testing and diagnosing of equipment and software means status
- Displaying of rout activity signals at the current moment of time in the work station of rout list data processing that is formed according to the access possibilities of the user who is registered in the given data processing work station

Subsystem of data registration supplies:

- *Data base conducting*
- *Displaying of the tract registration status*
- *Registration of tasks (not-established for implementation)*
- *Adjustment of the registration parameters*
- *Users' registration with providing of access to the system using individual password, plus differentiation of users` possibilities in functions implementations.*
- *General adjustment of the system.*
- *Stocking and displaying of sessions registered by processing task.*
- *Including possibility of task list or registration route displaying.*
- *Stocking of registered events*
- *Equipment stocking*
- *Opportunity of subsidiary information sources usage*
- *Protection of unsanctioned access*
- *Protection of incompetent actions*
- *Testing of software integrity*

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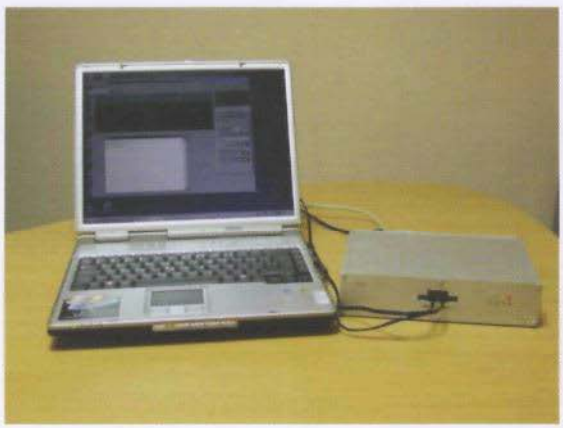
Monitoring

EKMS 1770 – Roxy



Composition of the set:

- *synchronizer unit with an Ethernet interface*
- *recording and processing server*
- *operator's workstations*
- *special software*

The set's software operates under the Windows XP operating system

The **Roxy Adsl** complex is intended for undercover information gathering during investigative work on communication channels using ADSL equipment.

The set ensures:

- Physical connection to the ADSL line
- Registration and processing of audio and numerical information transmitted in the low-frequency section of the channel
- Registration and processing of the digital information transmitted using ADSL equipment.
- Automatic determination of the ADSL channel parameters (connection speed, VPI/VCI setup, type of encapsulation and protocol used)
- Capturing user log-on and log-off events and temporary disconnection from the monitored line
- Processing data transmitted using IP, TCP, UDP protocols
- Processing the following protocols: HTTP, FTP, TELNET, POP3, SMTP, ICQ, MSN, YAHOO MSG, etc. (processing VoIP protocols).
- Identification of objects using electronic identifiers (IP and MAC addresses, e-mail addresses, ICQ number, MSN login, etc.)
- Graphic interface for the operator to observe the recorded and saved information
- Archive storage of sessions selected by the operator and utility information about them
- Storage of recorded information for a specified time
- The automatic verification of recording server's hard disks filling up and their clean-up, if necessary
- Real time operability management and monitoring.
- Differentiating between access and administration rights
- Logging the work of all subsystems
- Logging the work of the operators

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Roxy Mail

Mobile complex of digital registration and processing of modem Internet sessions (FTP, TELNET, HTTP, E-mail), of sound and special data which is received by analog telephone terminations of general used, dialed up telephone lines ROXY-MAIL

Production functions – digital registration and processing of sound and special data, of modem sessions that are received via analog lines while operationally-technical events are realized during investigative work.

The complexes guarantee:

- Technology of realization of operationally-technical events according to the current legislation and official documents of organizations carrying out investigative work;
- Registration and processing of sound and special data that incomes by analog telephone terminations of the general used, dialed up telephone lines;
- Registration of following information:
  - Analog data;
  - Facsimile transmission (**V27, V29, V17** protocols);
  - Files transmission (FTP);
  - Remote control (TELNET);
  - HTTP;
  - E-mail (SMTP, POP3).
- Co-ordination with input lines;
- Reproduction of reiterated sound data;
- Support of **V21, V22, V22bis, V23, V32, V32bis, V34, V34bis, V90** modem protocols;
- Support of the following OSI protocols:
  - Channel level - HDLC, PPP;
  - Channel level - HDLC, PPP;
  - Network level - IPCP, Van Jacobson, IPv4;
  - Transport level - TCP, UDP;
  - Session level - SMTP, POP3, IMAP,HTTP,FTP.
- Revision of intercepted information is realized with the help of standard for each data type: E-Mail – Microsoft Outlook Express, HTTP – Microsoft Internet Explorer, TELNET – text editor, FTP – file manager.

