

Residential Security



“Helping Residents Reduce Criminal Opportunity”

**Provided by the
False Alarm Reduction Association (FARA)**

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Securing the Home



The length of time a burglar spends attempting to get into your home is proportional to the probability of detection. The chance of being seen and possibly identified is the burglar's biggest fear. Most burglars allow themselves one to two minutes to get into a home. Beyond that, the risk of detection becomes too great. A good security strategy slows burglars and extends them past their self-imposed time limits.

For an alarm system to be truly effective, a homeowner must first address the physical security of their home. When considering home security, a homeowner needs to invest in quality security hardware and ensure it is properly installed. Unfortunately, homeowners cannot always assume a new home contains quality security hardware. The cost of a new home is no indication of the level of security installed. In his book, *Effective Physical Security*, Robert L. O'Block writes:

“Even though door and window security are effective and simple methods of increasing the security of a structure, builders continue to use low quality, low security hardware and materials.”

Thus, home buyers desiring security are often at a disadvantage before they even move into their home. While structural weaknesses may be expensive to repair, home security can be substantially increased by implementation of a few simple and inexpensive, yet effective prevention techniques.

ENTRY POINTS

An exterior door is only as strong as its weakest component. A high quality lock installed in a door attached to a weak frame

remains vulnerable to forced entry, and is equivalent to putting a padlock on a paper bag. In order for an exterior door to be an effective barrier between the burglar and their target, three aspects of a door assembly must be addressed and secured: **the door, the door frame, and the lock.**

THE DOOR

Exterior doors are often constructed of soft-wood products filled with insulating material and covered by veneer or metal sheeting. To improve security, it is extremely important that exterior doors be solid core and include a method to protect the door's susceptibility to door edge splitting. (See photo at right.)

All exterior doors should be 1 ¾ inches thick. Steel doors should be a minimum of 24 gauge. Regardless of their type, most residential doors have wood-framed edges, which need to be protected to prevent splitting at the deadbolt. To counter door splitting during an attack, the door should be equipped with an escutcheon plate, or door "reinforcer." An escutcheon plate significantly increases the rigidity of the door edge and reduces the chance of the door splitting around the deadbolt area. Most hardware stores carry these and they are easy to install. Some steel-edge doors are adequately protected without an escutcheon plate.



THE DOOR FRAME

The door frame is often referred to as the door jamb, which is inherently weak, as it is usually constructed of soft wood and offers little or no resistance to splitting. The most important point of any door security system is the place where the deadbolt lock meets the frame. This is the point "where the rubber meets the road." Adequately anchoring the strike plate to the wall structure of the house is critical. A strike plate is a piece of metal, usually brass or steel, that attaches to the door frame and receives the lock bolt.

Standard strike plates are secured with two screws, which offer little or no protection against door-frame failure. It is recommended that all exterior door frames be fitted with high-security strike plates. Available in a variety of designs, high-security strike plates utilize four or six offset screws and are usually constructed of heavy-gauge brass or steel. It is further recommended the strike plate be secured with at least 3-inch screws with a hardwood filler (blocker) inserted between the door jamb and wall structure (studs). The hardwood filler should extend a minimum of 12-inches above and below the strike plate. Commercially-made security products consisting of aluminum plates that install behind the door frame are available which can substitute for hardwood filler. This type of reinforcement method has proven to be very effective while maintaining aesthetics.

For an added measure of security, it is recommended that all door hinges be anchored with at least 3-inch screws and shimmed. While less likely an occurrence, the possibility exists that a burglar could attack the door from its hinged side.

Prevalent in residential subdivisions are entryways with side lights (pictured below, left) on one or both sides of the exterior door. While these types of doors are aesthetically pleasing, without proper security, they offer very little protection. The Crime Prevention Unit, working in cooperation with area home builders, tested a product which reinforces doorframes for side-light units. A "jamb brace" (pictured, below) can be installed in an existing door frame, or ordered with new doors from millwork companies.



The Snap on cover conceals the "retro-fit" security product from view (right).

