SAN FRANCISCO FIRE DEPARTMENT

DIVISION OF TRAINING

TRAINING BULLETIN

TRAINING BULLETIN 95-7

GARAGE DOOR PRECAUTIONS AND FORCIBLE ENTRY

FOREWORD

Training Bulletins are an official publication of the San Francisco Fire Department Division of Training.

The intent of Training Bulletins is to enhance the knowledge of officers and members regarding San Francisco Fire Department operations, and to help prepare members for promotional advancement.

It is recommended the material from Training Bulletins be used as subject matter for drills and other training activities.

Officers are encouraged to contact the Division of Training with comments or suggestions regarding Training Bulletins.

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I. INTRODUCTION:

Firefighters frequently combat fires which either originate in a garage or extend into a garage. At other times, firefighters may utilize a garage to gain access to the fire floor of a building which may be located above or below grade. With this understood, firefighters must realize the importance of securing their primary egress path, specifically the overhead garage door.

II. AWARENESS:

It is the company officers responsibility during his/her size-up to take into consideration the possibility that an of electrically operated (automated) or mechanically operated overhead garage door may inadvertently close trapping firefighters.

As a result, officers shall follow the courses of action presented in this training bulletin to eliminate this potential life threatening hazard.

Additionally, all officers and firefighters on the fireground shall be alert regarding the hazard presented by an open and unsecured overhead garage door wherein access to a fire is being made through a garage. Officers and/or firefighters observing this hazard shall assume the responsibility of securing the door by any of the expedient methods provided in this training bulletin, or other methods based on experience.

III. COURSES OF ACTION: *(Assuming that the garage door is used as a means of entry into a building during fire attack operations, the following actions shall be performed.)*

1st Company On The Scene: Shall secure the garage in an open position and deactivate electrical garage door motors.

DANGER
WHEN LEADING LINES INTO A GARAGE, SIMULTANEOUSLY SECURE DOOR

If Electrically (Automated) Operated Garage Door: First, secure door in open position (refer to expedient securing methods section), then disconnect the electrical door motor's power cord from the receptacle supplying the automated garage door opener. If the receptacle and power cord are not accessible, disconnect the track link from the chain or worm drive by pulling the door rope which is located on the parallel track overhead and in line with the door motor.

If Mechanical Operated (Non-Electrical) Opening Door: Secure door in open position (refer to expedient methods section) .

NOTE
ELECTRICALLY ACTIVATED DOORS SHALL BE DEACTIVATED IMMEDIATELY AFTER BEING SECURED IN AN UP POSITION AND/OR THE TRACK LINK CARRIAGE DISENGAGED

IV. METHODS TO SECURE OVERHEAD GARAGE DOORS:

Use the most expedient method available to secure the garage door, such as:

- Dedicated door securing device (carried on all units)
- Pike pole or ceiling hook wedged under door
- House ladders may be used to prop under the garage door
- Wedge block jammed into door tracks, preventing movement
- Flatten door track with sledge hammer to prevent closing
- Clamp vise grips on the door track ahead of a pulley to prevent movement
- If the door is chain-operated, secure the chain in place
- Other methods may be employed using on-site materials that will ensure the door will not close.

NOTE
ATTEMPT TO IDENTIFY ALTERNATE EGRESS ROUTES

V. FORCIBLE ENTRY TECHNIQUES:

The Breaching or forcible entry of a typical non-commercial garage doors can be easily accomplished through the use of a chainsaw, multipurpose saw, Hurst power tool, or forcible entry tools such as an ax, Chicago door opener straight truss wooden ladder used as a battering ram, the high-rise battering ram or other large battering rams.

Power equipment and hand tools may be used in combination, however, should power equipment fail to achieve the desired results, firefighters should quickly adapt to the usage of forcible entry hand tools to accomplish the task.

Should forcible entry or the breaching of an overhead garage door become necessary, either to gain access to a structure or to open a door which has inadvertently closed, the following forcible entry techniques should be employed.

