# TOSHIBA

Toshiba Compact Machine Room Elevators
Standard Passenger Elevator

# ELCOSMO-Ⅲ

For Singapore standard

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| 3rd Edition | **For Singapore standard** |
|---|---|

**＊Revised publication effective Jun. 2023**

| **Safety Cautions** | • Observance of relevant laws / regulations are required. |
|---|---|
| | • Read the entire "Instruction Manual" carefully before use, for important information about safety, handling and operation. |

## TOSHIBA

**Toshiba Elevator and Building Systems Corporation**

**72-34, Horikawa-cho, Saiwai-ku, Kawasaki
212-8585, Japan**

Please enter the contents from the "Inquiry Input Form" in website.
**https://www.toshiba-elevator.co.jp/elv/infoeng/**

• **The data given in this catalog are subject to change without notice.**

# THE SOLUTIONS

## COMPANY SOLUTIONS

Toshiba Elevator and Building Systems Corporation has built a framework which encompasses all aspects from system development to production, sales to marketing, installation, adjustment, maintenance and services in order to provide clients with the highest quality products and services.

Utilizing the comprehensive technological infrastructure developed by Toshiba Group in more than 140 years since its foundation, we aim to enhance the leading edge technology and quality that we used to develop the ultra high speed elevator, harnessing Toshiba's technological innovations to their fullest extent. To meet clients' expectations and requirements for safe and pleasant elevators as well as constantly pursuing further innovation and improvement. Furthermore, we are aiming to strengthen system development, production, enhancing sales channel and sales partnership to expand in the global market.

## CONCEPT of ELCOSMO-III

Toshiba manufactures elevators by applying the latest technology and improved elevator development skills. ELCOSMO-III, the most recent high-end compact machine room elevator, which incorporates various technologies to save energy and time, contributes to global environment.

### ■ Product Line-up

Expanded the applicable speed of the ELCOSMO-III.
We can comply with various needs such as building use, layout design, etc.

| Scope of specification | Range of application |
|---|---|
| Passenger | 8 ~ 30 persons |
| Rated load | 630 ~ 2250 kg |
| Rated speed | 1.0 ~ 4.0 m/s |

Note1: Applicable range of rated speed 3.5 or 4.0m/s are rated load 900 or 1000kg only.
Note2: Applicable range of rated load 2250kg are rated speed 2.0m/s or less.
Note3: The above scope complies with SS550:2020 standard.

Rated speed (m/s): 4.0, 3.5, 3.0, 2.5, 2.0, 1.75, 1.5/1.6, 1.0

**ELCOSMO-III**

| Rated load (kg) | 630 | 825 | 900 | 1000 | 1050 | 1150 | 1275 | 1350 | 1600 | 1800 | 2000 | 2250 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Type | P8 | P11 | P12 | P13 | P14 | P15 | P17 | P18 | P21 | P24 | P26 | P30 |

## Contents

# TECHNOLOGY



High-performance small sized
PMSM traction machine

High-performance door motor

New lightweight car

Control system

Energy regeneration system
OPTIONAL

LCD lndicator OPTIONAL

Doors are opening.

LED lighting

PRM-1

ELCOSMO-III system image
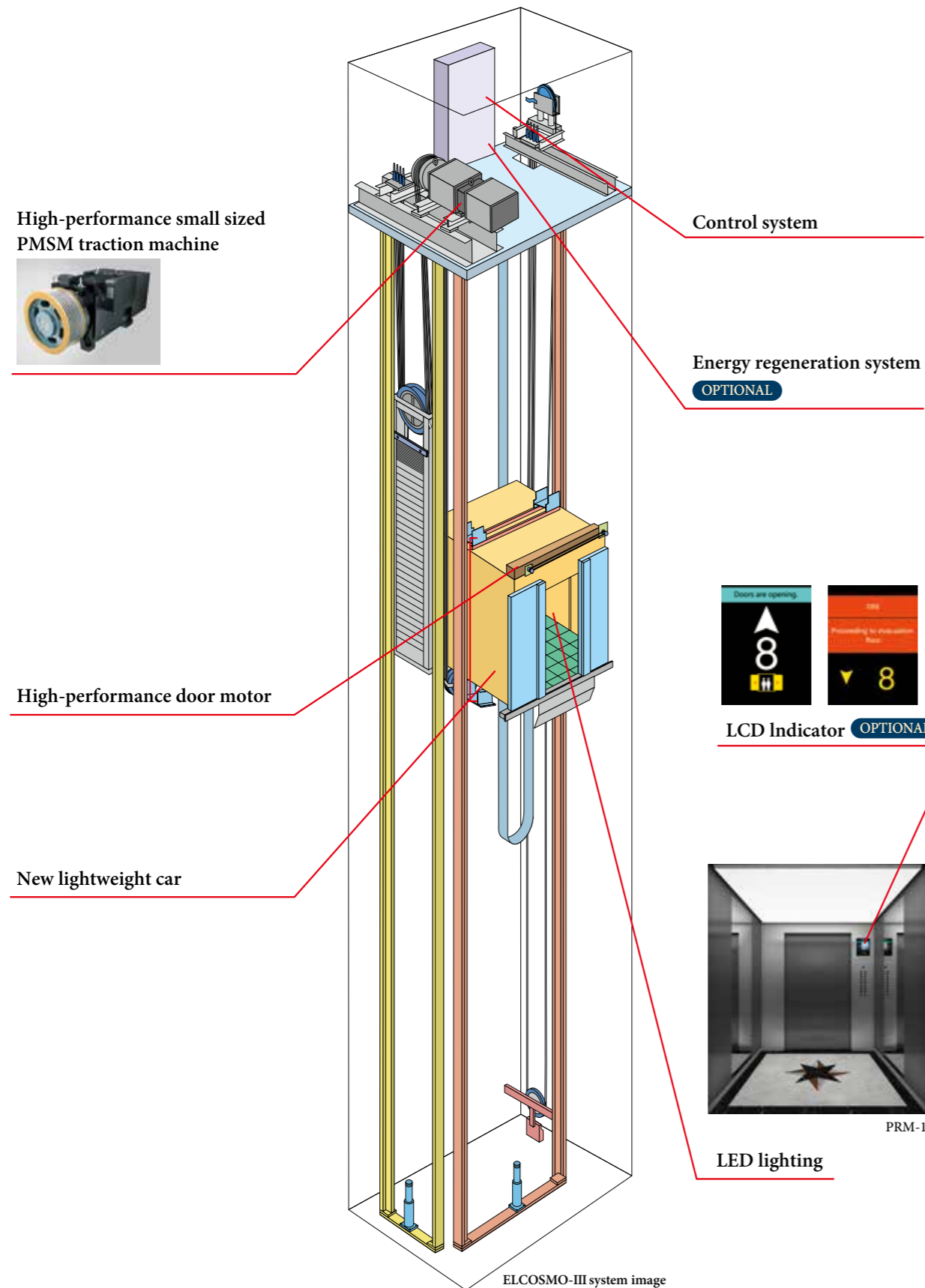
The actual product colors may vary slightly from those printed colors in this catalog.

