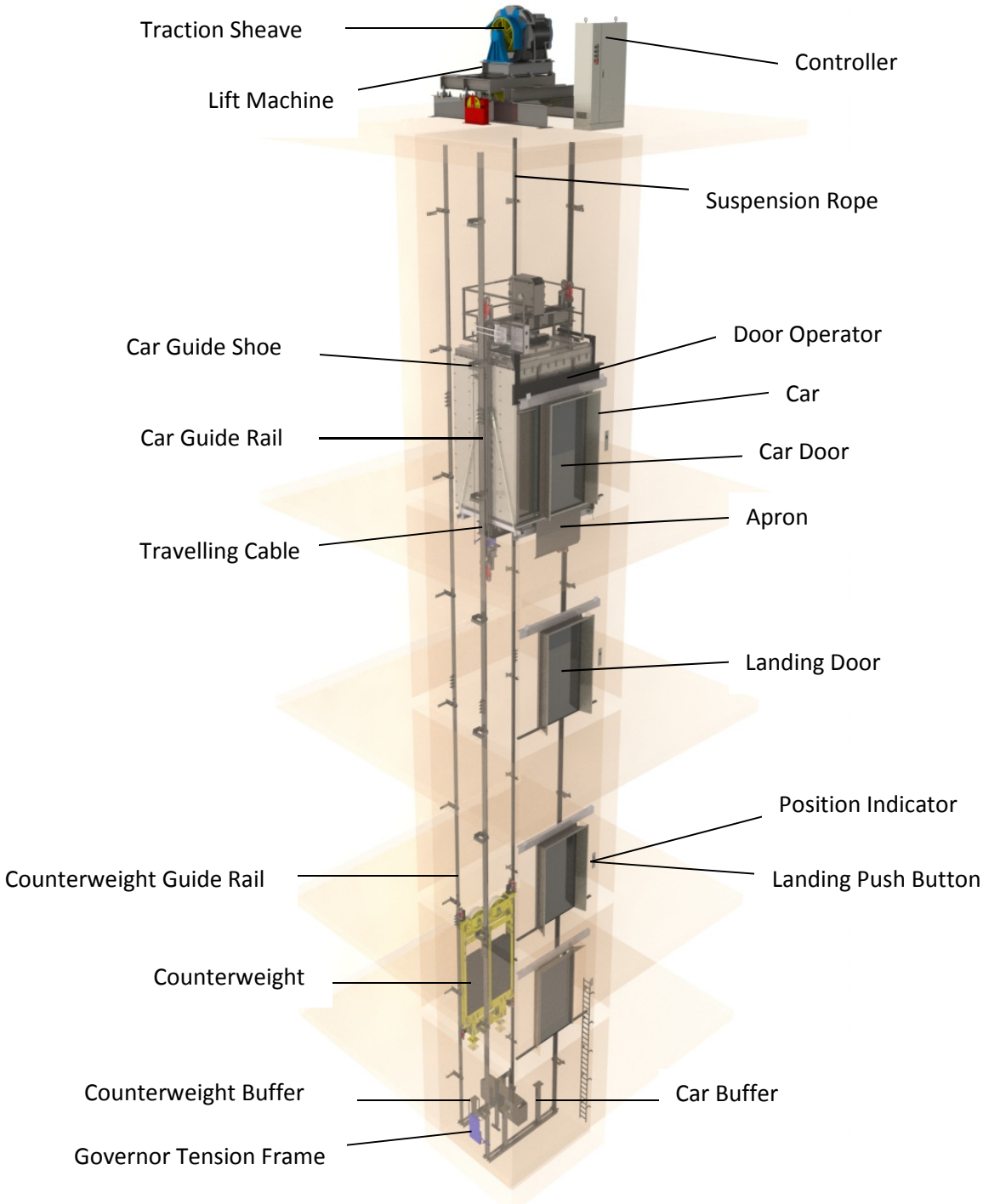
ELEVATOR'S GENERAL FUNCTIONS GUIDE



PART A: Lift Functional of Controller

Empowered with new generator VVVF Controller

Specially developed for AC drive system with closed-loop encoder feedback enables accurate and direct approach landing of the elevator. With PowerControl ™ software the starting curve, drive curve and stopping curve of the elevator can be fine-tuned therefore guarantee the smooth and comfortable starting, riding and stopping of the elevators.

EITA-Schneider (Ver. II) Elevator Control System

The technical collaboration with our German partners ensures EITA Elevator's products are of the international standard in terms of technology, features and reliability. The one-card system uses single PCB with 32-bit microprocessor for the operational control of the elevators.

The Version 2 control system incorporates latest EITA-Schneider Bus system with special 3-pole cable, which applies the concept "connection by penetration". The system has technology advantages over the conventional bus system by eliminating the use of enormous quantity of plug connectors, unsafe connection due to defective connectors, and much faster communication speed as compared to serial communication system. Further, isolating the bus cable from the traveling cable eliminates the interference to the communication between control panel, car operating panel and landing operating panel, thus ensure the safe and accurate operation of the elevators.

PART B: Lift Functional of Motor / Machine

AC Geared Machine with Induction Motor

The geared traction machines are driven by AC electric motors. Geared machines use worm gears to mechanically control movement of elevator cars by "rolling" steel hoist ropes over a drive sheave which is attached to gear box driven by a high speed motor. These machines are generally the beat option for overhead traction use for speeds up to 150 m/min and for the travel height of up to 100m.