The software of complex provides:

- Depicting of registration channels status;
- Tuning of channel registration parameters;
- Modifying of numbers related information;
- General adjusting of subsystem;
- Calculation and displaying of each channel recorded sessions;
- Session events registration;
- Testing and adjusting of hardware-based part of the complex

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Jammer Systems

EKJ 1500 Portable Jammer System

The EKJ 1500 is based on an advanced RISC Micro-Controller together with a PLL synthesized transmitter, in order to ensure minimal interference outside the desired band, high processing quality, and reliability. The EKJ 1500 has been designed to work with an internal rechargeable battery 12V.The EKJ 1500 has 1W – 30W per band.
Use of high performance cellular internal omni directional antennas with optimal power gives the best-cost performance in the market.
The system can block the following frequencies: 800MHz TDMA, CDMA, AMPS, [iDEN], 900MHzGSM900, NMT, 1800MHz DCS [GSM1800], 1900MHz PCS, 2100MHz

EKJ 1520 - Mobile Phone Jammer

The EKJ 1520 has been designed for blocking GSM cellular network and all kinds of cellular standards in the world.
The EKJ 1520 is using state-of-art technology for maximum performance.
The unit controlled by Microprocessor for PLL programming .The EKJ 1520 transmits noise signal which cut-off all cellular communication between mobile phones and cell phones. The jamming radius depends on the strength signal in given area. All cellular mobile in vicinity of EKJ 1520 will be totally BLOCKED and will not be able to receive or dial outgoing calls.
When EKJ 1520 effect the mobile the display will show "NO SERVICE".
The system can block the following frequencies: 800MHz TDMA, CDMA, AMPS, [iDEN], 900MHzGSM900, NMT, 1800MHz DCS [GSM1800], 1900MHz PCS, 2100MHz.
Out-put power per band: 30W-100W
24VDC regulated or 12VDC
Remote Control
Internal/External Antennas– directional 14 dBi gain Or Omni-Directional
Antenna outputs includes VSWR protector

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Jammer Systems

EKJ 1601 CAR VIP PROTECTION

Very High Output Power 1000W and up
Modular System

The EKJ 1601 is a vehicle mounted very high power jammer designed for blocking remote controlled improvised explosive devices Used by terrorist. The EKJ 1601 is using state-of-art technology for maximum performance and jamming the signals transmits to activate bombs. The unit controlled by Microprocessor for PLL programming and use unique modulation technique based on mixed signal for maximum jamming efficiency. Each module of EKJ 1601 transmits unique noise signal which create "firewall" between the transmitter and its receiver.
The jamming signal is being generated by Multi-VCO chain which results very high sweeping time along the bands hence create high RF density in each part of protected frequency band.
Jamming radius of EKJ 1601 depends on several conditions such a cells transmitter frequency and output power, distance to receiver and obstacles between. System modularity allows flexible usage in different applications.

System Features

Systems have 3 modes of operation:
1. Sweep Mode - Jamming the whole frequency band at an ultra-fast Speed continuous sweeping.
2. Spot Mode - Jamming 4 frequencies from list of 10 pre-programmed.
3. Open Communication Window - Allows open communication from 6 pre-programmed options. Thus frequencies can be changed in factory when customer needs.

- Designed to block wireless communication including HF, VHF, UHF, SHF, Cellular Networks, Satellite Phones, GPS etc.
- Output power up to 187W and 150W per band
- Modules of Jammer operates separated;
- Separate switch ON/OFF and switch Operation Modes control for each frequency band.
- External antennas
- Remote control
- Specific signal source per band for maximum jamming efficiency

Modules Division:

- *Module 1: 20 MHz – 150 MHz;*
- *Module 2: 150 MHz – 500 MHz;*
- *Module 3: 400 MHz – 800 MHz;*
- *Module 4: 800 MHz – 1000 MHz;*
- *Module 5: 1000 MHz – 1800 MHz.*
- *Module 6: 1800 MHz – 2000 MHz.*
- *Module 7: 2000 MHz – 2500 MHz.*

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Facility and Personal Protection

EKDED 2303 – Personal Scanning

The screening system currently in use involving metal detectors, undressing, and gentle prowling is inefficient. What is more, it is humiliating and fatiguing also requiring a lot of personnel to be involved yet keeping the passenger throughput low. These shortcomings are particularly apparent at countries of "moderate" climate where people are dressed and shod warm.