Electrically Operated (Automated) Overhead Garage Doors:

These doors, sectional or single piece construction (refer to diagram) will resist being opened when the door's metal connecting arm is engaged with the worm gear or chain driven door track. The presence of two or more carriage bolts as indicated on diagram #1 and #2 will reveal that the door is automated.

Under these circumstances, using a chainsaw and cutting a "V" as illustrated in diagram #1 and #2 will essentially detach the metal track arm from the garage door. In completing this saw cut, the door is now independent form the automated door opening motor and the track mechanism. However, in regard to a sectional garage door, the cut piece of door may interfere with physically opening the door since the door is raised and lowered in a straight up and down direction. To resolve this obstacle, the use of a maul, sledge hammer, Chicago door opener, or other blunt tool to drive the cut piece of material into the garage will free the door and enable it to be opened.

Mechanically Operated (Non-Electrical) Overhead Garage Door:

These overhead doors operate with large springs which are mechanically fastened to the garage door and inside edge of the door opening trimmer studs. The door is a single piece construction and opens in a cantilevered manner. The top of the garage door rides in a guide track which is present on both sides of the door.

Mechanically operated (non-automated) overhead garage doors (refer to diagram #3) may be forcibly entered through the use of power saws such a chainsaw and multipurpose saw, as well as the forcible entry tools previously mentioned. To effect forcible entry with a chainsaw or multipurpose saw, make two vertical cuts approximately two feet from either side of the door (refer to cut pattern in diagram #3). Upon completion or near completion of the two vertical cuts, a maul, sledge hammer, straight truss wooden ladder, or battering ram may be used to drive the cut-away portion of the garage door into the garage, thus allowing escape or access.

This type door may have door vents in the lower corners which may offer a means of quick entry without the need for forcible entry. The door may be opened by removing the vents and reaching inside, grasping the metal strapping attached to the door latch and by pulling the latch or strapping toward the center on both sides.

Use caution when performing vertical cuts. Firefighter should stand in the interior field of the door and not directly in-line with the door spring. These door springs are powerful and once separated from the larger portion of the door, may react violently or unpredictably.

Additionally, if using a chainsaw to make cuts, there is no need to penetrate more than 2 inches through the door in the area where the latch linkage mechanism would be located (refer to diagram #3). In observing this recommended 2 inch depth, the chainsaw should not come in contact with the latch linkage which may break the saw's chain.

Forcible entry of mechanically operated garage doors may be achieved without the benefit of power tools and solely through the use of forcible entry tools. For example, using the large battering ram, the high-rise battering ram, a straight truss wood ladder, or a heavy sledge hammer and focusing consistent blows to the door in direct line with the mechanical spring and hardware plating (refer to diagram #3), as well as the lag bolts attaching the hardware to the door or trimmer studs will cause the door to fail permitting entry.

VI. TRAINING/DRILLS:

Awareness of this hazard shall be incorporated in all forcible entry drills and company property orientations and inspections.

Units should take the opportunity during inspections to study door construction, evaluate methods to secure open doors, and determine the best methods to perform forcible entry.

VII. SAFETY:

All operations shall be conducted with the safety of firefighters as a primary consideration.

Officers are directly responsible for enforcing all safety related rules, regulations and policies, and ensuring adherence to personal protective equipment policy, include the mandatory mask rule, the use of PASS devices, PIT tags and proper operating procedures.

Reference: Safety Related Training Bulletins.
TB-90-6 Personnel Identification System
TB-91-2 Lightweight Truss Roof Construction
TB-93-2 Safety Considerations XL-98
TB-93-3 MRI Systems Safety
TB-95-1 Use of Water on Live Electrical Equipment
TB-95-2 Scott 4.5 Breathing Apparatus/PASS Device Procedures

