Home Security Starts at Your Door

Institute for Applied Technology
National Bureau of Standards
U.S. DEPARTMENT OF COMMERCE
January 1976
HOME SECURITY STARTS AT YOUR DOOR

If you’re worried about the increasing threat to the security of your home and personal belongings, you have good cause. From 1968 to 1973, burglaries increased 31 percent. In 1973, residential losses due to burglary were $543 million. In the same year, 1,211 out of every 100,000 residences were burglarized.

If you want to protect your home against burglary, the place to start is your door. Almost all intruders will try to get through the doors before resorting to the windows. If you have the right kind of doors, locks, frames and hinges, you can increase your chances of keeping burglars out - and your valuables in.

GENERAL DOOR CONSTRUCTION PROBLEMS

One easy way to make your home more resistant to forced entry is by correcting door construction problems.

One of the most common ways a burglar breaks through doors is by breaking the strike out of the door frame. The strike is the metal plate attached to the side of the door frame where the bolt latches the door. Frequently, the screws used to attach the strike to the frame are too short, so the strike is easy to break loose from the frame. Screws that are long enough to go all the way through the frame and into the wall studs will make the strike more burglar resistant. Using a longer than normal strike will also make the door more secure because a bigger

Strike Plate with Long Screws
strike, secured by long screws, is harder to break out of the frame.

Burglars often break through the glass in and around doors to reach in and open the door from the inside. So, if your home has panes of glass large enough to reach through, and within 40 inches of the door knob or any locking part of the door, you need to take extra precautions. The glass should either be covered with protective grillwork or replaced with a burglar-resistant type of material.

Tempered glass is increasingly being used in place of ordinary glass because it is more resistant to shattering. Laminated glass, acrylic plastic and polycarbonate plastic are even better choices for vulnerable doors and windows because they are more difficult to break.

Be careful not to install mail slots within reach of the inside door knob or lock. It's easy for burglars to open doors through such openings. You can protect against many "reach-through" break-ins by adding a double cylinder lock. This type of lock can only be opened with a key, whether you're inside or outside the door.

Jalousie doors (doors with glass slats that angle out) also pose problems. It is possible to manipulate the crank or knob that opens the glass section from outside the door. You can prevent this by removing the knob or lever when it is not in use. As another security measure, you can drill a small hole through both the housing and the shaft of the knob or lever. Then you can insert a pin through the hole to prevent the crank from being turned.
Sliding glass patio doors are particularly vulnerable break-in points. The doors can often be removed by lifting them from the grooves they sit in - even from the outside. Spacers or protruding screw heads can be installed in the grooves over the door to prevent this type of removal. Many patio doors have rather weak latches, which can easily be broken by prying the door away from the frame. Placing a piece of pipe or a broom handle in the bottom grooves can prevent the door from being opened if the latch is broken. You may also want to add a stronger than normal lock to these doors. There are special sliding door locks that are both strong enough and of such a design as to prevent removal of the door.

The manner in which conventional, wooden door frames (often called the door jambs) are attached to the wall can also pose a security problem. Frequently, there is a space between the door frame and the wall studs (the part of the wall to which the frame is attached) that allows the frame to be spread so as to disengage the lock. This problem can be corrected by putting wood spacers between the frame and studs where the hinges are attached. If you have a metal door frame installed in a masonry wall, you should be sure that the space between the jamb and the wall is filled with mortar.

LOCKS

Choosing the right lock is a very important security consideration. If your primary lock is the key-in-knob type, it is easily attacked and should be
replaced with a stronger lock, or an additional lock should be installed.

If the latch bolt on your lock does not have a spring plunger that will automatically lock the latch when it goes into the strike, your door is vulnerable. It can be a simple matter to stick a thin piece of metal or a credit card between the door and the frame and open the latch bolt. In many cases, a latch bolt that does not have an automatic locking mechanism can be replaced by one that does, at a low cost.

The security of your door can also be increased by adding a good deadbolt lock. A deadbolt is a straight bar, usually rectangular, that is squared off at the end and locked only by turning a key or knob. The deadbolt of a lock, or any slide bolt used to back up a primary lock, should be at least 5/8 inch square, made of steel or solid brass, and, preferably, stick out of the lock more than 1/2 inch. A vertical-bolt type of deadbolt is particularly effective in resisting a burglar who tries to break in by forcing the door from the frame and is considered to be one of the most secure locks available, especially for double doors.

Be careful when buying locks. All too often, what appears to be a good brass lock is nothing more than brass-plated "pot" metal. Pot metal breaks very easily, offering little protection against forced entry. As a general rule, avoid very inexpensive security products unless you are buying from someone who is qualified to assure you that the product is capable of providing the protection you need.
A well-known and often-used lock is the chain lock. It allows you to open the door a few inches and see visitors without undoing the chain. DO NOT use chain locks as your ONLY accessory lock. Once the door is ajar, the chain can either be overcome by brute force, snipped with wire cutters or removed from its slot by reaching through the door and jiggling the chain loose. Because of the vulnerability of chain locks, peepholes are better for screening visitors.

MORE THAN ONE ADEQUATE EXTRA LOCK ADDS LITTLE OR NOTHING TO SECURITY. Too many locking devices can, in fact, create a fire hazard by interfering with your escape during an emergency. This is a major concern when a double cylinder lock is used (a lock that requires a key to unlock from the inside). Be sure the key is accessible to the entire family as a safety precaution.

HINGES

People often overlook the security value of the door hinge. A well-secured hinge protects a home against two types of entry:

- forcing the door out of the frame by applying pressure to the hinged side, and
- removing the hinge pins and lifting the door out of its frame.

A door opening outward is less vulnerable than one opening inward because it is much more difficult to pull a door out of its frame than to push it in. However, if the door does open outward, the
hinge pins are accessible. By removing them, the door can easily be taken out of its frame. Therefore, the hinge pins should not be removable, or the leaves of the hinges should interlock when the door is closed.

THE "BEST" DOOR

It would be difficult to define the "most secure" door because of the many combinations of materials and the varying quality of workmanship in the installation of doors.

A wood door of solid-core construction 1 3/4 inches thick, should offer adequate protection against forced entry. The metal doors often used in apartments are even better. The door should be hung on a well-fitted door frame and secured with a good deadbolt lock.

The strongest, most secure door is WORTH-LESS if left UNLOCKED. MAKE LOCKING YOUR DOOR A HABIT, even if you are "just out for a minute" or "expecting someone."

CHECKING SECURITY

If you can, have your home checked for security. Many local police departments now have community crime prevention programs and will gladly conduct a security survey of your home, free of charge.

The information in this pamphlet resulted from research performed by the Law Enforcement Standards Laboratory, National Bureau of Standards, under the sponsorship of the National Institute for Law Enforcement and Criminal Justice, U.S. Department of Justice.