# New Technology

## High-performance Small Sized PMSM Traction Machine

◆ Compact PMSM (Permanent Magnet Synchronous Motor) for space saving.
◆ Over 30% less power consumption (compared to conventional electric motor).
◆ Gearless traction without gear oil for low vibration, low noise and better environmental conservation.

## High Performance Control Systems

A high performance CPU is adopted for control systems.  This control system enables to reduce standby electricity, automatic shutoff system for lightings and ventilation to contribute furthermore reduction of electricity.

## Energy Regeneration System OPTIONAL

An energy regeneration device feeds energy back to the power grid while the traction machine is under power generation to achieve high-efficiency energy utilization, which results in over 38% energy conservation (with the assumption of 1050kg, 1.75m/s, 12-hour operation per day, 25 days per month).

Building

Energy
Regeneration
System
OPTIONAL

Elevator System
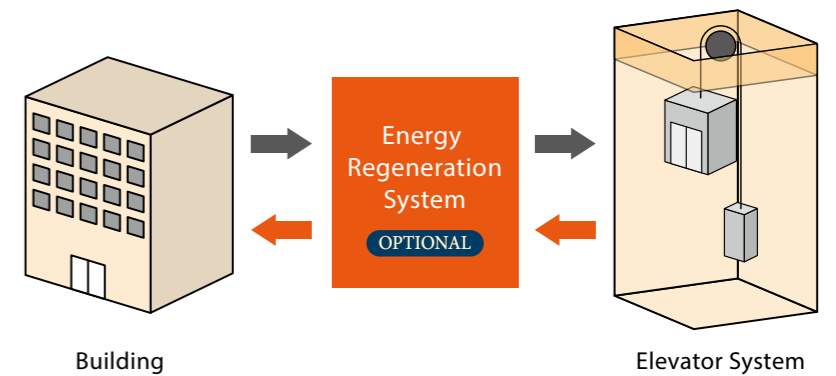
## Use of Roller Guide

A roller guide is used instead of a conventional sliding guide shoe. Features include:
◆ Comfort: Using the successful vibration damping solution from the high-end elevator type, riding comfort is further improved after roller guide is mounted on the car.
◆ High efficiency: Visible improvement of the mechanical efficiency with lower friction and energy consumption.
◆ Environmental conservation: Lubrication oil and lubrication unit are eliminated and replaced by a long-life rubber roller to reduce environmental pollution.
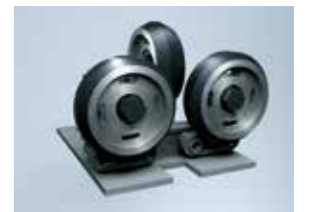
＊This optional system may not be suitable for certain buildings. Please contact us for more information.

# TECHNOLOGY

## Safety Function

### Unintended Car Movement Protection

A traction drive elevator shall include means to prevent uncontrolled movement of the elevator away from the landing with neither the landing nor the car doors in the locked position. The Elevator shall detect uncontrolled movement of the car away from the landing and stop no more than 1200mm after as measured from the landing floor sill. Before operation, the uncontrolled car movement protection system means for an ascending elevator, the clearance between the landing door floor sill and the apron of the stopped elevator shall not exceed 200mm. In additional, uncontrolled movement protection means the horizontal distance between the sill or entrance frame of the stopped elevator and the wall of the well, from the landing floor sill to 1200mm downward for a descending elevator.

### Car Door Lock  OPTIONAL

Every car door shall be mechanically locked by at least 7mm such that it can only be opened in the unlocking zone of a landing. The lift operation shall automechanically depend on the locking of the car door. This locking shall be proved by an electrical safety device to confirm the horizontal distance between the well wall and the sill or entrance frame of the car is within150mm.

### Ascending Car Overspeed Protection

A device to prevent an elevator ascending to the elevator shaft top beyond the rated speed due to a device like an electromagnetic brake or control unit. It monitors the speed of the upper direction mechanically by a governor, then cut off the power supply and safety circuit by an overspeed detecting switch when the speed exceeds the rated speed more than 1.3 times. The elevator shall be stopped by triggering the double brake when overspeed occurred.

### 2-in-1 door safety

(multi-beam door safety + mechanical door safety)
A combination of multi-beam door safety and mechanical door safety.

＊Image of Multi-beam Door Safety

| Full open (Getting off) | Full open (Getting on) | Closing |
| --- | --- | --- |
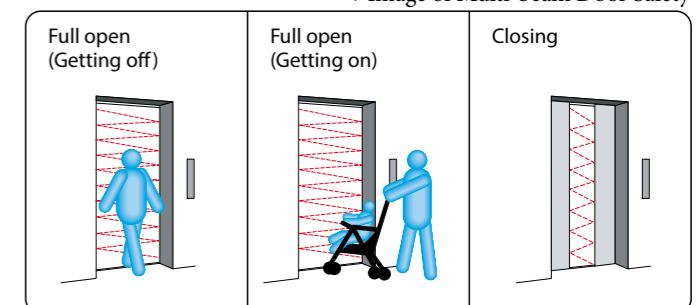
# TECHNOLOGY

# Safety Function

## Automatic Landing in Power Failure
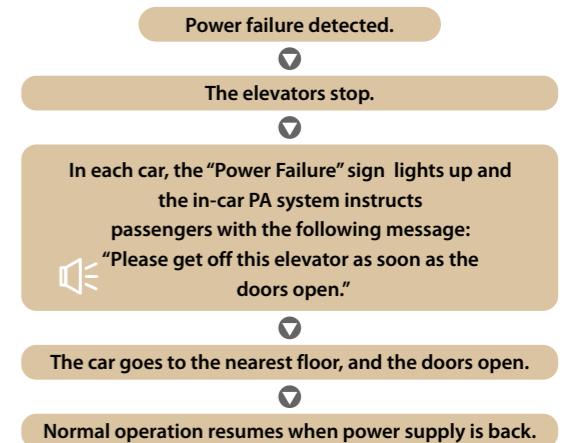**OPTIONAL**

In case of a power failure, backup lamps are automatically lighted up in the cars, while the system's operation is switched to the elevator system's own battery powered inverter. Cars stranded between floors are taken to the nearest floor; otherwise, doors are opened and passengers are let out. The doors automatically open in case the car stops at any point that is not between floors but where the doors can be opened. (Note: Overridden by any similar backup or safety systems installed in compliance with safety codes.)
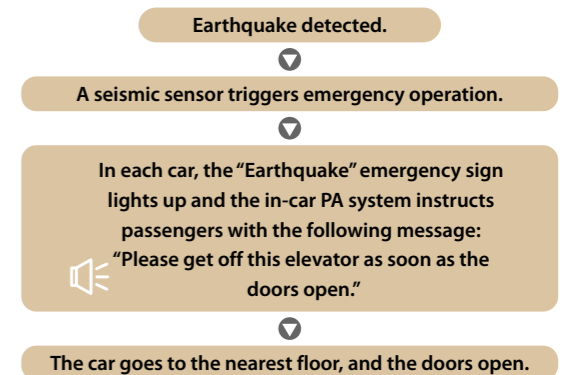
> **Power failure detected.**
> ⌄
> **The elevators stop.**
> ⌄
> In each car, the "Power Failure" sign lights up and the in-car PA system instructs passengers with the following message:
> "Please get off this elevator as soon as the doors open."
> ⌄
> **The car goes to the nearest floor, and the doors open.**
> ⌄
> **Normal operation resumes when power supply is back.**

