

Division 19 --- LIFTS

Lift provides means of vertical transportation to any user of the building to move from one floor to another.

MANDATORY SECTION

Performance Objectives

Where a lift is provided, appropriate provision shall be made for all people to travel vertically within the buildings conveniently and independently to other storeys and to make use of all relevant facilities.

Obligatory Design Requirements

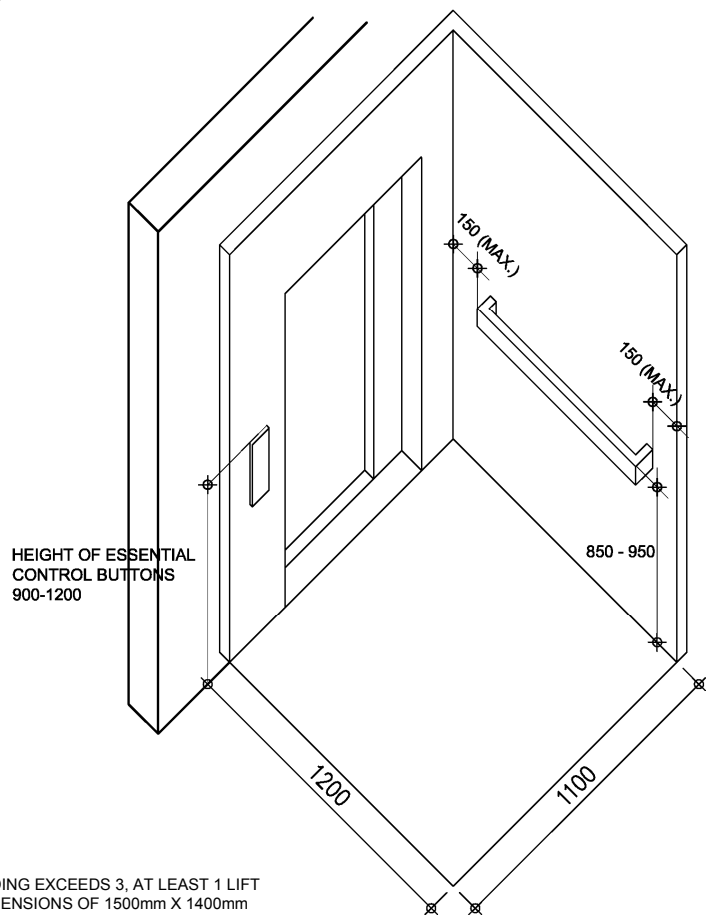
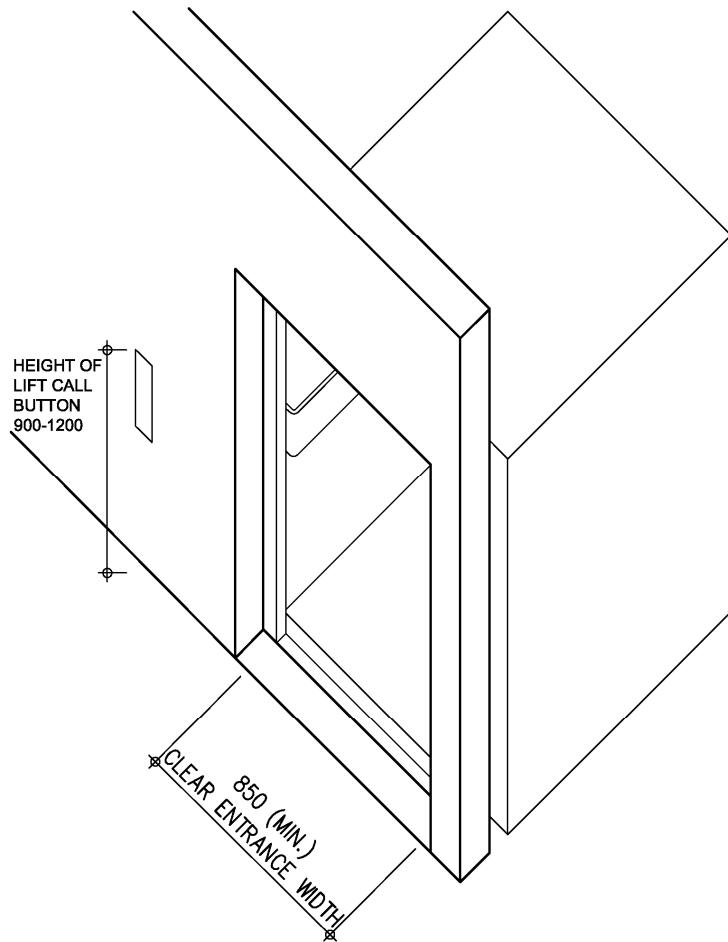
78. Special Requirements for Accessible Lifts

