

AUDIOTEL



AUDIOTEL
INTERNATIONAL
Limited



We all have something important to say. Perhaps on a daily basis, perhaps once in a while. But whenever or wherever, we know that if the wrong person listens to what we say it can cause embarrassment, financial loss or compromise personal security.

Audiotel International is committed to making it safe for you to talk. When you next conduct an important meeting you can be assured that by using our equipment and services there will be no unwelcome participants listening in.

Our advice is based on a commonsense approach and many years practical experience - we believe in providing solutions that work and that our customers can understand and evaluate for themselves. We have played a leading role in establishing

training programs and in contributing to press, radio and TV reporting on the ways information can be stolen by electronic spying methods. Indeed we believe that in order to counter this growing threat effectively it is essential to understand the nature and scope of the problem. Our "Stop the Buggist" seminar provides such a grounding in a one day workshop we hold regularly in our training centre.

Making it safe to talk needs an initial overview of existing security arrangements for meetings and their vulnerability to electronic surveillance. From such an overview the requirements for new security procedures and a regular electronic sweep program can be detailed. Audiotel International have trained and equipped countermeasures teams in over 70 of the UK's Top 100 Corporations. All our customers are assured of a comprehensive after sales service

enabling them to obtain maximum benefit from their equipment investment.

Audiotel International have been designing and manufacturing security products for government and corporate users around the world since 1977. Today we offer a complete range of electronic sweep equipment for all types of situations. We combine the latest advances in technology with the need to keep the equipment quick and practical to use.

The quality of our countermeasures products is second to none and this coupled with our training and education services means only Audiotel International is able to make sure it will be safe to talk at your next meeting. No one can offer you more than Audiotel International in integrity of service and performance of equipment - so why be content with less?



Part of the comprehensive range of electronic countermeasures equipment manufactured by Audiotel International

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THE AUDIOTEL COMMITMENT

We are committed to providing the best quality advice and service to all our customers. Our brand commits our engineers to the highest quality standards. Both our products and the services they entail are constantly being developed to meet and exceed our customers' expectations.

In our factory, this means that not only the product itself must satisfy the highest standards but also the processes and methods of production. These must be designed so as to guarantee top quality consistently and reliably - always.



Andrew Martin
Managing Director

March 5th 1996



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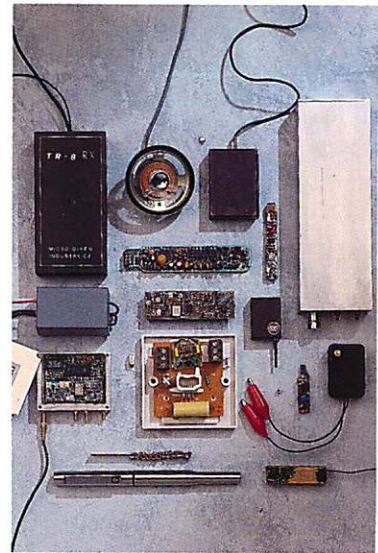
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THE ELECTRONIC BUGGING THREAT

Bugs come in all shapes and guises. In 1991 the Public Service Commission in the State of New York identified 42 ways in which privacy could be breached in a telephone system. Many of the ways listed required very little or no modification to the telephone system hardware to work. Add to these threats the bugging devices sold by the thousand from the pages of mail order magazines and the deliberate misuse of recording, intercom and baby listening equipment sold in the high street. At first glance it may seem that electronic bugging is an insurmountable problem and that

there can be no possible way of countering all the different types of devices that are available.

Audiotel International is the first company to take the mystery out of what happens in an electronic countermeasures sweep and give practical advice on how to raise the level of in-house security against electronic spying. To do this we have broken down all bugging systems into three easily understood basic building blocks - Pick-up, Sending and Storage. By analysing the various methods used for each building block we can explain the operation of all bugging systems and therefore advise on the most appropriate means of defence.



