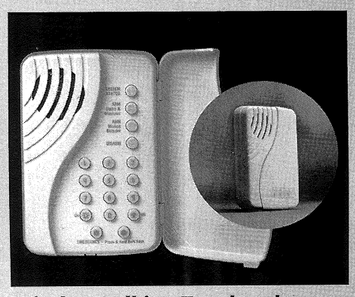
PRODUCT PREVIEWS



Wireless Talking Touchpad

Designed to add flexibility and greater security, the new TouchTalk™ Two-Way RF Touchpad gives verbal supervisory and alarm reports up to 500 feet away from the panel. The popular high-volume control panel now features 24 zones, a rechargeable battery backup option, two-way voice, remote telephone control and a new siren driver. Two-way voice is available as an optional module or an integrated feature. Other features include voice zone descriptors, light control and remote panic protection. Installation is easy in any location.

ITI

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All-Weather Hand-held Transceivers

The TK-290 VHF and TK-390 UHF transceivers have a 160 channel capacity providing reliable two-way communications for police, fire, utility and emergency service personnel. Weather-proofed against extreme storm conditions, the units also deliver clarity under noisy conditions like emergency and industrial environments, utilizing noise-cancelling microphones and 1.77" speakers. The seven character alphanumeric name-tags at the top of the units provide a group number and easy-to-read icons, and can be illuminated for dark conditions. Also included is the versatile toggle switch which can invert the display for easy reading when units are worn on a belt or chest pack.

Kenwood Communications

Reader Service Card #239

Overcoming Technical Objections to the Admissibility of Surveillance Videotapes

ELLIOTT GOLDSTEIN, B.A. LL.B.

BARRISTER & SOLICITOR

Consider the following facts

The senior security officer of a department store closely watched the CCTV monitor of camera No. 1 <1>. The surveillance target — a cafeteria cashier suspected of theft — had finished dealing with a customer. The money drawer of the cash register was still open and the security officer saw the cashier place her left hand in the $20.00 slot of the cash drawer, place her right hand underneath her left hand, make a pulling motion with her right, and slide a $20.00 bill into the palm of her hand. She then removed both hands from the cash drawer and closed the drawer.

The senior security officer then observed the CCTV monitor of camera No. 2 and saw the same cashier move from the cash desk, bring her right hand out of the pocket of her smock and make a flattening motion against that pocket.

The cashier was charged with theft. At her trial, the presiding judge stated that, while watching the playback of the videotape on a television set in the courtroom, he did not see the removal of the $20.00 dollar bill from the slot in the drawer of the cash register. The Judge stated that all he could see was two hands and much static.

Under questioning by the trial Judge, the senior security officer admitted that the videotape did not present to the court an accurate picture of what that witness observed on the CCTV monitor in the department store.

The surveillance videotape did not show the alleged theft from the cash register. Why? Because at the "vital moment", interference broke up the video picture.

That interference came from a UHF radio used by the senior security officer to order other security officers to apprehend the accused. <2>

These facts were extracted from a real case in which 'static distortion' possibly caused by radio frequency (RF) or electro-magnetic (EM) interference rendered the surveillance videotape an inaccurate reproduction of an alleged crime <3>. The result? The trial judge found the accused not guilty as there was no videotape evidence of the alleged theft.

Distortion caused by RFI and EMI may affect the admissibility or weight given to the videotape if that distortion arises at a vital moment in the event being shown, as happened in the case above. If the distortion affects the admissibility, the surveillance videotape will not be admitted into evidence by the trier of law (i.e., the judge). If it affects the weight, then the trier of fact (i.e., the jury or, in a non-jury case, the judge) must decide how much emphasis will be placed upon the surveillance videotape.