- (1) Every floor of a building shall be accessible by at least one passenger lift which shall fully comply with all the obligatory design requirements as stipulated in this section and have direct access to main lift lobby.

All other passenger lifts in the building must comply with paragraphs 79 & 80.

A lift shall have minimum internal car dimensions of 1200 mm x 1100 mm wide, with a minimum clear entrance width of 850 mm, and shall have handrails extending to within 150 mm of the corners at the rear and sides of the car. The top of the gripping surface of the handrails shall be at a height of 850 mm – 950 mm, with a space of 30 mm - 50 mm between the handrails and wall. (see Figure 40)

- (2) Where there are more than three lifts in a building, access shall be provided to every floor by at least one lift having minimum internal car dimensions of 1500 mm x 1400 mm (either wide or deep) with a minimum clear entrance width of 850 mm.



NOTE: WHERE THE NUMBER OF LIFTS IN A BUILDING EXCEEDS 3, AT LEAST 1 LIFT SHALL HAVE MINIMUM INTERNAL CAR DIMENSIONS OF 1500mm X 1400mm

*ALL DIMENSIONS ARE IN mm

Figure 40 – Accessible Lift

Obligatory Design Requirements (Cont'd)

79. Lift Doors

- (1) Lift car doors and landing doors shall be of the horizontally sliding type, power-operated and automatically controlled.
- (2) An audible signal shall be provided to signify the closing of the doors to alert persons.
- (3) A detection device shall be provided to re-open the lift doors in the event of hitting any obstacle.
- (4) The detection device shall be positioned at a height of between 500 mm to 600 mm above the floor of the lift car.

80. Lift Control Buttons

- (1) Essential lift control buttons including floor numbering buttons, emergency alarm push button and door opening push button in the lift car shall not be less than 900 mm and not more than 1200 mm above the floor of the car.
- (2) Lift call buttons at the lift halls shall not be less than 900 mm and not more than 1200 mm above the floor of the finished floor level of the lift hall.
- (3) Provision of secondary control panel for over-spilled floor numbering buttons is always acceptable.
- (4) All lift control buttons shall have a minimum dimension of 20 mm (see Figure 41).
- (5) Braille and tactile markings shall be placed either on or to the left of the control buttons.
- (6) Such Braille and tactile markings shall be in Arabic numerals and/or symbols. Tactile markings shall have a minimum dimension of 15 mm high and be raised 1 mm minimum.
- (7) The tactile marking of the push buttons for the main entrance floor shall be identified with a symbol in a star shape (see Figure 41).
- (8) The emergency alarm push button shall be in a tactile bell shape (see Figure 41).

