Forcible Entry

21

Section III - Truck Company Operations

Doors, Locks & Security Devices

Forcing Doors

Overhead Doors

Security Doors & Gates

Windows & Security Bars

Revised - December 2018

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Objectives

- Define forcible entry.
- Understand considerations before forcing entry.
- Become familiar with forcible entry size-up.
- Become familiar with different locks, doors and security devices.
- Understand how to force an inward swinging doors.
- Grasp the concept of GAP, SET, and FORCE.
- Overcome common problems while forcing doors.
- Know how to force outward swinging doors.
- Understand types of hinges and how to defeat them.
- Become familiar with thru-the lock forcible entry.
- Understand padlocks and how to force them open.
- Study rolling security gates and ways to force them open.
- Become familiar with various windows and how to open them.
- Recognize miscellaneous entry points.

Introduction

In the fire service, the term forcible entry is defined as the act of gaining entry into a building or occupancy via a door, window or through a wall, by the use of force. Back through the years, the fire service has been charged with this responsibility of gaining entry into secured buildings and occupancies. Forcible entry has always been a primary goal of the fire service. Over the years, the types of tools used for this purpose have evolved quite a bit. Technology and the imagination of skilled people designed lighter and more versatile tools, but the heart and soul of forcible entry usually comes down to two firefighters gaining entry through a door with a "set of irons."

Responsibility

It is important to understand that the fire cannot be extinguished, searches cannot be made, and extension of fire cannot be checked until entry is made. The firefighter assigned the job of gaining entry is given that responsibility. To accomplish this task, there are an assortment of tools and techniques, which this text will introduce to you. Some techniques are basic, others are more difficult, but all are achievable.

It is important to realize that most fire and emergency operations start at the front door or main entrance. Before any tactical moves can be made, e.g. search, rescue or the stretching of a hand line to the seat of the fire, the entry door has to be opened. Most people given tools can gain entry. A door can be "battered" down with an axe (the movie version). However, until we take into account what is behind that door, we want to ensure the door's integrity. Why destroy a perfectly good door for a non-fire emergency? With the proper training, most firefighters will be able to open a door with minimal damage.

Professionalism

Professionalism is the benchmark of a good firefighter. The firefighter represents the department and ultimately the City of San Diego. Pride in our work will reflect pride in the department. By keeping the damage to a minimum we ensure the safety of the people we serve. Remember that when we leave the fire scene, the doors we destroy leave the occupants vulnerable to further loss from vandalism. The people we are sworn to serve rely on our good judgment.

As a firefighter, you have an obligation to get the job done safely, efficiently and with the least amount of damage. At times, brute force must be combined with skill, technique and knowledge. You control that action. For situations such as ringing alarms, lock-ins, etc, consider the least damaging means of gaining entry. In some instances, you may be able to enter through a window or by using another noninvasive technique. Always use common sense when forcing your way into any premises; you never know what is behind that door or window. You must also consider what will happen once your job is done.

In order to become proficient in the skill of forcible entry, you should have a mixture of hands on training and overall knowledge that may be gained by experience, reading, observing, attending training seminars and also by exchanging information and ideas with other firefighters.

Finally, use some common sense and trust your instincts. Control, speed and effectiveness of access to the area of operations will justify the amount of damage done by the firefighter.

Size-Up

This is the ongoing evaluation of the problems confronted within a forcible entry situation. As you get off the apparatus in a fire situation, ask the following questions:

- Where is the fire?
- How many floors are there?
- What type of occupancy/building?

Size-up starts with the receipt of an alarm and continues until the fire is under control. Knowing you are responding to a residential or commercial occupancy will help determine the type of doors and locks you may encounter, which will help determine what specialized tools may be required. Knowledge of the type of door and its components may guide you as to the proper tool placement and method of entry.

Considerations Prior to Forcing Entry

When attempting entry into a structure, you must take the following conditions into consideration before you choose your entry method:

- What is the urgency of entry?
- Where is the emergency in relationship to entry point?
- Can entry be made by conventional methods?
- What form of forcible entry will cause the least amount of damage?
- What method of forcible entry will be the quickest?
- Do conditions indicate the need for ventilation prior to entry?
- Do conditions indicate the need for charged hose line prior to entry?

Non-Emergency Situations

If the nature of the emergency is not urgent, perform the following tasks prior to damaging the structure:

- Look for emergency phone numbers, Knox Box, or on-site security.
- Check structure for unlocked door (try before you pry).

- Check structure for unlocked or open window that will allow access.
- Evaluate any windows for forcible entry, based on expense and accessibility.
- Evaluate any doors for forcible entry, based on expense and accessibility.

Smoke or Fire Showing

When there is smoke or fire showing be sure to:

- Consider entry point based on fire attack.
- Check for back draft and proceed as conditions dictate.
- Check for an unlocked door or window (try before you pry).
- Check for any window or glass opening that may be utilized to access inside of door and reach lock.
- Make forcible entry through door.

Doors, Locks, and Security Devices

Basic Door Components

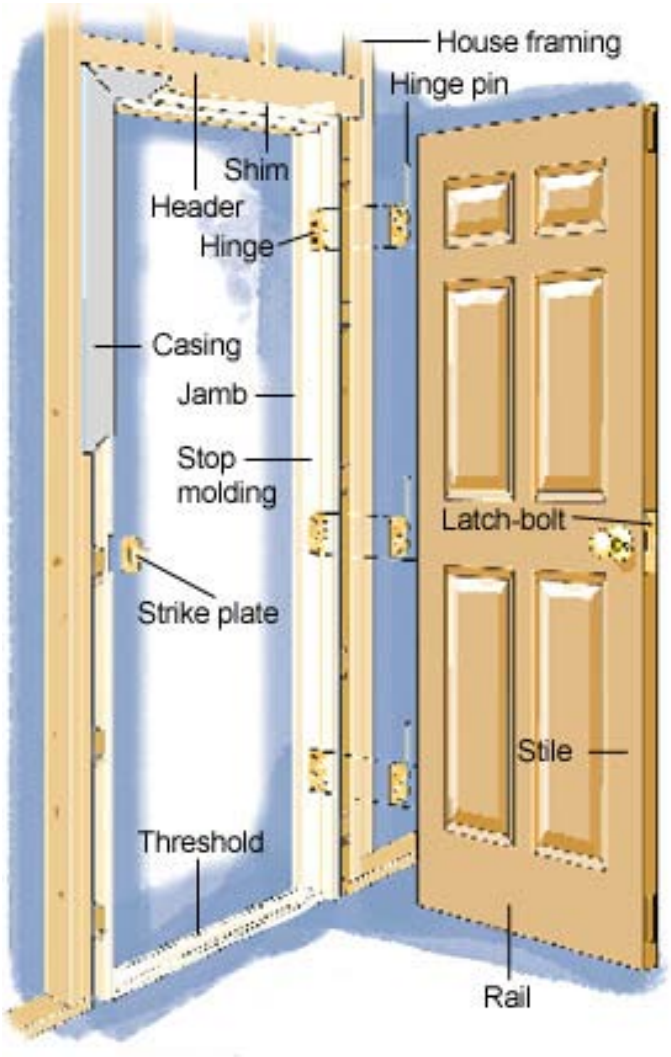
All doors have several main components in common.

Door

Doors may be solid or hollow and composed of wood, metal, glass or any combination thereof. Doors swing, slide, roll-down (overhead doors) and rotate. Swinging doors are further classified as either inward or outward swinging. Because inward

- **Inward Swinging Door** - The door swings away from you and a hinge is not visible.
- **Outward Swinging Door** - The door swings toward you and a hinge is visible

Note - Door swings are determined while standing on the outside or less secure side of the door while facing the door (i.e., standing on the side you use the key on, going from outside to inside, or from public to private).



Hinges

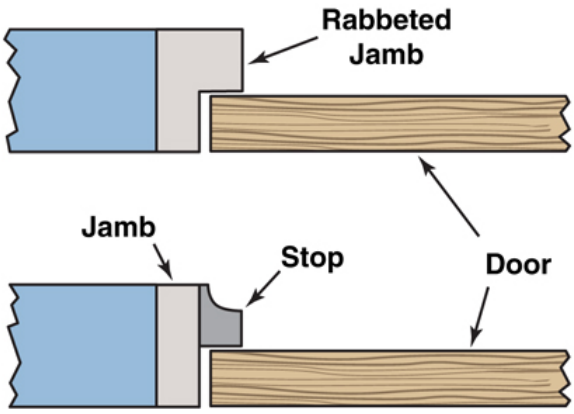
Hinges are the main pivoting feature of a door. Light weight or hollow core doors will typically have two hinges, while commercial or solid core doors typically use three hinges. Hinges can further be classified as sealed or unsealed

- **Unsealed Hinge** - The pin connecting the hinge can be removed
- **Sealed Hinge** - The pin connecting the hinge is sealed and cannot be removed

Jamb

The door jamb is the structural border or track into which a door is set when it is closed. The jamb supports the stop for the door as well and are commonly constructed of wood or metal. There are

two type of jambs that firefighters must be familiar with: Rabbeted Jamb and Stop Jamb.



- **Rabbeted Jamb** - The stop is incorporated into the jamb to form one unified piece. Common in metal framed doors.
- **Stop Jamb** - The stop is a separate piece of wood or metal that is attached to the door jamb. Common in wood framed doors.

Strike

The strike is a device which receives the deadbolt or latch from a locking mechanism. Strikes are typically a metal plate which covers the receptacle in the door frame.

Stop

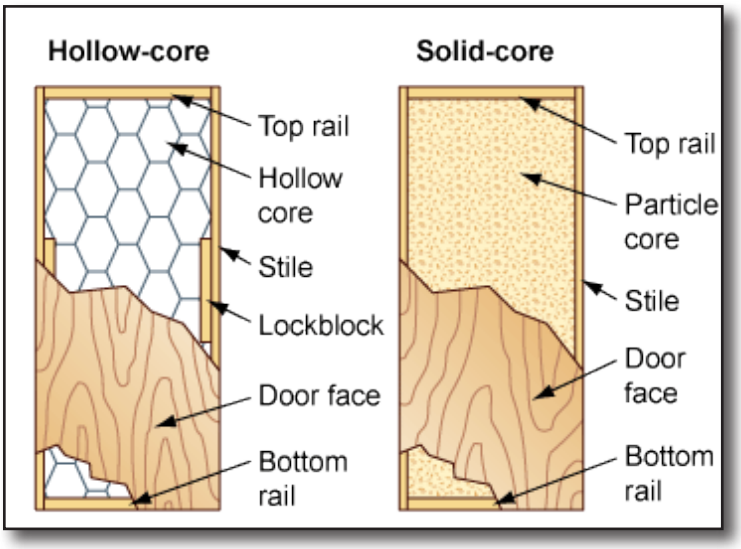
The stop is the material that prevents the door from swinging past the jamb.

Lock/Latch

The main device that secures the door to the jamb.

Door Construction

Doors are constructed from three basic materials: wood, metal, and glass. Doors come in all shapes, sizes and designs and most often incorporate several different materials into one door. Understanding the different methods used to construct doors will help firefighters gain better and quicker access to buildings



Wood Door

Wood doors are typically either hollow core or solid core.

- **Hollow core**: These doors are made up of an assembly of wood strips formed into a grid or honeycomb shape. The strips are glued together within the frame forming a stiff and strong core. Over this framework and grid are layers of plywood veneer paneling. Hollow core doors are typically found on interior doors.
- **Solid core:** The entire core of the door is constructed of solid material such as tongue and groove wooden boards that are glued within the frame. Other solid core doors may be filled with a compressed material that con-

tains fire retardant. In either case, the door is sided with a plywood veneer covering to give a more aesthetically pleasing look.

Metal Doors

Similar to wood doors, metal doors may be hollow core or solid core. A hollow metal core door uses steel ribs to form a grid or honeycomb inside. Solid core metal doors typically consist of a solid wood door covered with a thin metal skin Metal doors are usually set in hollow or filled metal door frames. When set in a masonry wall, as well as a metal frame, they are quite formidable and will hold back considerable fire. Metal doors today are commonly found in both residential and commercial applications.

Tempered Glass Doors

Glass doors have become increasingly popular for commercial applications. Per the building code, all glass in doors must be tempered glass The breaking

characteristics of tempered glass are quite different from ordinary plate glass due to the heat treatment given to the glass during tempering. The results is high-tension stress in the center of the glass and high compression stress in the exterior surfaces. These tension and compression stresses balance each other. The heat treatment also increases the strength and flexibility as well as the resistance to shock, pressure and temperature increases. Approximately four times stronger than plate glass, when broken, tempered glass disintegrates into relatively small pieces.

Frameless Glass Door

The frameless glass door is distinguishable by the lack of a full frame with little or no trim. The door handle is usually mounted through the glass. The lock may be installed in either in the top or bottom stile. These doors are difficult to force entry without breaking the glass door.

Framed Glass Doors

Framed glass doors have metal, wood, or some other composite material that fully surround the glass panel. The door handle and locking mechanisms are incorporated directly into the vertical stiles of the door. These are the most popular doors in commercial occupancies. Although modern building code requires all glass doors to be tempered, plate glass doors may still be found in older buildings. Some doors may also substitute the stronger lexan or Plexiglas in place of tempered glass.

Types of Doors

Doors can be placed into four basic categories based upon their motion: swinging, sliding, overhead, and rotating.

Swinging Doors

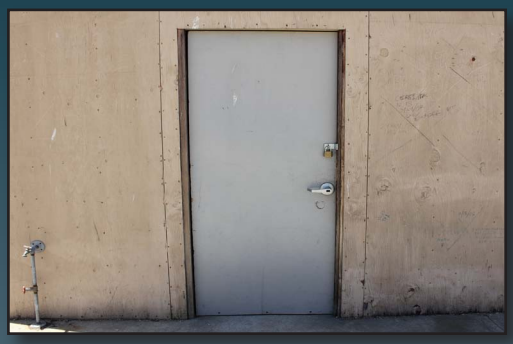
As previously described, swinging doors are hinged on one side and swing either to the left or right, and inward or outward.

Sliding Doors

Sliding doors are found in many residential and commercial applications and may be manually or electrically operated These doors may travel either to the right, left, or in both directions from the center line, opening or in the same plane. Sliding doors are usually supported upon a metal track and their side movement is made easier by small rollers or guide wheels. A bar is sometimes placed between the fixed frame and the door or in the track to prevent unlawful entry in residential applications.

A variation of the sliding door is the sliding pocket door. This door actually retracts into the wall and is hidden from view when opened. Firefighters should be aware of the hidden voids pocket doors create because fire can extend into this area since it is not sealed off from the rest of the building.

