

Common Elevator Terminology

Leveling Zone: The limited distance above or below a landing within which the leveling device is permitted to cause movement of the car toward the landing.

Layout Drawing: A drawing applying to a specific installation that shows the arrangement, dimensions and information about the elevator or escalator and their relationship to the building structure. The code requires specific minimum information on the layout drawing.

Machine Room: The room in which the power machinery for operation of the elevator is located.

Operation: The method of actuation the controls divided into major categories summarized as follows:

Automatic operation: The starting of the elevator car in response to the momentary actuation of operating devices at the landing and/or of operating devices in the car or at a landing. Once the device is actuated the car will stop automatically at the landing and the doors open. Another call will cause the doors to close, after a predetermined time, and the car will respond to another call.

Group automatic operation: Automatic operation of two or more elevators which is coordinated by a supervisory control system including automatic dispatching which dispatches cars in a regular manner. It includes one button in each car for each landing served and up and down buttons at each landing (except terminal landing which have a single button). The stops setup by the car buttons are made automatically in succession as the car reaches the corresponding landing irrespective of the direction of travel or the sequence of actuation. The stops setup by the landing buttons are made by the first elevator in the group to reach the landing in the corresponding direction of travel.

Nonselective collective automatic operation: One button in the car for each landing served and one button at each landing. All stops registered by a car or landing button are made as the landings are reached irrespective of the number of buttons actuated, the sequence of actuation or the direction of travel.

Selective collective automatic operation: One button in each car for each landing served and up and down buttons at each landing. All up landing calls are answered as the car reaches the landing in the corresponding direction of travel and car calls are answered as the car reaches the landing irrespective of the sequence of actuation or direction of travel.

Single automatic operation: One button in the car for each landing served and one button at each landing. When a car or landing button has been actuated the actuation of another car or landing button will have no affect until the response to the first button actuated is completed.

Car switch operation: The movement and direction of travel of the car are directly and solely under the control of the attendant by means of a manually operated car switch or of continuous-pressure button.

Car switch automatic floor stop: The stop is initiated by the attendant with a definite reference to the landing, after which the slowing down and stopping of the elevator is effected automatically.

Constant continuous pressure operation: The button or switch must be manually maintained in the actuated position to start and continue movement.

Operation pre-register: Signals to stop are registered in advance by buttons in the car and at the landings. At the proper point in the car travel, the attendant in the car is notified by a signal, visual, audible or otherwise, to initiate the stop, after which the landing stop is automatic.

Signal operation: With this type of operation, the car can be started only by means of a starting switch or button in the car. Single buttons or switches (or both) in the car, and up or down buttons at the landings, by which predetermined landing stops may be registered for an elevator or for a group of elevators. The stops registered by the car buttons are made automatically in secession as the car reaches those landings, irrespective of its direction of travel or the sequence in which the buttons are actuated. The stops registered by the up and down buttons at the landing are made automatically by the first available car in the group approaching the landing in the corresponding direction, irrespective of the sequence in which the buttons are actuated.

Parking: A feature incorporated into the signal system of an elevator or elevators by which an elevator receives a signal to always return to a pre-selected landing after all its car or landing signals have been answered and cancelled. It is also called home landing.

Parking device: An electrical or mechanical device, the function of which is to permit the opening of the hoistway door from the landing side when the car is within the landing zone of that landing. The device may also be used to close the door.

Platform: The floor assembly on an elevator on which the passenger stands and/or the load is carried.

Rail: The structural member (usually "T" shaped steel) fastened to the walls of a hoistway to guide the car and counterweight.

Rated load: The load that the elevator is designed to lift at rated speed.

Rated speed: The speed that a traction elevator should operate in the up direction with rated load in the car. This should be the same as the contract speed. For hydraulic elevators the speed in the down direction is usually greater than the rated speed in the up direction and therefore should be separately specified as operating speed in the down direction.

Repair: Replacement or rehabilitation of parts with ones that are basically the same as the original. This will restore to original performance and code requirement.

Rope: The wire rope used to support the elevator, counterweight and operate the governor. Various sizes, types and construction are used.

Safety factor (or factor of safety): The ratio between the breaking load on a member and the allowable load on it.

Safety (car or counterweight): The mechanical device at the bottom of the car and counterweight that is activated by the governor to stop the motion of the car and counterweight in the event of an overspeed condition in the down direction.

Elevator:

Special purpose personnel: Installed in structures such as dams, radio antenna towers, grain elevators, bridge towers and power plants for use only by authorized personnel and their tools and equipment. Limited to maximum rated load of 1,000 pounds and rated speed of 150 feet per minute.

Winding drum: Lifting is provided by winding a wire rope around a drum. Limited in speed of 50 feet per minute and a travel of 40 feet.

See the ASME/ANSI A17.1 for additional classifications and limitations.

Existing installation: An installation that has been completed or is under construction prior to the effective date of the code.

Gate: The door on the elevator car is often referred to as a gate. In the early days these were expanding collapsible and therefore called gates. Solid units are normally called car doors but sometimes referred to as gates.

Governor: A device that monitors the speed of the car and counterweight and provides a signal to the control and activates the safety when an overspeed condition occurs.

Final limit: The mechanically operated electric switch located in the hoistway set to operate and turn off power if the car travels beyond either terminal landing.

Hoistway: The opening (shaft) in which the elevator travels.

Interlock: An electro-mechanical device that locks the hoistway door and completes an electric circuit to all operation when in the locked position. This device has two separate functions: 1.) Prevent operation of the driving machine unless the hoistway door is locked. 2.) Prevent the opening of the hoistway door from the landing side unless the car is in the landing zone and is either stopped or being stopped.

Jack: The plunger and cylinder assembly on a hydraulic elevator.

Landing zone: A zone extending from a point 18 inches below a landing to a point 18 inches above the landing.