

FREQUENTLY ENCOUNTERED ITEMS WHICH DELAY ACCEPTANCE OF NEW RESIDENTIAL ELEVATORS

March 2019

Private Residential Elevators are to be installed as a means or access to private residences. To be so installed that they are not accessible to the general public or other occupants or the building.

1. Hoistway- shall be fire rated per Standard Building Code. It shall be enclosed throughout its height; any exterior window within the hoistway shall be protected by metal grillwork that will reject a ball 13" in diameter, and be securely fastened to the inside of the hoistway per ASME A17.1, Section 5.3.1.1, except as follows:
 - a. The bottom floor of an elevator may not require an enclosure. Section ASME A17.1, Section 5.3.1.1.1(a-c)
 - b. The top floor of a two stop elevator may not require an enclosure. See ASME A17.1, Section 5.3.1.1.2(a) & (b) (1-3)
2. Hoistway doors and interlocks shall be installed to withstand a force of 150 pounds. See ASME A17.1, Section 5.3.1.7.1
3. Hoistway key access is required at all floors. See ASME, A17.1, Section 5.3.1.7.7 & 2.12.6
4. Machine area shall be secured against unauthorized access per NEC, 620-71. Note: Self closing, self-locking door not required.
5. Machine room working clearances: 36 inches from the controller to the wall with non-conductive surface, 42 inches from the controller to the wall with conductive surfaces and with a single leg of 150 volts to ground, 48 inches from the controller to other electrical devices and with a single leg voltage of more than 150 volts. The width shall be controller width or a minimum of 30 inches wide, whichever is greater. Height shall be 78 inches minimum from the floor. NEC 620-5 & NEC, 110-26
6. The machine room shall not be used for storage. IRCE3405.4
7. Main power disconnects shall be capable of being locked in the off position, shall have overcurrent protection, and shall be within sight of the motor controller. NEC, 620-51.
8. All disconnects shall be installed so that the center of the grip of the operating handle at its highest position is not higher than 79". NFPA 70 404.8

9. Car light disconnects shall be capable of being locked in the off position. NEC, 620-53.
10. Flexible hoses shall not penetrate a wall nor be installed in the hoistway. ASME A17.1, Section 5.3.2.2.1 & 3.19.3.3.1.
11. Car size- Inside clear area of a residential elevator shall not exceed 15 square feet. ASME, A17.1, Rule 5.3.1.10.1.
12. Car clearances:
 - a. Overhead: 6" @ 30 fpm to 9" @ 40 fpm. See ASME, A17.1, Section 5.3.1.3.
 - b. Between hoistway door and hoistway sill: 3/4" maximum. Between hoistway door and car door: 3" maximum. See State Rules and Regulations.
 - c. Between car sill and hoistway sill: .50" minimum, 1.25". See ASME, A17.1, Section 5.3.1.4.2.
 - d. Between car and hoistway enclosure of counterweight: 5" minimum. See ASME, A17.1, Section 2.14.1.8.2.
13. Glass in elevators is the same as commercial elevators. ASME, A17.1, Section 5.3.1.8.1(c) & 2.14.1.8.2.
14. All tests such as, load test, safety devices, relief valves and safety circuits, shall be completed prior to acceptance. See ASME, A17.1, Section 8.10.5.2.
15. No listed parts or materials may be altered or used in an unapproved manner unless they are tested and approved in their new configuration. See UL Listings

NOTE: Anyone installing, altering or maintaining, (commercial or residential) elevators, wheelchair lifts, dumbwaiters, manlifts, material lifts, moving walks or escalators, must have a "Certificate of Authorization" issued by the Office of Insurance and Safety Fire, Safety Engineering Division. All new or altered equipment listed above is required to be permitted prior to beginning installation or alteration and inspected by an inspector prior to use. Any work without a permit, or by unauthorized personnel; or any attempt to allow anyone to use this equipment without inspection by our inspectors, or without being approved for use by our inspection, may result in penalties being imposed.