Types of Doors



Swinging Door - Inward

Swinging Door - Outward

Sliding Door

Sliding Pocket Door

Revolving Doors

Overhead Door - Rolling Steel/Curtain

Overhead Door - Tilt Up

Overhead Door - Sectional

Overhead Doors

Overhead doors are mounted above an opening and travel vertically or swing upward. These doors are commonly found in residential garage doors and commercial loading dock areas. Overhead doors can be further classified into the following three categories:

- **Rolling Steel/Curtain Door**
- **Tilt-Up**
- **Sectional**

Rotating Doors (Revolving)

Rotating doors, commonly know as revolving doors, are less common in San Diego compared to cities with colder climates. These doors are primarily found in hotel, stores or other commercial applications where climate control is desired to conserve energy.

Types of Locks

Today, there are hundreds of different types of locks used in modern building construction. To describe each type and function is simply not possible in one short document. Fortunately, most modern locks are a derivative of one of the following basic types of lock is. Below are the common categories of locks that are likely to be encountered in San Diego:

Key & Knob Lockset

As the name implies, the locking mechanism is part of the knob. These locks are found on both residential and commercial doors.

Tubular Deadbolt

Unlike a spring latch, this device must be manually thrown to engage the bolt into the keeper. With the bolt extended, this lock cannot be engaged by slamming the door.

Mortise Lockset

These are designed and manufactured to fit into a cavity in the edge of either a metal or solid wood door. They have a solid, threaded key cylinder, which is secured in place by set- screws.

Mortise Deadbolt and Latch

One of the most popular mortise locks in use today. It contains both a latch and a bolt in a single unit. It is distinguishable by the proximity of the lock cylinder and a doorknob or latchkey. The two most common types are Mortise/ Latch Key and Mortise/Door Knob.

Types of Locks

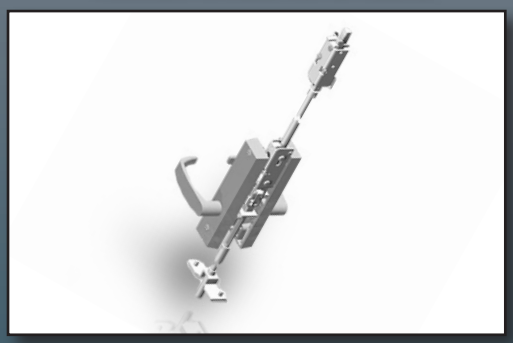
Key & Knob Lockset

Tubular Deadbolt

Mortise Lockset

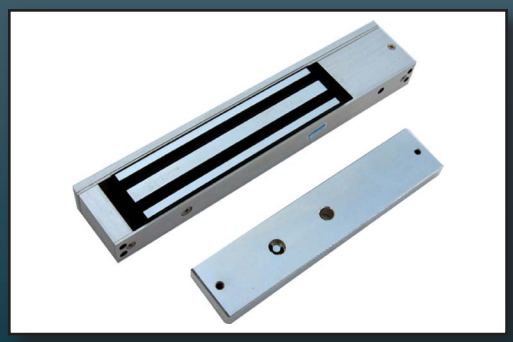
Mortise Deadbolt & Latch

Rim Lock



Multi Point Lock

Electric Lock



Magnetic Lock

Rim Lock

These locks are usually installed as an add-on lock. They are installed on the inside surface of the door (with the cylinder extended through the door). Only the cylinder is visible from the outside of the door.

Multi-Point Locks

Sturdy heavy-duty steel components firmly fasten the door to the frame at top, bottom and center latch points. The top and bottom lock typically consists of a vertical rod that is attached to either the outside (visible) or inside (hidden) of the door. The rod then locks into a strike plate located in the floor and door header. In addition to the vertical rod, the door may also incorporate a mortise type lock for the center latch that may be activated by either panic hardware or tradition knobs or handles.

Electric Locks

The electric lock is commonly found on apartment buildings and large complexes where a phone may be used to "buzz" the guest in. The door is held closed by an electric switch located in the strike plate. When activated, the strike plate releases allowing the door to open.

Magnetic Locks

A relatively new locking device that has been incorporated into occupancies for added security, a magnetic lock uses an electrically charged magnet to hold the door closed, Media 21-1. To open this type of door simply requires the adz of the Halligan Bar to be slipped between the two magnetic locking plates and cammed open. Note: Placing a common 8-10 penny nail over the magnet will prevent the door from re- locking.

Media 21-1 Magnetic Locks Video - You tube

Additional Security Devices

Occasionally you will come across doors and windows with additional security devices aside from the standard door lockset. The following is a brief list of some of the many types you are likely to encounter.

Security Screen Doors

Security screen doors are quite common in Southern California, Figure 21-1. The doors frames and ribs are typically constructed of hollow tubular steel while the screen itself is made of steel mesh or perforated steel sheet. Security screen doors are attached to door frames with one-way lag bolts and most often swing outwards. These screen doors are most commonly found with a key & knob lockset or a deadbolt.

Figure 21-1 Security Screen Doors

Drop Bar

This is a fastening device that can be mounted across the door at any point. Generally they are in pairs. The bars are held in place by brackets, which may be fastened to the door frame, Figure 21-2. NOTE: With the sliding bolt and drop bar in place, you know the occupants did not exit through that door. There is either another means of egress or the occupants are still inside. Drop bars in place may not be visible from the outside.

Figure 21-2 Drop Bar

Sliding Bolt

This is a device that travels in a track, which locks into a recessed hole or hardware, Figure 21-3. Padlocks may pass through rear of bolt and make the bolt secure. These slide bolts may be made of casehardened steel. They are installed with screws or carriage bolts, which may be exposed or guarded.

Angle Iron

A device secured to the door and occasionally the door frame. It can be found on both inward swinging doors (away from you) and outward swinging doors (toward you). It may be partial or run the full vertical length of door.

Lock Guards

Lock guards come in all shapes and sizes and serve the purpose of protecting the lock from unwanted tampering or damage, Figure 21-4. Lock guards are commonly found on padlocks and overhead doors.

Figure 21-3 Sliding Bolt

Figure 21-4 Lock Guard

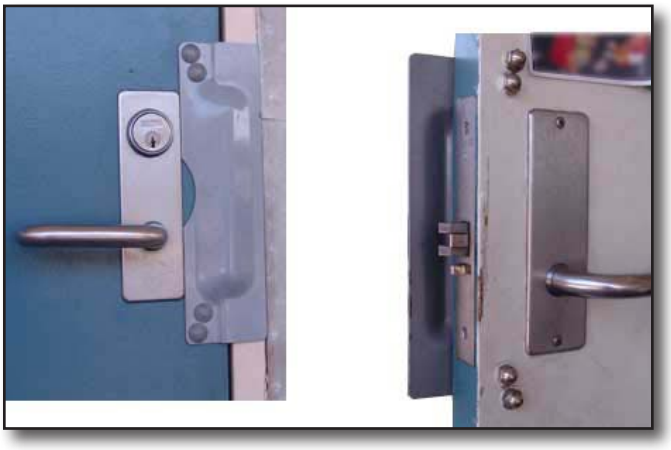


Figure 21-5 Latch Guard

Latch Guards

The latch guard is a steel plate that is attached to outward swinging doors. Its purpose is to conceal the doors latch in order to prevent people from tampering with or picking open the lock and latch, Figure 21-5.

Knox Box

The Knox Box not only protects property, but limits damage to many locks and doors. It is a system of storing all necessary keys to the building or occupancy in a box that is mounted in a high visibility location, usually in the front of the building, Figure 21-6. Knox Boxes can be located on any type of occupancy and installations are growing each year. They are usually located on a wall near the main entrance, eight to ten feet above the ground. The exact location should be noted on the pre- fire plan, along with a list of its contents. In addition, each apparatus carries a list of all buildings having Knox Boxes and their locations.

Figure 21-6 Knox Box

The Knox Box contains an assortment of keys which will enable firefighters to enter a locked building without having to force doors or windows. Each engine and truck company has a key in a receptacle on the dashboard that will open the Knox Box. The key must never leave the apparatus except to open a Knox Box during fire ground operations. In addition, each apparatus carries a list of all buildings having Knox Boxes and the box location. Knox Boxes can contain the following items:

- Master keys.
- Fire alarm panel keys.
- Pull station keys.
- Elevator keys.
- Emergency phone numbers.
- Key cards.

Forcing Inward Swinging Doors

Entry by the use of force should start with the least invasive approach and progress to the next level of damage relative to the urgency of entry. Per the current SDFD Truck Company S.O.G. follow these steps when considering forcible entry into an inward swinging door:

Forcible Entry Decision Matrix - Inward Swinging Door

- "Try before you Pry" - Check to see if the door is unlocked.
- Locate on-site manager, security, or a knox box
- Remove the stop from the jamb on non-rabbetted door frames then manipulate latch or bolt with folding knife (wood door, wood frame only).
- Through the lock method - Knock doorknob and/or dead bolt off with axe, Halligan Bar or sledgehammer then use a screwdriver or other tool to manipulate lock. Refer to "Through The Lock Entry" on page 21-28
- Conventional Forcible Entry Techniques
  - Force Door - Single Tool Approach.
  - GAP - SET - FORCE the door - Two Tool Approach
  - Batter the door.
- Use Power Tools
  - Use Rescue saw or Recipro saw to cut lock between door and jam.
  - Use Rescue saw with appropriate blade, Recipro saw, chain saw or axe to make pie cut around knob or cut door down the center.

Figure 21-7 Removing the stop from the door jamb

Remove the Door Stop/Jamb

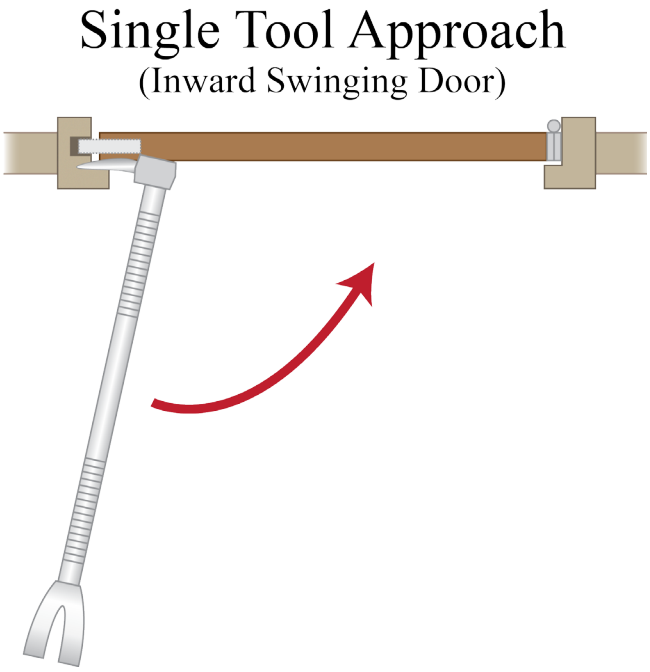
Remove the door stop/jamb on wood doors with the adz or claw end of the Halligan Bar, Figure 21-7. With the stop removed, a knife or other slim tool can be used to pick the latch/lock from the keeper. This is a simple way to open a door with minimal damage. This method only works on non-rabbetted wooden door frames. When done properly the door and frame sustains minimal damage and the doorstop can be re-nailed into the frame allowing for the door to be secured when done.

Conventional Forcible Entry Techniques

Conventional forcible entry involves applying force to either bend or snap part of the door or lock assembly in order to gain entry. Usually a two-person team, using a flat head axe or sledgehammer and the Halligan Bar accomplishes this task. It requires skill and technique to master, and at times this may have to be done by one person. Once a firefighter has mastered the skill of using the axe

and Halligan Bar (Set of Irons), most doors, even those that are well secured can be forced quickly. It is a simple matter of technique and leverage.

A door should also be forced in such a manner as to preserve its integrity when possible. Interior doors that lead to hallways or stairways need to remain intact to prevent smoke and fire from harming the occupants or firefighters The sections below outline the more rapid, invasive approaches to forcible entry.



Force Door
(Single Tool Approach)

By simply by taking a "baseball-bat swing" with the pick end of the axe or halligan bar should give the tool enough bite to ensure a purchase for forcing an inward swinging door. Try to bury the pick into the frame as close to the door and lock as possible. Once the pick has been set, pry inward until the door is forced open. This procedure is very quick and simple for a one-man operation. It works best on wooden doors with wooden frames or on doors with a single or weak locking mechanism.

GAP – SET - FORCE
(Two Tool Approach)

Most conventional forcible entry involves several moves in order to accomplish the goal. To make it more understandable, we have broken down the operation into three separate steps, GAP – SET – FORCE. Each step may have additional maneuvers, but once one understands the basic principles it is easy to follow and move quickly through the steps. These three steps are applicable to almost any forcible entry situation.