Permanent-magnet gearless synchronous machine

The EITA High Speed Elevator is driven with permanent-magnet gearless synchronous motor. Its large torque output at low revolutions resulted in smooth and low noise operation of the elevator. It high efficiency and power factor enables energy saving of up to 30 – 40 % as compared to conventional worm geared machine.

PART C: Standard Lift Functional Control System

Selective Collective Operation

Landing calls are registered and responded by the lift travel at direction of the car or by the lift nearest to the landing call.

Overload non-start

If the load inside the lift car exceeded the rated capacity, the doors will remain open with and audio-visual indication signalling overload conditions.

Full-load bypass

If the load inside the lift car exceeded 80% of the rated capacity, the lift will not answer to all landing calls.

Car Lighting and fan automatic off (energy saving feature)

The car lighting and fan will be switched off automatically after the lift is idling for a pre-determined period of time.

Car arrival chime

An electronic chime sounds to alert waiting passengers of the car's arrival.

Attendant service

When the attendant switch inside the locked service cabinet is switch on, the lift can only be operated from car operating panel. The lift will only start by pressing the door close button until the door is fully closed. If the button is released before the door fully closed, the door will re-open and the lift will not start.

Intercom

Intercommunication between the lift car and lift machine room are provided whereby the passenger inside the lift can communicate with the technician at lift machine room by pressing the intercom button at the car operating panel.

Fire emergency return

When the fire signals are activated, all calls will be cancelled and all elevators will travel to the main fire lobby in sequence and park at the main lobby with the door remain open.

Emergency car lighting

The emergency car lighting will be turned on automatically for the durations of 30 minutes.

Mechanical safety edge

The door will re-open when the safety edge was press indicating the door is obstructed.

Continuity of service

If a car experiencing trouble, it will be removed from the group operation. All hall calls assigned to the lift will be distributed to other lifts, thus ensure the service continuity of the group operations.

Automatic main floor parking

The system will dispersed each lift to their pre-designed floor if the lift was idling for a predetermined period of time.

Phase failure & reversal protection

The elevator will be stopped if phase failure or reversal occurs, thus protecting the controller and motor from damage.

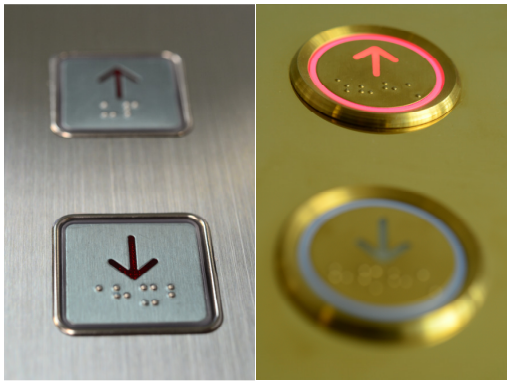
PART D: Optional Lift Functional Control System

Handicap Car Operating Panel (COP)

Encouragement of handicap COP fixture located at side wall to operate the lift easily and convenience.

Beep Sound Push Operating Button

EITA standard push buttons fixture is equipped with handicap braille. Additional beep sound to the push operating button brings the convenience of handicap and friendly user solutions.



Fire rated landing door

Additional protection against fire attack behind of the landing door for fireman operates their rescues work during emergency.

Firemen service

Upon activated by switching on the firemen switch, the lift can only be operated by the firemen from the car operating panel.

Independent service

An elevator can be isolated from the group and operated from the car without interruption.

Advance Door Opening

The door will start to open when the elevator reach the landing zone, thus shorten the waiting time of the passengers.

Intercom to the Security Control Station

Intercommunication between the lift car and the security control station are provided whereby the passenger inside the lift can communicate with the security personnel or building maintenance personnel at the security control station by pressing the intercom button at the car operating panel.

Emergency power operation (EPO)

If building standby generator set is available to operate the lift, the lift will automatically switch to emergency operation using the generator power during main power failure.

Emergency battery operation power supply (EBOPS)

The emergency battery operation power supply will operate the lift car lighting and fan for the duration of 2 hours during the building's main power failure.

Hall arrival gong

An electronic gong sound to alert waiting passenger at the lift lobby of the car's arrival.

Light Curtain

Full length infra-red door safety screen can be provided, whereby the door will re-open when there is an object obstructing the light ray from reaching the detector.

Anti-Nuisance operation

This feature helps to avoid unnecessary movement of the elevator caused by mischievously or erroneously registered car calls.

Door Nudging Device

Audible warning will be activated if the lift door was remained open for a pre-determined period of time.

Automatic re-levelling

This allows the lift car to re-level slowly while the doors remain open in the landing zone.

Priority Travel

A key switch is provided at a designed floor. When activated, the elevator is isolated from the group operation, comes directly to that floor and can only be operated from the car operating panel.

Tele-diagnosis

Via modem and telephone line the controller can be accessed through our central service facility to monitor the status of elevators, and to diagnose and troubleshooting.

Remote elevator management system (REMS)

The remote elevator management system (REMS) utilised the building's analogue key-phone extension for the data transmission via modem to the computer display in your control room.

Automatic Rescue Device (ARD)

Advanced safety detecting technology such as light curtain door and various safety controller functions offers a fail-safe operation. The ARD enables the lift to automatically land at the nearest floor and the door will then open to allow passenger to be disembarked quickly and safely during a power failure.