Some of the bugs that have been found using Audiotel equipment



A sweep operator looking for suspect electronic devices using the Broom ECM non linear junction detector

COUNTERMEASURES PLANNING

The first step in a countermeasures plan is to identify the information that needs to be protected, where and how it is stored and distributed, and who is considered likely to want to steal it. Most information theft originates from within an organisation and for many reasons from greed to ideological. The insider may be working as a loner or for another group such as competitors, activists, journalists or opportunists and he or she could be anyone from a part-timer to a board executive. Our experience has shown that an organisation is most vulnerable to a bugging attack when:

- ◆ ***Business expansion or rationalisation programs are being discussed***
- ◆ ***New products or marketing initiatives are being developed***
- ◆ ***Acquisitions or mergers are being planned***
- ◆ ***Work is in a sensitive or defence related industry***
- ◆ ***Senior executives or customers are subject to media attention***

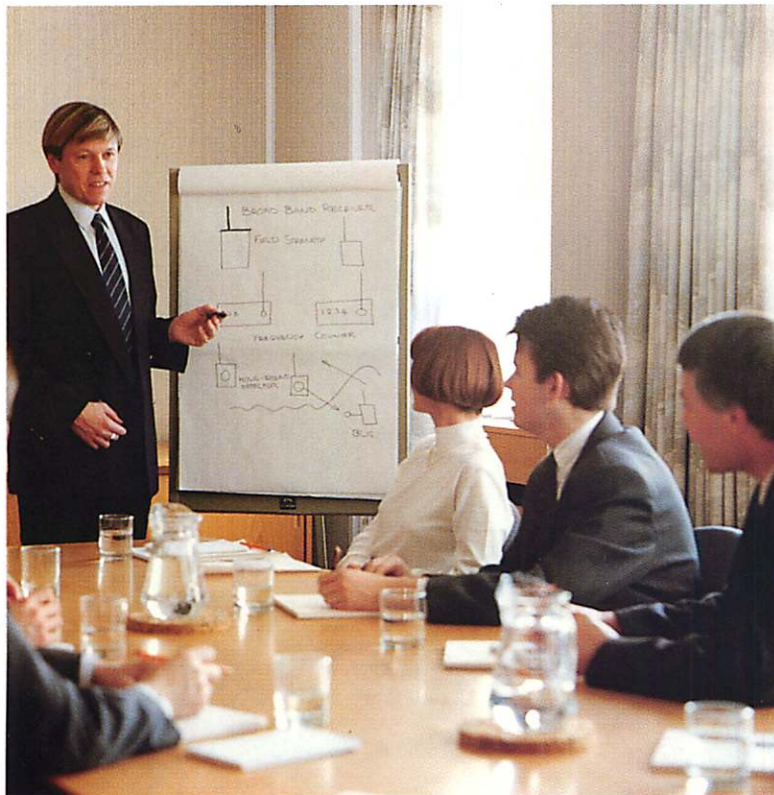
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OUR TECHNICAL SALES SUPPORT

First of all, contact one of our technical sales team who will advise you on the countermeasures techniques most appropriate for your business. You may find it useful to attend our training seminar "Stop the Buggist" as an introduction to current surveillance and counter surveillance techniques. We believe in a team approach where we work with you to achieve the best solution for your organisation. There is nothing difficult or mysterious about an electronic countermeasures sweep. We will help you decide whether you choose to form your own in-house team or use our external sweep service. Either way you are guaranteed our support in training and educating your staff and with reviewing your current security arrangements.



All technical queries are handled by one of our experienced technical support team



Our "Stop The Buggist" seminars provide expert training to those responsible for security at all levels

OUR EQUIPMENT AND TRAINING

The decision to form an in-house sweep team requires some thought and planning. Our staff will be happy to advise which combination of our equipment would be most appropriate for your situation. The supply of sweep equipment is only part of the story. We have a comprehensive training program to ensure you obtain maximum performance from our equipment and we are always happy to provide telephone/fax support on demand.