THE DEADBOLT

It is important that deadbolts have the following minimum specifications:

- *Minimum ¼ inch interlocking carriage bolts to hold the cylinder halves together.*
- *Tapered cylinder guard.*
- *Hardened steel bolt with a 1-inch throw.*
- *Bolt encased in a single piece housing.*
- *Bolt constructed to limit internal movement or "play" when bolt is fully extended*

Not all deadbolts are created equal. They appear similar on the exterior, but the internal components are critical to the overall integrity of the lock. Inquire and ensure the deadbolt meets or exceeds ANSI grade 2 testing standards.



PATIO DOOR (SLIDING DOOR)

Patio or sliding doors are common on both old and new homes. While patio doors contain a large glass area, breaking glass is one of the least desirable ways for a burglar to gain entry. The amount of noise involved in breaking the glass, and the potential for suffering an injury, ensures most burglars will look for an easier and safer mode of entry. Measures should still be taken to protect the glass area against breakage.

The application of an impact-resistant material, such as security film, may be considered. Security film has limitations, so it is critical to install such products to manufacturer's specifications. A superior glazing product is laminated glass, which is the type of glass used in automobile windshields. It offers resistance to penetration other glass products do not possess.

Patio doors can also be defeated by prying the lock, sliding the door open, or by lifting the door out of its track. Fortunately, both of these types of attacks can be prevented. To

prevent forcing the door open, a secondary-locking device reinforcing the door lock should be used. Examples include pins or "Charlie bars." Available at most hardware stores, these devices are inexpensive and easily installed. To prevent the patio door from being lifted out, it is recommended a homeowner use evenly spaced screws inserted in the upper slide track. The head of the screws should protrude just enough to allow free movement of the door, but prevent the door from being lifted out of its track (pictured, below).



Screws placed just above the door in the header, eliminating upward motion.

WINDOWS AND GLASS

Very few windows are manufactured with security as the main consideration. Most windows are designed for aesthetics and energy efficiency. Basement windows are extremely vulnerable and offer virtually no resistance to forced entry. The typical basement window is held in place by two spring-latches. These windows are typically constructed poorly and offer inadequate locking devices. Basement-window security can be improved with installation of security bars or glass blocks. While increasing the security of the residence, bars and glass blocks can restrict occupants from escaping the residence during a house fire. This should be considered prior to installing bars or blocks.

Single or double-hung windows are difficult to secure. Casement windows offer a better form of security. When considering window replacement or during construction of a new home, ask whether the window unit meets or exceeds the American Society for Testing and Materials (ASTM) F588-97. Windows meeting or exceeding this standard have been tested for their ability to resist forced-entry attacks. Window units meeting the ASTM standard are an improvement from the typical builders-grade window unit and are more costly.



Laminated Glass

Laminated glass (pictured at left) should also be considered to enhance the overall security of window units. Laminated glass consists of two panes of glass with a tough plastic interlayer that makes forced entry extremely difficult. The glass may crack, but it will take several

blows for a burglar to penetrate it. This type of window will not sacrifice aesthetics to enhance the overall security of the home. The ability to exit of the house in the event of fire is not compromised for security purposes, because building codes mandate windows open from the inside. Having to break glass to facilitate escape during a fire is not recommended.

DETERRENTS

THREAT AND RISK ASSESSMENT

The intent of this brochure is to aid homeowners in self protection from unskilled, opportunistic burglars and their common entry methods. However, every individual, home, or neighborhood is different and may dictate or require specific security strategies. Constable Henri Berube, CPP of the Peel Regional Police has identified five threat levels in a residential setting.

- Level 5: Opportunistic/Unskilled Burglar
- Level 4: Professional/Skilled Burglar
- Level 3: Home Invasion/Robbery
- Level 2: Stalking/Domestic Violence
- Level 1: Terrorist Threat

Crime Prevention Practitioners can help identify your specific threat. The opportunistic burglar's behavior is impacted by simple precautions, while a violent or abusive perpetrator is motivated by emotion and danger. For each of the five levels listed, security strategies vary.

LIGHTING

Lighting can serve as an effective deterrent to burglars. Lighting is often the most prescribed, yet misunderstood security

recommendation. In general, a residence will benefit from leaving the lights on during hours of darkness. Lighting assists the police with identification of street addresses and provides the entire neighborhood a more secure feeling.

