

**Code of practice for installation, operation and maintenance of
electric passenger and goods lifts**

AMENDMENT NO. 2

January 2017

1. Page 14, 2.40

Replace “2.40 (Reserved for future use)” with the following new definition:

2.40 Lift, evacuation

A lift designated for evacuation of occupants and made available for the exclusive use of authorised emergency personnel during emergency by the operation of the evacuation switch.

2. Page 28, 6.1.2.3

Replace with the following text:

6.1.2.3 Finishing materials for enclosures shall have a minimum surface flame spread rating of Class 1 (refer to the “Code of practice for fire precautions in buildings” for classification). Wall finishes in the form of a thin sheet of not more than 1.0 mm thickness mounted on a non-combustible substrate will not be subject to the requirement of surface spread of flame provisions. All plastic materials used for finishes shall comply with the relevant authority’s requirements.

3. Page 29, 6.2.1.5

Replace with the following text:

6.2.1.5 Protection in relation to door operation

6.2.1.5.1 Door protective device

A protective device shall automatically initiate re-opening of the door in the event of a person being struck (or about to be struck) by the door in crossing the entrance during the closing movement. The protective device shall be arranged in such a way as to minimise risk of damage or injury due to jamming of a part of a person or other objects.

6.2.1.5.2 Door fully closed before lift run

During unobstructed closing, the lift shall remain stationary (prevented from running) at a landing until the doors are fully closed to within 10 mm between the leading edge of landing doors and within 12 mm between the leading edge of car doors.

For side-opening doors, the allowable dimensions are measured between the leading edge of the doors and the frame.

4. Page 45, 13.1.1

Replace 13.1.1.1 and 13.1.1.2 with the following text:

13.1.1.1 Power supply for emergency operations

An automatic mains failure standby generating system of sufficient capacity complying with SS 535 shall be installed to cover the emergency operations described in 13.1.1.2 to 13.1.3, evacuation lift operation in 13.1.7 and the fire lift operation in 13.2 simultaneously. Therefore, the capacity of the standby generating system shall be sufficient for the fire lifts and evacuation lifts to operate at all times besides the emergency and rescue operation for all other lifts.

For buildings which are not required by the relevant authority to have standby generating system, an automatic rescue device (ARD) shall be installed to cover the emergency operation described in 13.1.1.2.

The ARD shall have sufficient capacity to sustain a minimum of two consecutive emergency operations and shall be fully recharged within six hours after the emergency operation.

13.1.1.2 Power failure emergency operation

In the event of power failure or power interruption, the supply to the lift shall be automatically switched over to the emergency power supply from the standby generating system and the fire lifts and evacuation lifts shall be brought to the designated floor. Simultaneously, the remaining lifts including lifts having manually operated lift doors shall be brought down to the designated floor commencing with the passenger lifts followed by the service lifts and goods lifts. All lifts shall park there with their doors remaining open until all the lifts have been brought down to the designated floor except where a lift having manually operated lift door is parked at any floor with its door open, it shall remain parked there and automatically be rendered inoperable. Thereafter, one or more lifts may resume operation depending on the capacity of the emergency generating system, in addition to the fire lifts and evacuation lifts. For buildings without an emergency generating system and the lifts are installed with ARD, these lifts shall be brought to the nearest floor with doors opened. Normal operation of the lifts shall be automatically reset on the return of normal power supply.

5. Page 46, 13.1.2

Replace the first paragraph with the following text:

13.1.2 Emergency operation of lifts in the event of fire

In the event of fire when any one of the fire detection devices is activated, the lift shall be brought down to the designated floor and parked there with the door open. The lift shall be brought to the alternate designated floor in the event of fire at the designated floor. The lift shall automatically be rendered inoperative after it has been brought to the designated floor or the alternate designated floor. For lift with manually operated lift doors, it shall remain parked and automatically be rendered inoperable at any floor where the doors are open.

6. Page 47, 13.1.5

Replace “13.1.5 (Reserved for future use)” with the following new clause:

13.1.5 Passenger/Service lift designated as evacuation lift

If any of the passenger/service lift is designated as the evacuation lift, operation of the evacuation switch shall cause the lift to operate according to the fire fighter service operation as described in 13.2.2, independent of the emergency operations described above.

7. Page 47, New clauses

Replace “13.1.7 (Reserved for future use)” with the following new clauses:

13.1.7 Evacuation lift for persons with disabilities

13.1.7.1 Where required by the relevant authority, at least one passenger lift or service lift shall be designated as the evacuation lift for the exclusive use by authorised emergency personnel in an emergency by providing at designated floor and alternate designated floor, a switch in a breakable-fronted cover box marked “EVACUATION SWITCH” to enable the authorised responders to gain control of the lift without interference from landing calls.