OUR SWEEP TEAM

You may already have your premises swept regularly to protect sensitive meetings against the commercial spy. If you don't, then now is the time to be thinking about it. The last ten years have seen a huge increase in the supply of bugging equipment and services. The commercial spy makes money by listening to meetings where

sensitive issues such as acquisitions, mergers, share transfers, pricing and marketing policy are discussed. Maintaining a dedicated in-house sweep team requires a substantial financial and man-power commitment. Although it is normally preferable to use an in-house team it can take a two man team up to 8 hours to thoroughly sweep a boardroom and 6 executive offices. Our

sweep teams are fully trained and we guarantee a discreet and confidential service. After each sweep we provide a fully documented report outlining target analysis, the threat to the client, description of the sweep and our recommendations to further enhance your protection against an eavesdropping attack.



One of our team members starting a RF search using Scanlock ECM Plus



Technical Surveillance Countermeasures Equipment (TSCM)

- ◆ Radio Bug Detection
- ◆ Non Linear Junction Detectors (NLJD)
- ◆ Cable Checking
- ◆ Search Tools

Scanlock ECM Plus

201-360

Described in a leading US publication as the "ultimate piece of countersurveillance gear" Scanlock gives complete protection against radio bugging devices in the range 10KHz to over 4GHz. Its unique fast tuning mode means it can lock to a new signal in a fraction of a second and identify its frequency. Scanlock ECM Plus comes with a complete set of accessories and continues to be the preferred choice for government sweep agencies and security professionals worldwide.

- ◆ **Complete protection against all types of radio bug**
- ◆ **Preset or user defined operating modes**
- ◆ **Excellent sensitivity and flat wide band performance**
- ◆ **Frequency measurement of locked to signals**
- ◆ **Silent operation, remote alarm and real time protection**
- ◆ **Simple to use and fully portable**



Scanlock ECM Plus RF Detector



Delta V ECM wide band RF detector

Delta V ECM

201-042

Delta V ECM measures the difference in field strength between its two antennas. By examining this gradient effect Delta V ECM responds positively in favour of local signals whilst tending to reject stronger signals originating from outside the search area. This makes it ideal for locating radio bugs and basic RFI/EMC testing.

- ◆ **Wide band performance from 20MHz to over 4.2GHz with even response.**
- ◆ **Dynamic range greater than 50dB**
- ◆ **Small, portable and easy to use**

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RF
COUNTERMEASURES

Scanlock Select Plus

201-364, 201-165, 201-178

The Scanlock Select Plus system is a new concept in RF spectral analysis. Using Cerberus-2 RF analysis software you can use your laptop or desktop computer to unlock the power of the Scanlock RF scanning method to detect radio transmissions difficult or time consuming to find by other techniques. The complete system comprises the Scanlock Select Plus countermeasures receiver, the Select Databank with memory for up to 12 scans and the Cerberus-2 software which is fully compatible with Windows 3.1.

- ◆ **Keep a permanent record of RF sweeps**
- ◆ **Carry out comparative tests over a period of time or through an area**
- ◆ **Detect digital and spread spectrum devices more easily**



Scanlock Select Plus and lap-top showing Cerberus software

A large proportion of installed bugging devices use some form of radio scheme to transmit their intelligence back to a listening post. Unfortunately it is not possible to predict the frequency, modulation or time frame of the operation of the bugging device. Therefore it is essential that the detection equipment is as flexible and responsive as possible. For example there are detection systems around that claim to give protection relying solely on sound feedback techniques. These will not work in the presence of many types of bug that may employ one or a combination of unusual modulation, encryption, time switching or remote control methods. Scanlock will detect all these types of radio bug and more. Conducting a search for radio

transmitters is relatively straightforward. Tracing the antenna through a search pattern the operator will listen for any unusual or unidentifiable signals. By listening to and analysing the signals the operator is able to confirm if the signal is genuine or a possible bugging source. Once identified the operator can also determine the position and operating frequency of the bug. Importantly, the sweep is carried out completely silently so anyone eavesdropping will be unaware that they have been discovered.