The sides and rear of the home are different. Motion sensitive lighting is preferred for several reasons:

- It increases the potential for witnesses by suddenly illuminating the environment. The human eye is naturally attracted to light.
- It saves on light-bulb maintenance costs, because lights are activated only when motion is detected, and they cycle off when activity ceases.
- It may create a "fight or flight" response in the perpetrator.

Research conducted by criminologists list motion activated-lighting as a significant deterrent to burglars who committed their crimes at night.

DOGS

Dogs have proven to be an effective deterrent to burglars. Researchers Paul Cromwell, James Olson and D'Aunn Avary write in their book, *Breaking and Entering: An Ethnographic Analysis of Burglary* (Sage, 1991)

"When asked what were considered absolute "no go" factors, most burglars responded that dogs were second only to occupancy. However, approximately 30% of the informants initially discounted the presence of dogs as a deterrent. Yet, during "ride alongs" the sight or sound of a dog at a potential target site almost invariably resulted in a "no go" decision.

But are all dogs a deterrent? Professional dog handlers suggest some breeds are better at "watchdog" duties than other breeds. Dr. Stanley Coren in his book, *The Intelligence of Dogs: A Guide to the Thoughts, Emotions and Inner Lives of Our Canine Companions* (Bantam, 1995) consulted experts and found the following breeds to be good "guard dogs": Bull Mastiff, Rottweiler, Doberman Pinscher, Komondor, Puli, Giant Schnauzer, German Shepard, Rhodesian Ridgeback, and Kuvasz. Good "watchdogs" are the Rottwiler, German Shepard, West Highlander White Terrier,

Yorkshire Terrier, Cairn Terrier, Airedale Terrier, Poodle, and Miniature Schnauzer.



Breeds such as the Rhodesian Ridgeback and Rottweiler are good guard and watch dogs, but do require close supervision and obedience.

The worst watch dogs identified by Dr. Coren are: Bloodhound, Newfoundland, English Bulldog, Pug or Scottish Deerhound.

OCCUPANCY

The single greatest deterrent for most burglars is occupancy. Consider what Cromwell, Avary and Olson write about occupancy.

Almost all burglars avoid selecting as targets houses that are occupied. Only two of our informants (from 30 active burglars) stated that they would enter a residence that they knew was occupied. Therefore, it is important that the burglar develop techniques to probe the potential target site to determine if anyone is at home. The most common probe used by our informants was to send one of the burglars to the door to knock or ring the doorbell...Any strategy which gives a house an "illusion of occupancy" while the residents are gone, will serve to significantly reduce burglary.

Creating the "illusion of occupancy" may be more difficult than it sounds. The FBI's Uniformed Crime Reports (UCR), indicate over 50% of all residential burglaries occur during the day. Lights and televisions on timers have limitations. Another interesting fact, which the researchers point out, is the method by which burglars check homes for occupancy; ringing the doorbell or knocking. In 2000, the UCR reported 2,049,946 burglaries, with two-thirds being residential in nature.

CHILDREN HOME ALONE

One of the common recommendations made to parents with children who stay home alone is "don't answer the door." Given the information about a burglar's method of checking for occupancy, it is not

recommended for children to remain quiet to create the illusion the house is unoccupied. Parents should consider strategies for their children to deal with this possibility. A child opening the door is much different than children making noise and creating the unmistakable "fact" a house is occupied. If children are left home alone, the physical security of the home is paramount. Misconceptions were demonstrated in the fall of 2001 when the Prairie Village and Overland Park communities in Kansas experienced three home invasions where children were home alone during the day. The burglar came to the front door, knocked, got no answer and proceeded to the rear of residence and kicked in the back doors. Given the deterrent value of occupancy, parents should teach their children strategies to acknowledge someone at the door rather than to remain silent.