※Above flowchart is representable example

## Earthquake Emergency Operation
**OPTIONAL**

When the system's seismic sensor installed in the elevator shaft detects an S-wave (the secondary seismic wave and the main shock of an earthquake) that exceeds the pre-set threshold, the system takes control with emergency procedures. "Earthquake" emergency signs lighted up in all cars, all cars are taken immediately to the nearest floor, doors are opened and passengers are instructed to alight.
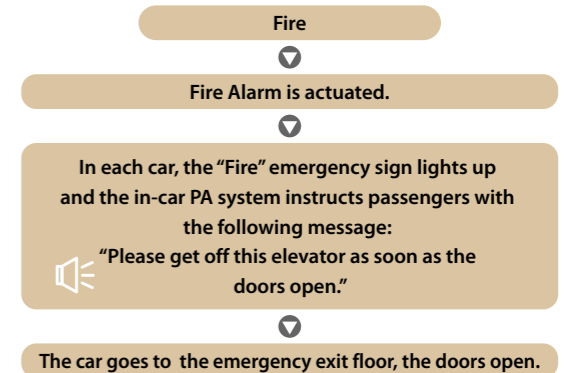
> **Earthquake detected.**
> ⌄
> **A seismic sensor triggers emergency operation.**
> ⌄
> In each car, the "Earthquake" emergency sign lights up and the in-car PA system instructs passengers with the following message:
> "Please get off this elevator as soon as the doors open."
> ⌄
> **The car goes to the nearest floor, and the doors open.**

※Above flowchart is representable example

## Fire Emergency Operation
**OPTIONAL**

This emergency operation is automatically triggered in case of a fire, when a fire alarm button is actuated, or when a Fire/Smoke Detector detects an abnormality. All hall calls and floor selections are cancelled, passengers are informed of the emergency procedure with a "Fire" sign and a voice announcement and all cars are sent directly to the emergency exit floor. Doors open at the emergency floor and passengers are guided to safety.

> **Fire**
> ⌄
> **Fire Alarm is actuated.**
> ⌄
> In each car, the "Fire" emergency sign lights up and the in-car PA system instructs passengers with the following message:
> "Please get off this elevator as soon as the doors open."
> ⌄
> **The car goes to the emergency exit floor, the doors open.**

※Above flowchart is representable example

# TECHNOLOGY

## Energy Saving & Environment

### Toshiba Group and the SDGs

The main plank of the "Toshiba Group Basic Commitment" is "Committed to people, Committed to the Future.". This expresses Toshiba Elevator and Building Systems is unwavering determination to contribute to the development of society through its business, and is consistent with the direction of the SDGs, which aim to realize a sustainable society. Acting in good faith in our daily activities, and with a passion to make the world a better place, looking to the future beyond the next generation, and to create that future with our stakeholders-inspired by these ideas, Toshiba Elevator and Building Systems has and will continue to bring together the creativity and technological capabilities it has cultivated to confront social issues that are becoming more complicated and serious, and to turn on the promise of a new day.

Note：Toshiba Elevator and Building Systems is working on business activities by extracting 11 items that can be promoted from all 17 types of SDGs goals.



### Products and functions adopted to reduce power consumption

Suppress power consumption by reducing standby power, commercialization of the regenerative power function, adoption of LED lighting.

### LED Lightings

Under equal brightness, an LED lighting system only consumes 10% of electrical with comparison of an incandescent lamp and 50% of an fluorescent lamp. (part of the ceiling)



PRM-1

# TECHNOLOGY

# Energy Saving & Environment

## Providing environmentally conscious products

Toshiba elevator group is promoting the development of environmentally conscious products, which involves environmentally conscious product design, assessing the environmental impact of products and disclosing the environmental performance of products. Products are developed in compliance with the updated voluntary environmental performance standards.

### Product assessment and voluntary environmental standards for products

In developing products, we assess them across their life cycles from manufacturing, logistics and use to disposal and recycling to conduct product development and reduce the environmental impacts on the global environment.

Whereas product assessment is used to confirm the minimum necessary environmentally conscious requirements for product development, Voluntary Environmental Standards for Products have been established in the Toshiba elevator group to create highly environmentally friendly products and products complying with the same are released as environmentally conscious products.

## Reducing hazardous materials

[Reduction of lead use]
By changing the method of tying rope, the use of lead can be eliminated or reduced.

[Employing LED lightings]
By employing LED light, various materials used for light became mercury free.

## Lead-free Design of Base Plate, RoHS Compliance and Elimination of Specific Chemical Substances (15 Classifications)

Continuous concern over RoHS compliance, eliminating 15 classifications of specific chemical substances and using the lead-free technique for main circuit boards.

# Expansion of variations in car ceiling design

Suitable for harmonization of a wide variety for building applications and concepts.
Expanding the lineup of ceiling designs utilizing LED lighting
All ceiling lighting uses LED lighting to take environmental measures such as long life and energy saving.

STANDARD

| | |
|---|---|
| SL-P1 | SL-1 |

OPTIONAL

| | | |
|---|---|---|
| DLX-31 | DLX-28 | DLX-27 |
| DLX-25 | DLX-24 | DLX-23 |
| DLX-22 | DLX-21 | PRM-1 |
| PRM-2 | TL-1 | TL-S2 |
| TL-S1 | DLC-1 | |
| SL-3X | SL-V1 | |

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# Car Design

## OFFICE

OPTIONAL

# PRM-1

Front view



Back view



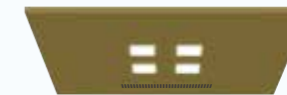| | |
|---|---|
| Ceiling design | PRM-1<br>Light shade (Ceiling entire surface) |
| Car side panel<br>(Return panel) | Vibration finish stainless steel |
| Car side panel<br>(Side panel) | Black color hairline finish stainless steel<br>and Mirror finish stainless steel |
| Car side panel<br>(Rear panel) | Black color hairline finish stainless steel<br>and Mirror finish stainless steel |
| Kick plate | Hairline finish stainless steel |
| Car door | Black color hairline finish stainless steel |
| Car floor | Marble (JQ-1013) |
| COP | POP-G1L-104C |
| Button | KB-3A |
| Indicator | 10.4 inch Color LCD |
| Remark | Applies to models with a capacity of<br>1150kg or more. |

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## Design variations

The publication of this page is an example of design.
Please refer to the "DESIGN SELECTION" catalog for each the condition and other designs.