The advantage of a wide band radio analysis system such as Scanlock over conventional scanning or spectrum analysis techniques is that it is considerably quicker to use in the very crowded

frequency band 10MHz to 4GHz. This capability is further extended by the new Scanlock Select Plus system which enables the operator to keep permanent records of sweeps for future comparison in both time and location.

Our commitment is to keep pace with the evolution in bugging technology. Because our products outperform all others in terms of frequency response, sensitivity and frequency stability only Scanlock ECM Plus/Select Plus and Delta V ECM have provided a positive response to the newest types of radio bug as well as continuing to give complete protection against conventional radio bugging methods.

Broom ECM

204-212

Broom ECM is a second harmonic non linear junction detector (NLJD) which will detect and locate any buried electronic devices whether powered or not. To operate, the Broom antenna head is swept over the search area and a rising tone indicates the possible presence of hidden electronics. Broom ECM has variable output power, adjustable squelch and AM/FM returns to enhance further its detection capability.

- ◆ *Adjustable output power*
- ◆ *Very sensitive receiver*
- ◆ *Simple to use and fully portable*
- ◆ *Internal rechargeable battery gives 8 hours continuous operation*



Broom ECM 2nd harmonic NLJD

A non-linear junction (NLJ) is one that distorts electrical signals passing through it. Subjecting such a junction to a strong high frequency radio signal causes an oscillating electrical current to flow through the junction. The non linearity in the junction causes a distortion of the originating radio signal generating harmonics of the incoming frequency. NLJs are to be found in semiconductor components such as diodes, transistors and ICs. NLJs also occur naturally and can be detected in rock or building material crystals

or at metallic/oxide junctions. In fact the original work in non linear junction detection was done in the 1940's to find rusty rivets in metal hulled ships.

With the advent of semiconductor technologies in the early 1960's it was quickly realised that the same technique could be used to find electronic devices. It was also found that further analysis of harmonic returns yielded more information about whether the device detected was electronic or non electronic. In recent years

analysis of audio on the AM component of the return signal has given another method of distinguishing electronic from non-electronic devices. Higher and variable output power, digitally phase locked receivers and transmitters and clearer displays have improved detection whilst reducing alarms caused by non electronic devices.

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SuperBroom

204-324 ECM

204-360 Plus

SuperBroom is an advanced non linear junction detector (NLJD) with simultaneous analysis of the second and third harmonic returns from the target. The transmitter and two receivers are frequency synthesised thereby completely eliminating any frequency drift as the receivers are always locked to the transmitter frequency. By comparing the second and third harmonic return signals the operator is able to determine with greater confidence whether the signals are from an electronic or non-electronic source. Both versions have variable transmit power outputs (1-300mW - ECM; 1mW-3W - Plus) which enable precise location of the target. SuperBroom is fully portable and is supplied ready for operation in a rugged flight case with all necessary accessories.

- ◆ **2nd and 3rd Harmonic detection**
- ◆ **Clear display of individual and combined returns**
- ◆ **Exceptional sensitivity**
- ◆ **Head display for maximum operator comfort**
- ◆ **Simple to use and fully portable**



SuperBroom Plus 2nd and 3rd harmonic NLJD

Non linear junction detection is an extremely powerful search technique in addition to normal physical search procedures. However it is essential to apply this technique with a degree of commonsense. There is no point for example sweeping an area where a high content of normal electronic office equipment or naturally occurring NLJ's could be present. It is best to constrain searches to areas where a positive return would require explanation and further examination. In other words it makes sense to check

furniture or wall areas with a NLJD but not a suspended ceiling where a significant proportion of the cross joints would act as a naturally occurring NLJ. In this case a physical search of the ceiling space would be quicker.

