

Guidelines for removing passengers from elevator cars when they malfunction due to power failures, activation of the car's safety devices, equipment failures, or other types of problems that may occur in the building or hoistway. Occupant removal in most cases is rather simple providing Department personnel take the following steps.

## RESCUE PROCEDURES:

### Arriving at the Scene:

The Company Officer is to make contact with the responsible party of the building to assure the elevator company holding the service contract has been contacted and a mechanic has been dispatched to the scene. At the same time, the Officer should determine if there are any keys with manufacturer instructions available to assist in opening the doors. In all cases, the Officer should keep in mind the status of the passenger(s) before attempting forcible entry. Most service representatives can be on scene within one hour. Although this may be an inconvenience for the passenger(s), the wait does not justify damage to the elevator car. In all cases, every effort is to be made to avoid a forced entry.

### Once on scene at the Elevator Car:

One firefighter should be designated to do all the communications with the people that are trapped inside the car. This person should reassure and attempt to convince the victims that they will be rescued. In some cases, phones may be used to contact the passenger(s) inside the car. At other times, it will be necessary to yell through the hoistway doors.

### Before Attempting a Rescue, Locate the Elevator Car:

- ➡ Observe the position of the indicator light at the lobby floor. If phones are usable, have the passenger provide the information from the car panel.
- ➡ In a multi-car hoistway (shaft), ride up in the adjacent car, stopping and looking across the shaft as necessary. Fire personnel are never to ride on the top of the car to perform this step.
- ➡ Go to the elevator mechanical room and determine the location of the car by checking the selector equipment, if visible and available.
- ➡ Open the lowest floor door and look up the hoist way.

Once the car has been located, and if the car is stuck between floors (providing the car is hydraulically operated), it may be beneficial to bleed the car to the bottom floor by using the bleed-off valve in the machine room. This way you will be sure of the car's location and you will improve the passenger(s) safety. Procedures may differ with different manufacturer's elevator equipment, **but this should always be done with the power off.**

## ATTEMPTING A RESCUE:

### Step 1:

After the car has been located, proceed to the closest floor and push the hall button. At the same time, have the person push the door or floor button. If this does not open the door, visually inspect the following:

- Main power switch in the mechanical room.
- Elevator breaker on the main electrical service.
- Fuses in the relay panel (hydraulic only).
- Have the passenger(s) check the interior car emergency stop. If Step 1 is unsuccessful, proceed to Step 2.

### Step 2:

If the systems listed in Step 1 appear operational, the fault may be in the door interlocks. This is the most common problem encountered during routine elevator rescues. Often times contacts become weak or dirty and the movement of the car will cause the points to lose contact and immediately stop the car. To correct this problem, the following is recommended in order of occurrence, with the power on:

- Have the passengers shake the inside car door.
- Shake the exterior (hoistway) door.
- Shake the door where the passengers entered the elevator.
- Shake each door at all the landings.

If this corrects the problem, the elevator will proceed to the programmed floor and open. If not, proceed to the next step.

If the car is close to the landing or level with it, try placing a thin but stiff piece of paper or cardboard between the door and attempt to break the electric eye (traffic signal).

At this point, if the rescue has not been completed and there is a definite need to continue your efforts, (the passengers of the car are experiencing distress), turn the power off to the elevator at the main power switch. Fire personnel must be stationed at the control panel to make sure no one reactivates it until the officer in charge has given the order.

### Step 3:

With the power off and the emergency switch in the elevator car in the off position, instruct the passengers to push or pull open the interior car door. This may open both doors if the car is within 8 inches of the floor on a hydraulic elevator and 18 inches on an electric. If both doors do not open, instruct the passenger to move the interlock link or pick-up roller on the hoistway door to release the interlock and open the door. This step may not be a viable option due to the age, condition, and strength of the passenger(s) on board and the type of elevator.

### Step 4:

THIS TYPE OF RESCUE IS ONLY TO BE ATTEMPTED IF AN EXTREME EMERGENCY EXISTS. The Company Officer in charge must evaluate the information available and be sure that if the passengers are not immediately removed, they will not be subject to injury or even death. Passengers in an elevator car may become claustrophobic or distraught over their situation. Their anxiety level may be high, but these problems alone may or may not make the difference in a forcible entry attempt. A firefighter should keep continually talking to the passengers and reassuring them there will be a safe out-come. There are, however specific times when a forced entry may be warranted.

The following list will assist the Company Officer in determining if a forced entry should be attempted.

- Did the passenger(s) suddenly stop communicating, and you have been unable to talk to them for over one minute ?
- Does being trapped in an elevator compromise passenger(s) suffering from medical conditions ?
- Has a passenger started complaining about a sudden onset of chest pain ?
- Has smoke entered the elevator car ?
- Has a fight broken out between the occupants of the car ?

If any of the above examples occur during the incident, all other attempts to release the passenger(s) have failed, and the service representative has not arrived, a forcible entry may be warranted.

## STEP 5: (ONLY TO BE USED AS A LAST RESORT MEASURE)

Preparation for rescue is necessary for the safety of both trapped passengers and firepersonnel. The prelude to any type rescue involves organizing and securing the stalled elevator.

- Clear the area of bystanders.

- Shut the main electrical power off to the elevator. The main electrical switch should be located in the elevator mechanical room.
- Maintain fire personnel at this position to assure that the power is not accidentally turned back on.
- If possible, have the passengers activate the cars emergency stop switch.
- Attempt to move the bound hoistway doors by hand first.
- If there are two elevator cars next to each other, try to locate the interlock device from the shaft of the other car. Fire personnel may be able to trip the device by reaching through with a long handled tool.
- Re-try the door by hand.
- Place a block of wood on the bottom of the door and give the door a hard rap. This may loosen the gibbs (devices used to guide the door panel in a groove in the door sill). Advise the passengers before hitting the door.
- Re-try the door by hand.

If force has to be applied to the hoistway doors it should be applied as follows:

1. On a two-speed door, force is applied between the top of the doorjamb and the high-speed (rear) panel.
2. On center opening doors, force is applied between the two doors and near the header.
3. On a single slide door, the lock side must be determined first. Once a firm determination is made, the door should be forced by placing your tool in the top of the doorjamb.

In the event all of the above has not worked, and the service mechanic has not arrived on the scene, the Company Officer should:

- Re-contact the elevator company.
- Request the On-Call Battalion Chief/Duty Chief to respond for assistance with other rescue options.
- If the door is forced, a complete narrative outlining the steps that were taken is to be documented on the incident report.

# ELEVATORS & ESCALATORS