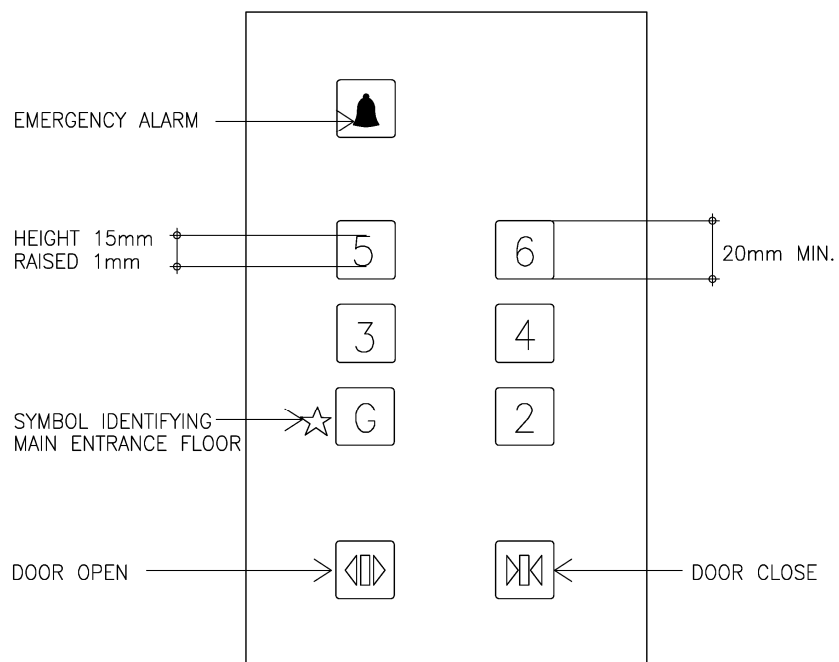
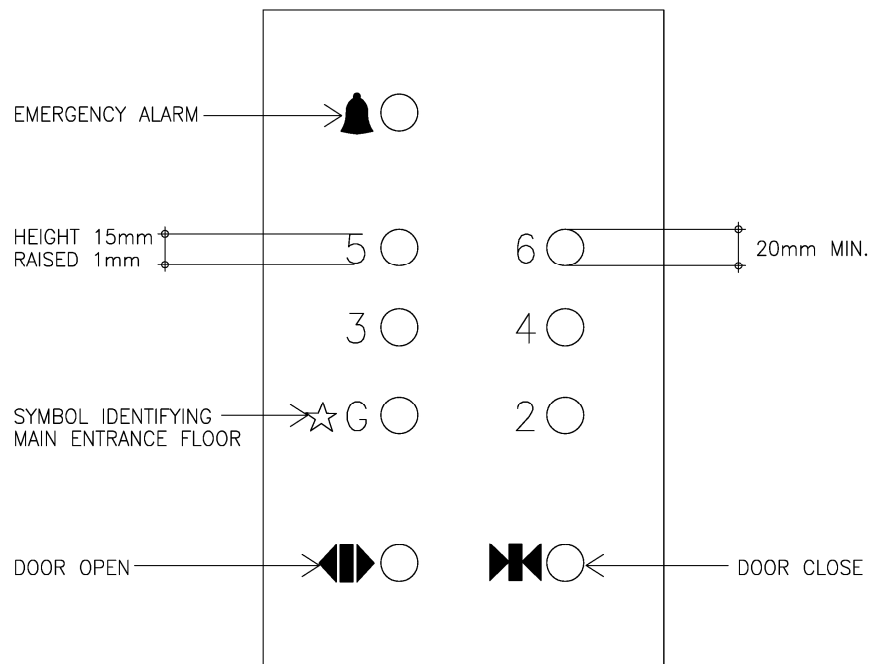


Figure 41 – Tactile Graphic for Lift Control Buttons

Obligatory Design Requirements (Cont'd)

Emergency Call Button in Lifts

- (i) An emergency alarm push button together with a buzzer, an indication light for acknowledgement and an intercom shall be provided in each lift car and be connected to the building management office or the caretaker's office. The building management office or the caretaker's office shall be equipped with a buzzer, indication light(s) (one for each lift) and an intercom connected to the lift car(s).
- (ii) The indication light for acknowledgement shall be in the form of a blinking light adjacent to the intercom speaker and a notice "When light blinks, it indicates your emergency call has already been received. Please be patient and wait for the rescue." in English and Chinese shall be provided next to the blinking light. This system shall be powered by an emergency electricity supply system in the event of power failure.

BEST PRACTICE SECTION

A. Design Considerations

- (a) Lifts can help to provide access to storeys above or below the main entrance level. If designed appropriately, lifts are the most convenient form of vertical access for persons with a disability. However, given the space constraints in some buildings, it may not always be possible to install the type and size of passenger lift that would be suitable for use by all, and other options may need to be considered to provide for users with ambulant impairments.
- (b) Lift controls should be installed at the position which is within reach of all users including wheelchair users.
- (c) A wheelchair user needs sufficient space and time to enter and leave a passenger lift, particularly when sharing it with other people. Lift sizes should therefore be chosen to suit the anticipated frequency of use of the building and the needs of persons with a disability.
- (d) Lift door systems should be designed to allow adequate time for passage of persons with a disability and the elderly.