Recognising users needs for different types of electronic device detection have led us to produce the best yet in NLJD technology. From the budget priced yet capable Broom ECM to the world beating SuperBroom Plus we have a NLJD for every user. All our

NLJD's share the same basic building block technology with synthesised and digitally phase locked receivers and transmitters, variable output power (up to 3W for SuperBroom Plus), an easily extendable search antenna arm, portable operation and internal battery with charge for at least 4 hours continuous operation at 300mW.

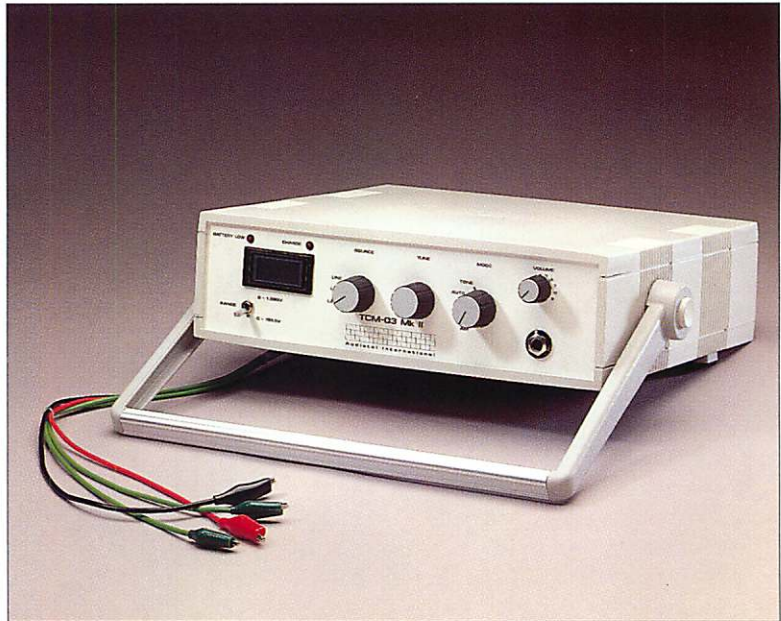
CABLE CHECKING

TCM-03

203-003

Designed for the experienced security professional the TCM-03 cable checker provides a highly effective means of testing cables and wires for bugging devices. It comprises a sensitive audio amplifier to detect microphone signals, an integral tone generator to activate remotely controlled devices and a digital meter to display voltage and current levels on cables under test. Checks can be made to telephone lines for the presence of common telephone taps.

- ◆ *Checks for microphones and carrier transmitters*
- ◆ *Tone generator*
- ◆ *Voltage and current digital display*
- ◆ *Suitable for all cable types from mains to telephone.*



TCM-03 Cable Checker

Cable Tracer III

203-009

Equipment for tracing a cable pair through a building. The operator can trace down the length of the cable by using the hand held receiver to detect the signal sent down the cable by the sender attached at one end.

CMIS-09

402-004

A set of engineers tools selected for the sweep professional in a carry case. Includes a UV marking kit, a 2 mirror and 4 probe search kit and a digital voltmeter.

Whilst it is generally accepted that cable and telephone line checking is the most labour intensive of all sweep operations there are ways it can be approached to make it more efficient and less time consuming. It is also important to appreciate that a well designed telephone tap is impossible to detect using electronic measurements and can only be found in a visual search.

Therefore the time spent on cable and telephone line checking

should be on establishing preventative measures and ensuring the physical integrity of the communications links. The final aim should be to locate and check all cabling within your own building and secure all communications links as far as possible with the outside world. This may mean the introduction of high quality encryption equipment for your most important communications links.



Checking for devices on a telephone line using TCM-03

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Physical & RF Sweep Kit

201-004

Suitable for basic search operations the Physical & RF sweep kit comprises a Delta V ECM RF detector and a CMIS-09 sweep tools kit.