OPTIONAL
### PRM-2



OPTIONAL
### TL-S2



OPTIONAL
### DLC-1



OPTIONAL
### SL-3X



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# Car Design

## RESIDENCE

# DLX-27

Front view

Front side view



| Ceiling design | DLX-27 Hairline finish stainless steel (Central part：Mirror finish stainless steel） |
|---|---|
| Car side panel (Return panel) | Hairline finish stainless steel |
| Car side panel (Side panel) | Hairline finish stainless steel |
| Car side panel (Rear panel) | Hairline finish stainless steel |
| Kick plate | Nil |
| Car door | Hairline finish stainless steel |
| Car floor | Vinyl tile (MID809) |
| COP | POP-G1NL |
| Button | GS-6A-BT |
| Indicator | LED segment |
| HCOP | HCOP-G1D（Button：UB-1） |

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## Design variations

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OPTIONAL
### DLX-25



OPTIONAL
### TL-1



OPTIONAL
### DLX-21



OPTIONAL
### SL-P1



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# Car Design

## HOTEL

# DLX-31

Front view

Back view

| Ceiling design | DLX-31<br>Hairline finish stainless steel |
|---|---|
| Car side panel<br>(Return panel) | Black color mirorr finish stainless steel |
| Car side panel<br>(Side panel) | Black color mirorr finish stainless steel<br>and Mirror etching finish stainless steel<br>（DZ-008） |
| Car side panel<br>(Rear panel) | Black color mirorr finish stainless steel<br>and Mirror etching finish stainless steel<br>（DZ-008） |
| Kick plate | Nil |
| Car door | Mirror etching finish stainless steel（DZ-008） |
| Car floor | Marble（JQ-1012） |
| COP | POP-G1L-57B |
| Indicator | 5.7 inch Color LCD |
| Handrail | Nil |

## Design variations

The publication of this page is an example of design.
Please refer to the "DESIGN SELECTION" catalog for each the condition and other designs.

OPTIONAL
### DLX-24

OPTIONAL
### SL-V1

OPTIONAL
### DLC-1

STANDARD
### SL-1

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# Car Design

 SHOP

OPTIONAL
## DLX-22

Front view



Back view



| Ceiling design | DLX-22<br>Hairline finish stainless steel |
|---|---|
| Car side panel<br>(Return panel) | Vibration finish stainless steel<br>and Mirror finish stainless steel |
| Car side panel<br>(Side panel) | Vibration finish stainless steel<br>and Mirror finish stainless steel |
| Car side panel<br>(Rear panel) | Vibration finish stainless steel |
| Kick plate | Nil |
| Car door | Mirror finish stainless steel |
| Car floor | Marble (JQ-1013) |
| COP | POP-G1L-57B |
| Button | KB-7B |
| Indicator | 5.7 inch Color LCD |

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## Design variations

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Please refer to the "DESIGN SELECTION" catalog for each the condition and other designs.

OPTIONAL
SL-P1



OPTIONAL
DLX-28



OPTIONAL
DLX-23



OPTIONAL
TL-S1



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# Hall Design

## Hall Decoration Item Variation

The combination of elevator hall equipment and specifications extends design.
It can be easily harmonized with the entrance design of the building.

Hall design 2
OPTIONAL

Hall design 3
OPTIONAL

Hall design 4
OPTIONAL

Hall design 5
OPTIONAL

Hall design 6
STANDARD

Hall design 7
OPTIONAL

## Hall design 1    OPTIONAL

| | |
|---|---|
| *Hall jamb* | Wide inclined type<br>Vibration finish stainless steel |
| *Hall Transon* | Vibration finish stainless steel |
| *Hall Door* | Vibration finish stainless steel |
| *Hall Indicator /*<br>*Hall Button* | HIB-G1L-43B |
| *Button* | KB-1A |
| *Hall Lantern* | HL-G1 |

HIB-G1L-43B          HL-G1-O

Note : In the case of jamb with transom, fire-proof specification cannot be applied to the transom.

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# Hall Design

## Hall design 2 <span>OPTIONAL</span>

| | |
|---|---|
| *Hall jamb* | Wide inclined type<br>Mirror finish stainless steel |
| *Hall Door* | Mirror etching finish stainless steel（DZ-018） |
| *Hall Indicator* | HI-G34-O |
| *Hall Button* | HB-G1K |
| *Button* | KB-1B |

HB-G1K          HI-G34-O

## Hall design 3 <span>OPTIONAL</span>

| | |
|---|---|
| *Hall jamb* | Wide inclined type<br>Hairline finish stainless steel |
| *Hall Door* | Hairline finish stainless steel |
| *Hall Indicator* | HI-G1 |
| *Hall Button* | HB-G1 |
| *Button* | GS-3LB |
| *Other* | Hall Emergency Operationg Panel |

HB-G1          HI-G1

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25                    26

The actual product colors may vary slightly from those printed colors in this catalog.

26

# Hall Design

## Hall design 4  OPTIONAL

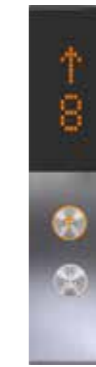| | |
|---|---|
| *Hall Jamb* | Wide inclined type<br>Hairline finish stainless steel |
| *Hall Door* | Painted steel panel (77GS) |
| *Hall Indicator /*<br>*Hall Button* | HIB-G1NL-O |
| *Button* | GS-7B-B |

HIB-G1NL-O

## Hall design 5  OPTIONAL

| | |
|---|---|
| *Hall Jamb* | Narow type<br>Hairline finish stainless steel |
| *Hall Door* | Hairline etching finish stainless steel (DZ-007) |
| *Hall Indicator/*<br>*Hall Button* | HIB-G1N-O |
| *Button* | NB-1B |

HIB-G1N-O

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# Hall Design

## Hall design 6   `STANDARD`

| | |
|---|---|
| *Hall Jamb* | Narow type<br>Painted steel panel (62YS) |
| *Hall Door* | Painted steel panel (62YS) |
| *Hall Indicator /*<br>*Hall Button* | HIB-G1NL-L-O |
| *Button* | GS-7A-BT |

HIB-G1NL-L-O

## Hall design 7   `OPTIONAL`

| | |
|---|---|
| *Hall jamb* | Wide inclined type<br>Hairline finish stainless steel |
| *Hall Door* | Hairline finish stainless steel |
| *Hall Indicator* | HI-G1L-57B |
| *Hall Button* | HB-G1K |
| *Button* | KB-7A |

HB-G1K     HI-G1L-57B

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# OPERATION SYSTEMS

# Operation Systems

## Car Operation Panel : G1NL series

※Note: Applicable to Wide Car type models

### POP type

POP-G1NL
STANDARD

### SL-P1

### FCOP type

FCOP-G1NL
STANDARD

### DLX-25

### Button Line-up

| GS-5-B | GS-5A-B | GS-5B-B |
|---|---|---|
| GS-5-BT | GS-5A-BT | GS-5B-BT |
| GS-5-W | GS-5A-W | GS-5B-W |
| GS-5-WT | GS-5A-WT | GS-5B-WT |
| GS-6-B | GS-6A-B | GS-6B-B |
| GS-6-BT | GS-6A-BT | GS-6B-BT |
| GS-6-W | GS-6A-W | GS-6B-W |
| GS-6-WT | GS-6A-WT | GS-6B-WT |
| GS-7-B | GS-7A-B | GS-7B-B |
| GS-7-BT | GS-7A-BT | GS-7B-BT |
| GS-7-W | GS-7A-W | GS-7B-W |
| GS-7-WT | GS-7A-WT | GS-7B-WT |
| UB-3 | UB-3A | UB-3B |

