

# Commack Fire Department

## CFD Probationary Firefighter Basic Lesson Plan

### Topic: Basic Forcible Entry

#### Class #8

- **Level of Instruction**  
Probationary Firefighters
- **Equipment Needed**  
Flat Head Axe/Halligan/Metal Chock/Forcible entry door prop/Carriage bolt prop
- **Resources**  
IFSTA FF1  
YouTube Mike Perrone Forcible entry videos
- **Terminal Objective**  
Probationary Firefighters will be given both lecture and hands on instruction how to force entry through an inward opening door using two firefighters and an outward opening door using two firefighters with 100% accuracy and proficiency
- **Enabling Objectives**
  - Probationary Firefighters will learn the parts of the tools and how they are used
  - Probationary Firefighters will learn the nomenclature (terms) of the evolution
- **Lesson Outline:**
  - **Discussion**
    - Introduce the lesson
    - Discuss parts of the tools being used
    - Explain parts of the door and jam
    - Identifying the difference between wood and metal doors
    - Identifying the swing of the door inward/outward opening
    - Identifying types of locks/carriage bolt patterns
    - Gap-Set-Force
    - HIT – DRIVE – STOP
    - Proper Striking
    - Communication

- **Hands on**

- **Two FF Carriage Bolt Removal**

- Identify the bolt patten for the type of lock
- Halligan FF places pike of halligan on door directly above the bolt
- Halligan FF calls for "HITS" until the pike end is all the way through the door
- Halligan FF pry's up/down and around with the pike buried to deform the metal around the door and loosen up the bolt
- Halligan FF removes the pike from the door, repositions the halligan using the pike again or now switching to the adze, on the head of the bolt or just below it
- Halligan FF calls for "HITS" again driving the entire bolt through the door

- **Two FF Inward Opening Door Force**

- **Instructors will force the door at regular speed without instruction first**

- Try before you pry
- Identify the swing (inward or outward)
- Using foot knee push in on door to create a as much of a gap as possible
- Insert adze end in-between door and door stop 6" above or below the lock
- Gap either up or down depending on where the pike of the halligan is
- Axe FF capture progress either with axe or metal chock
- Remove adze end of halligan and switch to fork end with the beveled edge to the door, set the forks into the previous gap made
- Axe FF gets into hitting position
- Halligan FF calls for a "HIT" until he feels he's set in solid
- Axe FF hits only when told to hit
- Halligan FF calls for "DRIVE"
- Axe FF hits at his pace until halligan FF yells "STOP"
- Halligan FF Calls for a "STOP" when crotch of the forks are even with the door stop
- Halligan FF pushes halligan inward toward the door to force the door.
- Axe FF captures progress with axe or metal chock (if necessary)

- Halligan FF flips tool around to the adze side and finishes off the force (if necessary)
- Halligan FF controls the door from flying open
- Instructors now repeat entire process slowly explaining each step
  - Probationary Firefighters now practice skill until 100% mastery of skill
- **Two FF Outward Opening Door Force**
- Instructors will force the door at regular speed without instruction first
  - Try before you pry
  - Identify the swing (inward or outward)
  - Halligan FF lays tool on the door, palms up, with adze in the space between the door and the jam
  - Axe FF gets into hitting position
  - Halligan FF calls for a “HIT” until he hears and or feels the adze has reached the door stop at the back of the jam then yells “STOP”
  - Halligan FF begins to rock the halligan up and down to try to crush the door and make a gap for the adze to go around the door
  - Halligan FF calls for a “HIT” until he feels he’s passed the jam at which time he can call for a “DRIVE” until the adze is buried to the neck of the tool and can go no further
  - Axe FF “HITS” on command and “DRIVES” on command until the halligan FF yells “STOP”
  - Halligan FF gets in behind the halligan (if possible) and pushes it away from the door going for the force
  - Axe FF gets out of the way until/unless the halligan FF asks to capture progress
  - Halligan FF repositions tool if necessary to complete the force
- Instructors now repeat entire process slowly explaining each step
  - Probationary Firefighters now practice skill until 100% mastery of skill
- Instructors review both door forces and summarize the lesson

- **Summary**

- In forcible entry, communication will be a major factor in succeeding or failing. It will also prevent injury as well. Study the steps of forcing both inward and outward doors, even if you study them as you're actually doing them when practicing with someone on your own can be a big help. Learn the commands and use only the commands while communicating during the evolution. Go through ALL the steps each time you practice, cheating during training will make you come up short on the fireground every time. Watch the Mike Perrone videos on YouTube, he invented and sells this training door. His techniques are solid, and you can learn a lot by watching them. You can even watch them on your phone while you're training on the door. It's a great resource. Just be careful with other forcible entry videos on there. There's always somebody out there trying to find an easier way to do something, it'll look great on a door prop but in the real world you'll just be wasting precious time at the door. Stick to the basics, they will never fail you. The key factors in forcing doors are, clear concise communication, solid technique, good feel of the tools in your hands and listening to both your partner and the tools as they come together. Forcible entry is another "perishable skill". If you don't use it, you lose it. Practicing as much as possible and sticking to the basics, is always a great recipe for success.



# COMMACK FIRE DEPARTMENT TRAINING DIVISION



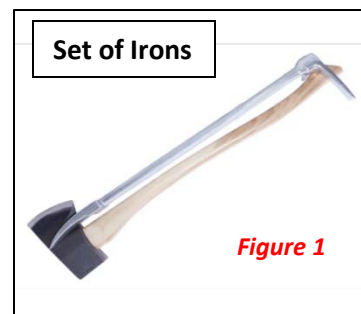
## Basic Forcible Entry

### Introduction

- Forcible entry is a skill that does not come naturally to everyone. It takes a good understanding of leverage, good communication skills, some brute strength and the use of proper technique in order to accomplish it. The forcible entry door prop that we train on is a close as you will get to the feeling of forcing a real door. However, it has its downfalls, one of which is it *can* be *easier* than forcing a real door. You must understand this and not walk up to a door in the real world and think it is going to go as easy as it did in the bay of the firehouse. Just stick to the techniques you are taught. There is a strange dichotomy to forcing a door. It is harder than it looks yet easier than it seems. If you stick to the basics, use good form and use the tools as they are designed to be used, you'll get through whatever door needs to be forced. This lesson will take you through forcing a door from start to finish. It will cover everything from the tools to the techniques. But, once you have learned this skill, the only way to be good at it is to practice often. Otherwise, your skills will diminish, and you'll be just another firefighter standing in the way with a halligan in your hands.

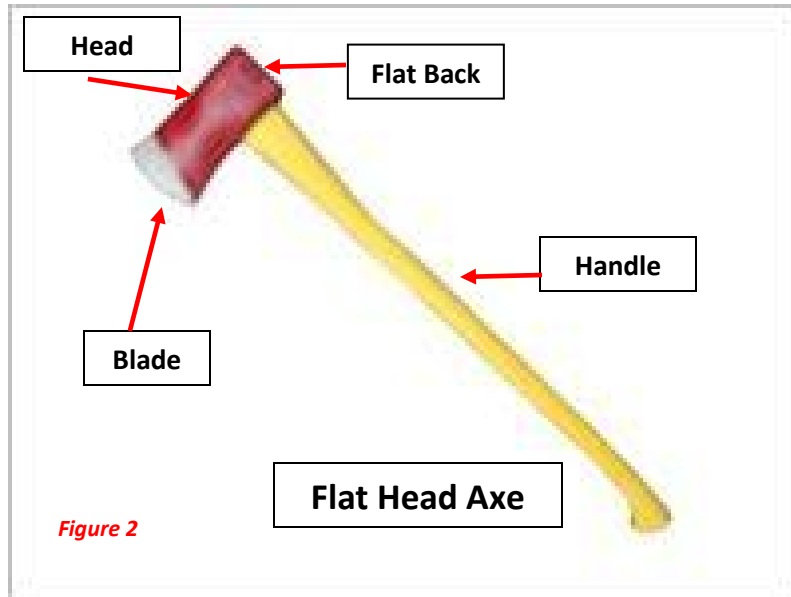
- **The Tools**

The tools needed to force a door are a flat head axe (preferably an 8 pounder) a halligan and a metal wedge or chock. The axe and the halligan are married together for carrying to form what is called a “set of irons” (Fig. 1). Every firefighter should carry at least one metal wedge in their pocket, a wood wedge will do however metal is more durable, more versatile and more reliable.



- The Flat Head 8lb. Axe

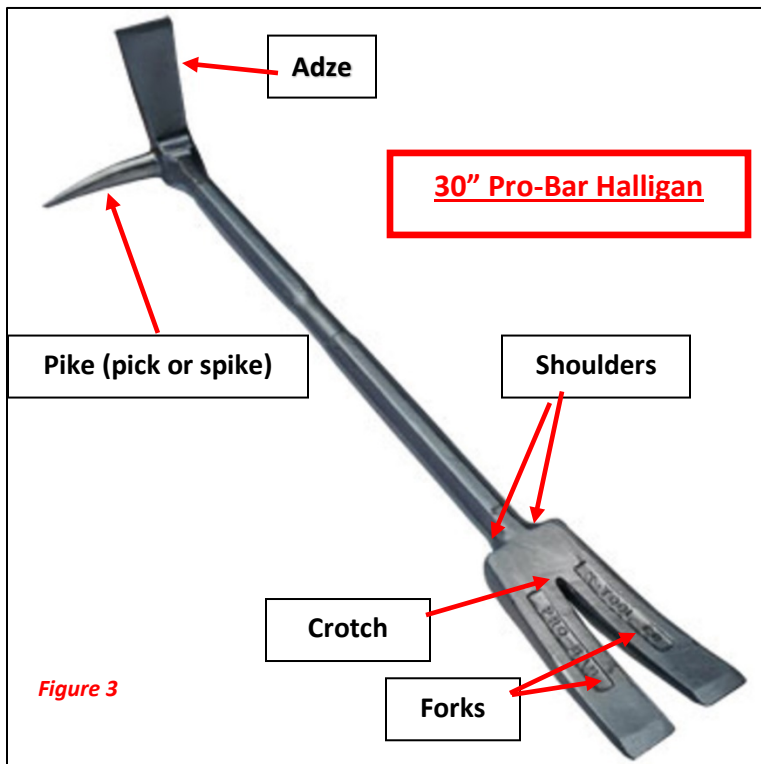
The axe is comprised of two parts, the head and the handle. The handle can be made up of either wood or a composite material. All newer axes are composite as it is stronger and stands less of a chance of breaking. The head of the axe is solid steel and has two working sides. The flat back which is about 2” wide depending on



the manufacturer and the blade, which is the sharpened edge (Fig.2). The flat back portion of the axe is used for striking the halligan and the blade can be used as a wedge at times if needed.

○ **The Halligan**

The standard “Pro-Bar Halligan” is a 30” forged piece of steel. Forged means that the steel was melted down and poured into a mold making it one solid piece so that it has no weak points such as connections which some other manufacturers knock off halligan’s have. The halligan comes in different sizes, but the 30 is preferred as it fits best inside most doors as you will see in the hands-on portion of the class. The parts of a halligan are the forks, the crotch of the forks and the shoulders of the forks on one end. The other end contains the adze and the pike (pick or spike) (Fig. 3)



All three can be used for prying but generally the adze and forks carry the majority of that work. The forks and adze are beveled (curved) on one side (Fig4.).

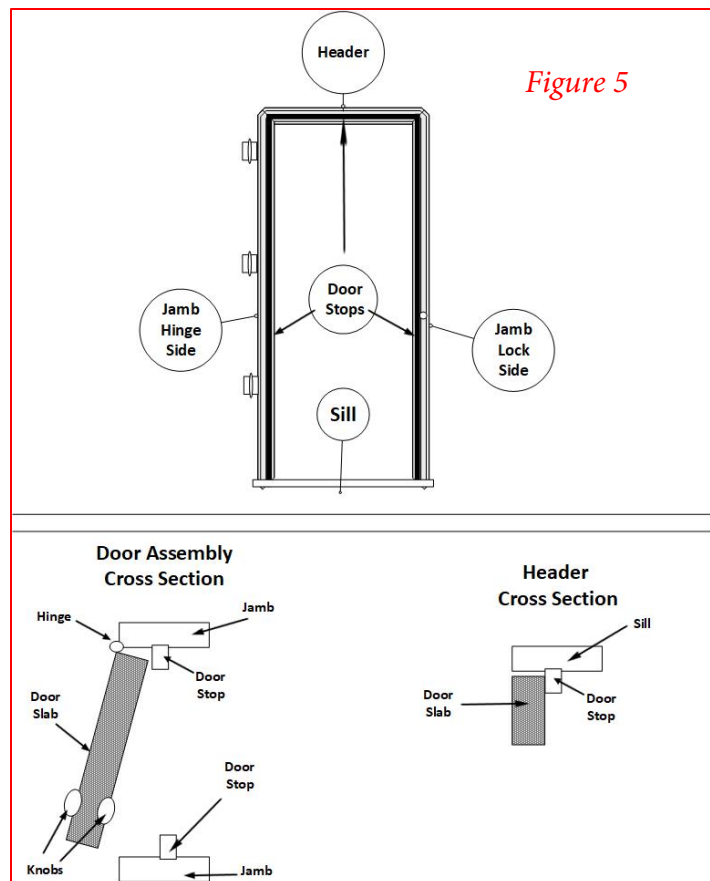


This to help spread the door from the jamb and work around the jamb easier. The Pro-Bar Halligan is perfect tool and has many uses. It is essential to basic forcible entry.

- **Parts of a Door Assembly**

- **The Frame**

The door frame is a system that holds the entire door assembly together. Door frames can be made of wood, found most commonly on residential private dwellings, or it can be made of steel which would be found on most commercial or multiple dwellings. An exterior wood frame door will almost always have a metal, usually aluminum, sill. But an interior wood frame door will not. Wood and metal door frames are the same in that they work the same and have the same basic parts but they are not usually assembled the same. All door assemblies have the following components. The top is the header, the sides are the jambs and the bottom is the sill. One jamb will have hinges on it, the hinge side. (Fig.5) One jamb will have the handles/knobs and locks on it, the lock side. Around the entire door frame with the exception of the sill, there is a door stop which stops the door from going through to the other side.

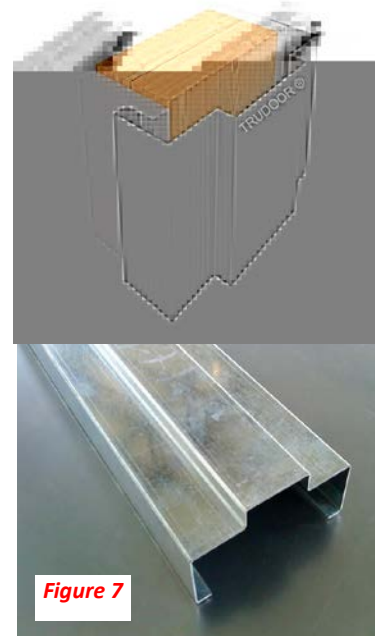


- The wood frame door assembly is usually put together at the top corners with a finger joint where it meets the header. The jambs and header are usually  $\frac{3}{4}$  of an inch in thickness and about 5-6 inches in width, but both of these things can vary depending on age. The jambs and header will have a door stop all the way around which is a piece of wood, between  $\frac{1}{4}$  &  $\frac{3}{8}$  of an inch thick and can be an inch or more in width. It is either stapled or nailed into the jamb.



On older doors the stop can be glued as well as nailed or stapled. The hinge side jamb will have the hinges. The lock side jamb will have mortised knobs/handles and usually have a mortised deadbolt. (Fig.6) A mortise is just a fancy term for holes in the jamb where the latch from the knob/handle assembly and bolt from the dead bolt assembly will slide into to the jam to lock the door. On exterior wood doors, the sill will usually have a cut out on either side for the jambs to slide into and it will be screwed into the jambs. The door slab itself can be steel or wood. This entire door assembly gets placed into a rough opening and either gets screwed or nailed to the studs of the rough opening. A casing (molding) is attached over the gap between the door assembly and the rough studs for decorative purposes, covering the gap, all around the door except for the sill.

- Steel frame door assemblies are the same in some ways but can vary drastically in others. Steel frame door assemblies can be drastically different from each other as well. But, they still have the same parts as any other door. With a steel door assembly, the frame is usually cold formed steel that incorporates the casing, jamb and door stop as one solid piece. (Fig.7) The jambs can either be formed with the



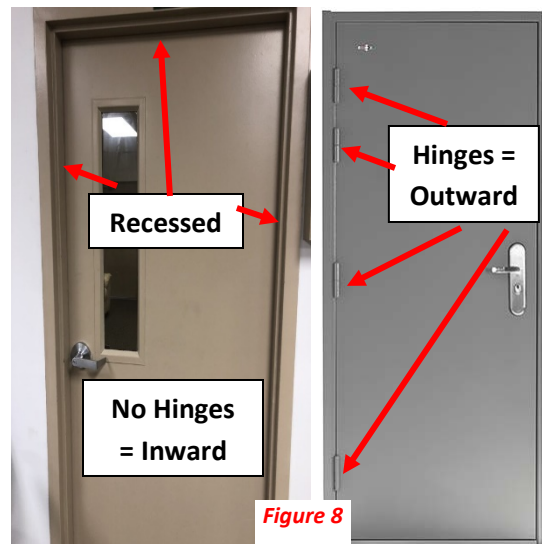


header as one piece as well or can be formed separately and assembled in the field. Either way, the casing, jam and stop are all one piece. Of course, there are exceptions but this the most common you'll see today. Older doors can have a stop that is screwed in, could have welded corners where the headers and jambs meet but anything on the newer side will likely be one piece. The main reason you'll see the one-piece door is because it's cheaper. The assembly can either be attached directly to the masonry walls or can be attached to a wood framed stud opening that's attached to the masonry walls. It's a 50/50 chance on which you'll encounter as it all depends on the manufacturer's recommendations on installation. The lock side jamb will have mortise holes drilled into them to accept the deadbolts and knob/handle latches just as in the wood framed door assembly.

- **Identify the swing of the door inward/outward**

Identifying the swing of the door is crucial to coming up with a plan to force it. Is it inward opening, the door swings away from you when you open it, or outward opening, the door swings toward you when you open it? Is it left- or right-hand swing, what side is the handle/knob on? The first thing in identification should start with where the handle/knob is, and you will immediately check to see if the door is unlocked, "try before you pry". There have been

countless times doors were unlocked and never checked but forced instead. You have identified the swing by seeing/checking the knob and you know its locked, you're now going to identify whether its inward or outward opening. Doing this is pretty simple. Do you see hinges sticking out or not? (Fig8) An outward opening door, a door that will swing towards you when you open it, is identified by the presence of hinges sticking out and the door slab itself is flush with the casing and/or the wall. Another good indication is if there is no handle/knob present. On an inward opening door, a door that swings away from you when you open it, you will not see hinges and the door will be recessed into the frame.



- **Identification of Locks**

On residential doors you will likely only run into a lockset and a deadbolt on the door. The door frame and slab are usually wood and are relatively easily forced. The front entry door to a private dwelling is always going to be inward swinging and the side or rear doors can be either or, but usually are outward swinging. For a multiple dwelling, the majority will be inward swinging doors.

On commercial buildings its always going to be a mixed bag. However exterior doors must always swing out from the inside for egress by code. Inside you can encounter either or. In Commack, the majority of the store fronts no longer have roll down gates. The doors are usually aluminum frame and glass slab with a dead bolt latch lock that can be easily defeated by removing the cylinder and flipping the latch. This is called the “through the lock” technique. So when we talk about forcing doors conventionally on a commercial building, were usually talking about the rear door or doors that are locked inside. This doesn’t mean you’ll never come across a front door to a commercial and it be a regular door to force conventionally, were just talking about the majority as it is most common.

The doors in question can have anything locking it, from just a regular panic bar or it can have 10 different locks on it, you just never know what you’re going to get which is why identifying what’s behind the door keeping it locked is so important. The way to identify what locks are on the other side is by recognizing the carriage bolt patterns you see on the door slab. Most extra locks are installed with carriage bolts, the heads of which will be on the outside of the door slab. Each type of locking system has a pattern of bolts that are easily recognizable from the outside. The more bolt patterns you see on a door, the more locks there are. It’s that simple. The best way to defeat most of these locks is to defeat the carriage bolts first, then you’ll have to go for the conventional force after removal of the bolts. If there a number of different locks, this is likely the order of progression. However, sometimes these locks are not as strong as they might seem due to installation defects and you may be able to defeat them with a conventional force, especially if there is only one lock.

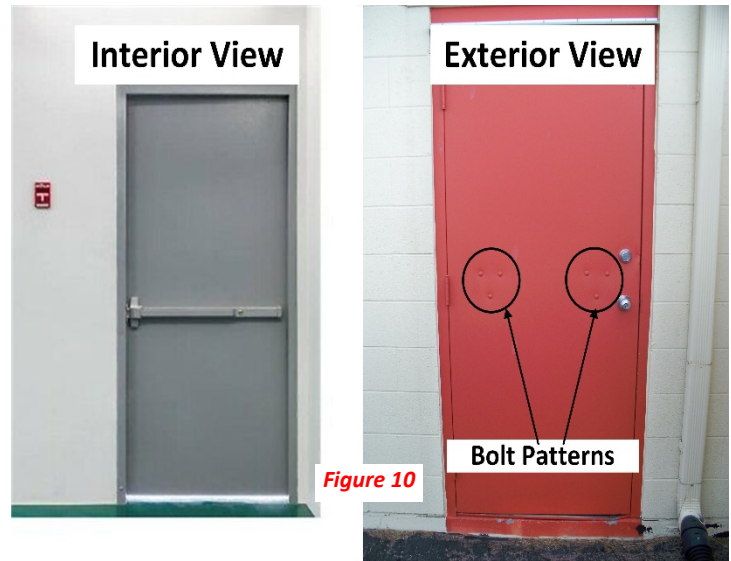
- The standard handle/knob and dead bolt
  - This will have a handle/knob with a keyway and above the knob will be a cylinder with a keyway housing the deadbolt slide mechanism (Fig.9) The cylinder can be flush mounted on the door slab or can be slightly sticking above the surface of the door slab.



Figure 9

○ Panic Bars

- A panic bar is a push bar that goes across the door in lieu of a handle or knob. From the outside it can be identified as a 3-bolt pattern about handle/knob height horizontally near one or both edges of the door. It may or may not have a flush



keyway cylinder in it as well. If it doesn't, 9 out of 10 times there will be another lock somewhere else on the door. Any newer construction or when a door is replaced, it must have panic hardware on it by code. If the door was installed prior to the code change, it is not required. (Fig 10) If the only thing locking this door is panic hardware, you're in luck, this door is easily forced. With panic hardware, most times you can defeat this lock by conventional forcible entry. There is usually no need to attack the carriage bolts in these cases

○ Slide Bolts

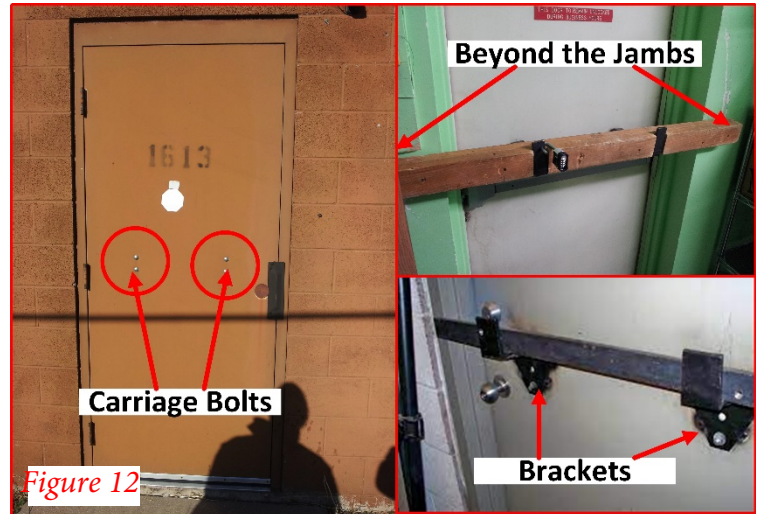
- Slide bolt locks are exactly what they sound like. It is a bolt or bar that slides through a track from the door across the gap of the door and jamb into either a mortise in the door jamb or a slot on the outside or casing of the door jam. This is dependent upon inward/outward swing and or the installer doing it the easiest way. A slide bolt is



identified by a 4-bolt pattern anywhere from 4 to 6 inches in width and approximately 2 inches in height. There can be one, or there can be multiple, and they will usually be on the lock side of the jamb but can be installed on both sides. They can also be installed with self-tapping metal screws, in which case there will be no bolt pattern and you won't know it's there until, you start forcing the door. If this is the case however, it will be very easy to defeat. (Fig 11)

○ Drop Bars

- A drop bar is a piece of steel or wood which spans across the door and outside both jambs from wall to wall and lays in brackets mounted on the door. The bar itself can be anything from a 2x4 to a steel rod. If a drop bar is present, you will

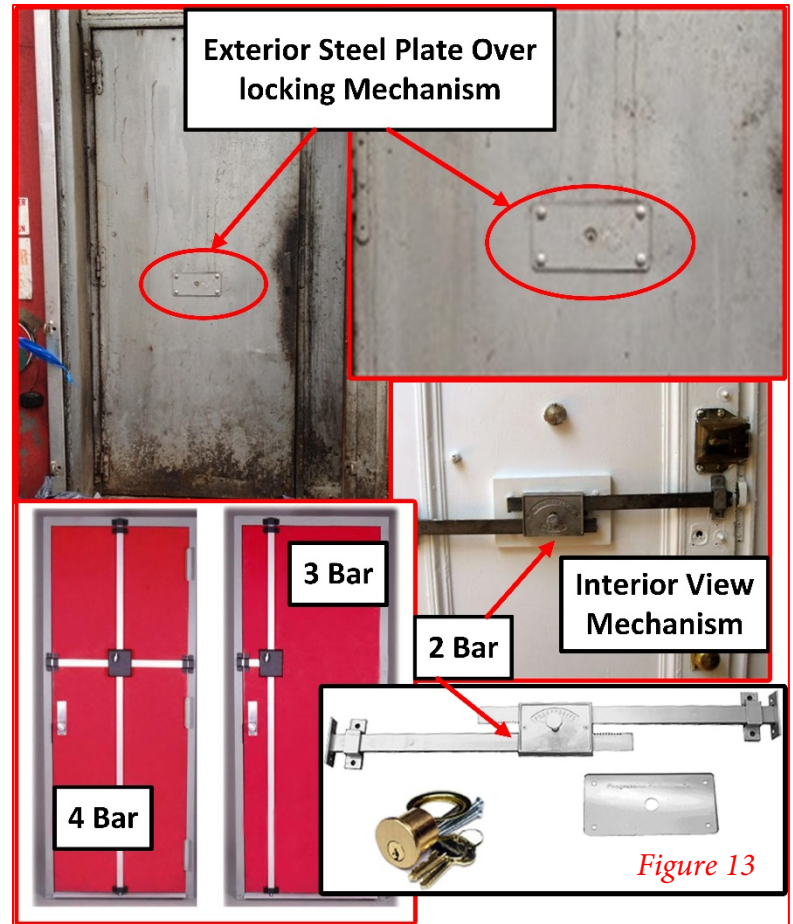


usually have to defeat it before starting your conventional force. The way to identify this lock is, you will see two bolts, one above the other about 4 to 6 inches in from the edges of the door on both sides and they will line up horizontally which hold the brackets on the door. (Fig 12) There could be more than two brackets but never less than two. To defeat this lock, you will have to attack the carriage bolts holding the bracket nearest to the lock side jamb. If there are more than two brackets, you will have to defeat the middle brackets as well. If there are only 2 brackets, defeating the one nearest the lock side is usually all that's needed. Once you defeat that bracket, the bar will usually fall to the ground, and you can start your conventional force. If it doesn't and you've made enough progress in the door, you can stick a hook in and knock the bar up and off the brackets defeating it as well.



o Fox Locks and Multi Locks

- These locks are known as Fox Locks, Police Locks or a Multi Lock. These types of locks have mechanisms that are mounted on the center of the door slab that rotate and slide metal slats into slots in the jambs. These type locks can have four, three or two bars in them. A 4-bar lock will have one bar in the header, one in each jamb and one in the sill. A 3-bar lock will have one in the sill, header and lock side of



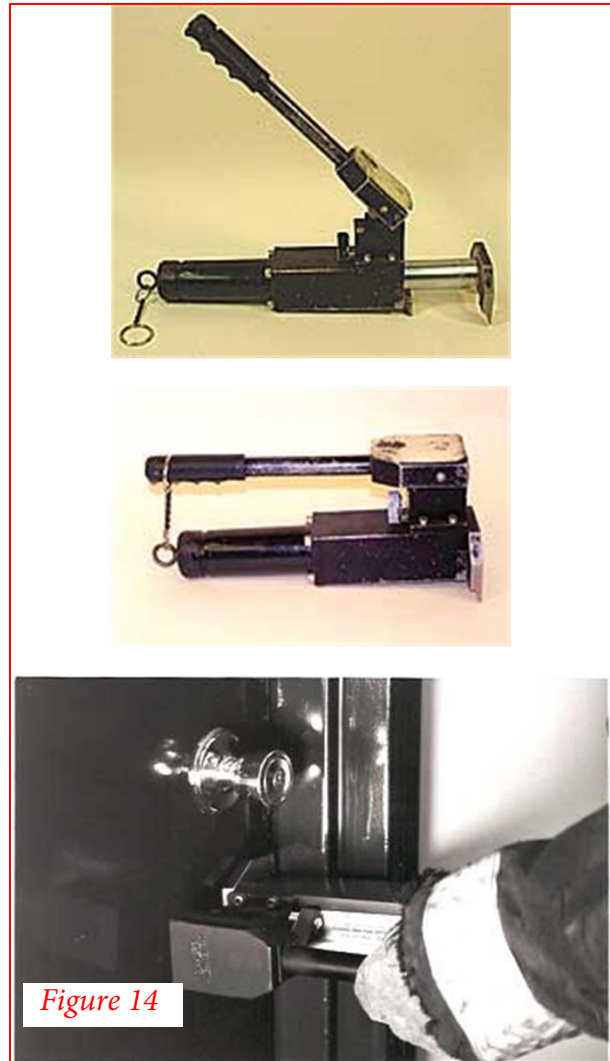
the jamb. A 2-bar lock will have one in each jamb. (Fig.13) These locks *can* be defeated conventionally but it is difficult, and the difficulty level goes up as more bars are added to the lock, and different locks are added to the door. These locks are not best attacked by conventional forcible entry. It is doable, but most likely you will not be doing anything else when you're done, not to mention how time consuming it will be. It is best attacked by using a rotary saw with a metal cutting blade inserted in between the door and jambs where the slats go through the door assembly. These locks are easily identified. You will see a lock cylinder in the center of the door slab surrounded by a 1/4" steel plate. The plate has no workable bolts to attack, the bolts are welded to the plate itself on the inside and go through the door. This is an advanced operation and is in no way considered basic. Best bet is to start on it, but before you do, call for a saw.

- **Forcing Doors**

When we talk about forcing a door, we are usually taking about basic forcible entry. Using the axe and the halligan to break through a locked door. There are many other methods of forcing doors. Using the “through the lock” method is less destructible but not used for emergencies. It’s used when time is not of the essence. You could use a “Rabbit Tool”, (Fig. 14) which is a hand held hydraulic spreading device that works great on inward opening doors only. It is great for hotel/motel or multiple dwellings where you must force a bunch of room/apartment doors in a row. The drawback is you usually have to attack each lock individually so if there are multiple locks on a door it can get time consuming, and the other is it won’t do anything on an outward opening door. There are a multitude of other tools such as a cutting torch, a rotary saw or a mallet. All of these tools, and how to use them are taught on an advanced level of this basic skill. Learning to force doors with a set of irons, using your knowledge of leverage and mechanical advantage is the basic foundation upon which to build up to advanced methods of forcible entry. This method of forcing a door has been around since Hugh Halligan invented the tool in the 1940’s and still works some 80 years later. When forcing a door, if you stick to the basic techniques, they won’t steer you wrong.

- **Gap -Set - Force**

These three words are the very basic description of the steps to forcing a door. You GAP the door, then you SET the Halligan by driving it in with the axe, then you FORCE the door. When you hear someone use this term, this is what they are talking about



○ **HIT! DRIVE! STOP!**

- There are three commands when forcing doors, that is it. The halligan FF calls for hits, calls for a drive and yells when to stop
  - Hit – when the halligan FF calls for a hit, they are telling the axe FF to hit the halligan with the axe each time they say it. One hit by the axe FF for one call of the halligan FF
  - Drive – The halligan FF will call for a drive when they feel that the halligan has past the jamb enough to clear the whole assembly. At this point the axe FF at their own pace HITS until the halligan FF yells STOP
  - Stop – The halligan FF yells STOP when the crotch of the forks (Fig.3) reaches the inside of the door stop (Fig.5)
- These three commands are the backbone of communication during this task. During the hit, drive, stop portion, NOTHING else should be said unless the command STOP comes first from the halligan FF. If the halligan FF says anything other than hit or drive before they say stop, the axe FF could think he said hit causing him to hit when the halligan FF wasn't ready thereby causing a serious injury. This is why communication is so important. These commands should be spoken loudly, yelled. The forcing of a door is a noisy operation so clear loud commands are crucial to not only getting the door forced but to avoiding injury as well.

○ **Proper Striking of the Halligan**

- Whenever you are striking the halligan with the axe you use the blunt back of the axe. You're trying to hit straight down the line of the halligan to get the most bang for your buck. When striking the halligan you always want to strike it with the head of the axe perpendicular to the adze of the halligan. If you try to strike it horizontally, you give yourself more a chance to miss and causing injury to one or both of you. The top hand nearest the blade of the axe should be one hand width down from the underside of the head when striking.

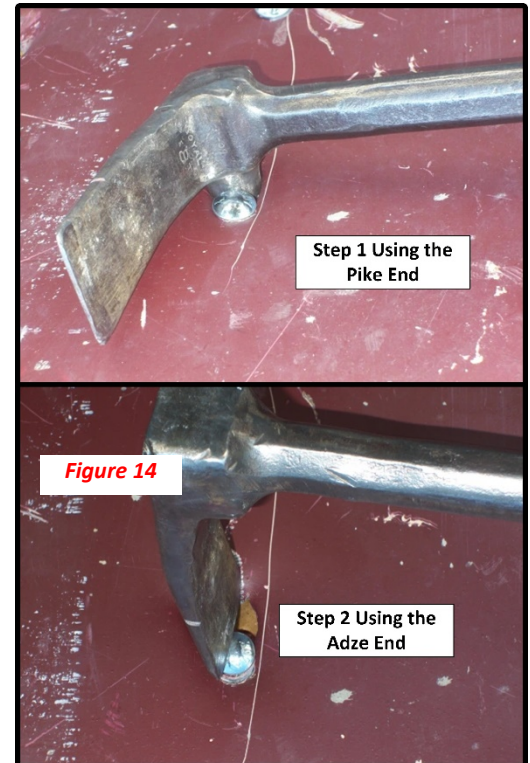


○ **Removing Carriage Bolts**

- Attacking the carriage bolts for extra locks on doors is the best way to defeat these extra locks. It is best done as a 2 FF operation, but you can do it alone, its just not easy.

- Steps

1. The halligan FF places the pike of the halligan on the door directly above the bolt.
2. The halligan FF calls for “HITS” until the pike end is all the way through the door. Once the halligan pierces the outer skin of the door and is inside it, the halligan FF can call for a drive but its not a must. It is up to the halligan FF and their comfort level with the axe FF’s hitting abilities.
3. When the pike end of the halligan is completely through the door, the halligan FF pry’s up/down and around with the pike buried to deform the metal around the door and loosen up the bolt.
4. The halligan FF removes the pike from the door, repositions the halligan using the pike again or now switching to the adze, on the head of the bolt or just below it
5. Halligan FF calls for “HITS” again driving the entire bolt through the door





- **The Two FF Inward Opening Door Force**

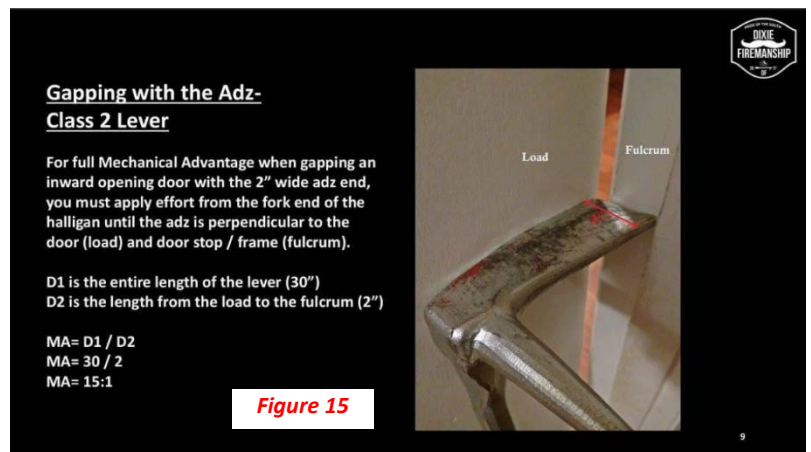
- Steps

1. Try before you pry. Before doing anything, you need to check to make sure the door is locked
2. Identify the swing of the door (inward or outward). At this point you will check for hinges on your side of the door. If you have hinges is outward, it swings toward you, if not, it's an inward and swings away from you
3. Now that you have identified the swing and you know it's an inward, check for bolt patterns to see what kind of lock/s you are dealing with. If you have extra locks, you *may* need to start removing carriage bolts. If you don't have to remove any bolts, start your conventional force.
4. Using foot or knee, push in on the door to create a as much of a gap as possible between the door and the jamb to make room for the adze to slip in space created
5. Insert the adze end in-between door and door stop 6" above or below the lock
6. Using the 14:1 mechanical advantage, with adze in the jamb, push

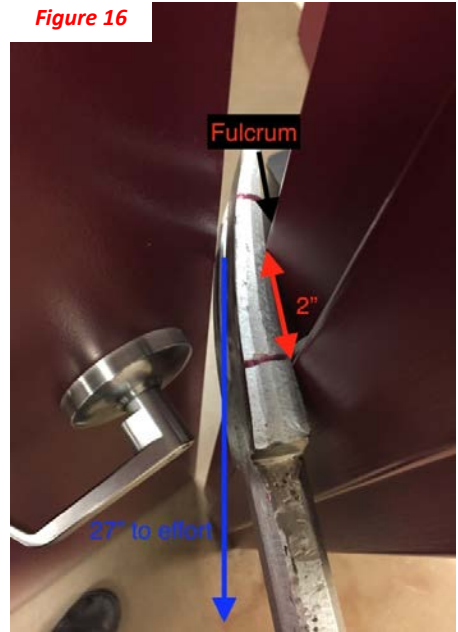
the halligan either up or down in the opposite direction of the pike. If the halligan is pointing

up, push the tool down, if it's pointing down, push the tool up. This is called "gapping" the door. (Fig. 15)

7. Once the door is gapped, the axe FF can use the blade of the axe or a wedge to capture the progress of the gapping technique thereby not allowing the door to slip back when the halligan is removed for the next step.



8. The halligan FF removes the adze end of halligan and switches over to the fork end with the beveled edge to the door (Fig.16) and sets the forks into the previous gap made by the gapping maneuver. There is a “sweet spot” in which the tips of the forks are between the door and the jamb. By gently moving the halligan back and forth, you’ll find this spot and you’ll want to keep inward pressure on the halligan and also you’ll want to be keeping pressure towards the jamb as well. At this point its all about feel as you can slip out of the door easily.

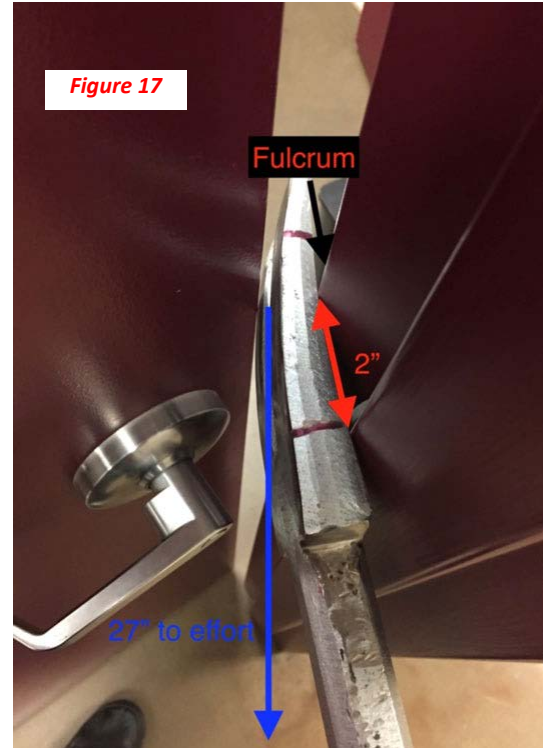


9. The axe FF moves into good hitting position and prepares to start hitting the halligan in, setting it

10. The halligan FF now calls for one hit at a time until he feels the halligan is set in the door at which time he *can* call for a drive. You must realize that with each hit, the end of the halligan is going to move away from the jamb. You need to keep inward pressure on the halligan and also keep pushing the halligan back towards the jam trying to keep it in the “sweet spot”. Don’t forget that the halligan is going to be a moving target, it will never be in the same spot twice which means the axe FF may have to shuffle over between hits to keep in a good solid hitting position.

11. Every time the halligan FF calls for a hit, the axe FF uses the back of the axe to hit the halligan in. When/if the halligan FF calls for a drive, the axe FF will hit the halligan in at his own pace until the halligan FF yells STOP! It is important to mention that when/if the halligan FF yells for a drive, it is not a race. You’re hitting at your own pace, but a solid strike will be more effective than 5 off center hits at a really fast pace. It is much like hitting a home run in baseball or a great drive in golf, slow is smooth and smooth is fast.

12. The halligan FF yells stop once the crotch of the forks reaches the inside edge of the stop. In conditions where you can't see the crotch or even the halligan, you can put a finger on the shoulders as it is being driven in, when the shoulders reach the outside edge of the stop, it is roughly the same time the crotch is reaching the inside of the stop. After you yell stop, you should always expect another hit (Fig.17)



13. Once the halligan is set in the right position, its time for the force. The halligan FF pushes on the end of the halligan all the way to the door forcing it open. It is best practice to push the halligan and not pull on it when forcing. The halligan can slip out and if you're pushing, there's less of a chance of slippage and if it does you won't fall on your backside causing injury.
14. As the Halligan FF is forcing the door, the Axe FF should try to get underneath him and using the axe or a wedge, capture the progress made in case the halligan does slip out or the door doesn't get completely forced open.
15. Once the halligan is pushed all the way to the door and the axe FF has your progress captured, if the door isn't forced completely. The halligan FF now repositions the halligan to the adze end, slipping it behind the jamb. The halligan FF can either use the gapping technique again or just go for the force pushing the halligan towards the door again finishing off the force.
16. Once the door is forced, the halligan FF must grab the door with the adze to control it from swing wildly into the room.

- **The Two FF Outward Opening Door Force**

- Steps

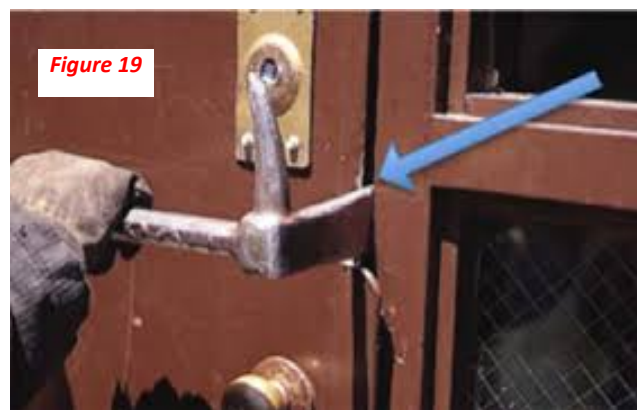
1. Try before you pry. Before doing anything, you need to check to make sure the door is locked
2. Identify the swing of the door (inward or outward). At this point you will check for hinges on your side of the door. If you have hinges it's outward, it swings toward you, if not, it's an inward and swings away from you
3. Now that you have identified the swing and you know it's an outward opening door, check for bolt patterns to see what kind of lock/s you are dealing with. If you have extra locks, you may need to start removing carriage bolts. If you don't have to remove any bolts, start your conventional force.

4. The halligan  
FF starts by seeing if you can get the adze in between the jamb and the door. If you can't, there are things you can



do to spread that seam enough to at least get a small portion of the adze in. You can use the head of the axe, place it in the tight seam and drive it in with the butt end of the halligan, you can do the same with a metal chock. (Fig. 18) You can also hit the door with the back of the axe a couple inches in from the seam which will dent the door and open the seam up just enough to get the adze in.

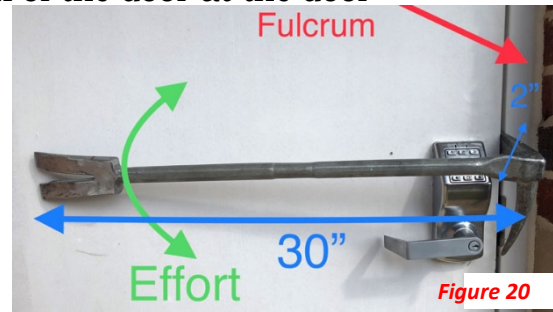
5. The halligan  
FF will now lay the halligan on the door with the adze end on the seam between the door and jamb and the forks



laying on the door with your palms up. (Fig. 19) The bevel of the adze is the perfect arc in this position to go around the door. Its why the bevel is there

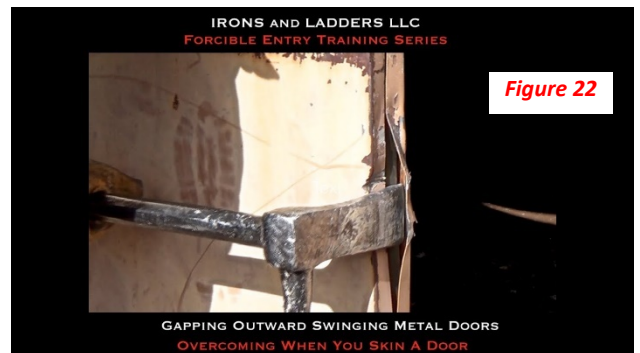
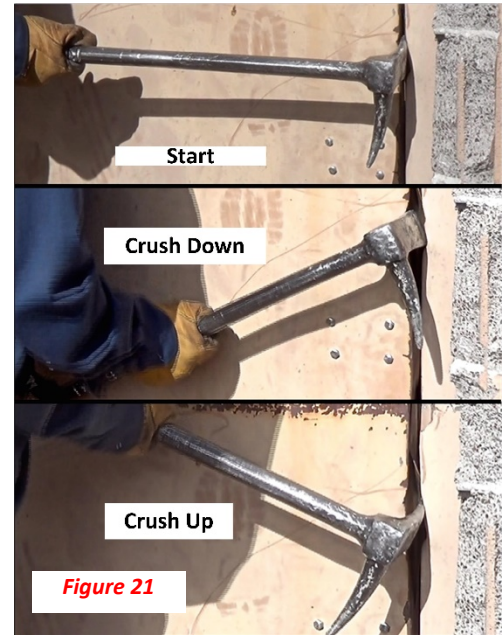


6. Once in position the halligan FF calls for hits until you have reached the back of the door at the door stop. (Fig.20) You will know you are there not only by the fact that the halligan will not go in anymore, and it will sound differently as well. This sound is something that will be obvious if you're listening for it. When the halligan hits the door stop, you call for a STOP! (As always, expect an extra hit) Note: During this portion of the evolution, you are not pulling back on the halligan, you are letting the bevel of the tool and the axe do the work.



When the halligan hits the door stop, you call for a STOP! (As always, expect an extra hit) Note: During this portion of the evolution, you are not pulling back on the halligan, you are letting the bevel of the tool and the axe do the work.

7. The halligan FF, leaving the adze in the door now begins to crush the door by rotating the halligan up then down a few times. (Fig.21) This does two things, one it helps prevent you from skinning the door and two it makes more room for the adze to slip by the jam and get behind the door. Steel doors are not solid. The back of the door is pressed together in a flange shape to keep it together. When you “skin” a door, (Fig.22) it means instead of the halligan going behind the door, it actually goes inside the door slab itself and the skin of the backside of the door will prevent you from getting the halligan around the outside of the back of the



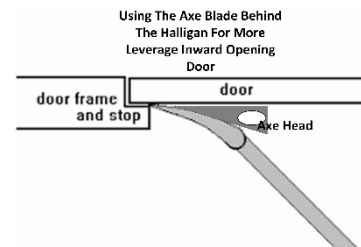
door. If you “skin” a door, it’s not the end of the world, you’re just adding some time to your task. You’ll need to take the halligan out, take a look inside and using the crushing technique just mentioned, work on crushing the back skin of the door out of the way so that the halligan can slide in behind the entire door. You can also use the forks for this and it may work even better

8. Once you feel/see that you have made enough room to get past the door, if the halligan doesn’t slip into the gap you made, place the adze in and call for Hits from the axe FF until the halligan is buried in behind the door. With each hit, you are pulling back slightly on the fork end of the halligan, towards you and away



Figure 23

- from the door to aid in its sliding by the door. If you pull too hard, it may slip out completely. (Fig.23)
9. At this point you are going to start the force. You will likely have to start by pulling back on the fork end and try to rotate your body around it at the same time so you can get in behind it and push the halligan the rest of the way to force the door. If the door does not go, and you can’t get it open, there are things that you can do using leverage and your knowledge of fulcrums to get it open. Have your axe FF capture your progress, and now in a gapping move, as in the inward opening door, rotate the halligan either up or down depending on the orientation of the pike. If it still doesn’t go, you can also increase the distance of your gap, by using a multitude of things



such as, the head or handle of the axe or a metal wedge, placing them on the door between the adze and halligan and gapping again. (Fig.24) If this still doesn't work, and you can see what's still holding the door and using the forks of the halligan, placing them on whatever's still holding the door and have the axe FF hit until you drive it off.

10. Once the door is forced, control the door with the halligan.

- **Key Terms**

- **Try before you pry** – Make sure the door isn't unlocked first
- **Set of Irons** – Axe and halligan married together
- **Door Stop** – part of the door that goes around both jambs and the header
- **Door Jamb** – The two vertical sides of the door frame
- **Hinge Side** – The jamb that has the hinges on it
- **Lock Side** – The jamb that has the knob/handle and locks on it
- **Inward Opening** – A door that opens inward, away from you, no hinges visible
- **Outward Opening** – A door that opens outward, towards you, hinges visible
- **Carriage Bolts** – Bolts that hold extra locks on doors the heads of which will be visible on the door slab
- **Bolt Patterns** – The heads of the carriage bolts will be arranged in such a way that it will tell what kind of lock it is
- **Gap – Set – Force** – Gap the door – set the halligan – force the door
- **Hit – Drive – Stop** – Only 3 commands used during the evolution
- **Gapping** – Using the adze end of the halligan in an up or down move opposite the orientation of the pike
- **Capture progress** – Using an axe or wedge (chock) to keep the door from closing back on you while forcing it
- **Metal Wedge** – Metal chock usually aluminum

- **Review**

- In forcible entry, communication will be a major factor in succeeding or failing. It will also prevent injury as well. Study the steps of forcing both inward and outward doors, even if you study them as you're actually doing them when practicing with someone on your own can be a big help. Learn the commands and use only the commands while communicating during the evolution. Go through ALL the steps each time you practice, cheating during training will make you come up short on the fireground every time. Watch the Mike Perrone videos on YouTube, he invented and sells this training door. His techniques are solid, and you can learn a lot by watching them. You can even watch them on your phone while you're training on the door. It's a great resource. Just be careful with other forcible entry videos on there. There's always somebody out there trying to find an easier way to do something, it'll look great on a door prop but in the real world you'll just be wasting precious time at the door. Stick to the basics, they will never fail you. The key factors in forcing doors are, clear concise communication, solid technique, good feel of the tools in your hands and listening to both your partner and the tools as they come together. Forcible entry is another "perishable skill". If you don't use it, you lose it. Practicing as much as possible and sticking to the basics, is always a great recipe for success. The more you practice the better you'll be. You don't ever want to be that firefighter at the door, unable to get it open and everyone's behind you waiting for you, so again, stick to the basics, they won't fail you.



**Quick Reference Guides**  
**Back to Basics Training Articles**







# COMMACK FIRE DEPARTMENT

## “Back to Basics Training Bulletin”

### **The Halligan**

#### **This week we will look at the Halligan...**

I understand that for some of you, this may seem like a no brainer. But, if you've ever tried to show someone how to force a door, and you say things like drive it until the crotch reaches the stop and the person looks at you like you're speaking Chinese, you'd realize quickly that this is actually important. (Fig. 1)

#### **“Tuning” Your Halligan:**

**The Forks:** There are some simple modifications that can be made to your halligan that can help tremendously. By using a grinder with a thin cutting disc or a metal hand file, you can cut lines around the crotch which can help you feel/see when the crotch is at the stop (Fig2).



In a smoke filled atmosphere, you can feel the groove and know exactly how deep you are

Also, the tips of the forks come with a beveled inside edge that is very thick and makes it a little more difficult to squeeze into a tight spot. I like to file that down the back side of the tips to make it a smooth transition in thickness. (Fig.3)

#### **Don't Forget the Adze:**

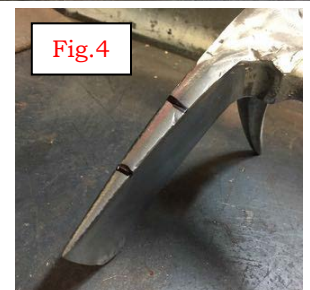
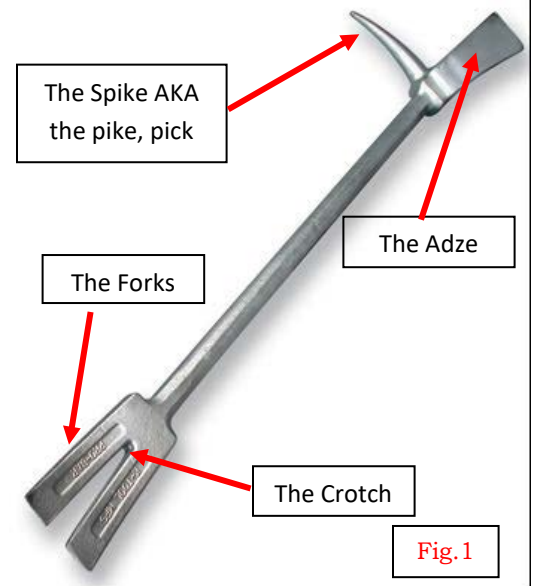
The Adze end of the halligan can also be fine tuned using a grinder or a hand file. You can place grooves at the 2” mark, the width of most commercial door slabs and at the 4” mark to know when it is buried behind the door. (Fig.4)

#### **Some Things to Remember:**

- 1.) Knowing what each part of the halligan is called is vital to a forcible entry evolution as communication is key. We need to all be on the same page.
- 2.) Tuning is best done with a hand file. Some say using a grinder heats the metal therefore changing its composition which can make it brittle (I used a file to wear down the tips of the forks and a grinder for the lines)
- 3.) Painting the grooves carved, a reflective color can aid in low visibility/smoky environments

#### **Stay Safe and Keep Training...**

This week's edition written by Fire Marshal Digiose







# COMMAK FIRE DEPARTMENT

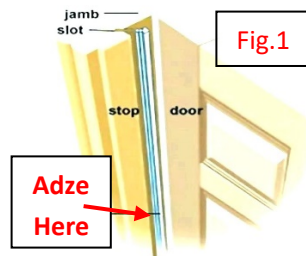
## “Back to Basics Training Bulletin”

### **Gap, Set, Force...**

#### **Inward Opening Doors**

Arguably, the most important tool on your rig is the halligan. Its versatility is unmatched by any other. The following is a quick refresher on its key components and some quick one and two FF forcible entry tips.

**Gap** – the term gap refers to what’s likely going to be your first move on an inward opening door. By



inserting the adze in between the door stop and door slab just above or below the lock (**Fig1**), and rotating the entire tool up or down, away from the spike, you have a 14/1 mechanical advantage. On an inward opening residential door, this will more than likely be the only move you need to break the jam because the wood is only a 1/2” to 3/4” of an inch wide where the throw of the lock is set in the jam. If you insert the adze on your left, rotate the tool up, if on the right, rotate down. **Set** – If the door doesn’t go with just the gapping technique, you will have to do a two FF conventional

force. The forks of the halligan are curved, the bevel refers to the outside curve of the forks. With some authority, slam the forks into the space created by the gap technique, with the bevel towards the door. This ensures the inside curved part of the forks goes around the jam and not the door. This not only gives you the leverage needed but helps keep it from slipping out when prying and also the adze end will be pointed away from the door which allows you to push the halligan all the way to the door giving you more of a throw when forcing. **Quick tip** - The adze end of the halligan always goes with the inside curve of the forks, if the adze is right, the inside curve is right, if its left, the curve is left. **Force** – The two FF force is not as simple an operation as it would look. The halligan man needs to keep inward pressure on the halligan as the axe man is hitting to try to keep it from bouncing out. He is also pushing it slightly towards the door jamb in order to force it through the space you’re trying to create between the jamb and door slab. **The Halligan man does all the talking!** There are 3 commands, **HIT! DRIVE! STOP!** As the forcing starts, the first command is **HIT!** Both FF’s should know that with every hit of the axe, the hitting area of the halligan is going to move closer to the jamb so it will not be in the same position...ever. When the halligan man sees the tip of the forks have passed the jam (you can also tell by the halligan now being at or near 90\* from the door) he yells **DRIVE!** The axe man then hits at his pace until the halligan man yells **STOP!** This should happen when the crotch of the forks reach the door stop. During the drive portion of the evolution, both FF’s should know that with every hit of the axe, the hitting area of the halligan is going to move in the opposite direction now, away from the jamb as the forks slide around it so it will not be in the same position for each strike. The halligan man now moves into a position to push, not pull, push the halligan towards the door to force it open. Simultaneously the axe man should get underneath his partner and wedge the blade of the axe into the opening that’s being made from the force to capture the progress. We do this in case the door doesn’t get forced on the first try. If this happens place a chock or wedge in the door, pull the axe out and start again using whichever techniques may be needed. When the door is forced, I like to hook my foot on the jamb and do a quick sweep inside the door to check for victims and then control the door opening with the halligan or my hand

Keep Training and Stay Safe...

This week’s edition written by Fire Marshal Digiose







# COMMACK FIRE DEPARTMENT

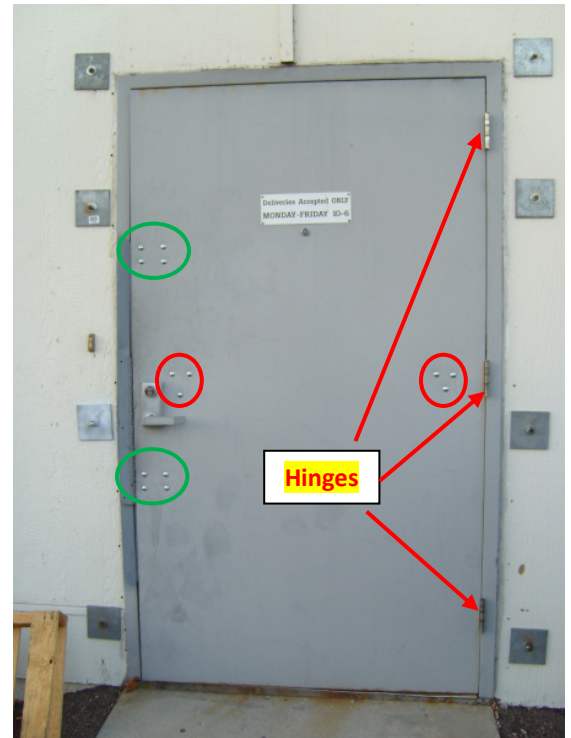


## “Back to Basics Training Bulletin”

### Forcible Entry the Outward Opening Door

#### **Identifying Swing and Fortifications:**

Forcing an outward opening door is very different from an inward door. For this week we will assume this is a commercial steel door, likely in the rear. Identification is step one. Verify its outward by looking for hinges, they will be visible if it opens out. Then you're going to look for locksets and/or bolts, specifically, bolt patterns on the door (Fig. 1). Bolt patterns tell you what's holding the door closed. Look at this door. We see hinges, a lockset and multiple bolt patterns. There are two spots where three bolts appear to be together (circled in red). One set on the hinge side and one on the lock side. Actually, the bottom bolts in this pattern are holding a panic bar. Notice how they line up with the keyway on the lockset. The two top bolts are holding a drop bar. The next patterns we see are 2 sets of 4 bolts close together on the lock side (circled in green). When you see this pattern this close to the edge it's a slide bolt. This is an extremely difficult door to force in the sense that it will likely be time consuming. This is what you could be facing at a commercial building, so you need to be adept at recognizing everything **and** then executing the force of the door.



**The Basic Force:** For just a door with say a panic bar or one or

two regular locks like a handle and deadbolt, Look at how tight the gap is between the door and jamb. If you can get the adze end in the gap, even say a half inch, you're good. Lay the halligan on the door with adze end in the ½" gap about 6" above the highest lock, with the forks touching the door. Then call for hits until you hear & feel that you reach the back of the jamb and door stop. You **will** hear and feel it for sure, it will sound different and it will stop going in. Then you pull back on the forks, away from the door to about the point where it is perpendicular with it. Call for another hit keeping backward pressure on the halligan. If you pull too much at this point, you're going to skin the door. For me, as long as I feel like I'm getting passed the door and not skinning it, I'll then call for a drive and continue to pull back on the halligan as my axe partner is hitting it until the halligan is completely seated. The adze end of the halligan is bent in such a way that this is how it was designed to be used. At that point I'll go for the force, getting behind the halligan and pushing it to pry the door open.

**Carriage Bolts:** Not all extra locks are that difficult to contend with. Using the spike end of the halligan, place it under or as close as possible to the bolt head and drive it in with the axe. This technique takes some practice but can be very effective in defeating some extra locks. It should almost always be used on drop bars.

**Remember** – Identify the swing, the locks, the bolt patterns and come up with a plan. Then swing away!

**Stay Safe and Keep Training...**

**This week's edition written by Fire Marshal Digiose**







# COMMACK FIRE DEPARTMENT

## “Back to Basics Training Bulletin”

### **Forcible Entry Refresher Tips:**

**Gap, Set, Force** – Gap the door with the adze end. Set the Halligan by Jamming it in the gap you made. Force the door by driving the halligan in with the axe. Pretty simple concept.

**Communication Is Key** - The halligan FF does all the talking. During the force and while giving commands. No other words should be spoken until the halligan FF yells **STOP!** then you can say whatever you want. Be authoritative with your commands... **Scream** them! **HIT! HIT! HIT! - DRIVE IT! STOP!**

**Always Expect an Extra Hit** – It’s loud, it could be smoky, you might have your mask on and the axe FF is amped up...After you, as the halligan FF yells stop, expect an extra hit. Wait a second or two before you move and make sure he heard you.

**Which Side Should I Stand On?** – I don’t care! Is it safer to stand on the side that the Adze is pointing? Yes, it protects your forearm and elbow from a miss swing of the axe. For me, I like to stand on the side that I’ll be pushing from so I don’t have the extra step of walking around the halligan to force the door. It’s just a matter of comfort for me. Everyone’s different.

**Under/Over Grip** – Or Dead Lift Grip. After jamming the forks into the gap, the hand that’s closest to the adze end should be gripping the halligan underhanded. This keeps your elbow from sticking out and getting whacked by a miss hit.

**Gripping the Axe** – Your hand should be 1 full hand width down from the bottom of the blade of the axe. This prevents you from smashing your fingers on the adze end on a miss hit.

**Use the Axe to Capture Progress** – right before the halligan FF starts the force, take the blade of the axe and put it the gap you just created between the door and jam to hold what progress you made in case the door springs back. Replace it with a chock as needed

**Forcing** – When it’s time to force, get yourself out on the end of the halligan, this gives you maximum leverage on the force. If it’s giving you a hard time and you can’t push the halligan, ask for help from the axe FF. You can also lock a 6’ NY Roof hook into it and use that for leverage as well.

**Moving Target** – Remember that the halligan will never be in the same place two hits in a row. In lights out conditions, this seriously hinders the axe FF’s ability to hit hard with confidence. One trick is the rub method. You can rub the axe along the adze end to get a feel for where it is, then draw back and hit it. The method I prefer is the tap. I tap the adze end to feel where it is then draw back and hit it. If I don’t like the way it felt when I tapped, ill tap again until I feel like that’s a solid spot, draw back and hit it.

**Feel and Sound** – when you can’t see what you’re doing, the process is more about sound and feel. You can hear and feel when the halligan is hitting the jam. It sounds and feels harder and maybe the halligan bounces out. The more you practice this the easier it will be to recognize.

**Stay Safe and Keep Training...**

This week’s edition written by Fire Marshal Digiose





# COMMACK FIRE DEPARTMENT

## “Back to Basics Training Bulletin”

### Window Forcible Entry at Vacants



FIGURE 1

More and more vacant homes are popping up in Commack. Between the housing bubble popping and the mortgage crisis along with Covid and civil unrest, there will be even more as people begin to lose their jobs and can't afford to live here anymore. To that end, we will start to see more boarded up homes and get more vacants as time goes on. Using the tension board up method (Fig. 1) of securing windows and doors seems to be the preferred method of securing the structure as it causes little to no damage. As seen in figure 1, on a double hung, the 2 sections of glass are centered in the window frame, a sheet

of plywood is on the exterior and usually two 2x4's are across the frame at the top 3<sup>rd</sup> and the bottom 3<sup>rd</sup> on the inside. Carriage bolts are then put through the plywood from the outside in through the 2X4's on the inside and tightened down making a very secure assembly. On a casement window, the glass section is usually removed completely, but the board up is secured the same way. Most times they won't do this on doors or sometimes they'll do it on all but one door. When it's done on a door its more bolts, bars and it's through the door slab so it won't even open from the inside.

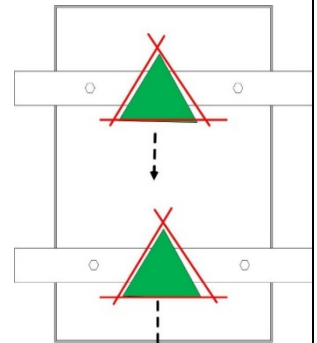


FIGURE 2

### **Defeating the system:**

**Cutters Edge/Chain Saw** – Remove the guard! From the outside, make a 3 cut triangular plunge cut starting 2 inches above the where you estimate the 2X4 to be, and end it 2” below. (Fig 2.) This cut makes a trapezoid cut in the 2X4 allowing room for both sides to fold in. Sometimes they will just swing down with a little help, if not, reach your hand in and grab the ends you cut and pull them towards the center to bend the carriage bolt. This also loosens up the whole assembly. You may have to play with it a little on a double hung, twist it turn it etc. Do this for each end you cut. Make sure you insert the saw deep enough. In a double hung, be prepared to hit the window frames and glass. Be sure to cross all of your cuts.

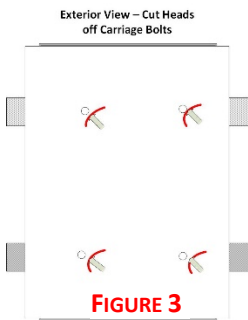


FIGURE 3

**Partner Saw** – With a partner saw, on an angle, cut the heads off the carriage bolts. If it doesn't fall apart, just pull on the plywood and it should completely separate. Try to cut it on a pretty sharp angle so you don't miss the bolt or only cut it partially. (Fig.3)

**Irons** – Using the irons is the same concept as if you were forcing a drop bar on an exterior door. Use the pike end of the halligan to drive the carriage bolts through the plywood. Start by making a hole right next to the head. Once the pike is through, push, pull, twist and work the pike around trying to make the whole bigger. If the bolt doesn't get loose enough after that, use the adze end and make the hole bigger that way. The bolt will likely not fall through like it sometimes does on a steel door with a drop bar. Your ultimate goal is to make the hole around the head of the bolt big enough so that when you pull the plywood the heads will slip through the hole you made.

These systems are well made but like any other system, there's always weak links. Do not try to muscle these windows without some form of intervention to soften it up. Your wasting your time and energy. Bring your tools and get the job done. Work smarter not harder...

**Stay Safe and Keep Training...**

This week's edition written by Joe Digiose



# FIRE



# TRAINING

[WWW.FDTRAINING.COM](http://WWW.FDTRAINING.COM)

## TRUCK COMPANY OPERATIONS

# FORCIBLE ENTRY BASICS

Forcible entry, as with any fireground skill, is as difficult as you are competent. That's right, it's your ability to perform the right skill at the right time that really determines the difficulty of the entry situation. Let's face it, you could be the best irons guy around but if the situation calls for the rotary saw (and all you have is a set of Irons) then you're probably not going to get the job done.

Successful forcible entry on the fireground includes forcible entry size-up, the right tools, and solid forcible entry skills — along with an ability to use common sense!

### **FORCIBLE ENTRY SIZE-UP**

One of the most important skills involved in forcible entry is the ability to size-up the possible (and actual) entry challenges and arrive at the entry location with the appropriate tools for the job. Size-up for forcible entry, like overall fireground size-up, begins by knowing your response district and listening to the initial dispatch to determine where you're going. Knowing where you're headed (residential neighborhood, commercial complex) and the entry challenges that are likely to be faced is the first step in successful forcible entry. It sets your mind in motion, confirming the tools you should be bringing and reviewing the basics of how to use the tools to get the job



done. You should also quickly review the potential problems that might come up while performing the type of forcible entry challenges at the target location. Let's face it, residential forcible entry is usually different than commercial building forcible entry, and each type requires different skill sets (and possibly tools) and presents different challenges.

CONTINUED ON PAGE 2





FORCIBLE ENTRY BASICS...CONTINUED FROM PAGE 1

It's too late to learn entry techniques once the alarm goes off, there's usually only enough time to determine which technique will be needed and to ensure the appropriate tools arrive at the entry location — it's the amount of training you do ahead of time that determines the difficulty of the actual skill performed on the fireground.

## THE RIGHT TOOLS

Forcible entry doesn't take a lot of different tools but it does require having the right tools for the job at hand. While today's society is much more security conscious than earlier generations use to be it's still the same basic forcible entry tools that get the job done. Don't overcomplicate forcible entry! Remember the basic forcible entry tools and learn how to use them.

The Irons are still the number one choice on most inward swinging, and many outward-swinging, doors. Sure, some doors may be tougher to force and some may require additional tools but a set of Irons in the hands of a skilled forcible entry team will get you through most doors. Train for what you're likely to encounter, locked entry doors. That means, train so you are proficient at forcing both inward- and outward-swinging doors with a set of Irons. Once you're proficient, train some more. When you get to the door using the tools should simply be a matter of instinct.

Don't forget to learn how to use a hydraulic forcible entry tool (it's pretty simple) and more importantly WHEN to use it. You may be the greatest forcible entry team there is but when faced with 30 doors to force, in a smoke-filled hallway, you'll probably hit the wall. That's when knowing there's a better tool, for the number of doors you're faced with, determines success.

