# The Benefit of a Concealed Shoplifting Detection System

***By Link Charlot, President, XPONDR® Corporation***

*"We spend thousands of dollars in each of our stores to create a welcoming and non-intimidating portal into our business. To create an obstacle or barrier through which a client must pass to enter one of our stores makes the client less comfortable and oftentimes results in a shorter visit. Of course, we all know what that does to our bottom line."*

— Woody Endres, Vice President and General Manager, Benetton

Years ago retailers tried to intimidate shoplifters into not entering their store by placing threatening looking EAS (electronic article surveillance) panel devices obtrusively in the store entrance. Retailers also placed the largest and most "clunky" looking tags on the merchandise hoping that the bulky tag would dissuade the would-be shoplifter. They relied on the deterrent benefit of a threatening looking store entrance and intimidating merchandise tags to reduce shrink, knowing that the real performance of the EAS equipment in detecting stolen merchandise was marginal. For these stores shrink usually went down initially and then rose again, sometimes to an even higher level than before.

Also, to the retailer's surprise, shoppers now seemed to avoid entering the store or shortened their visit and the sales level suffered. The obvious conclusion—an intimidating appearance in the store had a price, and the shrink reduction benefit long term was questionable. It was apparent the shoppers were also intimidated.

Visible pedestals at the store entrance sends a subliminal message to shoppers that the retailer doesn't trust them, and also that the store has a theft problem. Some shoppers would feel uncomfortable entering a store where thieves may be stealing from the store. Another impact of pedestals is that they obstruct the view into the store, distracting from merchandise and sale displays. Also, most importantly, the concept of threatening looking EAS pedestals interferes with store design.

## From Obtrusive to Invisible

Over more than a decade, EAS systems had evolved into becoming more effective in actually detecting tagged merchandise, and the deterrent approach was abandoned for a more pleasant and inviting store entrance for shoppers. The tags had also become much smaller and the placement on the merchandise became less obvious. Many EAS tags today are unnoticed by the shopper.

A working EAS system has become a staple in many retailers "chest of tools" to control shrink. Many retailers also see the EAS system as a tool to control employee theft. Simply put, if the red dress is missing, and it didn't go out the front door, it must have gone out the back door and both management and employees know it.

The primary objective, of course, is to reduce shrink with EAS and at the same time not interfere with the design of the storefront or the merchandising concept. Tag size is a simple objective—smaller is better. However, EAS equipment must be integrated within the construction of the store front for it to be unseen. There are some challenges, especially with the all-glass storefronts of today or the highly styled and refined custom appearance of the designer fashion boutiques, or that of very wide mall entrances. All of these can still be implemented as a concealed installation using the latest antenna devices, such as plastic rods or flat-disk-type antennas buried in the flooring at intervals across wide mall entrances.

## Integrating Technology and Store Design

Installation of a modern EAS system has become more of an integration process within store design and construction than a simple installation of an equipment box. It is similar in concept to installing a surround sound TV system as opposed to buying a TV. Sound performance is enhanced and the room can be left unchanged. The same is true for the retail store entrance. By using the various selections of EAS

components, particularly concealable antennas, the architectural design of the store and the construction process will be unaffected.

There are also flat-panel-type antennas that are buried in the entrance flooring. However, some upper floor mall levels cannot accommodate the size and thickness of the panel due to the potential weakening of the mall structural integrity.

There are also the decades-old microwave type units that hang as a two-inch wide aluminum strip from the ceiling seven feet above the floor. These old microwave devices are mostly obsolete due to the tags easy defeat by shielding with the hand. However, the EAS equipment is unobtrusive when installed and virtually unseen by the shopper. There are many still in use today.

## Loop EAS Systems

There are the newest products in the form of loop EAS systems. A loop of wire is strung around the entrance operating together with a few of a variety of additional small antennas imbedded in the floor or mounted on or in the door frame or suspended from the ceiling that make up the EAS system. These are the most concealable systems with some totally hidden after installation. Performance of these loops is also highest as the entire door frame area can be made to detect tagged merchandise passing out the door anywhere in the door area and height. Where backpacks or hats are used to steal merchandise, this is the only concept known to be effective. The picture above shows a store construction site with a loop and hidden floor antennas being installed across the entrance.

When any concealed type of EAS systems is used, store architectural planning is needed for locating electrical conduits and chases, plumbing or floor air ducts, or other larger metal objects in or near the surface of the floor in area of the store doorway. Although most smaller EAS detection devices usually can be placed in between the conduit runs, for example, the larger flat laid down panel devices may be more difficult to position when an array of metal objects is already in place in the doorway.

Today's technology provides retailers with effective EAS to reduce shrink. Retailers do not have to sacrifice the character and creativity of their storefront to use EAS to improve profits by stopping theft. A concealed EAS system and smaller tags provides the shrink reduction needed and it does not interfere with store designs.

Also of concern to the store designer and architect should be the specifying of certain types of radio frequency electronic lighting ballast's or radio frequency electronic 12-volt spot lighting transformers that may interfere with the EAS systems. The EAS frequencies may be "jammed" with radio frequency electrical noise coming from the nearby electronic ballast or electronic spot lighting transformer making the EAS system stop working. One solution is to specify the older iron-core-type lighting ballast devices, commonly known as "ferromagnetic" ballast's or transformers, but these are more costly by comparison with the new electronic types. Another solution would be to ask the EAS supplier to recommend or pretest the selected electronic lighting ballast or transformer to be used near the store doorway and the EAS system.

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