13.1.7.2 Clauses 13.2.1.3, 13.2.1.4, 13.2.1.5, 13.2.1.6 and 13.2.2 shall similarly apply to the designated evacuation lift. All terms relating to “fire lift switch” shall also mean “evacuation switch”, “fire lift” shall mean “evacuation lift” and “fire fighter service” shall mean “evacuation service”.

13.1.8 Provision for lifts to be used for secondary evacuation under normal power

13.1.8.1 Where required by the relevant authority, all passenger lifts and service lifts other than those already designated as fire lifts and evacuation lifts, shall be provided with a secondary evacuation switch.

13.1.8.2 Activation of the secondary evacuation switch shall enable the lift to be operated in firefighter mode as described in 13.2.2.

13.1.8.3 Only one secondary evacuation switch shall be provided at the Fire Command Centre or at a central manned station. If such a centre is not provided, then the secondary evacuation switch shall be situated at the designated floor next to the lift landing door. This switch shall be similar to the fire lift switch as described in 13.2.1.6. However, the marking on the front cover shall be “Secondary Evacuation Switch”.

8. Page 48, 13.2.1.6 (a)

Replace with the following text:

- (a) A fire lift switch, as described above, shall be provided at the designated floor and alternate designated floor. Activation of either of the fire lift switch shall change the lift control to firefighter mode as described in the subsequent clauses. The other fire lift switch shall be ignored once either one of the fire lift switch is already “ON”.

9. Page 49, 13.2.2 g) ii)

Replace with the following text:

- ii) To enable the fire fighter to change the registered call, the original call will be cancelled once a new call is registered. This is possible only when the position of the lift car is not within the deceleration distance of the new call. When the lift reaches the registered floor, it shall wait with doors fully closed. Power-operated doors shall be opened by continuous pressure on the "Door Open" button. If the button is released prior to the doors reaching the fully opened position, the doors shall automatically reclose. New car calls may be registered again.

10. Page 49, new 13.2.2 (h)

Add the following new text:

- h) The operation of the fire lift switch at the alternate designated floor is similar to above subclauses of 13.2.2 and 13.2.1.6 except that the term "designated floor" shall mean "alternate designated floor". The turning "ON" of either of the fire lift switch first will be given the priority and the other fire lift switch which is turned "ON" later will be ignored. To restore the lift back to normal operation, both fire lift switches at designated and alternate designated floors have to be turned "OFF".

11. Page 50, Figure 3

Replace with the following figure:

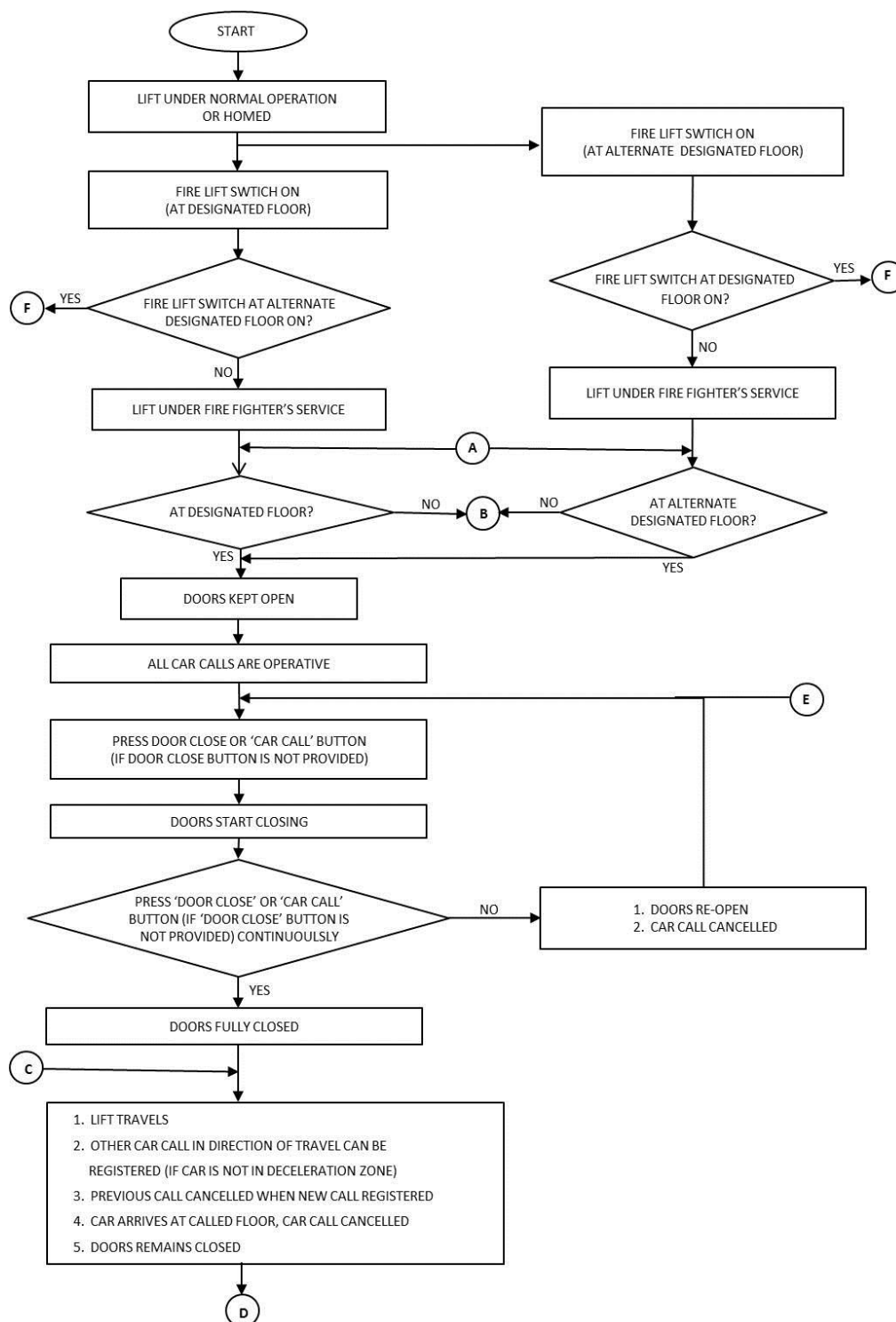


Figure 3 – Fire fighter's service operation Flowchart A

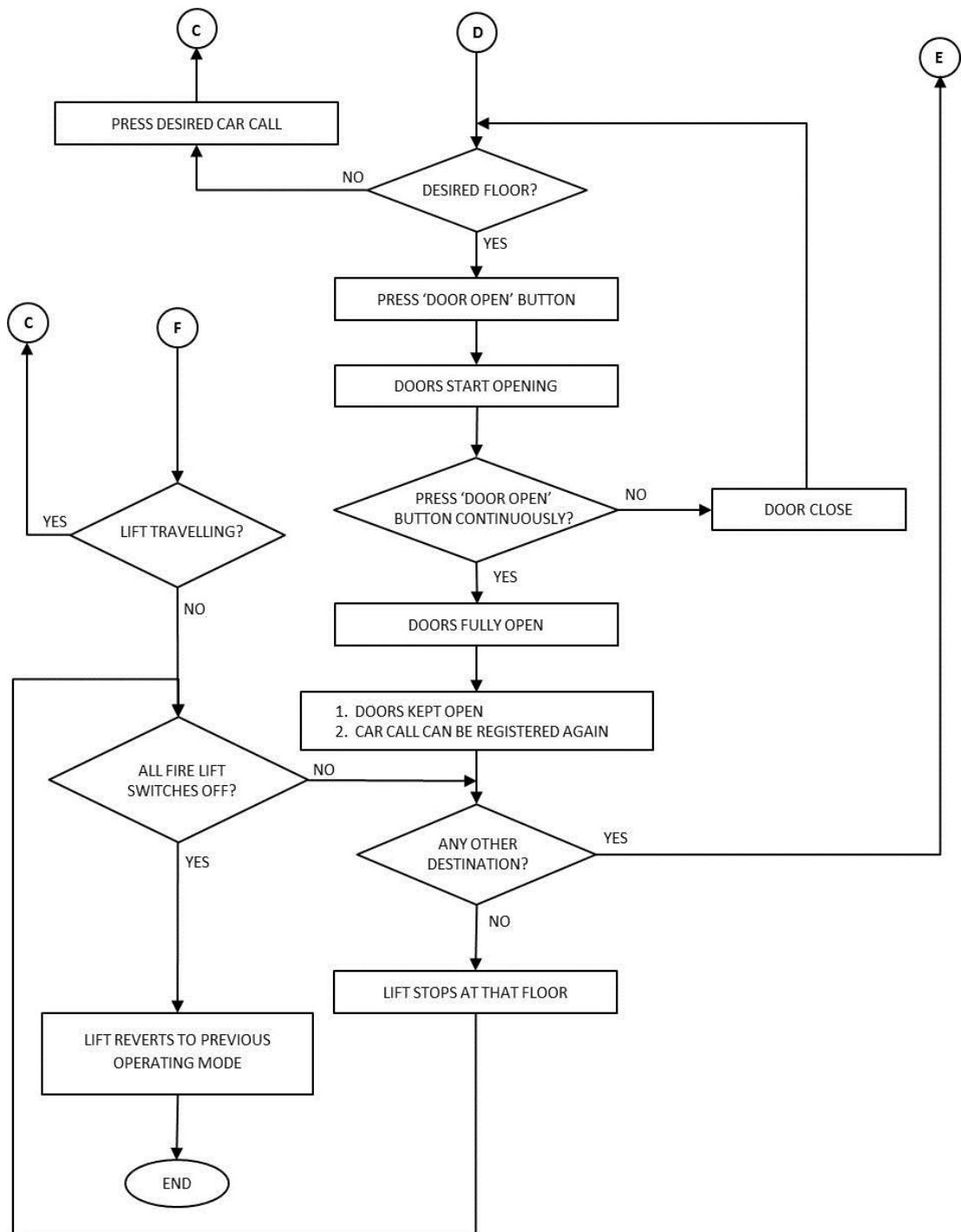
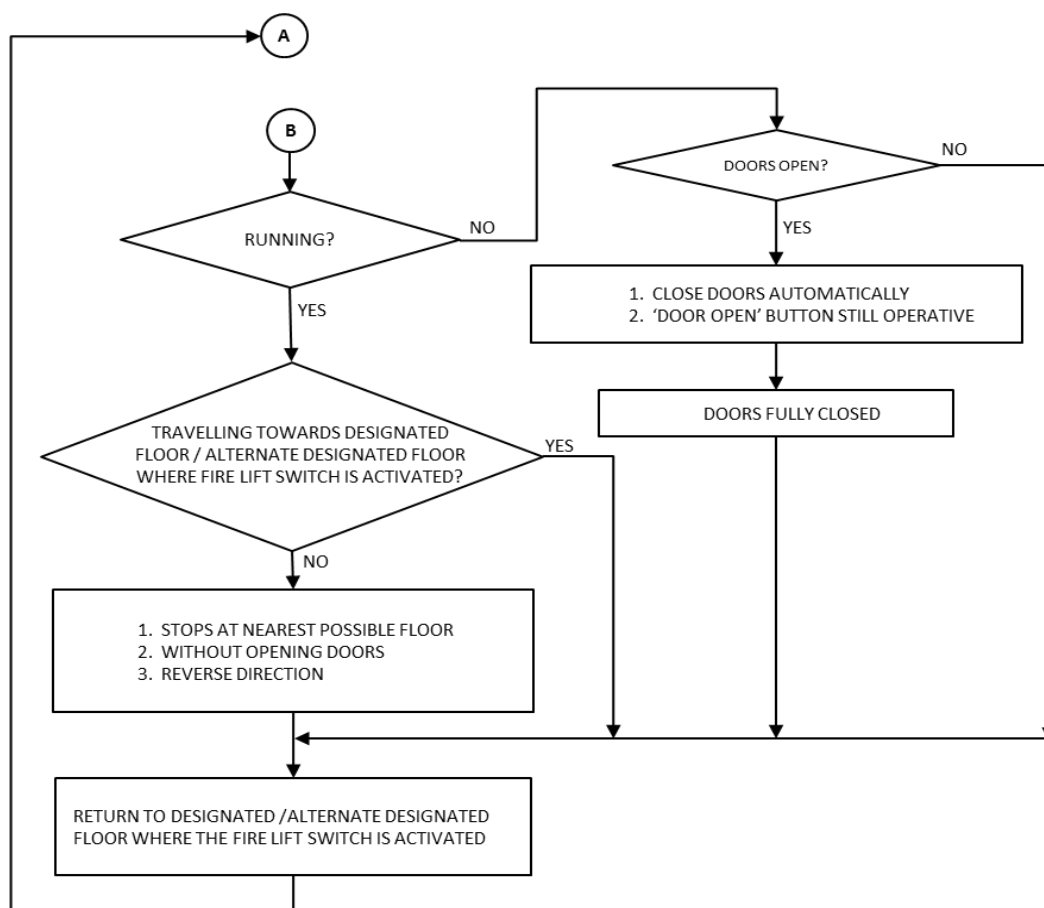


Figure 3 – Fire fighter's service operation Flowchart A (continued)

12. Page 51, Figure 4

Replace with the following figure:



NOTES:

- (1) FIRE LIFT OPERATING MODE SHALL
 - OVERRIDE ATTENDANT CONTROL
 - CUT OUT DOOR RE-OPENING SENSORS THAT ARE SENSITIVE TO LIGHT, FLAME, HEAT OR SMOKE
 - CUT OUT ALL LANDING CALLS
 - CUT OUT ALL INDEPENDENT CONTROL
 - CANCEL ALL REGISTERED CAR CALLS
 - ISOLATE FIRE LIFT FROM COLLECTIVE CONTROL
- (2) STILL OPERATIVE
 - OVERLOAD DEVICE
 - ALL SAFETY CIRCUITS EXCEPT DOOR RE-OPENING SENSORS THAT ARE SENSITIVE TO LIGHT, FLAME, HEAT OR SMOKE
 - CAR TOP CONTROLS
 - FAN/LIGHT
 - ALARM
 - INTERCOM

Figure 4 – Fire fighter's service operation Flowchart B