ALARM SYSTEMS

Effective alarm systems serve as a deterrent to intruders. They can alert authorities to intrusions and provide residents with peace of mind while their home is unoccupied. However, alarm systems have limitations. Alarms cannot prevent an intruder's entry; they depend on a police response. If an alarm is activated while a house is occupied, the alarm system can seize the phone line inhibiting a resident's ability to dial 911! The most prominent, yet avoidable, problem with alarm systems is false activation. Prior to the purchase of an alarm system, we strongly encourage residents to contact the Crime Prevention Unit to match their needs, concerns, and lifestyle with the most appropriate security strategy. For more information on alarm systems and how you can prevent false alarms visit <http://www.faraonline.org>.

PREVENTION

CITIZENS FOR CRIME PREVENTION

The Neighborhood Watch Program employs the cooperative involvement of residents in a neighborhood. The program's goal is for neighbors to become acquainted with each other and to actively prevent and combat crime. Members of a Neighborhood Watch Program assist their police department by providing many additional eyes and ears. Protective neighborhoods are needed to help prevent criminal activity. Uniformed officers cannot be present when every situation

occurs. It is up to you, as an interested citizen, to report what you see and hear when it is happening. You are strongly encouraged to limit your involvement to placing telephone calls for police service. You should not attempt to take action on your own or try to apprehend suspects. Your job is to be a good witness. Our job as trained law enforcement officers is to apprehend criminals using your information. To start a Neighborhood Watch Program in your area, contact your Police or Sheriff's Department. Help us reduce criminal opportunity!

OPERATION IDENTIFICATION

Operation Identification originated in Monterey Park, CA, in 1963. This program is designed to prevent theft and burglary by notifying potential thieves that all property in a home can be readily identified by law enforcement agencies.

How does this prevent thefts?

If a marked item is stolen, it more difficult to trade or sell and could be used as direct evidence against the thief if found in their possession. After you have marked items of value, you will be provided Operation Identification decals to place in locations a thief might use to enter your home, i.e., doors or windows. This notice can be a major factor in preventing burglaries. The success of the program depends both on marking your property and displaying the decals.

What marks should I engrave on my property?

Engraving your property with your driver's license number, preceded by the state abbreviation (Example: **KSDL K00005789**). The item should be marked near the manufacturer's serial number if possible. If not, mark the item on the bottom or backside. Items can be marked in more than one place if desired, but at least one marking should be visible without having to dismantle the item.



Residential Security Checklist

Name	Address	Officer

Front Door **WARNING! FIRE PREVENTION CODES FORBID DOUBLE CYLINDER LOCKS ON FRONT DOORS**

Deadbolt Quality	<input type="checkbox"/> Unknown	<input type="checkbox"/> Builder's Grade (Replace)	<input type="checkbox"/> Adequate High Security
Escutcheon Plate	<input type="checkbox"/> Door Edge Vulnerable (Plate Necessary)		<input type="checkbox"/> Door Edge Secure Unknown
Door Type	<input type="checkbox"/> Hollow Core	<input type="checkbox"/> Steel	<input type="checkbox"/> Wood Panel <input type="checkbox"/> Fiberglass
Door Frame	<input type="checkbox"/> Not Secure	<input type="checkbox"/> Secure	<input type="checkbox"/> Reinforcement Necessary (See Comments)
Glass Door Side-Light	<input type="checkbox"/> Annealed	<input type="checkbox"/> Tempered	<input type="checkbox"/> Laminated <input type="checkbox"/> Lock Within 40 inches of Glass
Comments:			

Rear Door **WARNING! FIRE HAZARDS CAN BE CREATED BY USING DOUBLE CYLINDER LOCKS**

Deadbolt Quality	<input type="checkbox"/> Unknown	<input type="checkbox"/> Builder's Grade (Replace)	<input type="checkbox"/> Adequate High Security
Escutcheon Plate	<input type="checkbox"/> Door Edge Vulnerable (Plate Necessary)		<input type="checkbox"/> Door Edge Secure Unknown
Door Type	<input type="checkbox"/> Hollow Core	<input type="checkbox"/> Steel	<input type="checkbox"/> Wood Panel <input type="checkbox"/> Fiberglass
Door Frame	<input type="checkbox"/> Not Secure	<input type="checkbox"/> Secure	<input type="checkbox"/> Reinforcement Necessary (See Comments)
Glass Door Side-Light	<input type="checkbox"/> Annealed	<input type="checkbox"/> Tempered	<input type="checkbox"/> Laminated <input type="checkbox"/> Lock Within 40 inches of Glass
Comments:			