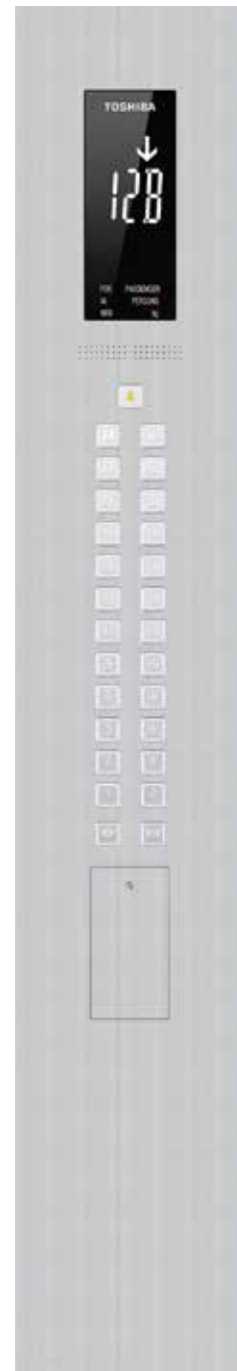The actual product colors may vary slightly from those printed colors in this catalog.

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# Operation Systems

## Car Operation Panel : G1NS series & Hall Indicator　Button : G1NL series

※Note: Applicable to Wide Car type models

### POP type



POP-G1NS
OPTIONAL

### FCOP type



FCOP-G1NS
OPTIONAL

### Button Line-up

| GS-3L | GS-3LA | GS-3LB |
|---|---|---|
| GS-5-B | GS-5A-B | GS-5B-B |
| GS-5-BT | GS-5A-BT | GS-5B-BT |
| GS-5-W | GS-5A-W | GS-5B-W |
| GS-5-WT | GS-5A-WT | GS-5B-WT |
| GS-6-B | GS-6A-B | GS-6B-B |
| GS-6-BT | GS-6A-BT | GS-6B-BT |
| GS-6-W | GS-6A-W | GS-6B-W |
| GS-6-WT | GS-6A-WT | GS-6B-WT |

### LED Segment



HIB-G1NL
STANDARD

12mm

HIB-G2NL
STANDARD

### LED Dot Matrix

※Note: A white color or orange color can also be selected for the LED light.



HIB-G1NL-L
OPTIONAL

12mm

HIB-G2NL-L
OPTIONAL

### Button Line-up

| GS-5-B | GS-5A-B | GS-5B-B |
|---|---|---|
| GS-5-BT | GS-5A-BT | GS-5B-BT |
| GS-5-W | GS-5A-W | GS-5B-W |
| GS-5-WT | GS-5A-WT | GS-5B-WT |
| GS-6-B | GS-6A-B | GS-6B-B |
| GS-6-BT | GS-6A-BT | GS-6B-BT |
| GS-6-W | GS-6A-W | GS-6B-W |
| GS-6-WT | GS-6A-WT | GS-6B-WT |
| GS-7-B | GS-7A-B | GS-7B-B |
| GS-7-BT | GS-7A-BT | GS-7B-BT |
| GS-7-W | GS-7A-W | GS-7B-W |
| GS-7-WT | GS-7A-WT | GS-7B-WT |
| UB-3 | UB-3A | UB-3B |

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# Operation Systems

## Car Operation Panel : G1L series

※Note: Applicable to Wide Car type models

### POP type

POP-G1L-84C
OPTIONAL

POP-G1L-57B
OPTIONAL

POP-G1L-70S
OPTIONAL

POP-G1L
OPTIONAL

### PRM-1

POP-G1L-104C
OPTIONAL

### FCOP type

FCOP-G1L-104C
OPTIONAL

FCOP-G1L-57B
OPTIONAL

FCOP-G1L-70S
OPTIONAL

FCOP-G1L
OPTIONAL

### DLX-21

FCOP-G1L-84C
(8.4 inch LCD)
OPTIONAL

### Button Line-up

| GS-5-B | GS-5A-B | GS-5B-B |
|---|---|---|
| GS-5-BT | GS-5A-BT | GS-5B-BT |
| GS-5-W | GS-5A-W | GS-5B-W |
| GS-5-WT | GS-5A-WT | GS-5B-WT |
| GS-6-B | GS-6A-B | GS-6B-B |
| GS-6-BT | GS-6A-BT | GS-6B-BT |
| GS-6-W | GS-6A-W | GS-6B-W |
| GS-6-WT | GS-6A-WT | GS-6B-WT |

| GS-7-B | GS-7A-B | GS-7B-B |
|---|---|---|
| GS-7-BT | GS-7A-BT | GS-7B-BT |
| GS-7-W | GS-7A-W | GS-7B-W |
| GS-7-WT | GS-7A-WT | GS-7B-WT |
| NB-1 | NB-1A | NB-1B |
| NB-2 | NB-2A | NB-2B |
| UB-1 | UB-1A | UB-1B |
| UB-2 | UB-2A | UB-2B |
| UB-3 | UB-3A | UB-3B |

| KB-1 | KB-1A | KB-1B |
|---|---|---|
| KB-2 | KB-2A | KB-2B |
| KB-3 | KB-3A | KB-3B |
| KB-4 | KB-4A | KB-4B |
| KB-7 | KB-7A | KB-7B |
| KB-8 | KB-8A | KB-8B |

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# Operation Systems

## Car Operation Panel & Hall Indicator Button : G1N series

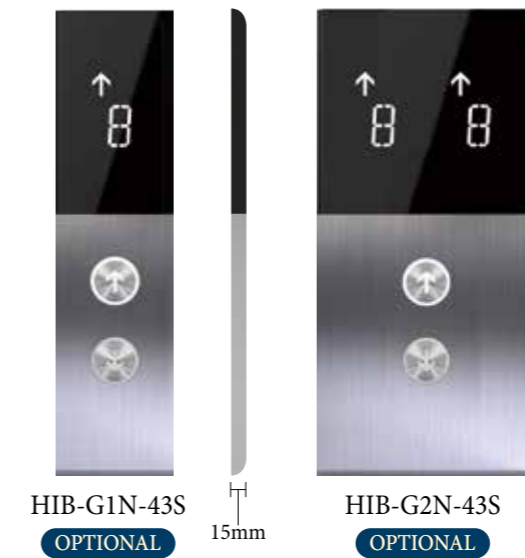※Note: Applicable to Wide Car type models

### COP type



COP-G1N
OPTIONAL
10mm

COP-G1N-70S
OPTIONAL
10mm

### Button Line-up

| NB-1 | NB-1A | NB-1B |
|------|-------|-------|
|  |  |  |
| NB-2 | NB-2A | NB-2B |
|  |  |  |

### SL-1



### HIB type

#### LCD Segment



HIB-G1N-43S
OPTIONAL
15mm

HIB-G2N-43S
OPTIONAL

#### LED Dot Matrix

※Note: A white color or orange color can also be selected for the LED light.