Automated Overhead Garage Doors

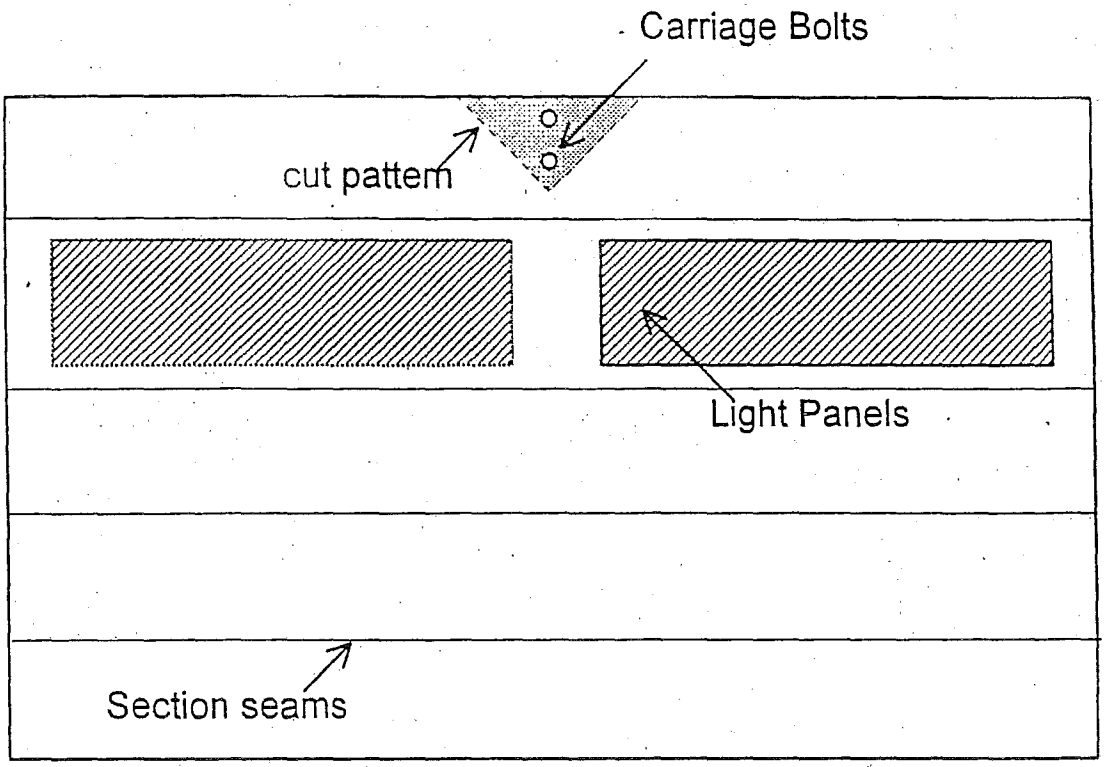

Diagram 1. Sectional Construction

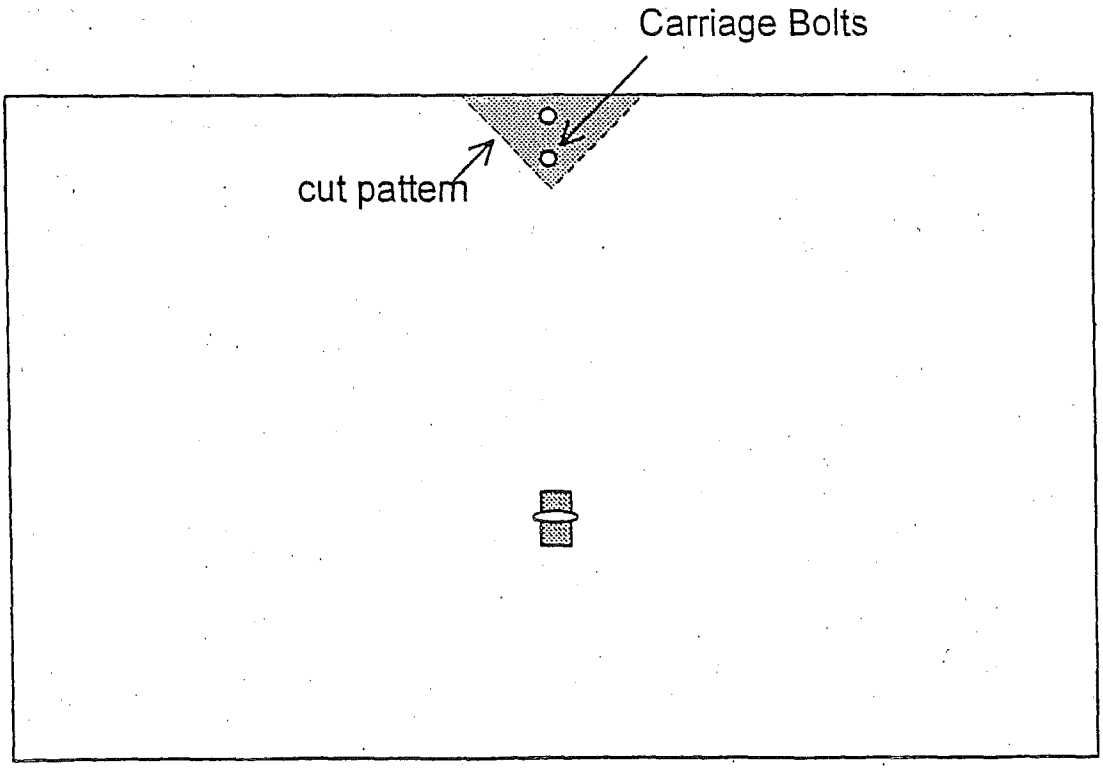