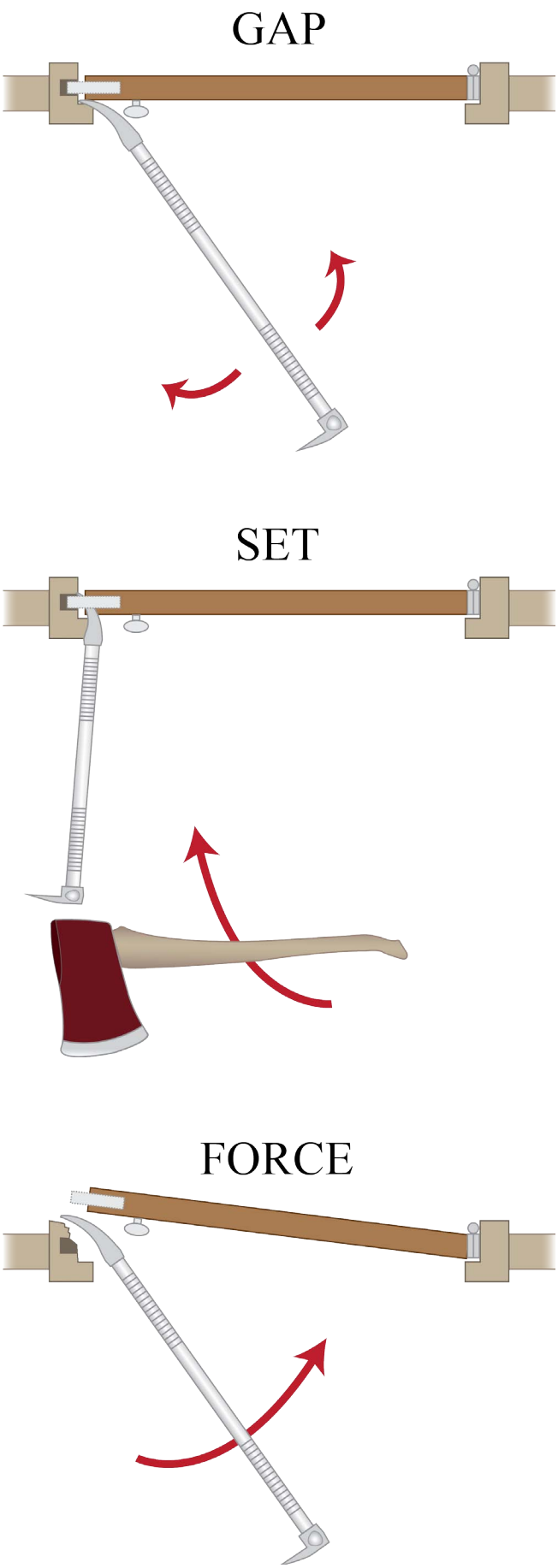
GAP the Door

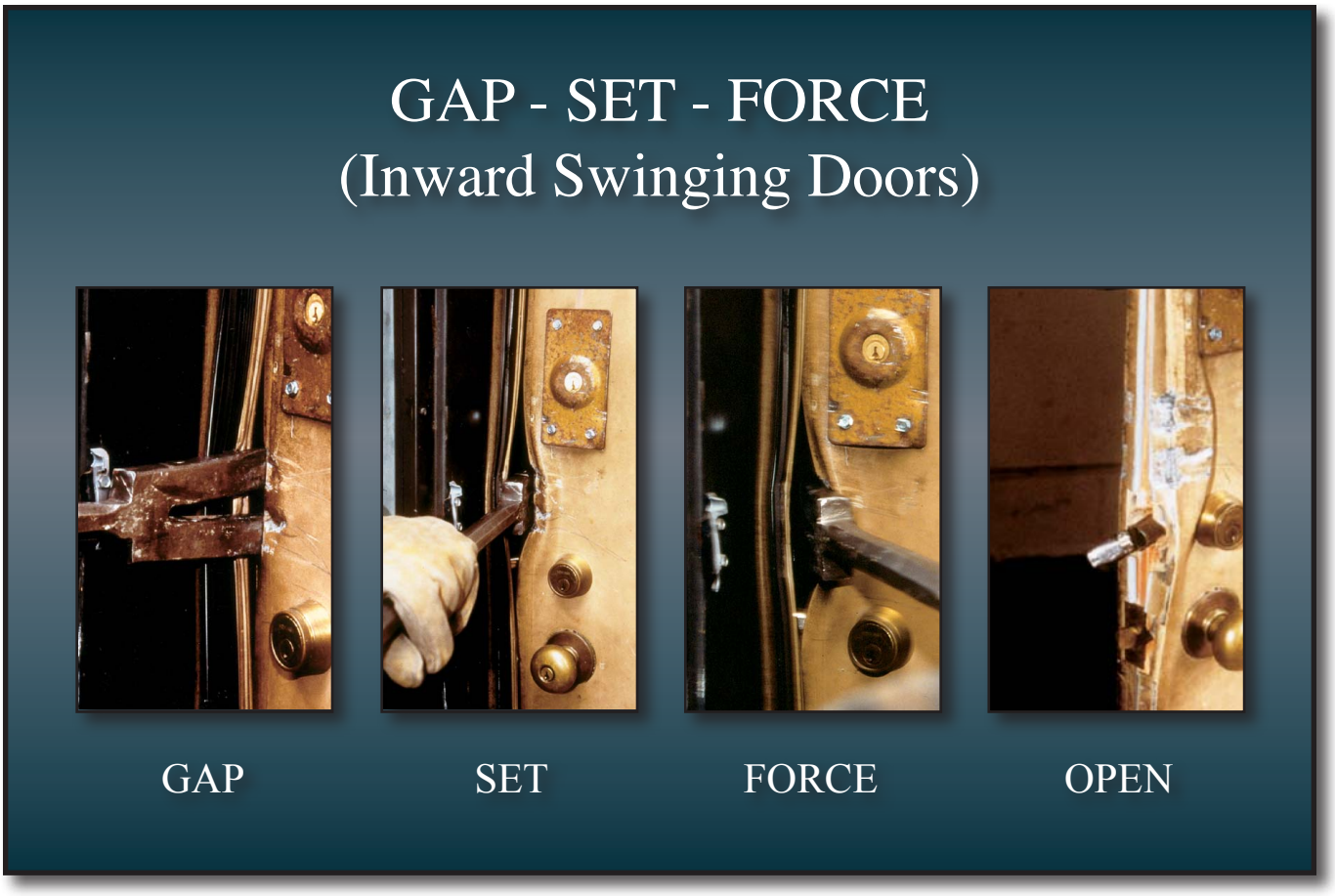
Gapping the door requires an opening in the door and/or frame to create a purchase point. It may also force open a poorly secured door. Work the claw into the stop on the door frame approximately 6 inches above or below the lock. The reason for the 6-inch rule is to avoid the Halligan Bar from striking the lock. The claw of the Halligan Bar is approximately 3-inches wide and most lock bodies are also 3-inches wide. If there are 2 locks close together, go between them (unless they are stacked locks). Best purchase is gained when the claw end is used on the door. If the gap is too small to insert the claw of the Halligan Bar, insert the adz into the crease and cam up and down to create a large enough gap.

SET The Tool

Setting the tool involves working the claw of the Halligan Bar into the gap to spread the door away from the frame. The Halligan Bar is considered "set" when the claw is "locked in" to the inside of the door frame. Position the Halligan Bar claw approximately six inches above or below the lock cylinder. If the tool is too close, the claw may hit the lock and will not go through far enough to lock in. If it is too far away, the door may flex and the lock will not fail. Place the claw of the Halligan Bar with the outside curve of the bevel to the door (hook the frame) and angle the Halligan Bar to work around the doorstop. This is considered the ideal position since it produces the most spread of the door and frame and puts the most stress on the locking device. It is important for the member holding the Halligan Bar to "walk the tool" around the doorstop and frame. This method gives a greater range of motion to the Halligan Bar since the adz will be facing away from the door and won't strike the door when the door is forced. This method also offers a better striking position. The Halligan Bar will stand out at approximately 90 degrees to the door allowing the member with the axe/sledge-hammer more room to maneuver and deliver the necessary blows.

When there are multiple locks closely spaced on the door (stacked locks), position the tool above the upper lock or below the lower lock. Remember the six-inch rule is a general rule and should allow the claw to clear the inside of the lock. The forcible entry firefighter should be between the door and the tool. Generally the forcible entry member should have his shoulder in contact with the door. This position gives a good view of the area where the tool is being driven in and also gives full range of motion for the tool as it is pushed away from the door as it is being driven in. The forcible entry firefighter should keep his eyes on the claw end of the Halligan Bar where it is being driven into the gap. Keep moving the Halligan Bar away from the door as it is being driven in (struck). The tool is considered set when top of the triangle that creates the "claw" on the Halligan is level with door frame.





Technique Tip

As soon as the tip of the claw is past the edge of the door, sharply push the tool away from the door. "Spring" the door away from the frame and maintain pressure on the tool to prevent the tips from striking the frame. When the Halligan is nearly perpendicular to the door, drive in forcefully. The claw end of the tool is driven past the inside of the frame. This will insure the tool being "locked" into position and not slipping when pressure is applied. The tool is set when the arch of the claw is even with the inside edge of the door / doorstop.

Striking the Halligan

When striking the Halligan with the sledge/axe, coordination and communication must be maintained between the members of the forcible entry team. The member holding the Halligan Bar (forcible entry firefighter) controls the operation. The member with the axe/sledgehammer strikes the Halligan Bar on the striking plate in line with the shaft adjacent from the claw. The member with the striking tool may have to stand, crouch or kneel to obtain the best position, Figure 21-8. The member with the striking tool strikes the Halligan only when told. The commands "HIT" and "STOP" should be used. To maintain control only use short chopping blows in line with the shaft. As the tool is set, more powerful blows can be delivered.

Figure 21-8 Striking the Halligan

FORCE the Door

When the Halligan Bar is set, force is applied to the tool creating leverage against the door. The forcible entry member changes position to face the door. This gives him/her better position to apply pressure. Ensure everyone is ready prior to forcing the door open. The other member of the team should try to control the sudden opening of the door by holding the doorknob or applying a strap to the knob. Push the bar in (towards the door) sharply to create maximum force. If strong resistance is met, a second firefighter may be used to assist. Using the claw end of the Halligan to force the door allows for greater leverage on the tool when prying the door open. As the door opens, the second firefighter must maintain control of the door. As the door is flexed from the pressure, note the presence of fire behind the door. If fire is present, make sure there is a charged line in position to protect the forcible entry team.

Figure 21-9 Alternate Option - GAP/FORCE the door with the Adz

Ease of passing the lock over the keeper and jamb will vary based on the door construction. Metal doors and metal frames (commercial) will be more difficult than wood framed (residential) doors, but the process remains the same.

Alternative Methods to GAP or FORCE a door

Place the pick of the halligan bar between the door and the doorstop, on or near the lock. Drive the pick in with a striking tool. Push down or pull into the door with the Halligan Bar as you would when using the "single tool approach."

Place the adz of the halligan bar between the door and the doorstop, on or near the lock. Drive the adz in with a striking tool. Instead of prying inward with the bar, pry downward, Figure 21-9. This downward camming motion of the adz creates a greater mechanical advantage and a larger gap and may even force the door open.

Batter the Door

Batter the door with a few sharp blows with the Halligan Bar, axe or sledgehammer to loosen the door to allow the adz to be slipped in. When using this method, you must hit the "rail of the door," since this is usually the strongest area of the door. Striking the door at other areas may knock out a panel or punch a hole through a hollow core door. This is dangerous since it allows heat, smoke and fire to vent out of the opening making further forcible entry more difficult. Do not knock in the panel unless there is a charged line in position. This method is effective on residential, wood framed doors.

If the door is set in a weak wood frame, several sharp blows to the door right on the lock may split the frame, Figure 21-10. This is especially true if the door contains a mortise lock. Note: the mortise lock is set into a cavity made in the door.

Another strategy to batter a door is to apply a baseball swing with

Figure 21-10 Battering the door with a halligan bar

a sledgehammer directly to the doorknob of an inward swinging wood framed door.

Batter the Door Frame

Batter the door frame by striking with an axe, sledgehammer or Halligan Bar approximately 6 inches above or below the lock and driving it away from the door to allow entry for the Halligan Bar. Sometimes steel frames are filled with concrete and may not crush.

Figure 21-11 Kicking in the Door

Kicking The Door In

Kicking the door should only be attempted on wooden doors and door frames and as a last resort when entry must be made without the use of a tool. Turn away from the door and swiftly kick the door nearest to the locking mechanism as possible with the heel of your boot, commonly referred to as a "donkey kick," Figure 21-11.

Forcing Doors With Power Tools

If all previous methods have failed to gain access to the structure, you must consider the use of power tools. The rescue saw is typically the most appropriate tool for forcible entry operations, however, the use of a chain saw, recipro-saw, air chisel or drill may also be considered depending on the urgency of your entry.

Cut Lock

Using the rescue saw or recipro saw, cut the lock or latch between the door and the door jamb by angling the saw in at a 45 degree angle. This method works best if the lock is visible between the door and jamb. Use caution not to bind the blade of the saw.

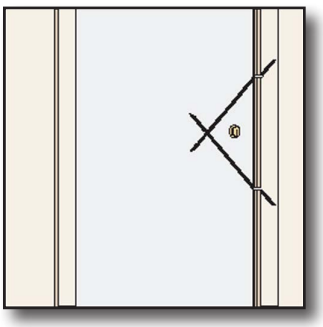


Figure 21-12 Pie Shape Cut Around a Lock

Pie Shape Cut Around Lock

A pie shape cut around a lock can also be effective in opening a stubborn door, Figure 21-12. This cut is performed by using the rescue saw or chain saw depending on the material of the door. Be sure to consider the material of the door prior to cutting with a rescue saw and remember that some metal skinned doors are wooden on the inside. Be sure that the appropriate blade is in place on the saw prior to cutting.

Full Length Cut

As a last resort, a rescue or chain saw may be used to make one long vertical cut down the center of the door. This cut may be desirable when a drop bar is used to secure the door closed.

Common Problems Encountered

Halligan Bar Becomes Stuck

Problem: The claw is in contact with the door frame

- Solution: Increase the angle away from the door. "Rock" the tool to free it. Re-gap the door; reverse the tool (bevel to frame). Move further away from the lock; this makes the door easier to spread.

Problem: The claw is hitting the bolt or lock.

- Solution: Reposition the Halligan Bar above or below the lock.

Problem: The claw is wedged into a tight door.

- Solution: Move the Halligan Bar side to side to free up the tool. Drive tool farther in.

Door Does Not Open After Initial Operation

Problem: Door flexes but does not open.

- Solution: Maintain the purchase with axe or other tool. Slip the adz (or door chock) inside and behind the door frame. Both members of forcible entry team push in or pull on the Halligan Bar. If the door frame collapses and the claw gets stuck between the door and the frame, use the axe to wedge open the space, then push or pull the Halligan away from the door to release the claw. Note: This method greatly increases the range of motion of the Halligan Bar and will break most locks.

Problem: Door only opens partially due to strong locks.

- Solution: Attack the lock. Place the Halligan Bar directly on the lock and drive it off the door. Driving the lock off the inside of the door takes sharp blows with the axe. Remember that you are trying to drive out the screws that hold the lock onto the door. Note: If you can crush the door enough to see the locking device (especially the vertical deadbolt type), you may be able to shear off the striker with the Halligan Bar.

Forcing Outward Swinging Doors

Figure 21-13 Outward Swinging Door

Outward swinging doors are most commonly found in commercial applications where the fire code requires that doors open in the direction of travel when exiting the building, Figure 21-13. The general principles used to force open outward swinging doors are similar to those used when forcing inward swinging doors; spread the door away from the jamb and apply force to the direction of travel (Gap - Set - Force).

As with inward swinging doors, prior to forcing the doors the following methods of entry must be considered. When choosing your method of forcible entry, you should evaluate the urgency or speed of entry required weighed against the amount of damage that is acceptable for the emergency. For example, if there is a life to be saved in a fire, you would not try to pick the door with a folding knife. Conversely, if you are at the scene of a false alarm, you would not use the rescue saw to remove the door.

Utilize the following considerations when forcing an outward swinging door:

- Check to see if locked (try before you pry).
- Look for Knox Box.
- Manipulate bolt or latch with a folding knife.
- Remove pins from hinges - Refer to "Hinges" on page 21-26
- Through the Lock Method - Refer to "Through The Lock Entry" on page 21-28
  - K-Tool - Refer to "K-Tool" on page 21-30
  - Knock knob and or dead bolt off with Halligan Bar and sledgehammer then use screwdriver to manipulate lock.
- Conventional Forcible Entry - Two-Tool Approach.
  - Outward Swinging Doors Using Claw - Place the claw end of the halligan bar toward the door ("hook the door") then Gap, Set, and Force the door outward and open
  - Outward Swinging Doors Using Adz - Set the adz of the Halligan Bar between the door and jamb in the vicinity of the lock, cam down and pry the bar away from door and jamb.
- Power Tools
  - Rescue saw or Recipro saw to cut lock between door and jam
  - Rescue saw with wood cutting blade, Recipro saw, chain saw or axe to make pie cut around knob, hinges or cut door down the center.