Now the problem has grown into an urgent one calling for radical changes in the existing system of screening. The goal of screening is to detect any suspicious objects (including non-metal ones) or substances the possession of which is prohibited by law making one try to hide them somewhere in his/her clothes, footwear, on or inside the body. Special case screening of those who wear prosthesis, plaster, etc., is also desirable.

Screeners based on penetrating Roentgen radiation keeping a person under screening away from any undressing also allowing an "easy standing" posture. Besides, there are no parts hidden to inspection even inside the body.

Meanwhile the devices are quite definitely to be the only solution capable of ensuring **efficient and convenient** screening. The challenge of applicability is in making the dose of radiation negligibly small even in comparison with the natural radiation background. In other words, possibility of super-low-dose examination is the key to a large-scale application of the X-ray screeners.

- *A possibility for detecting suspicious low-contrast off-body objects (held in garments, or on the side) in the background of densest parts of the body, as well as inside the body;*
- *Ultra low radiation levels less than those of the natural radiation figures;*
- *Short time of screening (within several seconds);*
- *Availability of related software to enable a rapid image analysis;*
- *Absence of inspection-related inconveniences;*
- *High throughput;*
- *Background radiation in proximity to the device may not exceed 1 μEv/hour (that is to be not higher than radiation level around* the baggage introscope).

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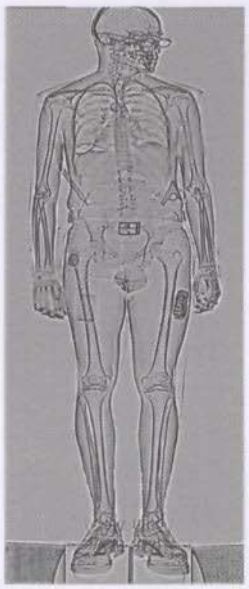
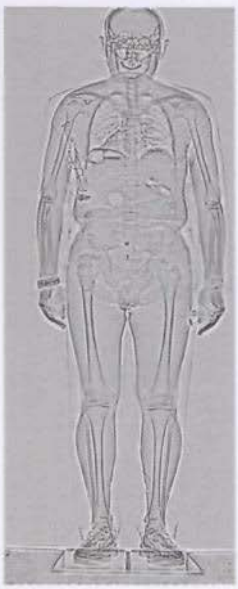
Basic Specifications

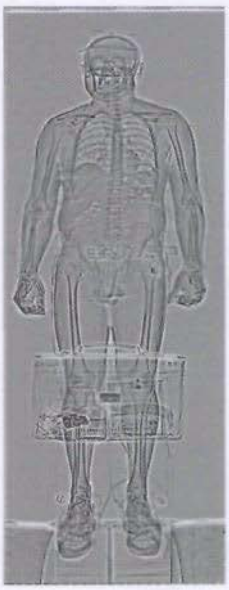
- *Maximum height of scanning: 2000 mm*
- *Image width: 800 mm*
- *Channel size (resolution):1x1 мм*
- *Maximum scanning time:5 sec*
- *Throughput: 2 persons/minute*
- *Single-scan radiation dose:~ 0,5**
  The figure is equivalent to the natural radiation dose a passenger gets within 5 minutes of the flight time.



A knife and a dummy handgun made of 4-mm plastic. A piece of explosive is on the hip.



A piece of soap (on the right), two flat 10-mm-thick pieces of explosive gelatin (on the left), and a plastic knife (in a pocket, next to eyeglasses).



The system enables to check lightweight hand-luggage, a passenger cannot or does not want to leave unkept even for a short time.

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Facility and Personal Protection

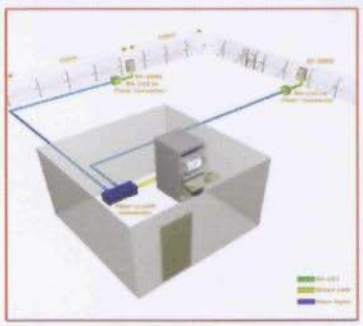
EKFP 2140 – Electronic Fence System – Sensor

