

CHAPTER 5

BUILDING SERVICES

5.1 SWITCHES AND CONTROLS

5.1.1 Recommended Design Requirements

- (a) Except as otherwise provided in 5.7 for lifts, the controls for the operation of building services or safety devices including electrical switches, light switches, thermostats and intercom switches which are intended to be accessible to the public should be located not higher than 1.1 m above the finished floor level.
- (b) Electric sockets should be located not lower than 500 mm above the finished floor level.
- (c) Light switches and socket outlets should have good contrasting colours to indicate their location against their background.

5.2 ILLUMINATION

5.2.1 Recommended Design Requirements

- (a) Common areas of a building should have an illumination level of not less than 120 lux measured at the finished floor level.

5.3 FIRE ALARM SYSTEM

5.3.1 Obligatory Design Requirements

- (a) In buildings intended to be used by the public, visual alarm signals shall be provided to form part of the fire alarm system. The visual alarm signal shall be in the form of a flashing red light, labelled "Fire Alarm" (in both English and Chinese), and be located at a prominent location in places which are intended to be accessible to the public to ensure that it can be seen from anywhere in those areas when the fire alarm is activated.

- (b) The fire alarm call points or actuation controls, e.g. breakglass units, in places which are intended to be accessible to wheelchair users, shall not be located higher than 1.2 m above the finished floor level.

5.4 EMERGENCY CALL BELL IN DISABLED TOILETS

5.4.1 Obligatory Design Requirements

An emergency call bell shall be equipped with a waterproof push button for activating the bell.

The emergency call bell push button shall be conveniently accessible and located at a height of 600 mm above the finished floor level. The call annunciation shall be provided by a call bell outside the toilet or a buzzer in the caretaker's office, where appropriate. A notice "*Emergency Call*" (in both English and Chinese) shall be fitted next to the emergency call bell push button.

5.5 TELEPHONES

5.5.1 Recommended Design Requirements

Where public telephones are provided in a building, one on each floor accessible to the public should have its dial and handset not higher than 900 mm above the finished floor level and should be easily accessible to wheelchair users.

5.6 INDUCTION LOOP SYSTEM

5.6.1 Obligatory Design Requirements

- (a) An induction loop system shall be provided :
 - i) at at least one of the information counters, if any, in a building intended to be used by the public;
 - ii) in the public hall, if any, of such a building; and
 - iii) in the auditorium, if any, of such a building.

- (b) For the purpose of this section, induction loop system is a system which enables a person, who is standing within the loop area and using a hearing-aid device, to pick up sound from a sound source, by means of an induction loop amplifier, without being disturbed by the noise from the surroundings.
- (c) For the purpose of this section, an information counter in a building intended to be used by the public is any part in such building :
 - i) where the public or a section of the public is likely to approach to seek information; and
 - ii) where such information is expected to be provided in an audible form.

5.7 LIFTS (EXCEPT INDICATION AND NOTIFICATION FOR LIFTS)

Access shall be provided to every floor of the building by at least one lift which shall comply with the obligatory design requirements as stipulated in this section.

5.7.1 Obligatory Requirements

Lift Car

- (a) A lift shall have minimum internal car dimensions of 1.2 m x 1.1 m wide, with a minimum clear door width 750 mm, and shall have handrails extending to within 150 mm of the corners at the rear and sides of the car, which are suitable for use by persons with a disability.

Lift Doors

- (b) A detection device shall be provided to initiate re-opening of the lift doors in the event of a person who is about to be struck, and the detection device shall be positioned at a height of not less than 500 mm above the floor of the car and not more than 600 mm above the floor of the car.

Lift Control Buttons

- (c) Essential lift control buttons (i.e. emergency alarm push button, controls to activate intercom, and door opening push button) in the lift car and the lift call buttons at the lift hall shall not be less than 900 mm and not more than 1.2 m above the floor of the car or the finished floor level of the lift hall, where appropriate.

- (d) Braille and tactile markings shall be placed either on or to the left of the control buttons. Such markings shall be Arabic numerals and/or symbols. Tactile markings shall have a minimum dimension of 15 mm high and be raised 1 mm minimum.
- (e) The emergency alarm push button shall be in tactile bell shape.

Emergency Call in Lifts

- (f) An emergency alarm push button together with a buzzer, an indication light for acknowledgement and an intercom shall be provided in the 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, an indication light and an intercom connected to the lift car(s).
- (g) 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, please speak or press alarm button again" (in English and Chinese) shall be provided next to the blinking light. This system shall be backed up by an emergency electricity supply.

5.7.2 Recommended Requirements

Lift Car

- (a) To allow a wheelchair to turn inside a lift, the minimum internal car dimensions should be 1500 mm x 1400 mm wide with a clear minimum door width of 850 mm.
- (b) Where the number of lifts in a building exceeds three, access should be provided to every floor by at least one lift having minimum internal car dimensions of 1500 mm x 1400 mm wide with a clear minimum door width of 850 mm.

Lift Door

- (c) Lift car doors and landing doors should be of the horizontally sliding type, power-operated and automatically controlled.
- (d) An audible signal should be provided to signify the closing action of the doors to alert persons.

Lift Control Buttons

- (e) The graphics for tactile markings for open-door and close-door push buttons, emergency alarm button, and main entrance level are shown in **Figure 14** for reference.
- (f) All lift control buttons should have a minimum dimension of 20 mm.
- (g) Tactile markings should be of high contrasting colour background.

5.8 INDICATION AND NOTIFICATION FOR LIFTS COMPLYING WITH 5.7

5.8.1 Obligatory Design Requirements

Lift Entrance/Hall

- (a) An illuminated visual indicator and an audible signal shall be provided at the lift entrance to indicate the lift car arrival and its direction of travel. The audible signal shall sound once for UP direction and twice for DOWN direction, and shall activate before the arrival of the lift.
- (b) 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.

Lift Car

- (c) Illuminated visual indicators shall be provided to indicate the direction of travel and the car position. Characters on the position indicator shall have a minimum dimension of 50 mm high.
- (d) A verbal annunciation (in Cantonese and English) shall be provided to indicate the stopping floor.

Identification of Lifts in Lift Lobby

- (e) Where a building contains some lifts that do not comply with this Manual, each of those lifts that do comply shall be identified at each landing served, by not fewer than one international symbol for access for persons with a disability.

- (f) Where all the lifts in a building comply with this Manual (including a building with only one lift), at least one international symbol for access for persons with a disability shall be provided at each lift lobby where entry to the building can be gained.

5.8.2 Recommended Design Requirements

- (a) The illumination level for lift landings and lift car interiors should not be less than 150 lux at floor level.

5.9 ESCALATORS

5.9.1 Recommended Design Requirements

- (a) For escalators, clear signals or indications for going up/down shall be provided, e.g. consistent clear sounds or signals.

5.10 REMOTE SIGNAGE SYSTEM

5.10.1 Recommended Design Requirements

- (a) A remote signage system such as using infra-red “ signs” carrying a voice message detectable only by persons with visual impairment in the form of the “Talking Sign” should be provided for those buildings intended to be used by the public.