Outward Swinging Doors Using Claw
(Two Tool Approach)

If the outward swinging door to be forced does not have any obstructions nearby and is not recessed into the wall, the claw end of the halligan bar may be used to force the door open.

GAP

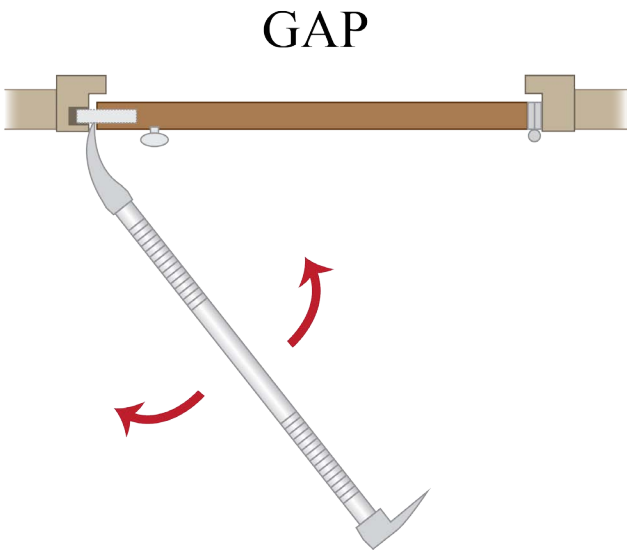
Place the claw end of the Halligan Bar with the bevel side (outside of curve) of the claw toward the frame, just above or below the lock or hinge. Hook the door with the claw. Work the bar back and forth until you get a good purchase.

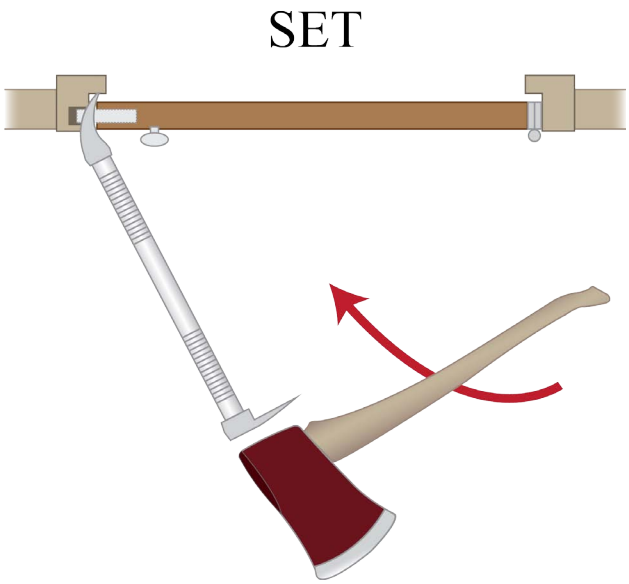
SET

Set the Halligan Bar by striking it with an axe or sledge hammer until the "V" of the claw is flush with the door. Be sure to work the claw back and forth so it can be driven in past the inside frame. Be careful not to bury the tool into the doorstop.

FORCE

Force the door by setting the claw end around the inside of the door and by pulling or pushing the Halligan Bar away from the door (toward the wall). In order to use this method, the Halligan Bar must have sufficient room to allow the movement of the tool away from the door.





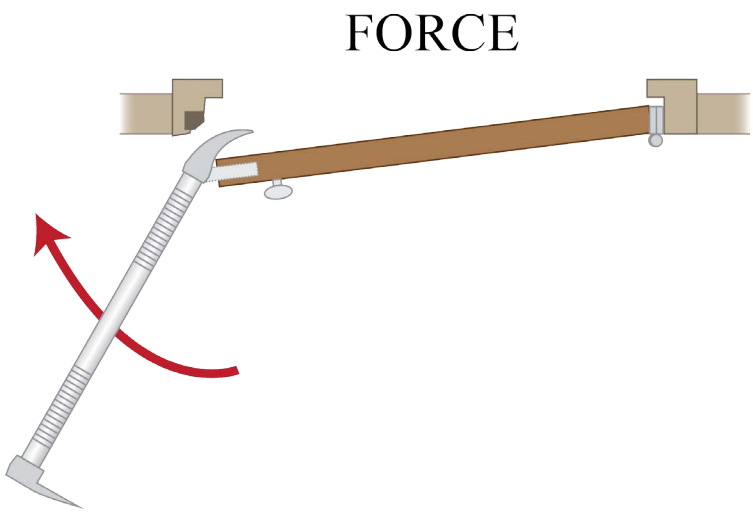


Figure 21-14 Recessed Outward Swinging Door

Outward Swinging Doors Using the Adz End
(Two Tool Approach)

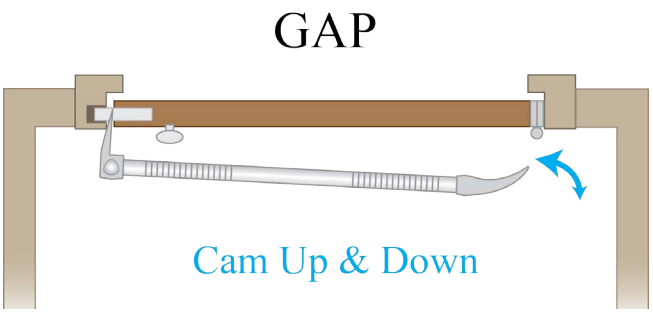
For outward swinging doors that are recessed into the wall or are adjacent to a perpendicular wall, an alternative method must be used, Figure 21-14. Using the claw end of the Halligan Bar, as previously described, will not work because there is not sufficient room to leverage the bar and force the door open. To solve this issue, the adz end of the Halligan Bar may be used.

GAP

To open an outward swinging door using the adz end, place the adz between the door and the frame. A strike of the sledge or axe may be necessary for doors with a tight space between the door and the frame. Gap the door by rocking or "camming" the tool up and down to spread the door from the frame.

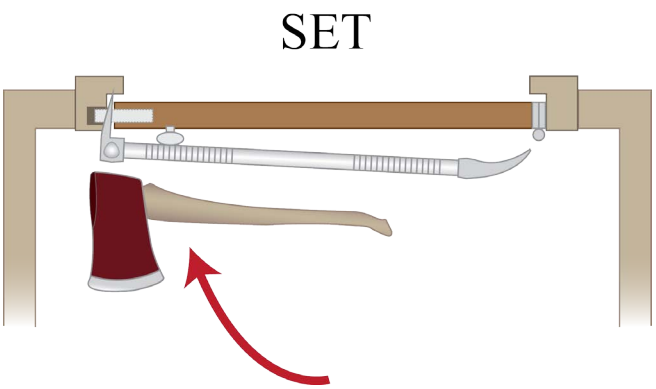
SET

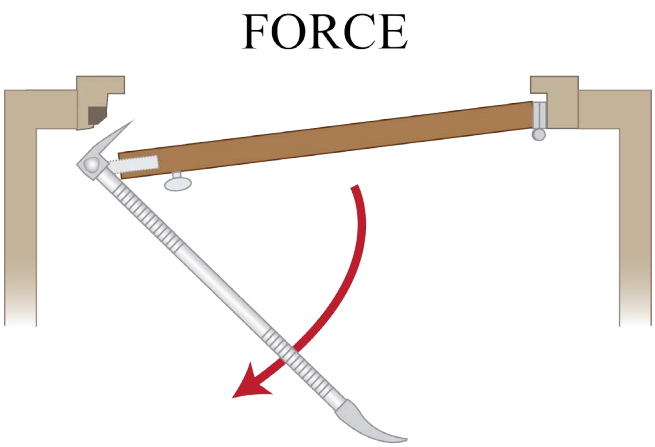
Drive the tool into the gap with an axe or sledge. Be sure to manipulate the Halligan Bar so the adz is be driven in between the door and the frame. Do not let the tool "bury" itself into the doorstop or frame. The adz end should be set just deep enough as to allow the end of the adz to hook the inside of the door.



FORCE

Once the adz is set into the gap, force the door open by prying outward. If the door is proving difficult to open, attempt to cam downward on the bar while simultaneously pulling outward. This camming down motion will help create a greater gap between the door and the frame, allowing the lock to bypass the strike or keeper.





Problems Encountered- Outward Swinging Doors

Problem: Recessed door or jamb.

- Solution: Allow the adz to be driven in and around the doorstop and provide sufficient space for the adz to move away from the door. Make a hole in the wall (if possible), for the movement of the tool. Gap, set, force the door.

Problem: Difficulty getting a purchase (tight seam between door and frame).

- Solution: Use the blade of the axe. Use the adz end of the Halligan. Rocking the adz up or down may start the purchase easier.

Problem: A latch guard or metal strip on the edge of an outward door.

Additional security may be installed on these doors by bolting a metal shield to protect the space between the door and the frame. It may be a full-length or partial shield. Dealing with the shield will require an additional step before proceeding to Gap – Set – Force.

- Solution: Drive the adz end between the door and shield, bending the shield away to allow entry of the Halligan Bar. Shear the bolts and pry, bend or remove the shield as a last resort.

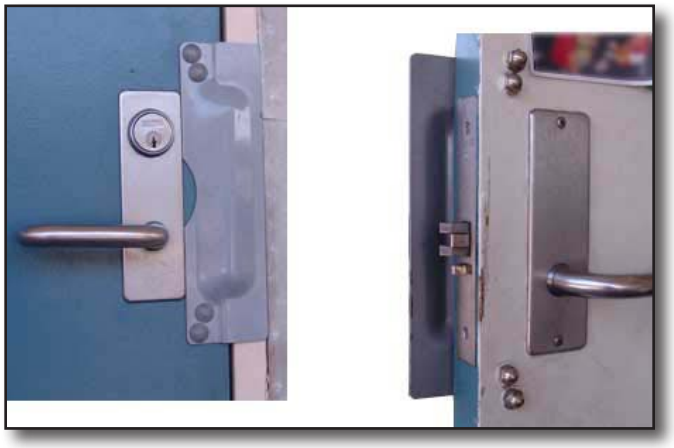


Figure 21-15 Latch guards may create additional challenges when forcing entry on outward swinging doors

Hinges

Figure 21-16 Unsealed Hinge (top picture), Sealed Hinge (bottom picture)

Forcing a door at the hinge side should not be a primary means of gaining entry, especially during time sensitive operations. Once a door is forced in this manner you will lose the integrity of the door. The primary means of gaining entry should be on the lock side. Forcing a door at the hinge side should only be done when all other means of gaining entry on the lock side have failed, or when urgency of entry allows for extra time. Below are some suggested methods to remove a door by attacking the hinges.

Removing the Pins

For non-emergent situations check to see if the pins on the hinges can be exposed and removed. To do this look at the top and bottom of the bracket. If the openings are not sealed and the pins are exposed, you can use a screwdriver and a hammer to tap the pins out one at a time and remove the door. This is the preferred method of hinge removal when the emergency does not warrant damage to the property as the pins and the door can be replaced with little damage.

Sealed or closed hinges usually have a threaded rod with two cap nuts. These nuts can be unscrewed with a pair of channel locks to expose the pins. Other types of sealed hinges have a snap-on cap that may be pried off. Unscrew or snap off the top cap using vice grips and flat screw driver and tap the pin down. Pull the bottom cap and pin down and out. This method should only be used for situations where time is not a critical factor.

Conventional Forcible Entry Techniques on Hinges

Conventional forcible entry techniques may also be used to attack hinges. The primary tools of choice will again be the Halligan Bar used in conjunction with a striking tool such as the flat head axe or sledge hammer.

Inward Swinging Door Hinges

Create a gap by using the adz or claw end of the Halligan then work directly on the hinges themselves. Place end of tool just below the hinge and insert the adz end then apply force either up or down. The goal is to either break the hinge or pull it out from the door or door jamb. The claw end of the tool can also be used by applying force either toward or away from the door.

A final method would be to batter the door at the hinge. With the back of the axe, sledgehammer or Halligan Bar, strike the solid part of the door adjacent to the hinge. Note: Always attack the upper hinge first so that smoke and heat will rise while completing the entry on the bottom of the door. Be aware that many doors now have three hinges.

Outward Swinging Door Hinges

Place the claw end of Halligan Bar over the exposed hinge and pry in either direction, attempting to break the hinge apart or pull it from the door or door jamb, Figure 21-17. On stronger hinges, drive the Halligan over the hinge and twist side to side to break or loosen the mounting screws, then pull out. Remove the pin if possible to separate the hinge.

Technique tip: Keep the door between you and the opening to protect from heat and or flames, which may come out.

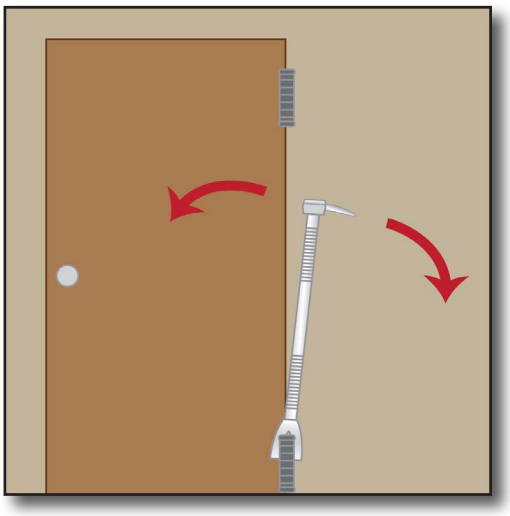


Figure 21-17 Prying hinges off an outward swinging door.

Power Tools on Hinges

Many residential commercial grade hinges are quite strong. If conventional forcible entry methods are unsuccessful at attacking the hinges, do not hesitate to use power equipment such as the rescue saw. The rescue saw can be used to cut the hinges themselves or can be used to cut pie shape wedges around the hinges in order for the door to be removed, Figure 21-18.

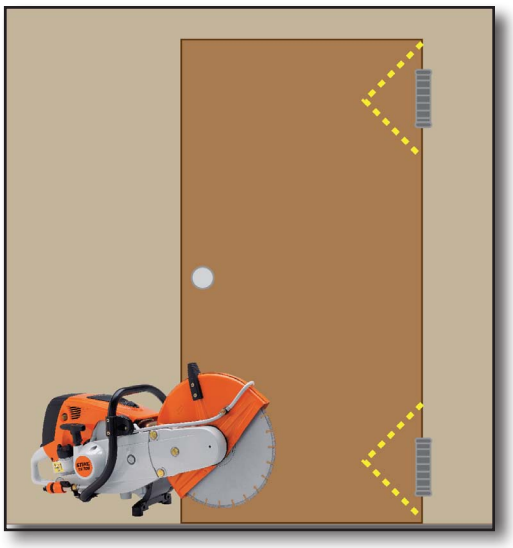


Figure 21-18 Pie cuts around hinges

Barrel Hinges

Barrel hinges are commonly found on commercial buildings and places of public assembly. This hinge may also be found on heavy duty gates. The hinge consists of a pin and barrel, Figure 21-19. The pin is attached to the door frame and the door holds the corresponding barrel for the pin to set into. This type of hinge is very strong and should primarily be attacked by means of power tools. One suggested means of forcing entry is to use the Rescue saw to cut around the hinge or cut the hinge itself.