Through the lock techniques will require a K-tool (or similar). The tool is only as good as the knowledge you have when using it. So, learn how the K-tool works and when it's the right tool for the job. Where would you use a K-tool? Is there another tool that would work? When would you use the K-tool? Answer these questions before the response so during the response it's simply a matter of grabbing the tool and reviewing the basics before hitting the entryway.

What about rotary saws? Commercial garage doors, security gates, and window bars may all require the use of the rotary saw. You may not have security gates and you may not have window bars but just about every response district has commercial garage doors.



Let's not forget the most important forcible entry tool there is, YOU. Your ability to know which tools are required and HOW to use those tools in as many variations as possible will ultimately determine the difficulty involved in forcible entry.

Here's the real deal when it comes to forcible entry tools — don't over-engineer the forcible entry challenge! That's right, the basic forcible entry tools that exist will still get you through almost all of the forcible entry challenges you're faced with on the fireground.

## FORCIBLE ENTRY SKILLS

An article really isn't the place to develop forcible entry skills so here's a few things you can do to get you headed in the right direction.

### Irons

Build, buy or acquire a forcible entry simulator that lets you learn and develop your skills using the Irons. There's only one way to become proficient forcing doors and



that's forcing doors! Training should allow you to hone your skills first and then allow you to practice using the Irons under increasingly realistic conditions. Start with just the axe and halligan and a door (or prop) and learn how to force the door in as many variations as possible. Once you've developed that skill set start to add restricted areas and smoke conditions. If you're able to add heat that will help as well. Don't forget to perform these skills with all of your gear on, including breathing off of your SCBA. *Training under real conditions produces real results.*

### *Through-the-Lock*

Train the same way for through-the-lock techniques using the K-tool (and other variations that you may have). That means build, buy or acquire a prop to learn and practice using the tool. Once you've repeated it and become

proficient, ramp up the training environment so it's as realistic as possible.

### *Rotary Saws*

Nothing new here, use real doors (if possible) or props if necessary, and develop your skills using the rotary saw under realistic conditions. Practice cutting with the saw upright, horizontal, and at angles. Practice cutting with the saw supported on the object and cutting while you have to support the entire weight of the saw. Practice until you are proficient using the saw. Once you're comfortable add some smoke behind the cut. That's right, smoke coming through the cut will have an affect on your operation. It's better to figure out what kind of affect it will have during training!

A large advertisement for the 'Fire Combat' training program. The background is a photograph of firefighters in full gear working in a smoky environment. A large blue barrel is in the foreground. The text 'THE ULTIMATE FIREGROUND TRAINING EXPERIENCE' is at the top in yellow. The 'FD Training Network' logo is on the right. 'FIRE COMBAT' is written in large red letters across the bottom. Below it, in yellow, is the text '3 1/2 days of the busiest tours you are likely to encounter during your career!'.

**THE ULTIMATE FIREGROUND TRAINING EXPERIENCE**

**FIRE COMBAT**

**3 1/2 days of the busiest tours you are likely to encounter during your career!**

**A TRAINING PROGRAM DESIGNED TO DEVELOP STREET EXPERIENCE...COMING SOON!**







# COMMAK FIRE DEPARTMENT

## “Back to Basics Training Bulletin”

### **Rabbit Tool & Hydra Ram**

The sometimes forgotten forcible entry tools that every Irons-man should be thinking about grabbing (when applicable) are the **“Rabbit Tool”** or the **“Hydra Ram”**. Similar in concept, these are both manually hydraulic forcible entry tools designed to give firefighters a means of easily spreading doors. The earlier design is known as the **“Rabbit Tool”**, this is a two-piece system connected by a hose. The spreading component consists of a set of jaws with opposing tips that are beveled for ease of placement. The pump component consists of a small hydraulic reservoir with a handle and a relief valve. When the relief valve is closed, manual pumping forces hydraulic fluid through the hose and into the spreader head, the buildup in pressure causes the spreader to expand exerting 10,000lbs. Per square inch. The more firefighter friendly design came out of the FDNY when two members decided the **“Rabbit Tool”** was great but needed something that was smaller and easier to transport, this is when the **“Hydra Ram”** was invented. This is a single-unit tool that copies the capabilities of the rabbit tool but it is compacted into one component, making it have the ability to be operated by a single firefighter.

**Best Application:** The first big question is, what type of doors are these good for? While either one of these can be used in a variety of different applications ranging from forcible entry to extrication scenarios, we are going to focus on forcible entry. More specifically, ***inward opening doors with metal frames***. To understand why, you need to fully grasp how these tools physically operate. The tips of the jaws are set in-between the doorstop and the door itself, normal rules apply, just above or just below any locks. As you pump, the jaws against the doorstop stay stationary making this your anchor point in which you are prying off of, and the other set of jaws expands out from the tool against the door (4”– 6” depending on model). The door will be forced once the weakest component (typically the lock) becomes defeated or pushed out of the door catch. The metal jamb, with the metal doorstop creates a strong point to pry off of, typically the strongest part of the door assembly. While these tools work the best against a metal door inside of a metal frame, they are just as effective against a solid core wood door inside of a metal frame. ***These tools will not be effective against any wood frame or hollow core door (both weaker than the lock assembly and will break upon force), and while they could be used to create a purchase point for outward swinging doors, they will not provide much else in forcing entry to those doors.***

**When to Grab:** So knowing what types of doors these are effective against should help you in deciding when you should be grabbing them if you are the Irons-man. ***The best answer is: We want to grab these when we are going to run up against these types of doors multiple times within the structure.*** So what types of structures have these within our area? We want to be thinking, hotels, schools, office buildings and nursing homes to name a few. While conventional forcible entry is always an option, the use of a “Rabbit” or “Hydra Ram” allows us to force multiple doors with about 8 pumps of the tool from 1 member while using a fraction of physical exertion they would have going conventional with 2 members.

**Common mistakes:** Just like anything else, it’s about knowing the tools operation and functionality. The first thing everyone should be aware of is where the relief valve is and which way is open and closed. A lot of times the tool doesn’t work strictly because the valve is open and pressure isn’t building up. The next thing is setting the teeth all the way in. ***Get those teeth all the way in between the doorstop and door all the way until the tips are hitting the jamb.*** By getting the tool all the way in and perpendicular to the door it will prevent it from twisting and slipping out once pressure is applied. Lastly, capture your progress, these throw between 4”-6” depending on the model, if that’s not enough, you have to capture the progress. Once its captured, you can use whatever else you have as a spacer (axe head, chock) to give your tool the extra throw needed.

**Final Thoughts:** In our department we carry both, as always, part of this job is to know your rigs and to know your tools. You have to know how they are stored and exactly which one is on the rig you are responding on. This matters when it comes to the feasibility of operating with it. Part of size up is asking yourself some questions while en-route. Does my assignment and building type/layout warrant grabbing this tool? Is it stored in a way that it can be carried along with other necessary tools? Do I have a rabbit tool or hydra ram on this rig? Can I operate this by myself? At the end of the day these are both great tools, get your hands on them, know its capabilities, know its limitations, and know exactly what your company carries.





# Commack Fire Department

Training Division



<b>Badge#</b>	<b>Name:</b>
---------------	--------------

<b>Date</b> _ / _ / _
--------------------------

## Forcible Entry

TASK	Pass	Fail	COMMENTS
<b>Inward Opening Door – Halligan FF</b>			
Identifies inward opening door & confirms door is locked	<input type="checkbox"/>	<input type="checkbox"/>	
Properly positions adz (6" above or below the lock) & gaps the door	<input type="checkbox"/>	<input type="checkbox"/>	
Positions fork end bevel to the door & pushes towards the door	<input type="checkbox"/>	<input type="checkbox"/>	
Maintains purchase and properly repositions the adz end	<input type="checkbox"/>	<input type="checkbox"/>	
Successfully forces door / controls the door and communicates	<input type="checkbox"/>	<input type="checkbox"/>	

TASK	Pass	Fail	COMMENTS
<b>Outward Opening Door – Halligan FF</b>			
Identifies outward opening door & confirms door is locked	<input type="checkbox"/>	<input type="checkbox"/>	
Positions adz between door and frame and works tool up and down	<input type="checkbox"/>	<input type="checkbox"/>	
Positions fork with bevel to the jamb / 6" above or below lock	<input type="checkbox"/>	<input type="checkbox"/>	
Pops the door and resets Adz	<input type="checkbox"/>	<input type="checkbox"/>	
Successfully forces door / communicates with partner	<input type="checkbox"/>	<input type="checkbox"/>	



TASK	Pass	Fail	COMMENTS
<b>Inward Opening Door – Axe FF</b>			
Uses proper hand placement on axe for hitting	<input type="checkbox"/>	<input type="checkbox"/>	
Hits/Drives when told	<input type="checkbox"/>	<input type="checkbox"/>	
Hits perpendicular to the halligan	<input type="checkbox"/>	<input type="checkbox"/>	
Captures progress with axe or chock	<input type="checkbox"/>	<input type="checkbox"/>	
Uses good communication skills including listening	<input type="checkbox"/>	<input type="checkbox"/>	

TASK	Pass	Fail	COMMENTS
<b>Outward Opening Door – Axe FF</b>			
Uses proper hand placement on axe for hitting	<input type="checkbox"/>	<input type="checkbox"/>	
Hits/Drives when told	<input type="checkbox"/>	<input type="checkbox"/>	
Hits perpendicular to the halligan	<input type="checkbox"/>	<input type="checkbox"/>	
Captures progress with axe or chock as needed	<input type="checkbox"/>	<input type="checkbox"/>	
Uses good communication skills including listening	<input type="checkbox"/>	<input type="checkbox"/>	

<b>Evaluator:</b>	<b>Overall Performance: Pass Fail</b>
-------------------	---------------------------------------

**Comments If Necessary:**





Written: 9/2022

Version #1

Revision #: \_\_\_\_\_

Date: \_\_\_\_\_

Revision #: \_\_\_\_\_

Date: \_\_\_\_\_

Revision #: \_\_\_\_\_

Date: \_\_\_\_\_

Revision #: \_\_\_\_\_

Date: \_\_\_\_\_

Revision 1: \_\_\_\_\_

Date: \_\_\_\_\_

Revision #: \_\_\_\_\_

Date: \_\_\_\_\_

Revision #: \_\_\_\_\_

Date: \_\_\_\_\_

Revision #: \_\_\_\_\_

Date: \_\_\_\_\_