Diagram 2. Single Piece Construction

Mechanical (non-electrical) Overhead Garage Door

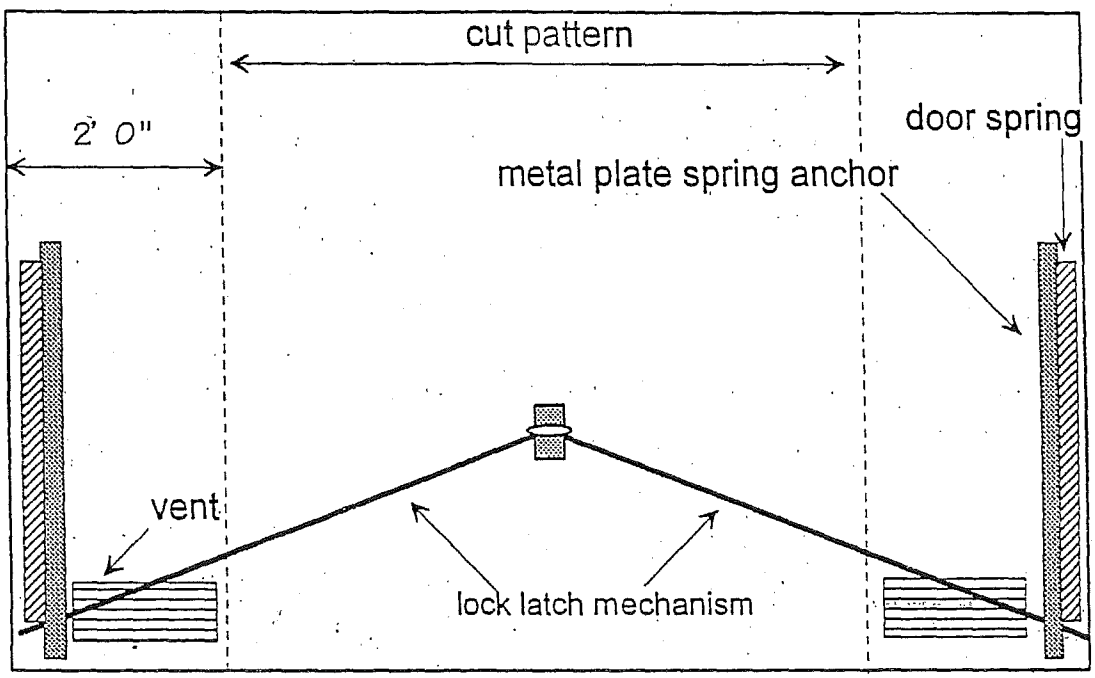

Diagram 3. Single Piece Construction