Figure 21-19 Barrel Hinge

Through The Lock Entry

"Through the lock entry" is a means of gaining entry by attacking the locking device and opening the door with little or no damage to the door or frame. This is a professional method of entry and serves as a good public relations tool. In most cases, this method would only be used when time and fire conditions are not urgent, or where conventional methods would cause more damage than the fire itself. Examples would be high-rise office buildings, hotels, motels and/or commercial occupancies, where many rooms and or occupancies must be checked without causing too much damage. The "through the lock" method usually does not create as much of a security problem as conventional forcible entry methods. There are times with certain types of locks that the "through the lock" method of forcible entry may be a quicker, more efficient means of entry, whatever the conditions.

It is critical that a proper size-up is done before we begin our forcible entry operation. Though it is impossible to know for sure what type of lock is securing the occupancy by looking at a solid door from the outside, we can make an educated guess based on:

- Type of occupancy.
- Type of door.
- Location of the lock cylinder(s).
- Direction the door moves (inward or outward).
- What we see on the door (other than the locks).
- Anything unusual (lock cylinders out of line).
- Knowledge of the type of lock.
- Let the fire condition dictate your method of entry.

Combine all of this information with past experience and proceed in attacking the lock, not the door. Utilize the K-Tool or striking tool to expose the cylinder of the lock, then manipulate the mechanism with a key tool or screwdriver. Most locks can be easily forced or removed by using an axe, halligan bar or sledge hammer to knock off the knob or handle mechanism and by using a key tool or screw driver to activate the latch or bolt mechanism inside.

Figure 21-20 Key & Knob Lockset

Note: The cheaper the lock, the more difficult it may be to force. Cheaper locks have a tendency to break up causing delays, and/or requiring alternative means of pulling the cylinder.

Key & Knob Locksets

Key and Knob locksets are the most common type of lock found on residential and light commercial swinging doors, Figure 21-20. These locksets can be eas-

ily removed by striking the knob with an axe or sledgehammer and inserting a flat screwdriver into the half moon shaped hole and turning. The claw end of the halligan bar can also be used to pry the knob from the door.

Deadbolts

Deadbolts are recognizable by the large cylinder (compared to a rim or mortise lock) that protrudes from the outside of the door, Figure 21-21. Deadbolts can be removed by placing the claw end of the halligan bar around the lock and prying inward toward the door. Another method is to strike the adz of the halligan bar against the lock with a sledge hammer or flat head axe, thereby shearing the deadbolt off form the door. Once removed, use a flat screw driver to turn bolt mechanism.

Figure 21-21 Deadbolt Cylinder

Mortise & Rim Locks

Mortise, Figure 21-22, and rim locks, Figure 21-23, are recognized by a cylinder that protrudes through the door only 1/4" to 3/8." This type of lock can be removed best by using the K-Tool to pull the lock from the metal backing plate. If a K-Tool is not available, the lock can be driven through the door by striking the pick end of the halligan bar against it. Once removed, use a key tool or screw driver to manipulate the latch mechanism.

Figure 21-22 Mortise Lock Cylinder

Through The Lock Entry Using the K-Tool

Place K-Tool over the lock mechanism so that the blades of the "K" grip the edges of the lock. Insert adz of Halligan Bar through the loop on "K" tool, from the top down. Strike downward on the head of the Halligan with sledgehammer or axe, so that tool grips the lock mechanism. Push up on shank of Halligan to pull the lock mechanism out of the door.

Match the appropriate key tool to the mechanism:

Mortise Lock - Curved stem
Using the curved end of the key tool, insert the key tool at a the 5 o'clock position and rotate the catch left to the 7 o'clock position. These locks may also function in the opposite direction. If unsuccessful with your first attempt, enter at the 7 o'clock position and rotate the catch to the 5 o'clock position.

Figure 21-23 Rim Lock Cylinder

Rim Lock - Flat stem.
Insert flat stem of the key tool into slot and simply rotate.

Police Rim Lock - 5/32" Square stem
The police rim lock is not commonly found in San Diego. This lock is indistinguishable from a standard rim lock from the outside until the lock is removed with the K-Tool. To open, insert the 5/32" square stem of the key tool into slot and simply rotate.

K-Tool

Place K-Tool snuggly over Rim or Mortise Lock

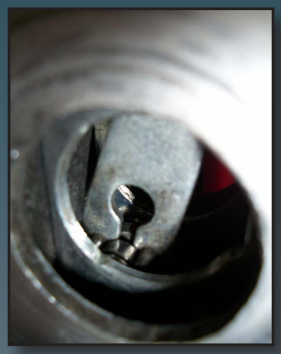
Place Adz of Halligan Bar into K-Tool then strike with sledge or axe

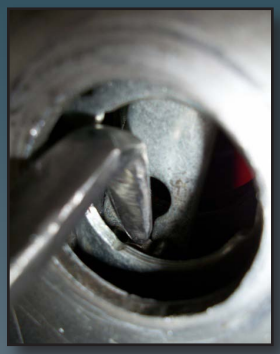
Force Halligan Bar downward or upward to remove lock cylinder

Once the lock cylinder has been removed, use the key tool accessory to manipulate and open the latch/bolt mechanism inside.

K-Tool - Using the Key Tools

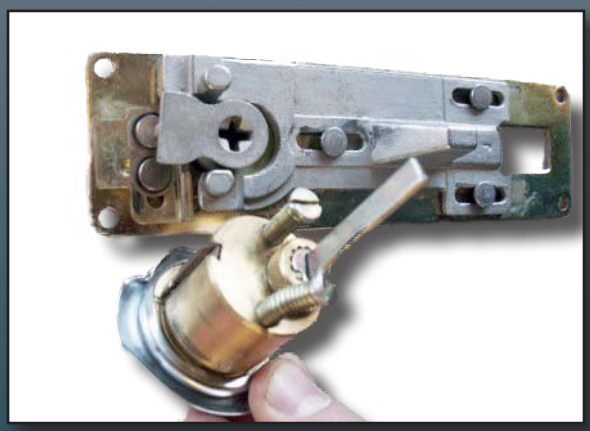
Mortise Lock - Curved Stem

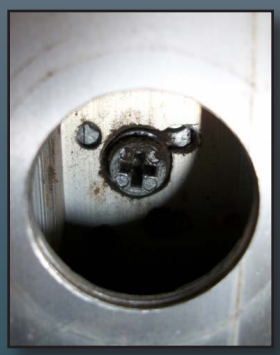




- Use the 90 degree bent end of the key tool to turn from a 6 O'Clock position to either a 5 or 7 O'Clock position to open.

Rim Lock - Flat Stem or Screw Driver





- Rim Locks - Use the straight end of the key tool and rotate either direction until door unlocks
- Police Rim Locks - A type of Rim lock, Police Rim Locks require the use of a 5/32" square key tool. Insert tool and rotate until door unlocks.

Padlocks

Figure 21-24 Light Duty Padlock

Padlocks are detachable locking devices with a sliding and pivoting shackle that pass through fixed or removable hardware and then made secure. Like any fire or emergency, operational procedures and conditions on arrival will dictate the course of action. Padlocks are used in all types of occupancies, e.g. multiple dwellings, commercial, private dwellings, vacant buildings and even subways and railroads. Padlocks are used on both the exterior and interior of occupancies. They are found in the places you least expect and you may have to force one with only the tools you carry. Therefore, members should be able to identify the various types of padlocks and their attachment hardware and means of installation. For the purpose of this manual, the names of the locks used by the author are "street" names and not the manufacturer's product name.

Padlock Parts

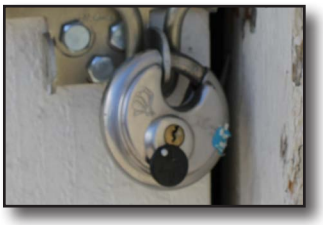


Figure 21-25 Heavy Duty Padlock

- Shackle or bow.
- Body (solid or laminated).
- Keyway.

For the purpose of size-up and understanding padlocks, they are placed in three general categories:

Light Duty

The shackle or bow is usually 1/4 inch or less and is usually not casehardened, Figure 21-24. The body of lock may be solid or laminated and the keyway type may vary.

Heavy Duty

The shackle or bow is 1/4 inch and larger and casehardened steel, Figure 21-25. The body of lock may be solid or laminated. Heel and toe locking (both sides of shackle lock). The keyway is guarded.

Special Purpose

May be any shape and used for specific purpose, such as locking roll-down security gates, and may be casehardened. One example is the American Series 2000 lock, or hockey puck lock, Figure 21-26. This lock has no bow or shackle and cannot be cut with a hacksaw or bolt cutters.

Figure 21-26 American 2000 Series Lock a.k.a. Hockey Puck Lock (above 2 images)

When sizing up a padlock consider the following:

- Type of padlock.
- Hardware and installation (attachment device).
- How many padlocks and their location.
- Accessibility.

Forcing Padlocks

The Rescue saw with a metal cutting blade should be the primary tool to remove padlocks, hardware and attachment devices, especially with the prevalence of case-hardened steel. It offers speed and is relatively safer than striking tools. If the padlock has an exposed shackle, rotate the padlock to get a cutting position and cut through both shackles at the same time.

Figure 21-27 Cutting the chain link nearest the lock allows the lock to be saved

Bolt Cutters

Bolt cutters are excellent for cutting light duty pad locks, light duty chains, cable and hardware, Figure 21-28. As a last resort they can also be used to cut heavy-duty padlocks, but when used this way, they may damage the jaws of the bolt cutter. If they must be used for a heavy-duty padlock open the bolt cutter to the maximum. If possible, position the bolt cutter so one handle is securely against a substantial object (wall, ground, etc.). Push with both hands on handle to cut the hardware.

If given the option of cutting a padlock or the chain, cut the chain link nearest the lock, Figure 21-27. By preserving the lock the property owner may still secure the premise when fire fighting operations are complete and does not have to purchase a new padlock.

Figure 21-28 Cutting light weight locks can also be achieved with bolt cutters

Halligan Bar & Axe/Sledge

Conventional forcible entry methods can be employed with forcing light and heavy duty pad locks. Although heavy duty case-hardened locks are difficult to cut with bolt cutters due to their compressive strength, they are weaker in tensile strength. Two methods may be utilized to force pad locks with a set of irons.

- Place the claw of Halligan Bar around the shackle of the lock and twist, shearing the lock apart, Figure 21-29.
- Place the pick of the Halligan Bar through the bow of the lock and forcible strike downward with the axe/sledge, Figure 21-30.

Figure 21-29 Twist or shear lock with claw of halligan bar to break or open

Figure 21-30 Drive the pick of halligan through shackle of the lock to break or open

Overhead Doors

Overhead doors are mounted above an opening and travel vertically or swing upward. These doors are commonly found in residential garage doors and commercial loading dock areas. Overhead doors can be further classified into the following three categories:

- Roll Up Doors - Rolling Steel & Sheet Curtain Door
- Sectional Door
- Tilt-Up Door

Roll Up Doors

Figure 21-31 Rolling Steel Door (Interlocking Slats)

Rolling steel and sheet curtain doors have become common throughout many cities. These overhead doors protect storefronts, factories, warehouse and residential occupancies. They are also used to secure occupancies inside buildings, vacant buildings and roof bulkhead doors in vacant buildings.

Adjacent to the opening (window or door) two channel rails are secured to the exterior wall. These are known as the guide rails. Above the guide rails is a drum that houses the door. The door rides up and down in the guide rail covering the opening. The door may be raised manually, mechanically (with a chain assist) or with an electric motor. Most overhead roll-up doors are constructed the same, except for the opening mechanism.

Rolling Steel vs Sheet Curtain Doors

A rolling steel door consists of interlocking slats of metal approximately 2" wide, Figure 21-31. These slats are connected by a groove that allows the door to hinge and roll-up. As a result of this groove, the slats can also slide horizontally between each other, which is a key concept for forcible entry operations.

Figure 21-32 Sheet Curtain Doors are one continuous metal sheet with creases/folds in the metal.

A sheet curtain door looks very similar to the rolling steel door. The main difference between the two is that the sheet curtain door is one solid piece of metal or other material with creases spaced every 2," Figure 21-32. The best way to determine the difference is to push on the door. If the door feels tight and doesn't rattle, it is likely a sheet curtain. If the door shakes and rattles, it is likely a rolling steel door.

The sheet curtain in some cases may be security

bars instead of one solid piece of steel. These door are very common in store-fronts at shopping malls. These doors are also commonly referred to as roll-up security gates, Figure 21-33.

Fire Ground Problems

Roll-up doors are designed for security. They have added to our fire ground problems by:

- Commonly delaying the discovery of a fire, which results in intense fire upon arrival, extension of fire throughout the occupancy, very high heat and heavy smoke conditions and potential for back draft.
- Limited/delayed ventilation.
- Difficulty in locating the seat of the fire.
- Time consumed in extended forcible entry with the need for power saws to gain entry.
- Difficulty in determining the exact entrance door, when numerous roll-up doors are present. Roll-up doors may be secured from the inside and occupants may use another exit to leave building.
- Once the roll-up door is exposed to high temperatures it may begin to distort and jam. If this occurs you will not be able to manually roll up the doors and will have to cut the doors with a rescue saw.

Figure 21-33 Sheet Curtain Security Gate

Manual Roll-up Door

Manual roll-up doors are typically smaller in size and are commonly found on small storefronts or storage unit facilities, Figure 21-34. These roll-up doors are light enough in weight which allows them to be raised by hand.

Figure 21-34 Manual Roll-up Door

Construction Features - Manual Roll-up Door

- Roll-up doors ride up and down a channel rail on each side of the door.
- The slats may be wider on the older roll-up doors.
- The door is attached to a winding drum.
- At the top of the roll-up door the drum may have a spring counter-balance to assist in the opening (found on larger manual doors).
- Slide bolts may be attached to bottom rail and may be secured into the channel rail with a padlock, Figure 21-35.
- These roll-up doors are secured with metal pins that pass through the channel rail and the door. These pins are secured to the channel rail with a padlock that attaches to a metal clip or staple welded to the channel rail.
- A single roll-up door may be secured with numerous padlocks.
- The manual roll-up door is easily recognized by the absence of a raising mechanism housing on the side of the winding drum (top of the door).
- Lifting handles are usually attached to the bottom rail of the door, Figure 21-36.
- The winding drum is concealed behind sheet metal housing or inside the building wall, Figure 21-37.
- The curtain may be constructed of inter-locked metal slats or open grill metal bars.
- Metal angle iron may be attached to the bottom of the door to give it added stability and security.