Design Considerations (Cont'd)

- (e) The use of visually and acoustically reflective wall surfaces can cause discomfort for persons with visual and hearing impairment.
- (f) For lifts of the size that does not allow a wheelchair user to turn around within the lift car, mirror should be installed with the bottom edge to be set at 900 mm above the floor level in the lift car to facilitate a wheelchair user in reversing and to see which level the lift has reached.
- (g) Where planning allows, lift cars may be provided with opposing doors to allow a wheelchair user to leave without having to reverse.

B. Recommended Design Requirements

Lift Control Buttons

- (a) The graphics for tactile markings for open-door and close-door push buttons, emergency alarm button, and main entrance level are shown in Figure 41 for reference.
- (b) Call button panels should be provided at both sides of door openings.

Keypad design

- (c) In cases where difficulties are encountered to fully comply with the obligatory requirements of installation of lift control buttons in high-rise buildings, keypad control device in conjunction with a conventional lift control panels in lifts for persons with a disability should be provided. Proposed standardized positions of buttons for keypad control device are shown in Figure 42 for reference.

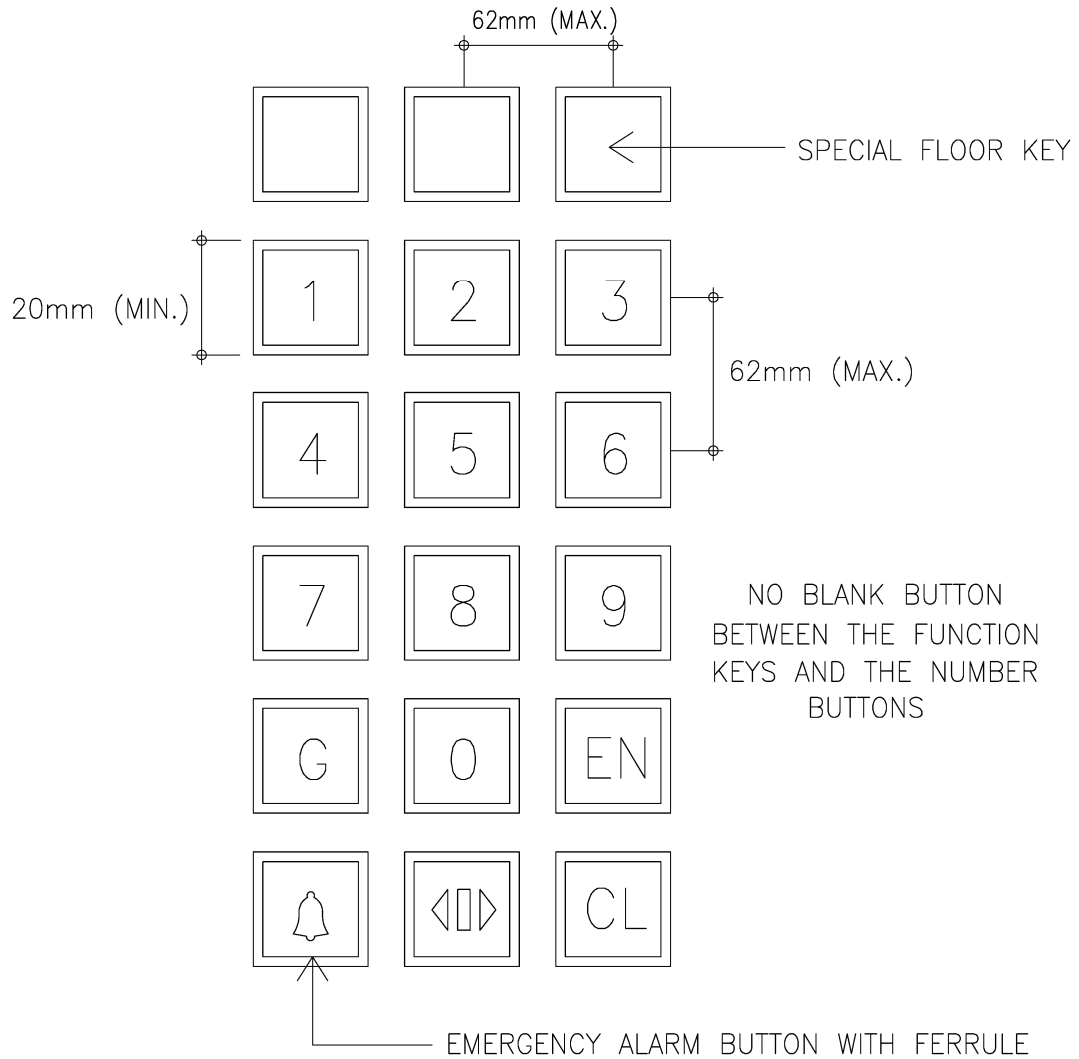
The keypad should: -

- (i) have control buttons of minimum dimension of 20 mm;
- (ii) have Braille and tactile markings following the standard as stipulated in paragraphs 80(6) and 80(8);
- (iii) be installed between 900mm to 1200mm from finished floor level of the lift car;
- (iv) have adequate luminous contrast between the tactile markings on the buttons and the background;
- (v) have voice announcement and visual indication of the floors registered; and

Recommended Design Requirements (Cont'd)

Keypad design (Cont'd)

- (vi) have instruction for the keypad control panel in the form of Braille or voice announcement beside the panel.



NOTE: BRAILLE AND TACTILE MARKINGS AND CHINESE CHARACTERS ARE NOT SHOWN

Figure 42 – Proposed Standardised Position of Buttons for Keypad Control Device

Recommended Design Requirements (Cont'd)

Illumination Level

- (d) The level of illumination at the car controls, platform, car threshold, landing sill and lift landing shall be 150 lux minimum.

Wheelchair Turning Space

- (e) An unobstructed wheelchair turning space of 1500 mm x 1500 mm should be provided in front of accessible lift car door.

Lift Doors

- (f) The minimum time for lift doors to remain fully open at a landing should be 3 seconds.

INDICATION AND NOTIFICATION FOR LIFTS COMPLYING WITH DIVISION 19

The requirements for indication and notification to be provided in respect of accessible lifts are set out in paragraphs 81 to 83.