One solution to the problem of RFI and EMI is to properly shield and ground the camera and VCR. Another solution is to avoid using equipment that generates EMI and RFI. Beware of ground faults and loops that are the cause of horizontal tearing or flagging in the top third of a video picture <4>. Don't forget to use surge protectors to prevent power spikes from damaging sensitive cameras, monitors, and VCRs

Technical objections to the admissibility of surveillance videotapes in court are not common. The reason may be that lawyers are not familiar with the technical grounds for objecting to surveillance videotapes or, it may be that few "distorted" videotapes are tendered in evidence. Whatever the reason, it is in the best interests of everyone in the alarm and security industry to prevent the problems that may give rise to technical objections. Summarized below are some grounds for objecting and suggested steps that can be taken to forestall them.

1. Colour inaccuracy — Courts have rejected colour photographs that do not reproduce the true colours of a scene. Likewise, videotapes that do not accurately reproduce the colours in a scene will be excluded from evidence. A videotape will not accurately reproduce colours if: (a) the light used to illuminate the scene is not full spectrum; (b) the video camera's while balance function is not properly set; or, (c) the colour controls (hue or 'tint' and saturation) on the playback monitor are not properly adjusted.

These problems can be lessened or even avoided by proper illumination of the scene being recorded, proper calibration of the camera's while balance, use of filters, and the recording of a set of colour bars on the first few minutes of a videotape (for use in adjusting the colour controls on the playback monitor).

2. Light sensitivity distortion — Over or under-exposure is another basis for objecting to a videotape's admission in evidence. Glare problems can be reduced or eliminated entirely by using polarized filters <5>.

3. Editing — just because the tape tendered in court is an edited version of the original does not make it inadmissible. However, where the editing disrupts the sequence and chronology of events, results in a lack of continuity, or creates confusion, the videotape will be excluded from evidence by the Judge. So called "in-camera" editing accomplished by switching the camera off and on or using the "PAUSE" control, may result in "gaps" in the tape. These "gaps" resulted in a videotape being rejected in a British Columbia case (R. v. Miller) because there was no solid evidence that the entire transaction was reproduced of the two instances which the Crown alleged formed the basis for the criminal charges <6>. The court concluded that the videotapes were unreliable as being misleading due to their intermittent nature.

In another British Columbia case (R. v. Caughlin) <7>, the County Court admitted some videotapes recorded automatically by a surveillance camera that reacted to movement in the room and went from recording an image every six seconds to continual, real-time recording. The hidden camera, triggered by a motion detector, was installed in a room where money was kept overnight. Some videotapes were rejected because of the unreliable manner in which the switching occurred between intermittent and continual recording. All videotapes admitted at trial were the outcome of constant, real-time recording free of interruption.

To forestall an objection based on editing, it is very important that a time-date code be recorded on the videotape and appear on a part of the screen that does not cover up or mask important events. Also, remember to keep all source videotapes (i.e., the tapes actually recorded by the VCR) and make them available to the court along with edited copies. This will forestall a defence objection that important information is not disclosed to the court!

Please consult your lawyer or a local Crown Attorney, if in doubt about the admissibility of a particular surveillance videotape.

Footnotes

1. Surveillance camera No. 1 was installed in the ceiling of the cafeteria directly above cash register number one. Surveillance camera No. 2 was placed in the ceiling above the aisleway just to the right of cash register number one. Each of the two cameras was linked by a continuous coaxial cable to a closed-circuit television (CCTV) monitor located in the security office of the department store. Security officers could watch both monitors and observe what the cameras were "seeing". The cameras transmitted video signals to VCRs which recorded those signals on videotape. A time/date generator superimposed on the videotapes the current time and date (H:M:S and M:D:Y) as the tape was being recorded.

2. See section 13.7 ("Surveillance in the Workplace - Technical Issues") in Goldstein, E., Visual Evidence: A Practitioner's Manual (Toronto: Carswell Legal Publishing, 1991, updated twice yearly). To order a copy, call Carswell's Customer Service, toll free at 1-800-387-5164, from anywhere in Canada or the U.S. and quote Order # 9362615-345.