HIB-G1N
OPTIONAL
15mm

HIB-G2N
OPTIONAL

### Button Line-up

| NB-1 | NB-1A | NB-1B |
|------|-------|-------|
|  |  |  |
| NB-2 | NB-2A | NB-2B |
|  |  |  |
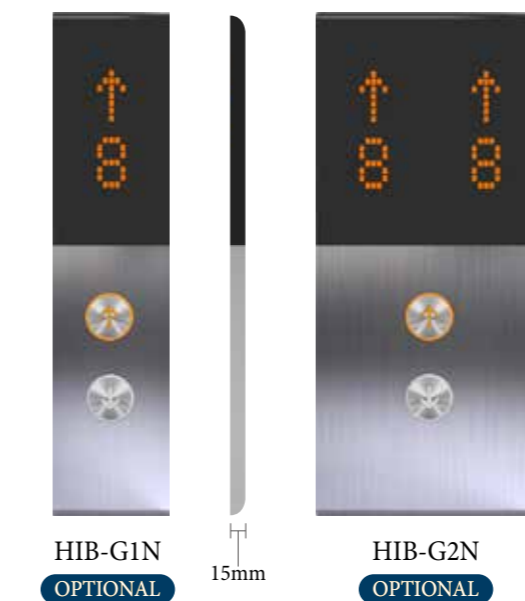
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# Operation Systems

## Car Operation Panel & Hall Indicator Button : G1L·　G1K series

※Note: Applicable to Wide Car type models

### COP type



COP-G1L-57B
(5.7 inch LCD)　3mm

OPTIONAL

### HIB type



HIB-G1L-43B
(4.3 inch LCD)　3mm

OPTIONAL

### Button Line-up

| KB-1 | KB-1A | KB-1B |
|------|-------|-------|
|  | | |
| KB-2 | KB-2A | KB-2B |
| | | |
| KB-3 | KB-3A | KB-3B |
| | | |
| KB-4 | KB-4A | KB-4B |
| | | |
| KB-7 | KB-7A | KB-7B |
| | | |
| KB-8 | KB-8A | KB-8B |
| | | |

### COP type



COP-G1K-O　10mm

OPTIONAL

### HIB type



HIB-G1K3-O　3mm　HIB-G2K3-O

OPTIONAL　　OPTIONAL

### Button Line-up

| KB-1 | KB-1A | KB-1B |
|------|-------|-------|
| | | |
| KB-2 | KB-2A | KB-2B |
| | | |
| KB-3 | KB-3A | KB-3B |
| | | |
| KB-4 | KB-4A | KB-4B |
| | | |
| KB-7 | KB-7A | KB-7B |
| | | |
| KB-8 | KB-8A | KB-8B |
| | | |
| UB-1 | UB-1A | UB-1B |
| | | |
| UB-2 | UB-2A | UB-2B |
| | | |

# Operation Systems

## Car Operation Panel : HCOP  series

※Note: Applicable to Wide Car type models

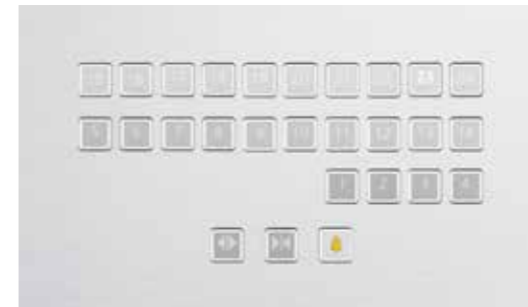### HCOP type



HCOP-G1D
OPTIONAL



HCOP-G1D-N
OPTIONAL



HCOP-G1NS-N
OPTIONAL



HCOP-G1K-N
OPTIONAL

DLX-27



### Button Line-up

| UB-1 | UB-1A | UB-1B |
|------|-------|-------|
| 2 | 2 | 2 |
| UB-2 | UB-2A | UB-2B |
| 2 | 2 | 2 |

### Button Line-up

| GS-3L | GS-3LA | GS-3LB |
|-------|--------|--------|
| ↑ | ↑ | ↑ |
| GS-5-B | GS-5A-B | GS-5B-B |
| ↑ | ↑ | ↑ |
| GS-5-BT | GS-5A-BT | GS-5B-BT |
| ↑ | ↑ | ↑ |
| GS-5-W | GS-5A-W | GS-5B-W |
| ↑ | ↑ | |
| GS-5-WT | GS-5A-WT | GS-5B-WT |
| ↑ | ↑ | ↑ |
| GS-6-B | GS-6A-B | GS-6B-B |
| ↑ | ↑ | ↑ |
| GS-6-BT | GS-6A-BT | GS-6B-BT |
| ↑ | ↑ | ↑ |
| GS-6-W | GS-6A-W | GS-6B-W |
| ↑ | ↑ | ↑ |
| GS-6-WT | GS-6A-WT | GS-6B-WT |
| ↑ | ↑ | ↑ |

### Button Line-up

| KB-1 | KB-1A | KB-1B |
|------|-------|-------|
| 2 | 2 | 2 |
| KB-2 | KB-2A | KB-2B |
| 2 | 2 | 2 |
| KB-3 | KB-3A | KB-3B |
| 2 | 2 | 2 |
| KB-4 | KB-4A | KB-4B |
| 2 | 2 | 2 |
| KB-7 | KB-7A | KB-7B |
| 2 | 2 | 2 |
| KB-8 | KB-8A | KB-8B |
| | 2 | 2 |

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# Operation Systems

## Hall Button  OPTIONAL

HB-G1

HB-G1
with parking SW

15mm

HB-G1K

3mm
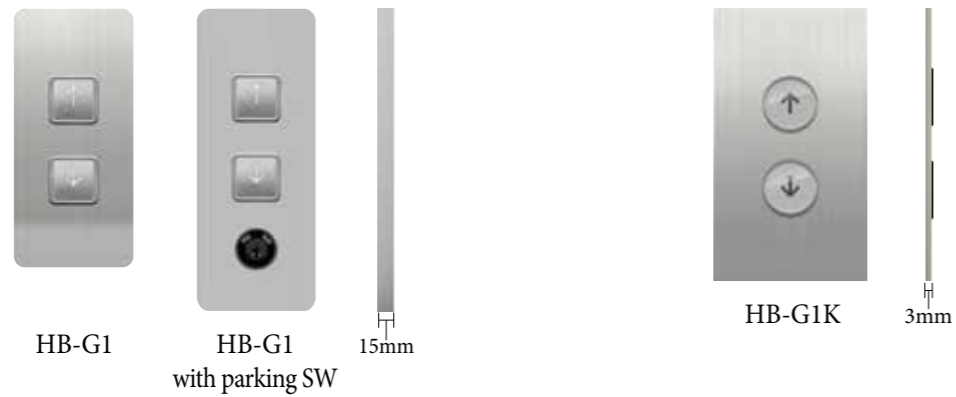
### Button Line-up

| NB-1 | NB-1A | NB-1B |
|---|---|---|
| | | |
| NB-2 | NB-2A | NB-2B |
| | | |
| GS-3L | GS-3LA | GS-3LB |
| | | |

### Button Line-up

| KB-1 | KB-1A | KB-1B |
|---|---|---|
| 2 | 2 | 2 |
| KB-2 | KB-2A | KB-2B |
| 2 | 2 | 2 |
| KB-3 | KB-3A | KB-3B |
| 2 | 2 | 2 |
| KB-4 | KB-4A | KB-4B |
| 2 | 2 | 2 |
| KB-7 | KB-7A | KB-7B |
| | 2 | 2 |
| KB-8 | KB-8A | KB-8B |
| 2 | 2 | 2 |

## Hall Lantern

### Hall Lantern  OPTIONAL

※Note: A white light or orange light can also be selected for the lantern light.