Other Door **WARNING! FIRE HAZARDS CAN BE CREATED BY USING DOUBLE CYLINDER LOCKS**

Deadbolt Quality	<input type="checkbox"/> Unknown	<input type="checkbox"/> Builder's Grade (Replace)	<input type="checkbox"/> Adequate High Security
Escutcheon Plate	<input type="checkbox"/> Door Edge Vulnerable (Plate Necessary)		<input type="checkbox"/> Door Edge Secure <input type="checkbox"/> Unknown
Door Type	<input type="checkbox"/> Hollow Core	<input type="checkbox"/> Steel	<input type="checkbox"/> Wood Panel <input type="checkbox"/> Fiberglass
Door Frame	<input type="checkbox"/> Not Secure	<input type="checkbox"/> Secure	<input type="checkbox"/> Reinforcement Necessary (See Comments)
Glass Door Side-Light	<input type="checkbox"/> Annealed	<input type="checkbox"/> Tempered	<input type="checkbox"/> Laminated <input type="checkbox"/> Lock Within 40 inches of Glass
Comments:			

Sliding Patio Door

Door Motion	<input type="checkbox"/> Secure	<input type="checkbox"/> Install Screws in Top Track	<input type="checkbox"/> Additional Locking Device "Charlie Bar"
Glass	<input type="checkbox"/> Annealed	<input type="checkbox"/> Tempered	<input type="checkbox"/> Laminated
Comments:			

Windows **LOCKING DEVICES AND BARS CAN CREATE ADDITIONAL FIRE HAZARDS**

Window Type	<input type="checkbox"/> Single-Hung	<input type="checkbox"/> Double-Hung	<input type="checkbox"/> Casement	<input type="checkbox"/> Picture (fixed)
Glass Type	<input type="checkbox"/> Annealed	<input type="checkbox"/> Tempered	<input type="checkbox"/> Laminated	<input type="checkbox"/> Other (Comments)
New/Replacement Considerations	<input type="checkbox"/> ASTM F588-97	<input type="checkbox"/> Casement	<input type="checkbox"/> Laminated Glass	
Basement/Foundation Windows	<input type="checkbox"/> Glass Block	<input type="checkbox"/> Bars	<input type="checkbox"/> New window	<input type="checkbox"/> Secure <input type="checkbox"/> Vulnerable
Comments:				

Lighting

Front	<input type="checkbox"/> Adequate	Problems:	<input type="checkbox"/> Glare	<input type="checkbox"/> Light	<input type="checkbox"/> Trespass	<input type="checkbox"/> Shadows	<input type="checkbox"/> Other
Sides and Rear	<input type="checkbox"/> Adequate	Problems:	<input type="checkbox"/> Glare	<input type="checkbox"/> Light	<input type="checkbox"/> Trespass	<input type="checkbox"/> Shadows	<input type="checkbox"/> Other
Recommendations Front(F) Side(S) Rear(R)	<input type="checkbox"/> Façade	<input type="checkbox"/> Soffit	<input type="checkbox"/> Motion-Activated	<input type="checkbox"/> Dawn/Dusk Sensor			
	<input type="checkbox"/> Timers	See Comments					
Comments:							

Miscellaneous

Phone Line**	<input type="checkbox"/> Vulnerable	<input type="checkbox"/> Secure	Recommendations:	<input type="checkbox"/> Bury	<input type="checkbox"/> Conceal
Garage Door	<input type="checkbox"/> Secure	<input type="checkbox"/> Vulnerable	<input type="checkbox"/> Locking Device	<input type="checkbox"/> U-bolt in Track	
Landscaping	<input type="checkbox"/> No concerns	<input type="checkbox"/> Concealment for Intruder	<input type="checkbox"/> Other		
Comments:					

****Phone line protection is critical.**

Additional Comments or Observations

Comments: