

LESSON ONE

FIREFIGHTER I

Forcible Entry

DOMAIN: PSYCHOMOTOR

LEVEL OF LEARNING: APPLICATION

MATERIALS

IFSTA Essentials 5th edition or Jones and Bartlett Fundamentals of Fire Fighter Skills 2nd Edition or Delmar Firefighter's Handbook 3rd Edition; various door locks; forcible entry training lab or access to building with various windows and doors; assortment of forcible entry tools; flip charts, overhead projector or laptop computer and multimedia projector; slide projector and projection screen; VCR and Fire Engineering Forcible Entry Video Series Tapes #1-3.

NFPA 1001 JPR, 2008 edition

5.3.4 Force entry into a structure

Junior Member Statement:

Junior Member training activities should be supervised by qualified instructors to assure that the cognitive and psychomotor skills are completed in a safe and non-evasive manner. While it is critical that instructors be constantly aware of the capabilities of all students both mentally and physically to complete certain tasks safely and successfully, the instructor should take every opportunity to discuss with departmental leaders and students the maturity and job awareness each participant has for the hazards associated with fire and rescue training.

TERMINAL OBJECTIVE

The Firefighter I candidate, when provided with the necessary tools and a facility, shall demonstrate his/her ability to correctly and safely force entry into a building.

ENABLING OBJECTIVES

1. The Firefighter I candidate, when given a written exam, shall correctly identify various types of doors and their construction materials.
2. The Firefighter I candidate, when shown various types of doors, shall correctly demonstrate the proper steps necessary to correctly force entry through each.
3. The Firefighter I candidate, when given a written exam, shall correctly identify the hazards and safety procedures associated with forcing entry through various doors.
4. The Firefighter I candidate, when shown various types of door locks, shall correctly identify and demonstrate the characteristics of each.
5. The Firefighter I candidate, when shown various types of door locks, shall correctly describe and demonstrate the techniques for safely and correctly forcing each.
6. The Firefighter I candidate, when given a written exam, shall correctly identify various types of windows and their construction materials.
7. The Firefighter I candidate, when shown various types of windows, shall correctly demonstrate the proper steps necessary to correctly force entry through each.
8. The Firefighter I candidate, when given a written exam, shall correctly identify various types of walls and their construction materials.
9. The Firefighter I candidate, when shown various types of walls, shall correctly demonstrate the proper steps necessary to correctly force entry through each.

LESSON ONE

FIREFIGHTER I

Forcible Entry

MOTIVATION

How does a firefighter gain entry into a secured building? Getting inside to stop a potential fire or to rescue a potential victim can be time consuming, hazardous, and difficult. The instructor conducting forcible entry training must teach the various methods employed to gain entry into a building through doors, windows, walls, and by forcing locks. This training must emphasize safety, speed, and the need to minimize property damage. The difference between success or failure during a fire suppression operation or rescue may depend on the ability of the firefighter to breach a barrier quickly, efficiently, and safely.

PRESENTATION

ENABLING OBJECTIVE #1

The Firefighter I candidate, when given a written exam, shall correctly identify various types of doors and their construction materials.

1. Discuss the definition of forcible entry.
 - a) Techniques used to get into buildings or other areas of confinement when normal means of entry are locked, blocked, or not provided.
2. Point out that in order for forcible entry techniques to be used efficiently, the proper tool and the proper technique must be used on the structural component that is to be forced.
3. Describe the typical materials used in door construction.
 - a) Wood.
 - b) Metal.
 - c) Glass.

4. Point out that the door is the traditional entry point into buildings for fire fighting and other emergency work. Discuss the reasons why.
5. Discuss the fact that both design and material can classify a door. Doors are grouped first by the predominant material that makes up the door, then by design.
 - a) Wood doors have three designs. Ledge: that is one of the oldest door designs and is sometimes referred to as a batten. A second wooden door design is slab, which can be either hollow-core or solid-core. Panel doors are the third design type.
 - b) Metal doors have four design characteristics; metal clad, hollow metal, sheet metal, and curtain.
 - c) Metal-clad sometimes referred to as "Kalamein Doors", are commonly used as fire doors.
 - d) Hollow metal doors come in either flush or paneled designs.
 - e) Sheet metal doors are very similar to hollow metal doors, but may also be made in a corrugated design.
 - f) Curtain doors are made of interlocking steel slats or plates.
 - g) Glass doors are usually metal-framed but sometimes are unframed. The glass types in doors are, one of the following: plate, laminated, and tempered.
6. List and discuss various door construction types.
 - a) Panel doors.
 - b) Slab doors.
 - c) Ledge doors.
 - d) Metal swinging doors.
 - e) Curtain doors.
 - f) Glass doors.

Reference:

Delmar Handbook 3rd edition, pages 587-588, 598-604
J&B Fundamentals 2nd edition, pages 292-293, 297-303
IFSTA Essentials 5th edition, pages 395-397, 413-426

NOTE: The insulated panels in the metal clad doors are often composed of metal covered asbestos. The metal used to cover the door is 24 gauge or lighter. Hollow

metal doors have 20 gauge or heavier steel. Sheet metal doors have 22 gauge or lighter steel.

PRESENTATION

ENABLING OBJECTIVE #2

The Firefighter I candidate, when shown various types of doors, shall correctly demonstrate the proper steps necessary to correctly force entry through each.

1. List and describe options used to force swinging doors.
2. Discuss the two methods that can be used when prying outward swinging doors, sometimes called flush fitting doors.
3. Discuss the two methods that can be used when prying in-swinging doors. Include the prying technique for both a nail stop and rabbetted jamb.
4. Discuss the methods used in prying double-swinging doors and explain the use of hydraulically powered multi-use tools.
5. Explain the use of a "Detroit door opener." Discuss the four steps used in its operation.
6. Discuss the cutting techniques used in cutting swinging doors.
7. Describe the techniques and tools used when forcing swinging doors by battering.
8. Review the two methods used when forcing sliding doors.
9. Describe the method of forcing folding doors.
10. Review the factors that need to be considered when forcing overhead doors.
11. Discuss the considerations that must be addressed when opening revolving doors.

12. Discuss the reasons that may necessitate forcing fire doors and the considerations for forcing them.

Reference:

Delmar Handbook 3rd edition, pages 608-617

J&B Fundamentals 2nd edition, pages 299-304

IFSTA Essentials 5th edition, pages 417-426, 429-432

PRESENTATION

ENABLING OBJECTIVE #3

The Firefighter I candidate, when given a written exam, shall correctly identify the hazards and safety procedures associated with forcing entry through various doors.

1. Briefly describe the inherent dangers of all overhead doors and the threat they pose to firefighters in the event the control device should fail.
 - a) Door falling injuring personnel.
 - b) Door collapsing cutting off personnel.
 - c) Door closing off hose lines.
2. List and describe two methods that can be used to block open overhead doors.
 - a) Use a "C" clamp or vise grip pliers to block the track.
 - b) Block open door with a pike pole or ladder.
3. Describe and discuss classifications of overhead doors.
 - a) Overhead rolling.
 - b) Folding.
 - c) Slab.

Reference:

Delmar Handbook 3rd edition, pages 601-604

J&B Fundamentals 2nd edition, pages 298-304

IFSTA Essentials 5th edition, pages 419-422

APPLICATION

Use a training lab or actual structure and have the candidates practice forcing doors by prying. Provide a walk-through of the building where the class is being held and point out the various types of doors and how they can be pryed open correctly using the various discussed methods.

PRESENTATION

ENABLING OBJECTIVE #4

The Firefighter I candidate, when shown various types of door locks, shall correctly identify and demonstrate the characteristics of each.

1. Point out that most lock manufacturers divide locks into four categories.
 - a) Bored (Cylindrical).
 - b) Mortise.
 - c) Rim.
 - d) Padlock.
2. Discuss features of the Bored Lock.
 - a) Key-in-Knob locks.
 - b) Auxiliary deadbolt.
3. Describe the Mortise Lock and how it works. Sometimes this lock is called a box lock.
4. Describe the three configurations of the Rim Lock.
 - a) Latch.
 - b) Deadbolt.
 - c) Interlock deadbolt.
5. The fourth basic type of lock is the padlock. The padlock has two basic design characteristics: regular and heavy duty.
6. Although there are four major lock types, there are other kinds of locks.
 - a) Pre-assembled Unit Lock.
 - b) Exit Device Lock.
7. Describe and discuss the features of the pre-assembled (unit) lock.
8. Point out that the Unit Lock is usually found in commercial occupancies and is expensive.
9. Discuss the mounting procedures for Pre-assembled Locks and the origin of its other name, 'unit lock'.

10. Discuss the four configurations that are found in exit device locks.
 - a) Rim.
 - b) Mortise.
 - c) Surface Vertical rod.
 - d) Concealed vertical rod.

Reference:

Delmar Handbook 3rd edition, pages 604-608

J&B Fundamentals 2nd edition, pages 310-315

IFSTA Essentials 5th edition, pages 426-427

NOTE: Recognizing the basic categories of locks is critical to understanding how the lock functions. This recognition should be done during the size-up process of the building. Appropriate forcing methods are based upon the operation of the internal mechanism of each type of lock.

PRESENTATION

ENABLING OBJECTIVE #5

The Firefighter I candidate, when shown various types of door locks, shall correctly describe and demonstrate the techniques for safely and correctly forcing each.

1. Discuss the methods concerning forcing bored (cylindrical) locks.
 - a) Bored locks include Key-in-Knob locks and Auxiliary Deadbolts.
 - b) Key-in-Knob locks are susceptible to several methods of forcing entry. Some of these methods are, moving the doorframe away from the latch so the door can be opened. Retracting the latch or "loiding a latch". The removal of the doorknob and activating the internal mechanism from the bored opening of the door where the knob was located.
 - c) To force an auxiliary deadbolt lock, drive the adz end of a halligan tool down behind the trim ring and pry the cylinder from the door.
2. Discuss removing the cylinder guards. Describe the two methods that can be used in the removal of mortise locks.

- a) Removing or unscrewing the mortise lock assembly.
 - b) Pulling the cylinder.
3. Discuss pulling the lock cylinder and key tools. Include factors that will influence the amount of resistance for this operation.
 - a) Quality of the cylinder and lock casing.
 - b) Type of metal in the cylinder and casing.
 - c) Cylinder protection (guard, collar).
 - d) Accessibility (close to floor, recessed).
 4. Discuss the procedure of retracting the mortise lock, deadbolt and latch. You should illustrate this technique on the board or a flip chart.
 5. Demonstrate the techniques used in forcing rim locks.
 6. Identify the problems associated in forcing pre-assembled (unit) locks.
 7. List and discuss some of the methods that can be incorporated in the opening of exit devices.
 8. The practice of drilling lock cylinders should be discussed covering the positive and negative aspects of such techniques.
 9. List on a chalkboard or flip chart the variety of ways that padlocks can be forced.
 - a) Prying.
 - b) Twisting.
 - c) Cutting.
 - d) Spreading.
 - e) Drilling.
 - f) Striking.
 10. Discuss special lock problems.
 - a) Forcing push-button locks.
 - b) The forcing of brace locks.
 - c) Forcing barred and bolted doors.
 11. Encourage the students to share experiences they have encountered trying through-the-lock forced entry.

12. Show the video from Fire Engineering entitled, "Through the Lock."

Reference:

Delmar Handbook 3rd edition, pages 608-619

J&B Fundamentals 2nd edition, pages 311-315

IFSTA Essentials 5th edition, pages 433-438

NOTE: With an increasing concern for security in both the home and industry, forcing entry into a structure is becoming more and more difficult. Neutralizing locking devices can offer a quick and inexpensive means, in terms of minimal property damage, to gain entrance into a building. Through-the-lock entry requires only a few tools, most of which are relatively inexpensive. Various tools such as a K-tool, A-tool, key tools, vise grips, dent pullers, and shove knives can be utilized to accomplish the relatively simple task of through-the-lock entry techniques. Each of these tools should be demonstrated and discussed.

APPLICATION

Divide the class into small groups and provide each group with a lock (old locks can sometimes be obtained from locksmiths or salvage yards). Allow each group to identify the techniques that would be best suited for forcing the given lock and share the information with the class. Conduct a walk-through of the building where the training class is being conducted and allow the students to identify the various locks in the building and the most appropriate techniques used to force them.

PRESENTATION

ENABLING OBJECTIVE #6

The Firefighter I candidate, when given a written exam, shall correctly identify various types of windows and their construction materials.

1. Point out that window types are typically classified according to the manner in which they operate.

2. List and describe the four basic types of windows, and discuss the type of occupancy where each may be found:
 - a) Sliding.
 - b) Swinging.
 - c) Pivoting.
 - d) Security.

3. Discuss and describe the most common types and characteristics of glazing.
 - a) Clear window Glass: least expensive forms knife-like shards when broken.
 - b) Plate glass: breaks into knife-like shards.
 - c) Tempered glass: glass that is heat-treated to increase its strength four to five times that of the same thickness of plate or float glass. Tempered glass cannot be cut or machined after tempering. Usually identified by a small symbol etched into the glass in a lower corner. Tempered glass shatters into small cubical pieces when broken.
 - d) Laminated glass: contains one or more layers of plastic sandwiched between two or more layers of glass. Glass tends to adhere to the plastic when broken, thus, minimizing flying glass.
 - e) Wired glass: fine wire grid embedded into glass; pieces tend to adhere to the wire mesh.
 - f) Bullet-resisting glass: a security glass made by bonding layers of glass under heat and pressure into $\frac{3}{4}$ - to 3 inch laminated sheets. Bullet resisting is very resistant to impact and breakage.
 - g) Thermoplastic glazing: most commonly referred to as "Plexiglas, Lexan or Uvex."

Reference:

Delmar Handbook 3rd edition, pages 622-623
J&B Fundamentals 2nd edition, pages 303-309, 315
IFSTA Essentials 5th edition, pages 439-444

NOTE: Lexan manufacturers claim that it is 250 times stronger than glass, with half the weight, and 30 times stronger than Plexiglass. Sheets are made in thickness up to 4 inch widths, 1/8 to 1/2 being the most common. Ultraviolet light and heat each have significant negative effect on tensile strength.

PRESENTATION

ENABLING OBJECTIVE #7

The Firefighter I candidate, when shown various types of windows, shall correctly demonstrate the proper steps necessary to correctly force entry through each.

1. Discuss and demonstrate the five steps for safely breaking glass out of doors and windows.
2. Describe procedures used in breaking thermoplastic glazing loose and point out that it is usually better to remove the glazing from its frame by disassembling.
3. Review the techniques in cutting thermoplastic glazing, including the point that there is a tendency for the plastic to melt from the friction of the blade and fill in the space behind the blade. When glazing begins to melt, apply water lightly as the cut is made to cool the blade and plastic.
4. Review the four most common techniques for forcing sliding windows.
 - a) Loiding the lock.
 - b) Prying the sash.
 - c) Breaking the glazing to unlock the window.
 - d) Breaking glazing out of the entire sash.
5. Discuss the forcing procedures for swinging and pivoting windows.
6. Describe the procedures in forcing security and detention windows.

Reference:

Delmar Handbook 3rd edition, pages 620-622

J&B Fundamentals 2nd edition, pages 303-310, 315

IFSTA Essentials 5th edition, pages 439-444

APPLICATION

Using a training lab or actual structure, have the candidates practice forcing windows by prying and by breaking the window glazing. Provide a walk-through of the building where the class is being held and point out the various types

of windows and glazing and how they can be pryed open or broken correctly using the various discussed methods.

PRESENTATION

ENABLING OBJECTIVE #8

The Firefighter I candidate, when given a written exam, shall correctly identify various types of walls and their construction materials.

1. Discuss masonry walls and point out the following characteristics.
 - a) Concrete walls: formed of pre-cast concrete, usually made of slabs that are 5 to 10 inches thick.
 - b) Concrete block walls: can be load bearing or non-load bearing, hollow or solid.
 - c) Brick and stone veneered walls: brick veneer adds little to the structural support and must be tied to the wood frame wall at intervals of 16 inches.
2. Discuss metal walls: usually prefabricated, comes in sheets, sections or panels.
3. Discuss interior walls: may or may not be load bearing, interior walls are known as partition walls.
4. Discuss how firewalls are designed to withstand a severe fire exposure and to act as an absolute barrier against the spread of fire. Usually they have a four-hour fire resistance.

Reference:

Delmar Handbook 3rd edition, pages 623-624

J&B Fundamentals 2nd edition, pages 315-319

IFSTA Essentials 5th edition, pages 445-449

NOTE: Masonry walls perform well when exposed to fire and will sometimes have a fire resistive rating of two to four hours. Concrete blocks made with “pumice,” a light volcanic rock, will have the highest fire resistive rating.

PRESENTATION

ENABLING OBJECTIVE #9

The Firefighter I candidate, when shown various types of walls, shall correctly demonstrate the proper steps necessary to correctly force entry through each.

1. Discuss some of the factors that will impact the decision to open or not to open a wall.
2. Discuss opening masonry walls, including precautions that need to be considered.
 - a) Protective clothing should be worn. Eye protection is especially important.
 - b) Make the hole large enough to allow passage of personnel equipped with self-contained breathing apparatus and tools.
 - c) Hole should be made in a diamond configuration for structural support.
3. Discuss the following points for opening metal walls.
 - a) Location of studs or supports.
 - b) A determination should be made whether the wall is load bearing.
 - c) Avoid cutting or damaging electrical wiring and plumbing that may be located beneath the exterior surface.
 - d) Tools that are appropriate, such as a power saw with an aluminum oxide blade.
4. Discuss the factors in opening wood-frame walls.
 - a) Is the wall load bearing?
 - b) Is it safe to cut the wall studs?
 - c) Procedures for cutting studs.
 - d) What is the exterior covering and how should it be removed?
 - e) Tools that are appropriate.
5. Discuss the factors in opening partition walls.
 - a) Check the wall for heat conduction before opening.
 - b) Consider the potential for fire extension through openings made in partition walls.
 - c) Appropriate tools.

Reference:

Delmar Handbook 3rd edition, pages 623-624
J&B Fundamentals 2nd edition, pages 316-319
IFSTA Essentials 5th edition, pages 445-449

APPLICATION

Using a training lab or actual structure, have the candidates practice opening various types of walls with an assortment of appropriate forcible entry tools. Provide a walk-through of the building where the class is being held and point out the various types of walls and how they can be breached correctly using the various discussed methods.

SUMMARY

Reiterate that firefighters need for a basic understanding of the materials and construction features of doors, locks, windows, and walls to perform effective forcible entry into a building.

Re-emphasize that the firefighter should be aware of the inherent dangers than can be associated with forcible entry.

LESSON TWO

FIREFIGHTER I

Forcible Entry

DOMAIN: PSYCHOMOTOR

LEVEL OF LEARNING: APPLICATION

MATERIALS

Flip charts; overhead projector or laptop computer with multimedia projector; projection screen; IFSTA Essentials 5th edition or Jones and Bartlett Fundamentals of Fire Fighter Skills 2nd Edition or Delmar Firefighter's Handbook 3rd Edition; a selection of manual and power forcible entry tools; access to a maintenance shop and training site suitable for demonstrating the use and maintenance of forcible entry tools.

NFPA 1001 JPRs, 2008 edition

5.3.4 Force entry into a structure

5.5.1 Clean and check ladders, ventilation equipment, self contained breathing apparatus (SCBA), ropes, salvage equipment, and hand tools

Junior Member Statement:

Junior Member training activities should be supervised by qualified instructors to assure that the cognitive and psychomotor skills are completed in a safe and non-evasive manner. While it is critical that instructors be constantly aware of the capabilities of all students both mentally and physically to complete certain tasks safely and successfully, the instructor should take every opportunity to discuss with departmental leaders and students the maturity and job awareness each participant has for the hazards associated with fire and rescue training.

TERMINAL OBJECTIVE

The Firefighter I candidate, when given various forcible entry tools, shall correctly identify their type, demonstrate their proper use and define the necessary procedures for maintaining each.

ENABLING OBJECTIVES

1. The Firefighter I candidate, when given various forcible entry tools, shall correctly describe their function, and demonstrate the proper procedures for safely carrying and operating each tool.
2. The Firefighter I candidate, when given various forcible entry tools, shall correctly identify the procedures utilized for the care and maintenance of each tool.

LESSON TWO

FIREFIGHTER I

Forcible Entry

MOTIVATION

Forcible entry into a building is often difficult, but can be performed more easily when the appropriate tools are used. Forcible entry tools can range from simple to complex in terms of design and utilization. Forcible entry tools, because of what they are designed to do, can create a safety hazard, especially if they are not properly maintained. It is important that the firefighter have an in-depth knowledge of the various kinds of forcible entry tools. The firefighter should develop a good understanding of forcible entry tool maintenance, as well as the skills that promote their safe use.

PRESENTATION

ENABLING OBJECTIVE #1

The Firefighter I candidate, when given various forcible entry tools, shall correctly describe their function, and demonstrate the proper procedures for safely carrying and operating each tool.

1. Discuss the fact that safety is paramount in determining the method by which forcible entry tools are carried and used.
2. Point out that cutting tools may be either manual or power driven.
3. Identify and discuss the use of various cutting tools.
 - a) Axes and hatchets.
 - b) Handsaws.
 - c) Bolt Cutters.
 - d) Cutting torches.
 - e) Circular saws.
 - f) Reciprocating saws.
 - g) Chain saws.

4. Discuss the safety precautions that should be taken to protect the operator and others that may be in the vicinity where forcible entry tools are being operated.
5. Demonstrate the actual cutting tools and emphasize the safety precautions for each.
6. Identify and discuss the use of various prying tools.
 - a) Halligan tool.
 - b) Small pry bar/nail puller.
 - c) Crow bar.
 - d) Spanner wrench.
 - e) Kelly tool.
 - f) Rabbet tool.
 - g) Power Hydraulic spreader.
7. Point out that prying tools, when used correctly, are safer to use than many other types of forcible entry tools, but used incorrectly they can create a safety hazard.
8. Discuss the fact that prying tools are very effective in breaking locks, opening doors, forcing windows, and prying up or lifting objects.
9. Demonstrate actual prying tools and emphasize the safety precautions for each.
10. Identify and discuss the use of various pushing and pulling tools.
 - a) Pike poles.
 - b) Plaster hooks.
 - c) Powered hydraulic extension rams.
11. Point out that pushing and pulling tools have many applications in forcible entry especially when opening concealed spaces to check for fire extension.
12. Point out that pushing and pulling tools are usually of simple design, easy and safe to operate.
13. Demonstrate actual pushing and pulling tools and emphasize the safety precautions for each.
14. Identify and discuss the use of various striking tools.
 - a) Axes.

- b) Battering rams.
 - c) Ram bars.
 - d) Mallets.
 - e) Hammers.
 - f) Sledge hammers or mauls.
 - g) Chisels.
 - h) Punches.
 - i) Automatic center punches.
 - j) Picks.
15. Identify that striking tools are characterized by large, weighted heads on handles, and are the most common and basic hand tools.
16. Point out that striking tools can be dangerous to operate and can send chips and splinters into the air creating hazards for others in the area.
17. Demonstrate actual striking tools and emphasize the safety precautions for each.

Reference:

Delmar Handbook 3rd edition, pages 588-597
J&B Fundamentals 2nd edition, pages 293-297
IFSTA Essentials 5th edition, pages 397-409

PRESENTATION

ENABLING OBJECTIVE #2

The Firefighter I candidate, when given various forcible entry tools, shall correctly identify the procedures utilized for the care and maintenance of each tool.

1. Discuss the five steps listed for care of wooden handles.
 - a) Check for cracks, blisters, or splinters in the wood.
 - b) Sand wooden handles to minimize hand injuries.
 - c) Clean wooden handles with soapy water, rinse, and dry after use.
 - d) Apply a coat of boiled linseed oil to the handle to prevent roughness and warping.
 - e) Check to ensure the tool head is fitted tightly to the handle.

2. Discuss the three steps for the care of fiberglass handles.
 - a) Wash with warm soapy water.
 - b) Dry with soft dry cloth.
 - c) Check to ensure the head is on tight.

3. Discuss the three steps for the care of cutting edges.
 - a) Check to ensure the cutting edge is free of nicks and tears.
 - b) Replace cutting edge of bolt cutters when needed.
 - c) File the edges by hand. Grinding takes temper out of the metal, causing softening of the steel.

4. Discuss the three steps for the care of plated surfaces.
 - a) Inspect for damage.
 - b) Wipe plated surfaces clean or wash with soap and water.
 - c) Do not paint ax handles, painting makes it difficult to inspect for cracks and other wear on the handle.

5. Discuss the four steps for the care of unprotected metal surfaces.
 - a) Keep clean of rust.
 - b) Keep oiled when not used, any light machine oil will work.
 - c) Do not completely paint, it hides cracks.
 - d) Check to see all metal surfaces are free of burred or sharp edges; file off when found.

6. Discuss the four steps for the care of power equipment.
 - a) Check to see whether the equipment starts manually.
 - b) Check blades and equipment for completeness and readiness.
 - c) Check electric tool cords for cuts and frays.
 - d) Make sure the appropriate guards are in place.

Reference:

Delmar Handbook 3rd edition, pages 597-598

J&B Fundamentals 2nd edition, pages 293-297

IFSTA Essentials 5th edition, pages 411-413

NOTE: It is absolutely essential that forcible entry tools be properly maintained to ensure that failure does not

occur when the tool is needed for an emergency operation. The instructor should stress that maintenance is especially critical for motor driven and hydraulically operated tools. Subsequently, more class time may need to be devoted to cleaning and inspecting power tools.

APPLICATION

Provide the class with an assortment of forcible entry tools and allow them the opportunity to inspect, clean, and demonstrate their correct use. If the class is being conducted in a local fire department the application portion of the class would present an excellent opportunity to ensure that all of the department's forcible entry tools are in operable condition.

SUMMARY

Emphasize that forcible entry tools make entry a much easier task than it would be otherwise.

Reiterate that forcible entry tools must be frequently inspected and properly maintained to ensure that they are ready for service.

Reiterate that safety is very important when carrying and operating forcible entry tools on the fire ground.