Accessibility regulations for elevators
Impact of ADA and ANSI A117.1
Buildings are affected primarily by two sets of regulations for accessibility. The Americans with Disabilities Act (ADA) and ANSI A117.1 establish guidelines for accessibilities to buildings by individuals with disabilities. These guidelines are to be applied during the design, construction, and alteration of buildings.

The ADA and ANSI A117.1 require compliance in varying degrees for new and existing structures. Because the regulations are so comprehensive, these “degrees” have yet to be clearly determined in many cases. Local Code authorities may also play a significant role in determining accessibility requirements.

Please keep in mind that the regulations and their interpretations may be modified at any time. This may be the result of legislation or litigation.

Consequently, this information is presented without warranty. KONE Inc. does not assume liability for any interpretations based upon data presented.

The regulations typically require new and altered buildings to comply with the latest edition of the applicable regulation. Alterations are generally defined as “…remodeling, renovation, rehabilitation, reconstruction, historic restoration, changes or rearrangement in structural parts or elements, and changes or rearrangement in the plan configuration of walls and full-height partitions.”

The ADA states that “to the maximum extent feasible,” steps must be taken to bring existing buildings into compliance when alteration to those structures is contemplated. The ADA does not supersede the “…obligation of any facility to remove architectural barriers in existing facilities to the extent that such barrier removal is readily achievable.”
Deciding if you must upgrade may be subject to questions. But... determining how... is not. Regulations are specific and cover a variety of areas. Provisions that affect elevators include:

- Automatic operation (self-leveling)
- Hall call buttons (size, location, visibility)
- Hall lanterns (use, size, location, visibility, audible capability)
- Raised and Braille characters on hoistway entrances
- Door protective and reopening device
- Door and signal timing for hall calls
- Door closing time delay for car calls (as compared to hall calls)
- Floor plan of elevator (clear inside dimensions, door size & type)
- Floor surfaces
- Inside car lighting illumination levels
- Car controls (size, location accessibility, illumination and tactile markings)
- Car position indicators (visibility, size, audible signal)
- Emergency communication

Meeting accessibility requirements starts with a detailed equipment audit. Your dedicated KONE professional can carefully inspect your elevators, and produce a written report of the findings.

Our audit can serve as the foundation for planning the actions you choose to take, and our innovative solutions can make planning easy.

KONE professionals know the requirements for accessibility. We invite you to contact your local KONE professional today, or call toll free, 800-956-KONE (5663). Visit us online at www.kone.com.
Keep in mind that the accessibility regulations do not replace local, municipal or state Building Codes or Elevator Codes. Your responsibility to comply with such Codes is not replaced by accessibility regulations.

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| **Automatic operation** | Elevator operation shall be automatic and include two-way self-leveling. The self-leveling feature shall bring and maintain the elevator car position within 1/2 inch of the landing floor.  
**Solution:** Control and/or valve upgrade |
| **Hall call buttons** | Call buttons to be 3/4 inch in the smallest dimension (minimum). Button arrangement must be vertical (not horizontal). Buttons to be either flush or raised (projected). Buttons must be of the illuminating type to indicate the registration of a hall call. Hall call buttons must be centered at 42 inches above the floor. Objects mounted below the hall call buttons shall not extend from the wall more than one inch.  
**Solution:** Signalization fixture upgrade |
| **Hall lanterns** | The "visual element" must be a minimum of 2-1/2 inches in the smallest dimension. Lanterns must be visible from the proximity of the hall call push button. Hall lanterns must be centered at 72 inches above the floor. In addition to visual signal, the hall lantern is to have an audible signal sounding once for up and twice for down, or shall have a verbal announciator. Note, in-car lanterns shall satisfy this requirement if they are as stipulated in the foregoing.  
**Solution:** Signalization fixture upgrade |
| **Raised & Braille characters (hoistway entrance jambs)** | Floor designation characters to be a minimum of 2 inches high, raised 1/32 inch, upper case and accompanied by corresponding Braille indications. Designations must be located on both sides of the entrance jamb with center line at 60 inches above the floor.  
**Solution:** Jamb Braille upgrade/installation |
| **Door protective/Reopening device** | Doors shall stop and reopen automatically when the door becomes obstructed by an object or person. This device must function without requiring contact and may be of the "photocell" design or other type of photoelectric registration with rays at 5 inches and 29 inches above the floor.  
**Solution:** Infrared edge installation |
| **Door and signal timing for hall calls** | The minimum acceptable time between notification that a car is answering a call until the doors of that car begin to close shall be a minimum of five seconds.  
**Solution:** Door adjustment/upgrade |
| **Door closing time delay for car calls** | The minimum time for elevator doors to remain fully open in response to a car call shall be three seconds.  
**Solution:** Door adjustment/upgrade |
| **Elevator floor plan** | Car door size, type and clear inside car dimensions shall be in accordance with details provided herein. Maximum elevator 'running clearance' shall not exceed 1-1/4 inches.  
**Solution:** Elevator car modernization |
| **Inside car illumination** | The level of illumination at the car controls, platform, car threshold and landing sill shall be at least 5 footcandles (53.8 lux).  
**Solution:** Elevator car lighting upgrade |
| **Car controls** | Refer herein for information regarding vertical location, arrangement and accessibility. All floor buttons shall illuminate when pressed to indicate registration of a car call. Buttons shall be flush or raised (projected). Tactile markings are required and are to include raised characters, numerals and/or symbols along with corresponding Braille designations. Main entry floor to also be designated by a "star". These tactile markings shall be placed immediately to the left of the button to which they apply. Characters and symbols shall contrast with their background.  
**Solution:** Signalization fixture upgrade |
| **Car position indicator** | A car position indicator must be provided above either the car operating panel or the door. The indicator's numerals shall be a minimum of 1/2 inch. Additionally, an audible signal shall be provided to sound as the car passes and stops at each floor.  
**Solution:** Signalization fixture upgrade |
| **Emergency communication** | A means of emergency two-way communication shall be provided in accordance with ASME A17.1 Code. The emergency communication system shall not rely solely on voice communication. The highest operable part of this device shall be no more than 48 inches from the floor of the car and shall be identified by a raised symbol adjacent to the device.  
**Solution:** Elevator emergency phone upgrade and/or KONE Direct KoneXion™ service |