Entry Level TSCM Sweep Kit

201-001

This kit combines the tools necessary for a Physical & RF sweep together with a Broom ECM NLJD which gives the added ability to search for concealed electronics. The complete kit comprises a Broom ECM NLJD, a Delta V ECM RF detector and a CMIS-09 sweep tools kit.

Professional TSCM Sweep Kit

201-002

The Professional Sweep kit is ideal for an in-house or agency sweep team. It combines all that is necessary to complete an electronic sweep with equipment for physical, RF, NLJD and cable checking searches. The complete kit comprises a Scanlock ECM Plus RF detector, a Broom ECM NLJD, a TCM-03 Cable Checker and a CMIS-09 sweep tools kit.

Advanced TSCM Sweep Kit

201-003

This Advanced TSCM Sweep kit provides the ultimate in TSCM technology giving the best performance against cost ratio currently available anywhere. For the price of a spectrum analyser this kit includes everything the security professional requires to complete an in-depth electronic sweep. The complete kit comprises a Scanlock Select Plus receiver with a Data Bank and Laptop computer loaded with Cerberus 2 RF Analysis software, a SuperBroom Plus NLJD, a TCM-03 Cable Checker, Cable Tracer III and the CMIS-09 tool set.

The foundation of every sweep team is in the equipment they use and the training and knowledge they have in the subject of protection against the bugging threat. Real confidence that a meeting is not being compromised can only be achieved using specialist equipment to complement search and procedural techniques that on their own may only provide a partial answer to the threat.

We believe in matching the level of equipment and training to the resources available to the team both in terms of budget and capability. We support all the sweep kits we sell with a comprehensive training package that is given at our training centre in Leighton Buzzard or at our Headquarters in Corby. This

training will ensure that your sweep team will not only be able to obtain the maximum benefit out of our equipment but will also be equipped to implement and report effectively on the sweeps that they carry out.

The kits are suited to every budget and represent excellent value for money. If you wish to upgrade the Professional or Advanced sweep kits to include the new Scanlock Select Plus and Cerberus RF analysis software, please contact our sales office.

- ◆ *Equipment level matched to available budget*
- ◆ *Substantial discount on individual prices*
- ◆ *Full training at Audiotel included in price*

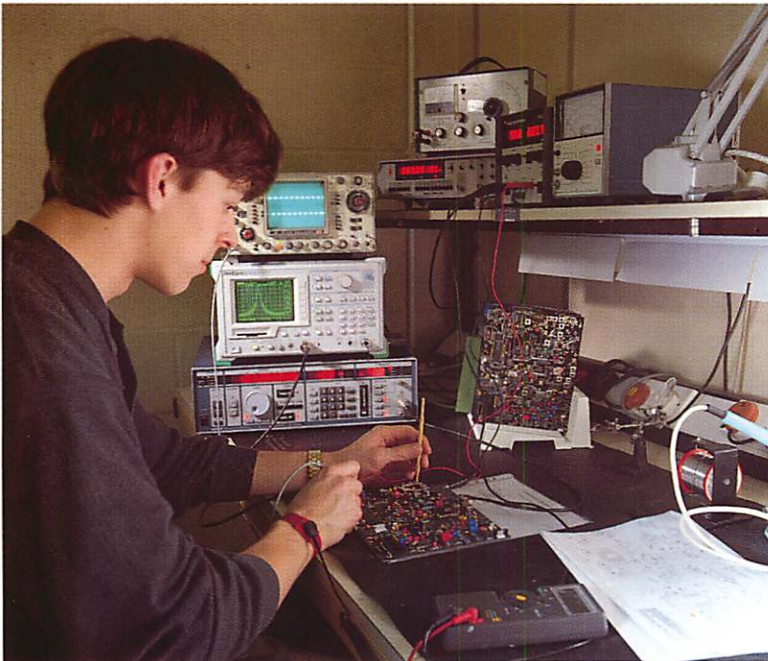


The latest in RF bug detection

Audiotel International have a comprehensive training and after sales package. As we are also manufacturers of the equipment we sell you can be assured of the completeness of the support we provide. From one day introductory courses to in-depth courses detailing the latest technical surveillance and countermeasures methods we have courses to suit all our users. These courses can be combined, extended or customised to meet a users exact requirement. We also

offer service and maintenance training packages for users with their own technical support facilities.