HL-G1-O
（Orange light）

HL-G2-W
(White light)

HL-G3-O
(Orange light)

HL-G4-O
(Orange light)
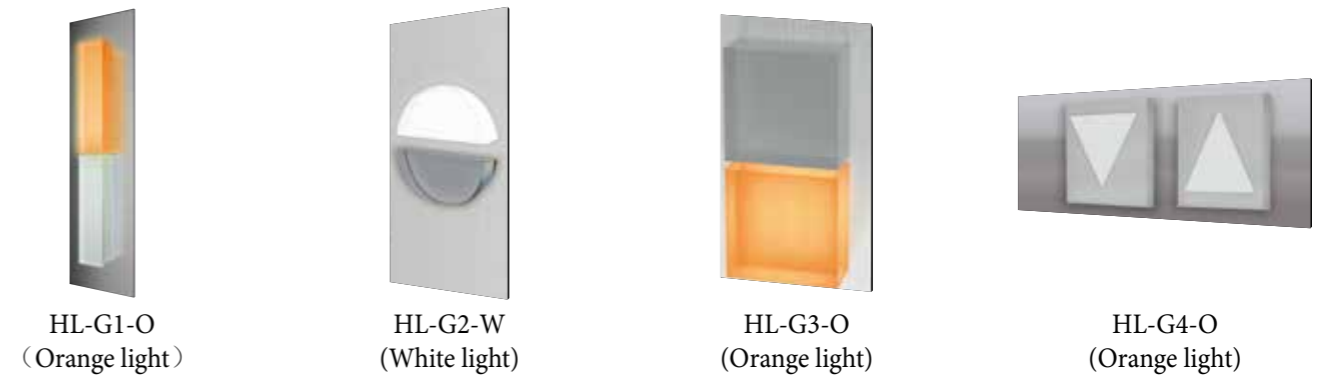
## Hall Indicator

### Hall Indicator  OPTIONAL

LED Dot matrix
※Note: A white color or orange color can also be selected for the LED light.

HI-G1-O

HI-G34-O

### LCD Hall Indicator  OPTIONAL

5.7 inch Color LCD

With monitoring

Controlled status

HI-G1L-57B

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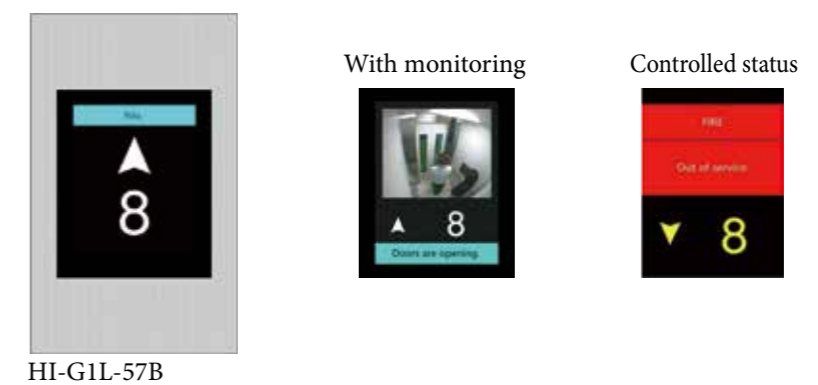
# Operation Systems

## Car Position Indicator

### Large LCD Indicator for Car Operation Panel `OPTIONAL`

These 10.4 inch and 8.4 inch LCD indicators are capable of displaying in the elevator's various conditions (emergency operations, maintenance status) in large icons and letter in highly visible colors.

#### 10.4 inch Color LCD
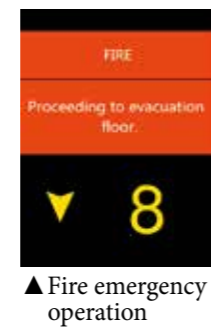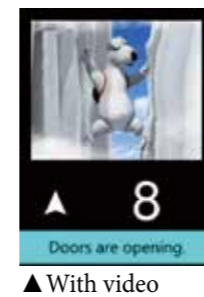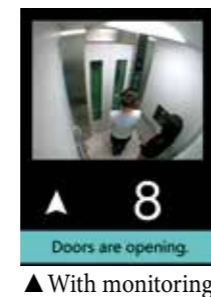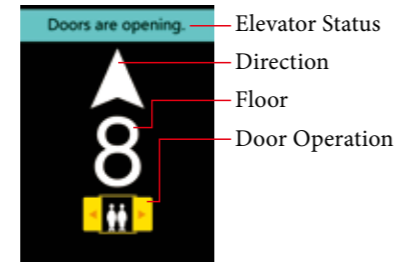
General car display (Without monitoring)

- Door operation
- Elevator status
- nch direction
- Floor
- with video
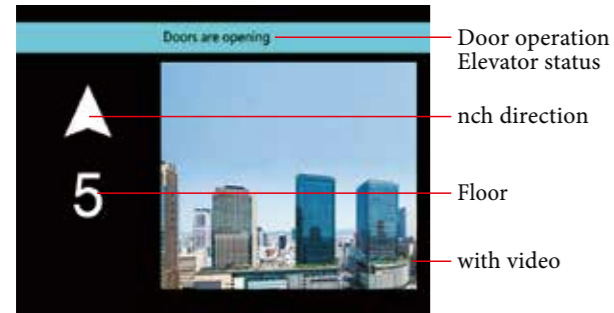
General car display (With monitoring)