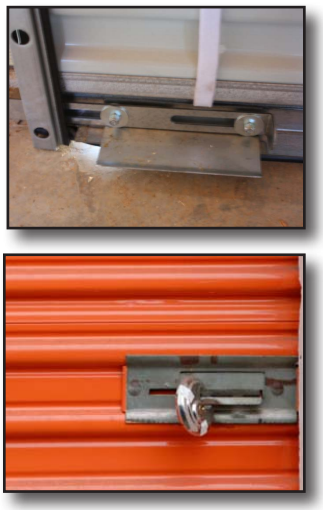


Figure 21-35 Slide Bolt & Lock Mechanism

Forcible Entry Operations - Manual Roll-up Door

- Locate and remove all padlocks and/or other locking devices.
- Pull (slide) all metal pins and slide bolts out.
  - Most of the padlock points will have a removable pin.
  - Bottom rail usually has a slide bolt to disengage.
- Raise roll-up door with lift handle or bottom bar.
- Force Entry with Rescue Saw refer to "Cutting Overhead Doors" on page 21-41

Figure 21-37 Spring Assist Winding Drum

Mechanical Roll-up Door (Chain Hoist)

Mechanical roll-up doors will have all of the same features as the manual roll-up door. These types of roll-up doors are generally found on wider openings.

Construction Features

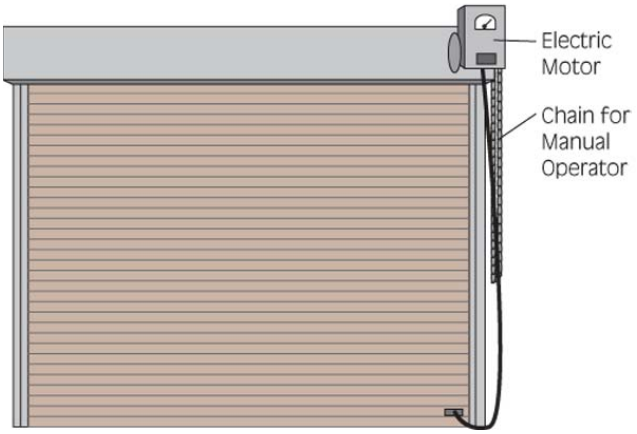
- The slats will be narrower and span a wider opening than the manual roll-up door.
- On roll-up doors mounted on the exterior walls of buildings, the chain hangs from a narrow metal housing attached to the side of the winding drum housing. The chain is secured behind a hinged piece of angle iron. The chain is attached to a hold-down device such as a bolt to prevent pulling the chain out from the top of the angle iron. The angle iron is secured to the channel rail with one or more padlocks.
- On roll-up doors mounted with the winding drum concealed in the building wall, the chain will not be visible. The chain will be secured in a small access panel on the building wall adjacent to the channel rail. A key operated latch type lock will secure the access panel.
- The hoisting chain is secured behind a piece of angle iron and usually secured with padlocks.
- The mechanical roll-up door is usually larger and heavier than the manual roll-up door.
- Metal angle iron may be attached to the bottom of the door to give it added stability and security.

Forcible Entry Operations

- Locate and remove all padlocks and/or other locking devices.
- Pull (slide) all metal pins and slide bolts out.
- Free the chain hoist from its hold-down device and raise the door with the chain.
- The angle iron covering the chain hoist is usually hinged and has to be pivoted out and away from the rail to access the chain hoist.
- If the angle iron is not hinged you may have to it pry open to access the chain.
- If the roll-up door cannot be raised with the chain hoist assemblies, cut the chain near the top and raise it manually. This may take several firefighters since it will be much heavier.
- Force Entry with Rescue Saw refer to "Cutting Overhead Doors" on page 21-41

Electric Roll-up Door

Same basic features as the other types of roll-up doors with the exception that it is operated electrically. It can be found in any occupancy, but usually is found on occupancies with large openings such as department stores and commercial buildings. One roll-up door may be used to cover multiple levels of an occupancy.



Construction Features

- Similar to mechanical roll-down but are usually recognized by a large metal motor housing adjacent to the winding drum.
- There may be a key switch located on the building wall on either side of the roll-up door. This switch may also be located in a remote location inside the building. This key switch panel may contain a stop button; others stop with the switch in the center position of the key switch.
- All electrical operated roll-up doors are equipped with an auxiliary chain hoist to be used in case of a power failure. This chain will be located in the motor housing and may not be visible from the outside.
- Either a bottom hatch or a front panel, which is secured with sheet metal screws, may access this chain hoist.
- The chain hoist assembly may have a clutch cable or chain that must be pulled first to engage the assembly to open the roll-up door. This electrical roll-up door has now been converted to a mechanical one.
- These roll-up doors may also be secured with padlocks, pins and slide bolts similar to manual and mechanical roll-up doors.
- Metal angle iron may be attached to the bottom of the door to give it added stability and security.

Forcible Entry Operations

- Locate and remove all padlocks and/or other locking devices. If power is on, operate the electric switch to open the roll-up door.
- Force Entry with Rescue Saw refer to "Cutting Overhead Doors" on page 21-41

Sectional Overhead Doors

Sectional doors differ from the roll-up door in that instead of hinging every 2," sectional doors hinge every 18" to 24." Lightweight sectional doors are very common in residential garage doors but are also found in commercial applications.

Construction Features

- Sectional doors typically roll up and back along a track overhead. Some sectional doors may also slide or retract inside of itself.
- Sectional doors are constructed of panels made from steel, aluminum, wood, and fiberglass.
- Doors may also be manually or electrically operated.

Forcible Entry Operations

- For manually operated doors, locate and remove all padlocks and/or other locking devices.
- For electrically operated doors
  - If power is on, operate the electric switch to open the roll-up door.
  - If power has been secured, attempt to release the manual disengage lever or cord on the door, then open manually, Figure 21-39.

Figure 21-39 Manual disengage lever/cord for electrically operated doors

Figure 21-38 Channel Locks used to clamp sectional door open

- Once opened, these doors must be chocked or tied off to prevent them from closing and trapping crews inside. This can be accomplished by clamping channel locks to the track, Figure 21-38, tying open the door with webbing, or supporting the door with pike poles or a step ladder.
- Force Entry with Rescue Saw refer to "Cutting Overhead Doors" on page 21-41

Note: The recommended methods for cutting through overhead doors may not be effective for all sectional doors due to the thickness of the framing and bracing, Figure 21-40. The rescue saw with a new blade will only cut a maximum of 5" deep. On large sectional doors, the framing may be up to 8" wide. Removing the door skin first will expose the framing members and allow you to make a second set of cuts on the frame. This is a time consuming process and should be used as a last resort.

Figure 21-40 Sectional Door Framing & Bracing

Tilt-Up Overhead Doors

Tilt-up doors are constructed of a single piece of thin metal or wood skin over a frame which hinge at the mid-line to swing up or down. These doors are typically used on garages in older residential construction but may also be found in commercial applications.

Construction Features

- Consists of a framed structure sheeted with a wood or metal skin
- As the size of the door increases, so does the size of the support members on the backside of the door.
- Large springs are used to assist the user in opening tilt-up doors and keeping the door open. When these metal springs are exposed to heat or fire, they can weaken or fail making opening the door difficult to lift or stay open.

Figure 21-41 Tilt-Up Overhead Garage Door (Above 2 images)

Forcible Entry Operations

- For manually operated doors, locate and remove all padlocks and/or other locking devices.
- For electrically operated doors
  - If power is on, operate the electric switch to open the roll-up door.
  - If power has been secured, attempt to release the manual disengage lever or cord on the door, then open manually.
- Once opened, these doors must be chocked or tied off to prevent them from closing and trapping crews inside. Like sectional doors, these doors should be chocked or supported open with a pike pole, step ladder or by some other means to avoid unexpected closing.
- Force Entry with power saw refer to "Cutting Overhead Doors" on page 21-41
  - Metal Doors - Use Rescue Saw
  - Wood Doors - Use Chain Saw or Rescue Saw with appropriate blade

Note: The recommended methods for cutting through overhead doors may not be effective for all tilt-up doors due to the thickness of the framing and bracing. The rescue saw with a new blade will only cut a maximum of 5" deep. On large tilt up doors, the framing may be up to 8" wide. Removing the door skin first will expose the framing members and allow you to make a second set of cuts on the frame. This is a time consuming process and should be used as a last resort.

Cutting Overhead Doors

Prior to cutting overhead doors, utilize the following general checklist prior

- Check to see if locked.
- Look for other entry area and open from inside.
- Conventional forcible entry techniques.
- Cut door with power equipment.

Teepee Cut

This is the quickest and fastest to get water on the fire. The key is cutting as high as you can get and bringing the cuts down to the ground.

Advantages:

- Only two long cuts and one short one.
- Ability to put water on the fire immediately.

Disadvantages:

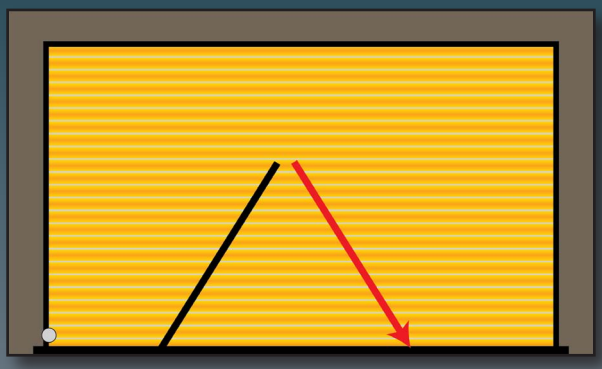
- Large pile of cut roll-up door in front of opening.
- Unable to cut all the way to ground due to reinforced bar at the base of gate.
- The cut can only be made as high as the saw operator's reach.
- Creates small point of entry.
- Poor horizontal ventilation access

Sequence

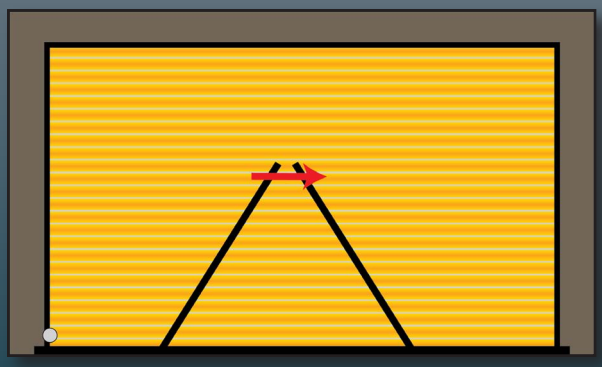
- With rescue saw make first cut at 60-degree angle towards center of door.
- Make second cut at 60-degree angle towards edge, not crossing first cut.
- Make third cut crossing cut 1 and 2 and push door inwards.
- Will leave a triangular, or Teepee shaped opening to entry.

Teepee Cut

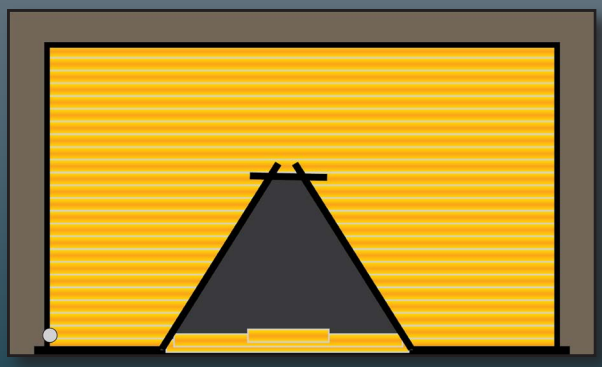
Cut #1 is made downward from the center of the door at a 60 degree angle



Cut #2 is made downward from the center of the door at a 60 degree angle in opposite direction.
Do not cross your cuts



Cut #3 should cross the two cuts at the highest point



Push door material inward

Center Cut & Pull (Rolling Steel Doors only)

This operation requires one vertical cut and will only work on overhead roll-up doors with interlocking slats or rolling steel doors. The key to this cut is that once the single vertical cut has been made, one of the interlocking slats must be removed, or pulled out. Once the slat is removed, the remaining slats from the door below that point will fall to the ground and can be removed.

Advantages:

- Fast only 1 cut required
- When completed, you can still roll up the remaining portion of the door
- Large opening
- The cut can be quickly expanded upon if unable to pull out the slats

Disadvantages:

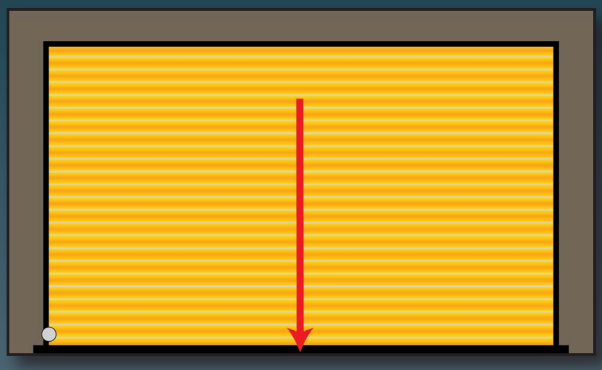
- Only works on rolling steel doors with interlocking slats
- Interlocking slats may be riveted to the guide wheels in the track preventing them from being pulled out, Figure 21-42.
- The weight of the door may make the interlocking slats difficult to remove

Figure 21-42 Interlocking slats may be riveted together on the ends which may will prevent them from being pulled out

Sequence

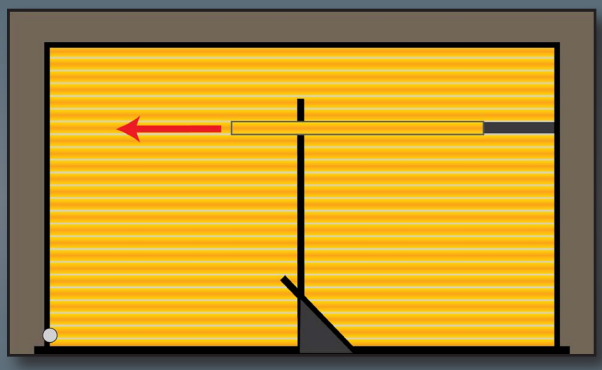
- Make a long vertical cut down the center of the door. Start at head high and work all the way to the bottom of the door.
- Make a second small angular cut at the bottom of the vertical cut create an opening for the head of your rescue saw to fit into. This small pie shaped opening will allow you to cut the channel or angle iron at the bottom of the door. (Optional)
- Use channel locks, vice grips or drive the pick of the halligan bar into the door slats to pull them out from the track. Once removed, all the slats below that point shall fall to the ground and can be moved.
- Repeat this process on the other side of you vertical cut.
    - If a slat cannot be pulled free, try one slat up or down from there. Slats are commonly riveted to the guides in the track with an alternating pattern.
    - If all slats cannot be pulled free, then all of the door slats may be riveted to the guides in the track.
    - To remove, make a second vertical cut approximately 6” from the edge of the door, then repeat the above steps for pulling out the interlocking slats
- If slats still cannot be removed then the door does not have interlocking slats and you must perform either a peel back or crop cut, see “Peel Back & Drop Cut Method” on page 21-45.

Center Cut & Pull Method

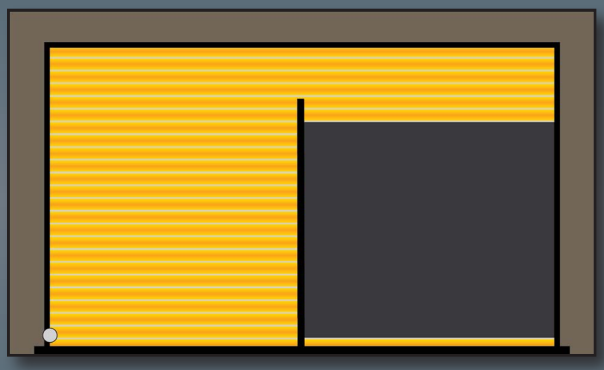


Cut #1 is a vertical cut made down the center of the door from head high to the ground.

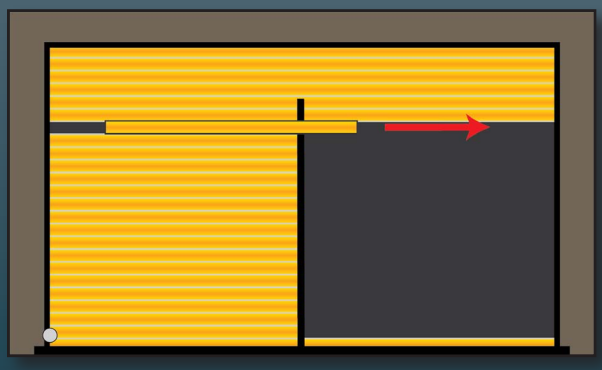
Cut a diagonal relief cut to allow the rescue saw to fit into the doorway to cut the angle iron on the bottom



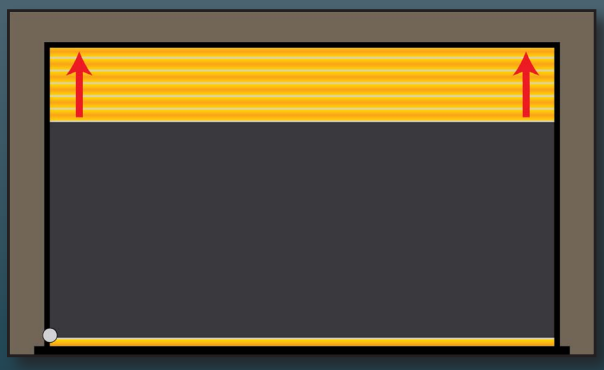
Kick in the triangle shaped hole and cut the angle iron if necessary. Using channel locks or vice grips, slide one of the slats toward the center and out



Once the slat is removed, the remaining slats below that point will fall to the ground



Repeat the previous step and pull out a slat on the opposite side



All remaining slats will fall to the ground. You may also be able to roll up the top portion of the door.

Peel Back & Drop Cut Method

The peel back and drop cut methods can be performed on just about any overhead door. For this reason, it is the preferred method by many firefighters. It creates a large opening, it is relatively fast and works with all doors.

Advantages:

- Works on a wide variety of overhead and roll-up doors
- Can be used to create very wide openings for access and ventilation
- If the center cut and pull method was unsuccessful in removing the slats, the initial vertical cut can be expanded on to perform the peel back or drop cut method.

Disadvantages:

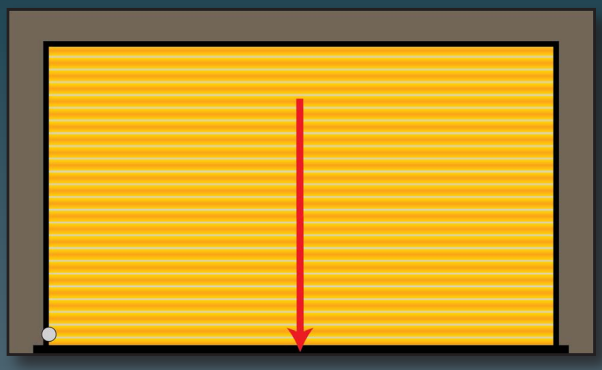
- Requires more time.
- May require more than one member.
- Large sections of door must be removed.
- May damage guides or wheels in the track and prevent the remaining uncut door from rolling up.

Sequence

- Make a long vertical cut down the center of the door. Start at head high and work all the way to the bottom of the door.
    - Make a small angular cut at the bottom of the vertical cut create an opening for the head of your rescue saw to fit into. This small pie shaped opening will allow you to cut the channel or angle iron at the bottom of the door.
- Make a horizontal cut from the center vertical cut to the edge of the door
    - Avoid making horizontal cut in a groove or crease on sectional doors because this is where steel hinges are placed.
- At this point the door may be “peeled back” or open using the track or guides as a hinge point.
- For sturdy or difficult doors, a third cut straight up and down 4” from edge on same side of first cut can be made to “drop” or remove the entire door completely.
    - Repeat bottom bar relief cut.
- Remove door material and repeat as necessary.

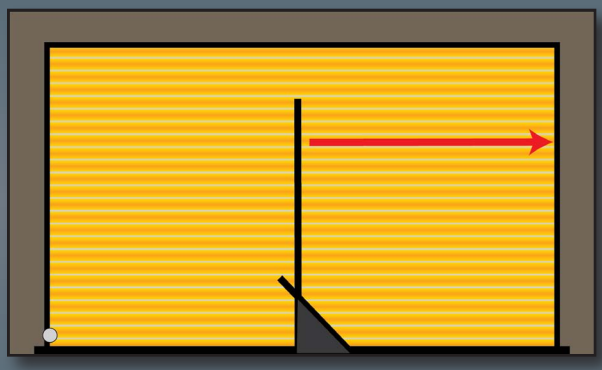
Note - An good technique is to leave a small amount of material intact near the intersections of your cut until the end. The reason to avoid crossing over your cuts initially is that the weight of the door may flop back and forth with the vibration of the saw causing binding on the blade and make cutting difficult and slow. Once the main cuts have been completed, quickly go back and make relief cuts crossing the vertical and top cuts.

Peel Back Method

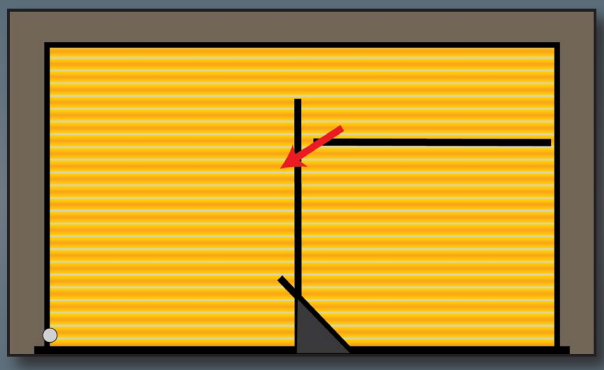


Cut #1 is a vertical cut made down the door from head high to the ground.

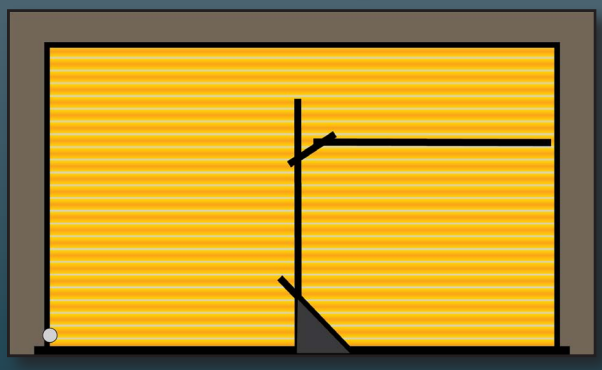
Cut a diagonal relief cut to allow the rescue saw to fit into the doorway to cut the angle iron on the bottom



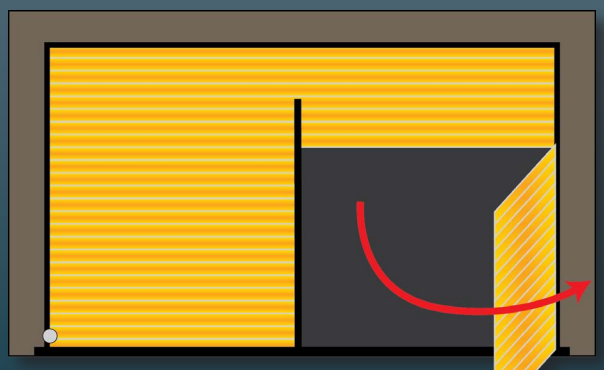
Kick in the triangle shaped hole and cut the angle iron if necessary. Make the next cut across the top, making sure to not cross your cut



Once the top cut has been completed, return to the vertical cut and connect it with the top cut



Completed Cuts

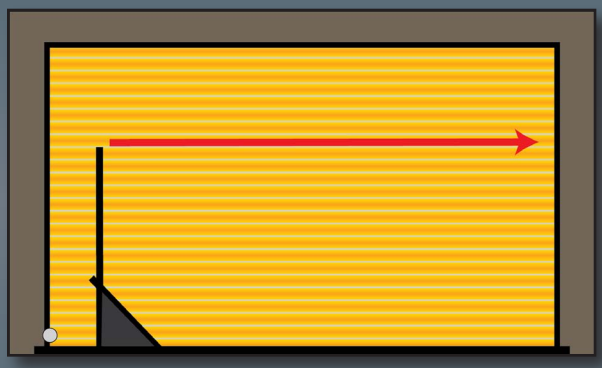


Swing the cut door open, hinging on the track

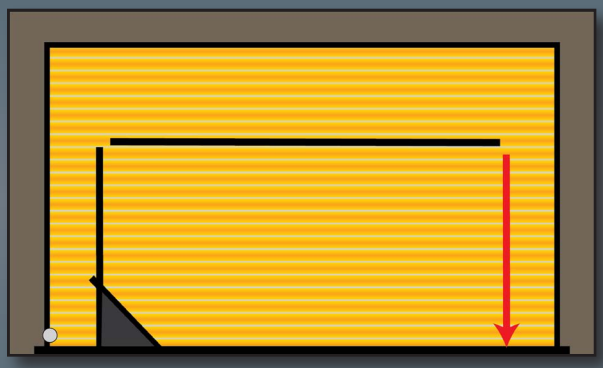
Drop Cut Method

Cut #1 is a vertical cut made 1' away from the side of the door, from head high to the ground.

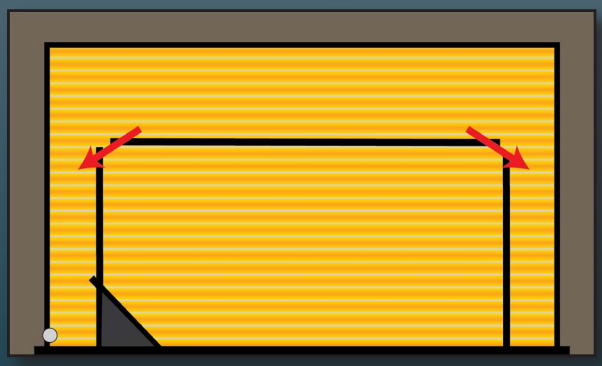
Cut a diagonal relief cut to allow the rescue saw to fit into the doorway to cut the angle iron on the bottom



Make a top cut approximately shoulder high working across the door. Do not cross your top cut with the vertical cut at this point



Cut #3 is a second vertical cut made 1' away from the opposite side of the door. Do not cross your cuts yet.



Return to cross your two vertical cuts with the top cut

Allow the door to drop down, cut the angle iron on the bottom and pull door material out of the way.

Security Doors & Gates

The techniques described in this section should only be utilized after the typical forcible entry considerations covered previously in this chapter have been evaluated for use. The following forcible entry methods are unique to the specified door and gate.

Security Screen Door

Security screen doors are commonly found mounted to the exterior of residential inward swinging doors. These screen doors consist of a metal jamb that is bolted to the main door jamb and an outward swinging metal door with bars that hinges on the metal frame. These doors also have a metal mesh, or heavy duty screen, that covers the back of the bars. These doors typically utilizes a key in knob lock, tubular deadbolt, or a combination of both locks.

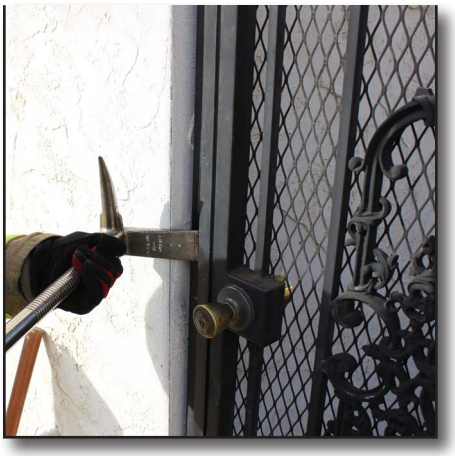


Figure 21-43 Metal Latch Guard on Security Screen Door

Forcible entry procedures for security screen doors should be the same utilized for an outward swinging door covered earlier in this chapter. However, one additional technique may be utilized for security screen doors. An axe or halligan bar can be used to punch through the metal mesh or screen material next to the locking mechanism. Once breached, use a gloved hand to reach through the door and unlock from the inside. Be sure to wear gloves as the torn metal screen is very sharp.

Metal screen doors may also utilize a latch guard which runs the length of the door. This metal guard is typically only tack welded to the door and can be pried back or off with the adz of the halligan bar to expose the latch or deadbolt, Figure 21-43.

Sliding Scissor Gate

This is the oldest type of security gate. These are among the first barriers that owners put in place to discourage vandalism and break-ins. Unlike the more common gates we encounter today, these gates slides in a track to open, Figure 21-44.

Construction Features

- The bottom track usually picks up and secures the gate in the open position; some pivot ninety degrees to achieve the maximum opening.
- These gates may be secured with numerous padlocks.
- These locks will be located in the center of the opening of the gate cover or off to one side, attached to the frame.

Forcible Entry Operations

- Locate and remove all padlocks and / or other locking devices.
- Slide the gate manually.
- Lift the bottom track and secure in open position. If possible, rotate gate ninety-degrees to achieve maximum opening.

Parking Security Gates

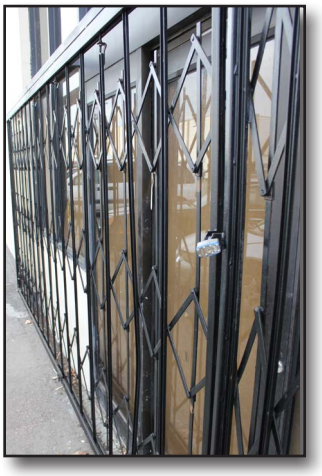


Figure 21-44 Sliding Scissor Gate (above 3 images)

Parking security gates may be rolling, swinging or overhead type gates. These gates are motorized and controlled by a remote control, electric sensor or switch. Newer parking gates may have fire department access features that allow the gate to be opened by a knox box key or opticom, Figure 21-45.