All Audiotel products carry a two year warranty subject to our normal terms and conditions. We recommend an annual test and recalibration after the warranty period has passed to keep your equipment in top working order. Please contact our sales office for more details and for details of our fixed period maintenance schemes.



OUR WARRANTY

All new Audiotel sweep equipment is covered by a no quibble two year return to factory guarantee. In addition, we offer you the option to extend the warranty by returning the equipment to the factory for recalibration after the expiry of the initial two year warranty and annually thereafter. After every repair and recalibration the equipment is put through the same exhaustive final check and soak test procedure it received when originally leaving our factory.

Careful use and regular maintenance of your Audiotel equipment will ensure long life. To be assured that you will obtain maximum benefit and value from your equipment you need to be assured that service and support will continue for the intended lifetime of the product. Audiotel International guarantee that major components and spares will still be available for 10 years after date of purchase for all products manufactured by us.

WS001 Stop the Buggist

912-001

This is a one day course during which we present an overview of the latest advances in bugging technology and the way in which this problem has grown so rapidly in the last 10 years. The afternoon session covers the implementation of in-house security procedures to give protection against the bugging threat.

WS003 Scanlock 2000 Training

912-003

This is a half day course giving full instruction in the operation of Scanlock 2000 and relevant sweep techniques.

WS004 Scanlock ECM Plus/Select Plus Training

912-004

This is a half day course giving full instruction in the operation of Scanlock ECM Plus or Scanlock Select Plus and relevant sweep techniques.

WS005 Broom ECM Training

912-005

This is a half day course giving full instruction in the operation of Broom ECM and relevant sweep techniques.

WS006 SuperBroom ECM/Plus Training

912-006

This is a half day course giving full instruction in the operation of SuperBroom ECM or SuperBroom Plus and relevant sweep techniques.

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HOW TO CONTACT US

We have two locations, our new headquarters building in Corby and our UK sales and training centre in Leighton Buzzard. You are most welcome at any time to visit our premises and see for yourself the quality and support that only Audiotel can provide. Our telephones are manned 8am to 6pm (UK time) Monday to Friday. Outside these hours the lines are diverted to an answering service this is attended to regularly by one of our managers. You can be assured of a fast response to any urgent requirement that you may have.

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MORE INFORMATION

Our technical sales team are ready to take your enquiry. Also do contact us if your particular requirement is not covered in this catalogue and we will do our best to help. To maintain our quality of service to you and our other customers it is important to us to receive your suggestions and ideas to make our products even better. Look out for our handy fax request forms that should be found with this catalog. If they are missing let us know and we will send a fresh set.

ORDERING

All orders must be confirmed in writing by letter or fax. Please quote our catalogue codes and description and the quantity you require. It is advised at time of order to confirm availability and current pricing with our sales staff.

If the items are not in stock we will send you by return an acknowledgement stating delivery.

Payment can be made in advance by bank transfer or draft, irrevocable letter of credit or by VISA, Access or American Express. Subject to the receipt of satisfactory credit references we will be happy to arrange a monthly credit account for you. Please contact our credit control department for an application form.

TERMS AND CONDITIONS

Please note the aforementioned summary is not intended to replace our standard terms and conditions, copies of which are available on request. All Audiotel equipment is covered by an extensive two year return to factory warranty. The warranty can be renewed yearly by returning the equipment for recalibration annually thereafter. We view our relationship with our customers as a partnership to obtain the very best out of our products or services. The initial investment in an Audiotel product is repaid many times over in terms of excellence of performance and a long lifetime. We look forward to the opportunity of proving our commitment to you.

