

## OPERATING SYSTEMS & FUNCTIONS

### OPERATING SYSTEMS

Legend
STD: Standard
OPT: Optional

No.	Name	Description	VFI	HVF	UAG	OVF	F-EL
1	Collective control (CCTL)	This is a fully automatic operation used for a single elevator system. Hall calls in the direction in which the elevator is travelling are responded to sequentially and when all calls in that direction are cleared, calls in the opposite direction are responded to. When there are no more calls, the elevator will stop at the last floor served.	STD	STD	STD	STD	STD
2	Duplex collective control (DCTL)	This is a fully automatic operation used for a two-elevator system. Hall calls are responded to by whichever elevator that can serve the hall call faster. When there are no more calls, one of the elevators will stand-by at the start floor while the other elevator will stay at the last	OPT	OPT	OPT	OPT	OPT
3	Group control	FI-16 This is a group control system used to operate three or more elevators operating in a group. This system uses the MIN-MAX call assignment control to reduce waiting time by forecasting waiting time and distributing it evenly to all the elevators in the group.	OPT	OPT	OPT	OPT	N.A.
4	See "FI Series Group Supervisory Control Functions" for more details.	FI-320 For this system, two microprocessors are incorporated - one having learning abilities and the other having intelligence functions. This system can respond precisely and quickly to changes in the traffic flow by generating new programs.	OPT	OPT	OPT	OPT	N.A.
5	Down collective control (DWCC)	For this system, all floors have "down" call buttons only, except for the start floor, where there is "up" call button only. The other operations are the same as in selective-collective and duplex selective-collective operations.	OPT	OPT	OPT	OPT	N.A.
6	Attendant operation (ATT)	For this system, the stop floor is manually set by an attendant, such as in a department store.	OPT	OPT	OPT	OPT	OPT
7	Independent operation (INOC)	This operation system is used when there is a need to serve special passengers. Under this operation, no one is allowed to use the elevator from the hall call and the elevator is meant for exclusive use.	OPT	OPT	OPT	OPT	OPT

### SAFETY FUNCTIONS

Legend
STD: Standard
OPT: Optional

No.	Name	Description	VFI	HVF	UAG	OVF	F-EL
1	Door safety edge (both sides) (DSEB)	Mechanical safety units are installed on both sides of the elevator doors. In the event of passengers coming into contact with the safety edges of closing doors, the doors will immediately reopen.	STD	STD	OPT	STD	STD
2	Door safety return system (ORS)	In the event of door overload, such as when passengers get their fingers, hands or personal belongings caught in the door, this system automatically senses this and either re-closes or re-opens the doors to prevent injury.	STD	STD	STD	STD	STD
3	Communication system (CMNS)	An interphone system between the elevator and the master unit (in the supervisory panel, etc.) is provided for emergency communication purposes.	STD	STD	STD	STD	STD
4	Car emergency lighting (CEML)	In the event of a power failure, an emergency light inside the elevator will be automatically activated.	STD	STD	STD	STD	STD
5	Nearest landing operation (NLNO)	In the unlikely event of temporary trouble during operation, the elevator automatically goes to the nearest floor at a low speed to prevent passengers from being trapped inside.	STD	STD	STD	STD	STD
6	Overload detection system (OLDS)	In the event of overloading, this system will activate an audio/ visual signal to prevent the elevator from moving when it is overloaded.	STD	STD	STD	STD	STD
7	Multi-beam door sensor (MBDS)	In the event that the beam paths are obstructed, this sensor, installed at the edge of the doors, will keep the doors open.	OPT	OPT	STD	OPT	OPT
8	3D door safety device (3DDS)	This device detects passengers getting on or off the elevator, keeping the doors open as long as passengers are within the area of detection.	OPT	OPT	OPT	OPT	OPT
9	Abnormal speed protection function (ASPF)	In the event that the elevator is moving downwards at an abnormally high speed, power supply will be cut off automatically.	STD	STD	STD	STD	STD
10	Out of door-open zone alarm (ASOZ)	In the event that the elevator stops out of the door open zone of a selected floor, doors will not open, and an alarm will be sounded in the elevator.	STD	STD	STD	STD	STD

## EMERGENCY OPERATIONS

Legend
STD: Standard
OPT: Optional

No.	Name	Description	VFI	HVF	UAG	OVF	F-EL
1	Emergency earthquake operation (EEMO)	In the event that an earthquake is detected, the elevator will stop at the nearest floor. (This function is not applicable to private lobby layout buildings.)	OPT	OPT	OPT	OPT	OPT
2	Fire emergency operation (FEMO)	In the event of fire, the elevator is automatically brought to the designated floor where it remains inoperative for passengers' safety.	OPT	OPT	OPT	OPT	OPT
3	Emergency operation for power failure by building standby generator (EPFO)	In the event of building power failure, the elevator can be operated by the building standby generator to move the elevator to the designated floor.	OPT	OPT	OPT	OPT	OPT
4	Automatic rescue device for power failure (ALP)	In the event of power failure, this system automatically switches to battery power to bring the elevator to the nearest floor. (This function is not applicable to private lobby layout buildings.)	OPT	OPT	OPT	OPT	N.A.
5	Fireman operation (FMNO)	In the event that the fireman switch is turned on, the elevator returns to the designated floor and will be ready for firemen's use.	OPT	OPT	OPT	OPT	N.A.