A new generation security system designed to handle all aspects of perimeter protection. It upgrades any existing fence to the status of an electronic barrier with an exceptional detection resolution of +/- 10 meters.
Wherever perimeter protection and intrusion detection are required, the EKFP 2140 provides the utmost with a system that is easy to install, operate and maintain. The Long life sensor units are highly immune to extraneous environmental factors.
The system was approved by the Israeli Army Technological unit for the protection of borders, military camps and top secret sites.
ADVANTAGES

- The EKFP 2140 can be installed on almost any type of existing fence.
- The highest detection rate with the best resolution detection of +/- 10 meters.
- Maximum performance with minimum electronic elements.
- Very Low false-alarm rate due to a special software algorithm and long life sensor units that are highly immune to extraneous environmental factors.
- All weather operation.
- User friendly Interface, easy to install and maintain.
- The EKFP 2140 Viper can be integrated with other security systems such as IR sensors, CCTV, PTZ cameras, access control systems, VMD solutions, wireless communication systems.

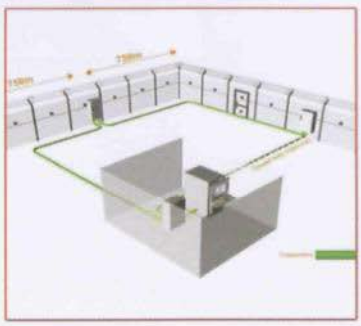
System Configuration

Fiber-Optic Communication



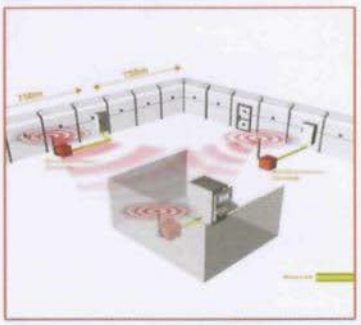
Several perimeter control units, all connected via fiber optic cable. In case of an intrusion attempt, the Perimeter Control Unit sends the intrusion attempt location via fiber optic cable, to the Control Center. This configuration is capable handling all Fiber Optic cable types (duplex, half duplex, hybrid)

Copper Wire Communication



Several perimeter control units, all connected via copper wired cable. In case of an intrusion attempt, the Perimeter Control Unit sends the intrusion attempt location via the copper wired cable, to the Control Center Computer.

Wireless Communication



In this configuration a wireless modem is connected to the perimeter control unit, each unit communicates to a primary modem, located in the Control Center, thus allowing effective, High-speed Wireless communication.

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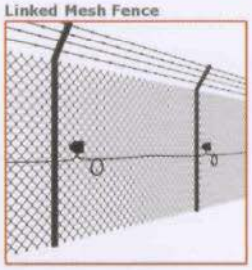
Theory of Operation

The System is a multifunctional Electronic Perimeter Security system. Employing state of the art vibration sensors installed on the fence perimeter, the system monitors and displays intrusion attempts with high degrees of accuracy with low false alarm rates. Intrusion attempts are displayed on a computer monitoring the Control Center. The system's vibration sensors are based on the Time Domain Reflectometer principle (TDR), which displays attempts at penetrating the fence perimeter with an accuracy of ±10 meters.

Fence Types

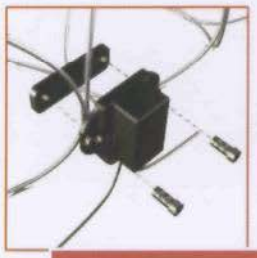
Barbed Wire Fence

Linked Mesh Fence



Decorative Fence

Welded Fence



Sensor Line

- *Inertial sensor – normally closed.*
- *Twisted pair UV protected cable.*
- *The sensors are connected, serially, to the cable.*
- *Enclosed in high impact plastic, UV protected*

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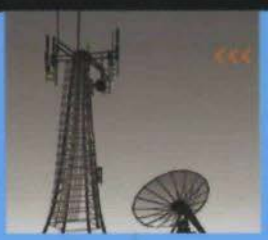
MONITORING SYSTEMS

designed to intercept and track all communication & internet traffic from the air.

Monitoring



JAMMING SYSTEMS

- Low/Medium/High power jammers
- All spectrums jammers
- Mobile and stationary jammers

Jamming

SCRAMBLERS AND ENCRYPTORS

for cell phones, PTTs, telephones and fax.

Encryption

FACILITY & PERSONAL PROTECTION

- Perimeter control
- Personal protection
- Biometric, Video and RFID controll
- Explosives & drugs detections

Security

More of our Products

• Voice lie detector • Spy phones • Detectors & Deactivators • PC special devices • Audio equipment • Video equipment and cameras

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