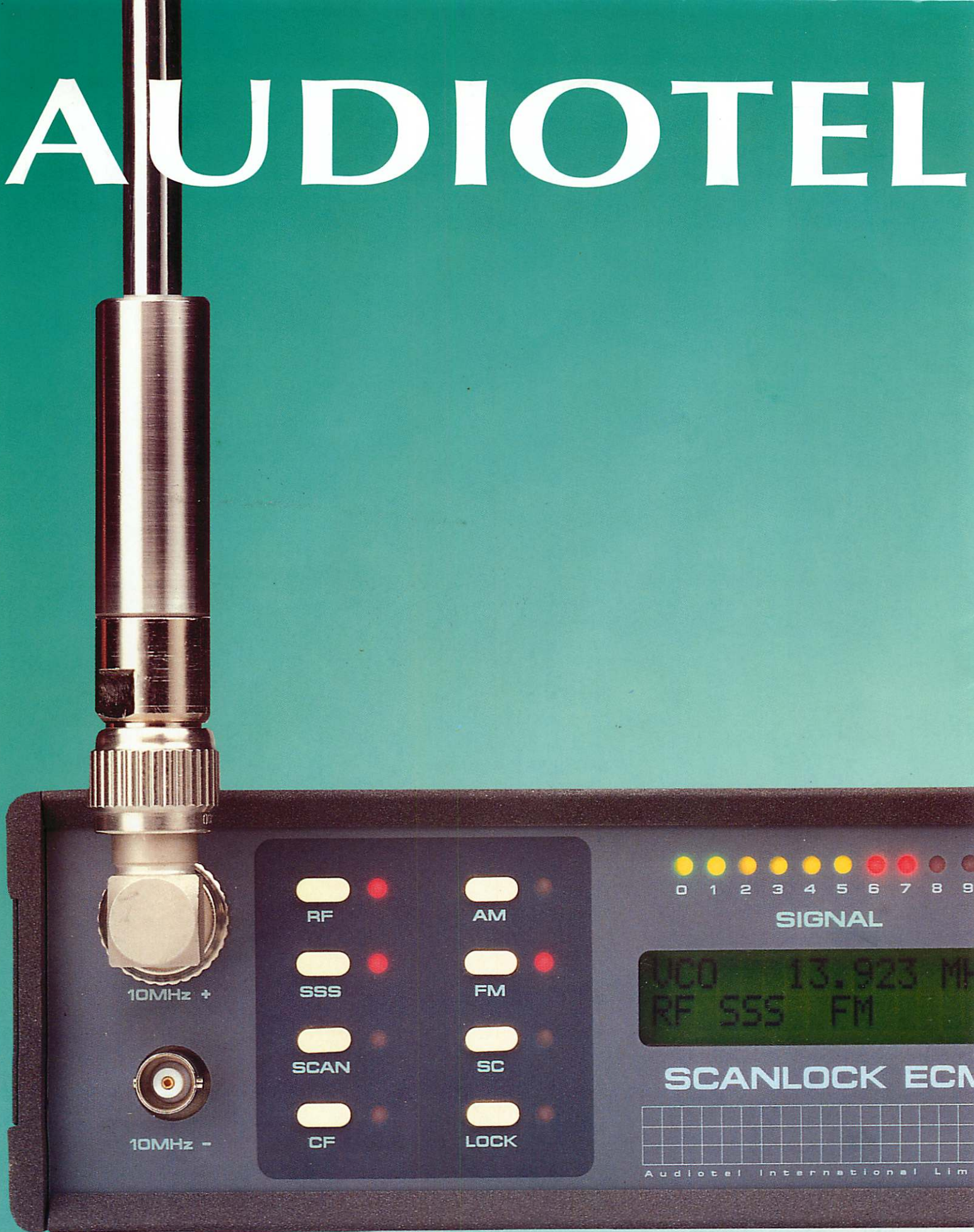
Crypto Museum

Eindhoven, The Netherlands
www.cryptomuseum.com



CM 300750

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