3. See R. v. Lunsted (February 21, 1984), Doc. No. 42449, British Columbia Provincial Court, per Judge Davies.

4. For information on how to recognize ground fault conditions and trouble shoot ground loops, see Charlie Pierce's excellent text entitled, The Professional's Guide to CCTV, published by L.T.C. Training Centre, P.O. Box 3583, Davenport, IA 52808. Ph: (319) 322-6669, Toll free (800)-358-9393; Fax: (319) 324-7938. Website www.lrc-inc.com.

5. See section 3 of Pierce, C., The Professional's Guide to CCTV, cited above.

6. See R. v. Miller (1986), 17 W.C.B. 382 (B.C. Co. Ct.).

7. See R. v. Caughlin (1987), 18 B.C.L.R. (2d) 186, 40 C.C.C. 247 (Co. Ct.).

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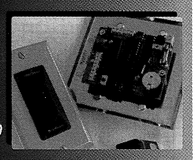
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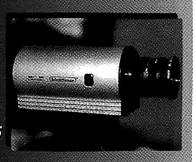
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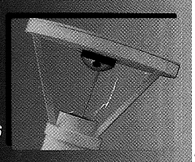
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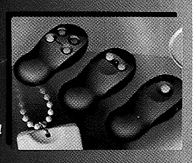
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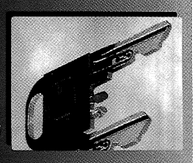
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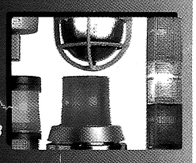
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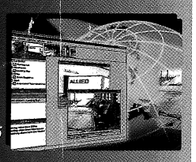
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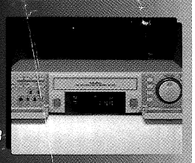
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CanProx Prox Reader

Cansec's new CanProx proximity reader is fully compatible with all HID access cards and provides two revolutionary features: Advanced Reader Monitoring (ARM); and Variable Audio Level (VAL). The ARM feature transmits an ongoing 'heartbeat' signal to Cansec's CP30 controller to confirm that the reader is 'alive and well'. The VAL feature allows the installer to field program the volume of the sonalert using a smart TouchKey. The sonalert can be set to a low level for office environments and a very high level for plant floor or other noisy areas. The reader, which provides a read range of 3 inches, is fully potted for indoor and outdoor applications and utilizes a plug-in connector for ease of installation and service. Flexible mounting provisions allow the reader to be mounted on a mullion or single gang electrical box. Options include an add-on clock display module for Time and Attendance applications. The T&A clock module is synchronized with the clock in the Cansec controller using the standard reader wiring. No special wiring or electronics are required.

Cansec Systems Ltd.

Reader Service Card #200

Hand-Held Device Offers Life Saving Aid

Emergency communication possible thousands of kilometres apart

Smallfry, a company which specializes in the design of industrial equipment, has developed a product that could help emergency relief teams save lives. Icuci is a hand-held communicator which uses existing advances in digital data transmission and computer hardware to enable video and data transmissions between users thousands of kilometres apart. Using Global Packet Radio System (GPRS), Icuci can transfer data and video images at speeds comparable to 64,000 bits per second on Integrated Services Digital Networks (ISDN) lines.

"Successful handling of any kind of disaster or emergency is generally to do with the speed at which the appropriate expertise can get on site," says Steve May-Russell, managing director at Smallfry. "Our team has been exploiting some of the communication technology already in existence to create a hand-held tool which will enable a full estimation of an emergency scene without the coordinators or experts having been there.

Making the device easy to use and durable enough to withstand harsh conditions were top priorities for Smallfry. In fact, the company claims that the miniature device can withstand almost any hostile environment and the micro-camera's rotation and liquid crystal display screen inclination can even be controlled by gloved hands, by using the large pressure pads affixed to the front of the device.

Reader Service Card #202

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