## SERVICE FUNCTIONS

Legend
STD: Standard
OPT: Optional

No.	Name	Description	VFI	HVF	UAG	OVF	F-EL
1	Mischiefous call cancellation (MCCC)	In the event that a large number of calls is registered by a small number of passengers, the calls are determined to be mischiefous and will be automatically cancelled upon responding to the next call. This thus eliminates unnecessary stops.	STD	STD	STD	STD	STD
2	Door time adjustment (DTAD)	The duration of the door open timing is tailored to usage conditions, substantially improving operational efficiency.	STD	STD	STD	STD	STD
3	Floor "deselect" function (FDSF)	This function allows you to cancel the selection of a floor you have pressed by mistake by pressing the button again. (This thus eliminates unnecessary stops.)	STD	STD	STD	STD	STD
4	Automatic return function (ARTF)	After all the calls have been served, the elevator will return to the start floor for stand-by.	STD	STD	STD	STD	STD
5	Door open prolong button (DOPB)	In the event that this button on the car operation board is pressed, the elevator doors remain open for a pre-set period of time.	OPT	OPT	OPT	OPT	OPT
6	Automatic Bypass Operation (ABPO)	In the event that the elevator is fully loaded, this operation will not respond to any hall calls and will only respond to the car calls.	OPT	OPT	OPT	OPT	OPT
7	Sub-operating panel (SOPB)	Additional floor selection and door open/ close buttons are located on the opposite side of the main operating panel in the elevator. This will be extremely convenient during rush hours.	OPT	OPT	OPT	OPT	OPT
8	Keypad sub-operating board (KSOP)	In order to comply to the code of practice for button height, especially for high-rise buildings, individual car call buttons can be replaced by a keypad system.	OPT	OPT	OPT	OPT	OPT
9	Voice synthesizer (VSYs)	Preset standard messages are announced to the passengers by a voice synthesizer.	OPT	OPT	OPT	OPT	OPT
10	Arrival signal (ASGN)	An electronic chime (located at the top and bottom of the elevator) will be sounded just before the arrival of the elevator.	STD	STD	STD	STD	STD
11	BGM speaker (BGMS)	A speaker for background music and public announcements for the building.	OPT	OPT	OPT	OPT	OPT

**MANAGEMENT FUNCTIONS**

<b>Legend</b>
STD: Standard
OPT: Optional

No.	Name	Description	VFI	HVF	UAG	OVF	F-EL
1	Automatic turn-off of elevator light and fan (ATFL)	In the event that the elevator is not in use, the light and ventilation fan in the elevator are automatically turned off to conserve energy.	STD	STD	STD	STD	STD
2	Maintenance operation (MTNO)	In the event of elevator maintenance being performed, the elevator operates at a lower speed.	STD	STD	STD	STD	STD
3	Parking operation (PKGO)	The elevator can be parked at the designated floor with a key switch.	OPT	OPT	OPT	OPT	OPT
4	Rush-hour schedule operation (RHSD)	By programming the rush-hour time, all the elevators automatically return to the start floor during rush hour, after serving the last call.	OPT	OPT	OPT	OPT	N.A.
5	Floor lock-out operation (FLLO)	Specific service floors can be locked-out by activating the switch.	OPT	OPT	OPT	OPT	OPT
6	Floor lock-out operation by Cipher code (ROCC)	By inputting the pre-programmed code on the car operating board floor buttons, only restricted passengers can gain access to certain floors.	OPT	OPT	OPT	OPT	N.A.
7	Intelligent operation security system (IPSS)	This function allows controlled access to certain floors by means of a password or ID cards. Note: Keypad or ID card-reader system is to be provided and installed by others, interfacing shall be by means of dry (voltage-free) contacts.	OPT	OPT	OPT	OPT	N.A.
8	Closed-circuit TV (CCTV)	This device enables the security personnel to monitor the movement inside the elevator. This will be effective in preventing criminal and mischievous acts inside the elevator.	OPT	OPT	OPT	OPT	OPT
9	Supervisory panel (SVP)	This panel provides various supervisory operations, communication, and status monitoring.	OPT	OPT	OPT	OPT	OPT
10	Graphic monitor system (SVPC)	This system shows the real time situation of the elevators such as the elevator position, movement direction and abnormal operation on the PC (Personal Computer) display. It is also possible to turn on/ off the elevators and change the service floors of the elevators using the PC.	OPT	OPT	OPT	OPT	OPT
11	Travel times indicator function (TTIF)	This indicator at the control panel shows the accumulated travel times of the elevator.	OPT	OPT	OPT	OPT	OPT