A more unconventional method, yet quite effective, is to use metal to activate the gate loop sensor wires embedded in the ground behind the gate, Figure 21-46. As a vehicle approaches the gate from inside the structure, it passes over a wire in the ground which senses the metal of the vehicle to activate the gate. Firefighters can take advantage of this feature by tossing a metal pry bar, outrigger plate or any other metal tool over the sensor. It is recommend to tie a rope to the tool so that it can be dragged back towards the firefighters across the sensor wire or to retrieve the tool in the event the gate does not open.

Figure 21-45 Security gate access with knox box key

Chain Link Fences & Gates

Cutting a chain link fence can be accomplished with bolt cutters or a rescue saw. To cut a chain link fence with a rescue saw, make a vertical cut close to a post. Start the cut about 1' down from the top of the fence to keep the fencing material from falling onto the saw operator. While cutting, a second firefighter should maintain tension on the fence to keep the saw blade from binding and kicking back, Figure 21-50. To complete the vertical cut, return to the top of the fence and cut the remaining chain link. Firefighter #2 can then pull back the fencing material to the next pole.

Figure 21-46 Magnetic sensor imbedded in the asphalt opens security gates from the inside.

Chain Link Gates

Chain link gates may either hinge inward/outward or slide on rollers and a track. Hinged gates are typically secured with padlocks and chain. If an alternative method of entry is required, the gate can be removed by attacking the hinges at the posts, Figure 21-47. Begin by striking the bottom portion of the top hinge until it is freed from the pin. Once the top hinge has been freed, the gate can be lifted up, removing the bottom hinge from the pin, and then removed.

For gates that ride on rollers and a track, they will be operated either

Figure 21-47 Chain Link Gate Hinge

manually or by a chain driven by a motor. Manual rolling gates can be opened by removing the padlock and chain or by bending the roller guides to allow the rollers to be lifted off the track. For chain driven motorized gates, the chain may be able to be cut, freeing the gate from the motor and allowing the gate to be manually opened, Figure 21-49.

Razor & Barb Wire

Razor and barb wire is commonly placed under tension, Figure 21-48. When tensioned razor and barb wire is cut, it can spring backward uncontrollably. For this reason, firefighters should only cut razor and barb wire when absolutely necessary and must ensure full PPE is utilized.

Figure 21-48 Razor & Barb Wire

Figure 21-49 Rolling metal security gate

Figure 21-50 Cutting chain link fencing with a rescue saw

Windows

Windows are often easier and less expensive to force open than a door. Entry through a window may also permit a door to be opened from the inside. However, compared to doors, windows offer several disadvantages that must be considered when choosing to enter through a door or a window. Windows are generally smaller than doors and may have obstacles such as curtains, blinds, or furniture blocking them.

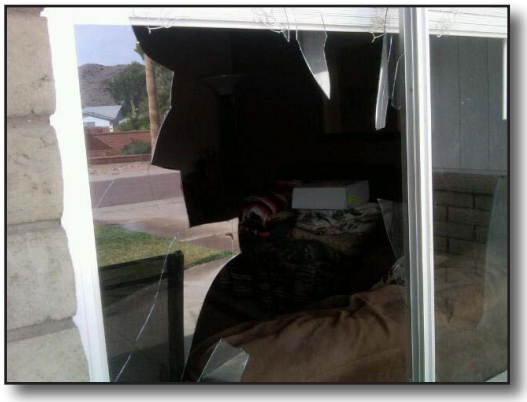


Figure 21-51 Broken Plate Glass

Window Construction

Windows are fairly simple and have three basic components.

- Frame - The structural case or border into which a window is set.
- Sash - The metal, wood, or plastic framework that surrounds and supports the glazing.
- Glass/Glazing - Made from glass and/or thermoplastic compounds. Also referred to as a window pane.

Window Glass

- Plate Glass is the least expensive type of glass and is used where strength is not required. When broken, plate glass breaks into large sharp pieces, Figure 21-51.
- Tempered Glass is heat treated to increase its strength to about five times that of plate glass. It is commonly used in glass doors and some windows. When broken, tempered glass shatters into thousands of small square pieces, Figure 21-52. Tempered glass can be identified by the word "Tempered" or a "T" in a lower corner of the window, Figure 21-53.
- Wired Glass has a wire grid embedded in it that significantly increases its strength, Figure 21-54. Commonly used for security and fire resistance purposes.
- Laminated Glass has a thin layer of polyester film coating one side of it. This glass is often referred to as safety glass and is commonly used in windshields.
- Synthetic Glass (Plexiglas, Lexan, Polycarbonate etc.) can be hundreds of times stronger than plate glass and is used in many security applications. Breaking these types of windows cannot be accomplished with conventional forcible entry methods.

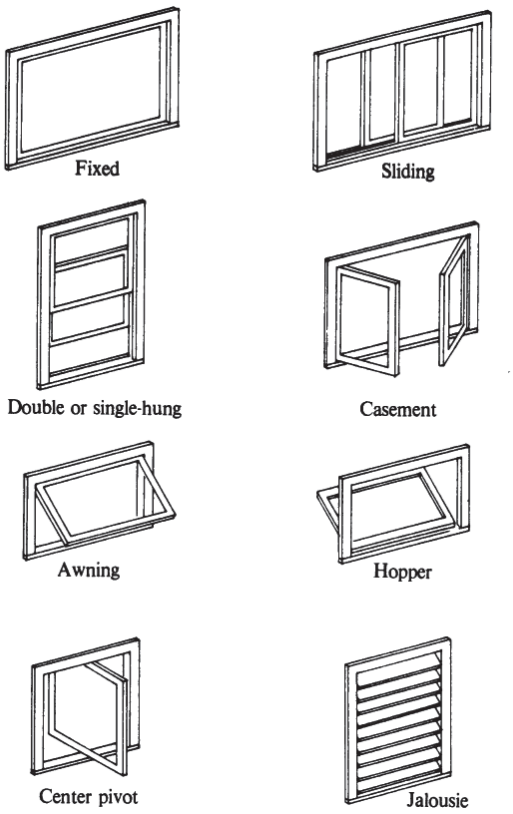
Figure 21-52 Broken Tempered Glass

Figure 21-53 "Tempered" or "T" symbol

Figure 21-54 Wired Glass

Window Types

Windows can be categorized into four basic types:



- Stationary or Fixed - These windows are permanently mounted and are not designed to be opened. These windows are commonly found in commercial and high rise buildings.
- Sliding Windows - Sliding windows move in a horizontal or vertical direction and are very common in residential applications. Windows that slide in a vertical direction are referred to as single or double hung, depending on how many moving window panes are present.
- Swinging Windows - Swinging windows open either outward or inward to the structure. There are several different styles of swinging windows that may be encountered, such as casement, awning, hopper, projected, and jalousie, Figure 21-55.
- Pivoting Windows - The least common type of window is the pivoting window, which pivots either vertically or horizontally in the middle of the sash.

Forcing Windows

Forcible entry through a window should only be used for initial entry. Once entry has been made through the window, a more appropriate means of entry, such as a door, shall be opened. Remember to evaluate the need for vertical ventilation or a charged hose line prior to opening a window.

For non-emergency situations, firefighters may be afforded the time to try and pry the window open using the various techniques that are described in the following section.

Figure 21-55 Jalousie Window

For emergency operations, little time should be wasted in trying to save a window by attempting to defeat its locking mechanism. Pry the window and see if it will readily open. If it does not, then break the glass remembering to shield face and body and striking with the hands on the tool above the point of impact.

Breaking Glass

When breaking glass remember to wear full protective clothing and eye protection. Always clear the sash of jagged glass. Before breaking a window look to see if it is double paned, tempered, or in some way is more expensive than another suitable window.

Always try to save the frame, as glass is usually cheaper and easier to replace.

In some cases, less damage is done by breaking a glass pane near the lock, reaching through and opening the door. The act of breaking glass must be done in a safe manner to assure that glass fragments will not cut the firefighter.

Breaking Plate Glass - Figure 21-56

- Consider need for vertical ventilation or charged hose line.
- Stand to one side of the glass pane to be broken.
- Strike the plate glass at the top of the pane with the flat side of an axe or another flat tool (never use your hands).
- Keep your hands above the point of impact (even if a ladder must be used).
- After the glass is broken, all jagged pieces should be removed from the sash. This may be done with the same tool used to break the glass or a pike pole.

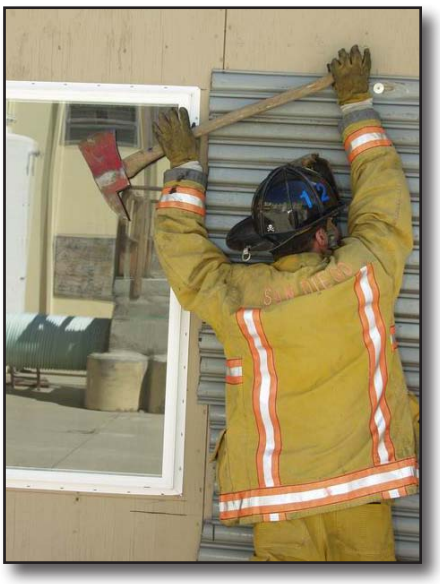


Figure 21-56 Breaking Plate Glass

Breaking Tempered Glass - Figure 21-57

- Consider need for vertical ventilation or charged hose line.
- Stand to one side of the glass pane to be broken facing the building, with your head turned away.
- Strike the tempered glass in the lower corner with the pick of an axe or halligan bar with your hands above the point of impact.

Breaking Laminated Glass

- Consider need for vertical ventilation or charged hose line.
- Use an axe or pry axe in a chopping motion to cut through glass
- Remove glass panel and any remaining glass in the sash.

Breaking Synthetic Glass

- Consider need for vertical ventilation or charged hose line.
- Use a carbide-tipped wood blade on a rescue or chain saw being sure to move the saw at a moderate speed to avoid binding.

Figure 21-57 Breaking Tempered Glass

Forcing Sliding Windows (Including single and double hung)

Figure 21-58 Sliding window latch

- Check to see if locked (look for secondary locking devices).
- Try knife or small screwdriver between top and bottom windows to pick lock.
- Force blade of axe between windowsill and bottom of window then pry window upward, forcing the hasp or screws to give, Figure 21-58.
- Attempt to remove window from sliding track.
- If this does not work, break glass near locking hasp, reach in unlock and open window.
- Enter window through unbroken opening and open another means of ingress.

Forcing Swinging Windows (casement, awning, hopper)

- Don't attempt to pry .
- Break glass near locking mechanism.

Louvered or Jalousie Windows

- Bend metal tabs and pull out glass panels.
- Enter window and open another means of ingress.

Security Bars on Windows

Figure 21-59 Security bars mounted on the outside of the window

Although security bars enhance security, they present a serious problem during fire ground operations, restricting the ingress of firefighters and egress of occupants. Security bars are most commonly found mounted on the exterior of widows, Figure 21-59, but can also be found on the interior side of some commercial windows, Figure 21-60.

Security bars are typically attached to structures using a lag bolt screwed into to an interior structural stud, Figure 21-61. Bars attached to masonry structures use a lag bolt that is secured into lead anchors, creating a compression point. Security bars are constructed of both hollow and solid metal components welded together.

Figure 21-60 Security bars mounted on the inside of the window

Techniques for Removing Security Bars

- Shear heads of bolts off with Halligan and sledge
- Sledgehammer bolts in to loosen bite then pry out with pry tool.
- Hack saw side support arms, frame or bars.
- If bars are hollow try bolt cutters or strike with axe.
- Drive bars off frame with Halligan and sledge.
- Use Rescue saw or reciprocating saw.
    - Cut heads of bolts, support arms, frame or bars.
    - Cut opposite hinges and tie open (Amkus or Holmatro tools can also be used).

Figure 21-61 Security bars anchored into structure with a lag bolt.

Removing Bars on Stucco & Wood Framed Structures

Although there are several techniques available for removing bars from wood framed structures, the fastest method is by using a rescue saw. By making two cuts on one side of the bars will allow you to open the bars like a door, hinging on the anchors on opposite side.

- Cut the top anchor point first (which is most difficult).
- Cut the bottom anchor point last.
- Pry open the bars, hinging on the opposite side attachment points.
- Tie open bars with rope or webbing or remove bars completely if time permits.

In some cases, the top horizontal bar may be out of reach, making cutting the bars not possible. As an alternative, both bottom attachment points of the bars may be cut and the bars can be pushed upward. Just be aware that they may fall back down over the window.

Removing Bars on Masonry Structures

Security bars mounted to masonry structures may be removed in the same manner previously described using the rescue saw or may be removed by striking the attachment points with an axe or sledge hammer. This method is effective because the lag screws are secured into masonry buildings with lead anchors. Because these anchors are secured by compression, a sharp blow of an axe or sledge near the anchor point should easily break the masonry around the anchor, allowing the bars to be pulled outward. If necessary, a halligan bar can be used for leverage to pry the bars from the structure.

Techniques for Removing Bars From Windows

Use a rescue saw to cut through the horizontal bars where they attach to the structure. Preferred method to use during an emergency

Strike attachment point in an attempt to loosen the lag bolt. Only works where bars are attached to masonry

Strike the bars at the welds with an axe to break them free

Shear heads of bolts off with a halligan bar and sledge or flat head axe

Use the claw of the halligan to gain a purchase on the horizontal bars where they attach to the structure, then cam downward to break weld or anchor

A hacksaw or sawz-all may be used for non emergency situations. Bolt cutters can be used to cut through hollow bars

Summary

Forcible entry is a critical skill to master as a professional firefighter. Knowing the right mix between brute force and finesse is increasingly important as public perception becomes more critical every year. As employees sworn to protect life and property we have a moral obligation to know the proper progression of the various forcible entry techniques.

Sometimes a bit of patience and care to cause the least amount of damage can mean the world to the citizen you are serving. On the same note, a rapid, decisive and efficient forcible entry operation can be the difference between life and death in an active fire situation.

With all the different doors, windows and locks used in the industry, memorizing each and every one is virtually impossible. Through proper training, education and experience we can minimize our chance of failure and maximize our rate of success. Forcible entry is an attitude- nothing can stop you when armed with the proper equipment, skill and technique.

Media & Link Index

SDFD Forcible Entry Videos

- Inward Swinging Commercial Doors - Forcible Entry SDFD Academy Video
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- Outward Swinging Commercial Doors - - Forcible Entry SDFD Academy Video
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- Magnetic Lock Video
- Overhead Tilt Up / Garage Door Forcible Entry - Vent Enter Search.com
- LAFD Overhead Roll-Up Doors - Forcible Entry

- Forcible Entry - SDFD Academy SOG
- Drill Sheet - SDFD Probationary Drill
- www.ironsandladders.com

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6. FDNY Forcible Entry Reference Guide, Techniques & Procedures, December, 2006.
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8. www.ironsandladders.com

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Revisions/Updates

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