MANDATORY SECTION

Performance Objectives

Indication and notification shall be provided to give audible and visual information to enable all persons with a disability to call and use the lift facilities conveniently and independently.

Obligatory Design Requirements

81. Indication and Notification for Accessible Lifts

An illuminated visual indicator and an audible signal shall be provided at the lift entrance to indicate the arrival of the lift car and its direction of travel. The audible signal shall sound once for UP direction and twice for DOWN direction, and shall be activated before the arrival of the lift. The audible signal can be broadcasted from a device in the lift car as an alternative provided it can be heard from the lift lobby.

Tactile and Braille floor designations shall be provided on the jambs on both sides of each lift entrance, by means of Arabic numerals, minimum 60 mm high, raised 1 mm, and at 1200 mm above the finished floor level.

82. Indication in Accessible Lift Cars

- (1) Illuminated visual indicators shall be provided to indicate the direction of travel and the position of the car.
- (2) Characters on the position indicator shall have a minimum height of 50 mm.
- (3) An audio indication of the stopping floor shall be provided in English, Cantonese and Putonghua.

83. Identification of Accessible Lifts in Lift Lobbies

- (1) If a building contains some lifts that do not comply with Division 19, then each of those lifts that do comply shall be identified at each landing served, by not less than one international symbol for accessibility.

Obligatory Design Requirements (Cont'd)

- (2) If all the lifts in a building comply with Division 19 (including a building with only one lift), then at least one international symbol for accessibility shall be provided at each lift lobby on the entrance levels of the building.

BEST PRACTICE SECTION

A. Design Considerations

Signs indicating the location of an accessible lift should be clearly visible from the main entrance of the building. Additionally, a sign identifying the floor reached should be provided on each landing in a location that can be easily seen from the lift and is designed in luminous contrasts with its surroundings.

B. Recommended Design Requirements

Tactile Warning

- (a) Tactile warning tiles should be placed in front of the lift door of the accessible lift complying with Division 19 at each landing for ease of identification by persons with visual impairment.

Control

- (b) A separate call button for the accessible lift complying with Division 19 should be installed on each floor to ensure that the accessible lift will stop at the called floor. Priority of attendance to call for the accessible lift should be given to this button.