

KEYWORD: SECURITY

AT THE HEART OF PROTECTING THE HOMELAND

Photo: E&E Electronic Engineering Research Inc.

By **Tim O'Leary**, Technical Editor

Home security technology is being used to not only provide customers with conveniences but also to improve the reliability and versatility of the systems installed. The front line for most Americans is not on a back street in Baghdad. The war on crime and terror is at their own backdoor.

How the battle is fought is different for all participants involved. Alarm dealers suggest using the tools and technologies that will provide clients the most reliable and cost effective solution possible. However, the level of protection employed remains up to the individual to decide how to protect their family and their home.

This month's group of products exemplify where the security industry is and where it is going with some new technology you can deploy in your residential installs.

A FAR-OUT SOLUTION FOR FALSE TRIPS

The eFAR (False Alarm Reduction)100 represents a low-cost, reliable solution to address the false alarm issue. Randall Wang realized that his Southern California alarm company, E&E Electronic Engineering Research Inc., was faced with a serious and growing problem of false alarms. So the alarm dealer set out to examine and understand the root cause of these false alarms. He concluded that the vast majority of false alarms (around 75%) are caused by spurious (false) trips from PIR motion detectors.

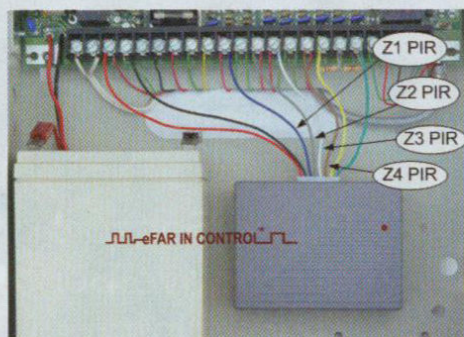
False trips in motion sensors can be caused by

things such as: differential temperature sources, lightning, RF energy, insects, air drafts, etc. The main characteristic is that they happen only once within a reasonable period of time.

In contrast, a real break-in will cause more than one trip to occur, either as the burglar moves around in front of the same PIR or moves in front of two or more PIRs. Another significant source of false alarms is lightning. A lightning strike in close proximity will simultaneously set off multiple PIRs, something a burglar is highly unlikely to do.

Based on these conclusions, Randall developed a filter, the eFAR to reduce false alarms. This module hooks up to an alarm panel to intercept and interpret the PIR zones. It looks for two trips on a single PIR or two trips on different PIRs before passing the signals through to the alarm panel. The troublesome false alarms are therefore blocked from reaching the

alarm panel. The module also has an output which can be used to tag signals as verified to the monitoring station, thus eliminating the need for other forms of verification.



The eFAR100 tries to detect false triggers before the central station is called.



The initial eFAR module was installed in 1000+ sites and reduced false alarms by 90%.

This signal processing logic is not unknown to the security industry. Internal (pulse-count) filtering circuits have been incorporated into motion sensor electronics for many years, and "cross-zoning" is a known (even if not regularly deployed) applications engineering practice known to system designers and an available feature in many alarm panels.

In 2004, Randall partnered with Jim Parker, former DSC vice president of engineering to re-engineer and market the eFAR module. The new eFAR100 incorporates numerous enhancements, including a lightning block. The eFAR100 works with any standard alarm control panel and all common loop supervision modes (i.e. EOL, DEOL and NC). The installation is straightforward and takes only minutes. Typically only one wire per zone is required.

The eFAR100's patented DVC (Digital Verification Control) technology is self-configuring and requires no programming or jumpers. With built in diagnostics and electronic fusing, it is truly intelligent and automatically configures itself. A separate output is provided that can be used to input to the alarm panel to "digitally verify" an alarm event to the central station.

For more information, visit www.eefar.com.

Circle 203

AN OPEN CASTING CALL

Like several manufacturers in this arena, Aiphone had a starring role on the television series "It Takes a Thief." The show helps homeowners find vulnerabilities in their security plans by being burglarized by former thieves. Once the participants are shown how easy it is to have their home broken in to, a free security makeover is provided to them.

Aiphone teamed up with Lyon Television and the Discovery Channel in Episode 7, titled "Three Women and a Burglar," and the security makeover included the KB Color Video System. The color video system was used to help identify visitors at the door as well as provide communication between the three women that resided in separate areas of the home.

The JBS-2AD, 2ADV and 2ADV are audio video door answering systems complete with a fixed camera door station (JB-DA, JB-DV and JB-DVF respectively), an inside open voice video monitoring station (JB-2MD) and a power supply (PS-1820UL). Two additional interior stations may be added, either audio only (JA-2SD), audio/video (JB-2HD) or one of each. An additional video door station (any JB series) or audio only (JA-D) may also be added.

The inside monitoring stations are equipped with a 3.5" TFT flat color monitor, and the video door station contains a CCD chip camera with white illumination



Aiphone's KB Color Video System.

LEDs for low light applications. Communication at the door station is hands free. Communication at the monitor/intercom is either VOX operated or Push to Talk.

Incoming calls from a door station sound a 2 or 4 stroke chime and activates the inside monitor station(s). Voice from the calling door is automatically activated upon call-in. An inside monitor station answers a call-in from a door station by momentarily pressing the TALK button to activate the VOX mode or pressing and holding the TALK button while speaking.

The entry area(s) can be monitored (audio and video) by pressing the "monitor" button on any room station, staying on for approximately 1 minute. Pressing the "monitor" button repeatedly cycles through the door stations. The door release button can be used to activate an electric door strike. To selectively release video doors, add the RY-3DL adaptor.

For more information visit www.aiphone.com.

Circle 204

WIRELESS IS THE WAY TO GO

Honeywell continues with its diversity of wireless alarm sensors. The VISTA series helped bump hardwire and make RF the new standard and continues to expand the possibilities for wireless security with new compact, attractive and extended battery service sensors. Honeywell's 5820 Slimline Door/Window Contact Transmitter is nearly half size of standard door/window transmitters.

It is ideal for casement and double-hung windows. The 5820 provides a single zone of protection, and installs easily on doors or windows with the included mounting hardware or double-side adhesive tape.

Features include:

- Sleek design is nearly half the size of con-