Display under controlled status

#### 8.4 inch Color LCD

- Elevator Status
- Direction
- Floor
- Door Operation

▲ With monitoring      ▲ With video

▲ Fire emergency operation

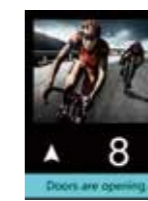#### 5.7 inch Color LCD

General car display      With monitoring      With video      Controlled status

#### LCD Segment

#### LED Segment

#### LED Dot matrix

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# Functions

| Functions | Notes | Descriptions | |
|---|---|---|---|
| **Operations** | Simplex selective-collective fully automatic operation | Fully automatic operation by hall and car calls for single car | ○ |
| | Duplex selective collective fully automatic operation (Note 1) | Fully automatic operation for 2 cars in the same group | △ |
| | 3 or 4-car group supervisory control system (Note 1) | Fully automatic operation for 3 or 4 cars in the same group | △ |
| | Group supervisory control system | For supervisory operation of groups of more than 4 cars, please contact us | △ |
| | FLOORNAVI | Destination Control System | △ |
| | Independent operation | Lift car separated from group control operation and responde to car call only | △ |
| | Attendant operation | Operation by attendant by switch & button provided at service cabinet in COP | △ |
| **Safety Functions** | Automatic landing function when system fails | When system failure occurs, the lift will automatically land at the nearest floor and the door will open for passengers to exit | ○ |
| | Automatic withdrawn from group control | If an elevator under a group supervisory operation fails to run for some reason, the elevator is cut out of the group and the other elevators automatically back up the faulty one to continue the group supervisory operation. | ○ |
| | Car inspection operation [INS] | During car inspection operation, the lift car will run at slowly speed without responding to hall call | ○ |
| | Overload protection | The car overload buzzer will sound to prevent overloading and the doors will remain open | ○ |
| | Fireman's operation (Note 2) | In the event of fire, when the Fireman's switch is activated, the designated lift will be ready for firemen to use | △ |
| | Fire emergency operation | In the event of fire, all lifts will return to the designated floor and stop operation to allow passengers to exit | △ |
| | Emergency operation indication at COP | In the event of an emergency, the emergency operation status will be displayed at COP | ○ |
| | Power failure emergency operation | In the event of power failure, all lifts will return to the designated floor by emergency power supply from the building to allow passengers to exit | △ |
| | Automatic landing during power failure [TOSLANDER] | In the event of power failure,the lift will land at the nearest floor by emergency battery | △ |
| | Earthquake emergency operation | In the event of an earthquake, the elevator will detect the seismic signal and land at the nearest floor | △ |
| | In-car emergency lamp [Self-charging] | In the event of power failure, the in-car emergency lamp will be activated | ○ |
| | Emergency call button | A button for passenger to make an emergency call when they are trapped inside the lift | ○ |
| | Door open when lift car is overloaded | The doors will re-open when over load is detected, even during the closing of doors. | ○ |
| | 2 in 1 door safety [Multi-beam door safety + Mechanical door safety] | A combination of multi-beam door safety and mechanical door safety | ○ |
| **Service Functions** | Home landing | To reduce passenger waiting time, the lift will return to the designated floor and stand by | △ |
| | Service floor cut-off selection [Software interface] | This is of the free setting type, where the elevator superintendent for every building is free to set and modify service cutt-off floors even after in use. This is the most appropriate type for such office buildings as their tenants are not yet fixed before complection. | △ |

## Notes
1: Not applicable to lift car with through door.
2: Fire emergency operation and fireman service cannnot be applied simultaneously.
3: Standard function for 2-car operation or 3-car operation.
4: Car load is less than 150kg and there are five or more registered car calls.

| Functions | Notes | Descriptions | |
|---|---|---|---|
| **Service Functions** | Service floor cut-off selection [Manual] | linstalling a switch or a timer on the supervisory panel, disables registration of car calls or hall calls for a basement floor's or an intermediate floors or intermediate floors thus engaging in non-stop (bypass) without servicing there. | △ |
| | Full car bypass (Note 3) | When the lift car is full, the lift will bypass all hall calls and go straight to the designated floor | ○ |
| | Car call cancellation | The floor call can be cancelled from the COP by pressing the floor button twice within 3 second | ○ |
| | Nuisance call cancellation (Note 4) | Incorrect or nuisance floor calls can be cancelled to eliminate unnecessary operation | ○ |
| | Door repeated opening | When an obstacle is detected, the door will repeatedly open and close until the obstacle is removed | ○ |
| | Car indicator | Car indicator with the car operating panel | ○ |
| | Adjustable door opening time | Adjusts the door opening time to reflect building usage | ○ |
| | Door open extension button | Extends the door opening time | △ |
| | Car chime | A chime installed in the car ceiling will sound when the lift arrives | △ |
| | Hall chime | A chime installed in the lift lobby will sound when the lift arrives | △ |
| | Car full load indicator | "Full Load" will display on the hall indicator when the lift car is full | ○ |
| | Hall lantern | The hall lantern will light up when the lift arrived | △ |
| | Sub car operating panel | Additional car operating panel | △ |
| | Out of service indicator | "Out of Service" will display on the hall indicator when the lift car is faulty | ○ |
| | Parking operation [Manual] | Parks the lift at designated floor by key-switch | ○ |
| | Parking operation [Automatic] | Parks the lift at designated floor auotmatically | △ |
| | Car lighting automatic cut-off | When the lift is not in operation after a pre-determined period of time, the car light will turn off automatically | ○ |
| | Ventilation fan automatic cut-off | When the lift is not in operation after a pre-determined period of time, the ventilation fan will turn off automatically | ○ |
| | Door Open button lamp [For automatically cut-off car lighting] | The "Door Open" button will remain lit when the lift car light is turned off automatically | ○ |
| | Nuisance call cancellation at reversal | Cancel intentionally registered nuisance calls automatically in the reversal travel direction | ○ |
| | Multi-channel intercom | The intercom system can communicate with multi-stations simultaneously | ○ |
| | Designated floor stop operation | Automatically stops the lift at the designated floor for crime prevention purposes | △ |
| | Card access system | Allows activation of the disnated floor call by IC card ※ Card Access System by others | △ |
| | Speech synthesizer | Announces car operations | △ |
| | Supervisory panel | Located in the building control room, etc. to monitor the status and control of each lift | △ |

# Works by Others

Works below are not included in elevator installation works:

## ►Hoistways

1. Hoistway construction and fire-proofing, and opening for jambs, indicators and push-buttons, etc.
   Please note that chipping or padding work is required according to the necessity, in case the error of the structure is 30 mm or over.
2. Installation of separating beams, intermediate beam, back beam and lateral beams (if necessary).
3. Installation of the base plate for each floor and of bed steel for furnishing the equipment related to landing entrance, in case of hoistways of steel structure of PC structure.
4. Fire-proofing of steel frame material in steel structured hoistways, and fire-proofing around landing entrances (if necessary).
5. Finishing of walls and floors, etc., around entrances, after furnishing equipment related to landing entrances.
6. Furnishing of base steel or others for furnishing rail brackets, especially where the floor height is high (if necessary).
7. Installation of the entrance or the gangway for pit inspection (if necessary).
8. Water-proofing of the pit (including drainage if necessary).
9. Rearrangement of the building body in case that there are some spaces to be used under the pit.
10. Installation of emergency exits for rescue purposes in the event there are floors at which the elevator does not stop and installation of a fascia plate.
11. Shelter equipment from rain at landing entrances directly contacting to the air in the place like roof.
12. Installation of hooks or beams on top of the elevator shaft.
13. Installation of lighting in hoistway (if necessary).
14. Installation of vent opening at the top of shaft (if necessary).
15. Installation of a net or wall to prevent falling into the pit (in cases where the pit level is different.)
16. All related to the building structure other than works above.

## ►Machine rooms

1. Construction of machine rooms and installation works of their entrances (including soundproofing work if necessary)
2. Fire-proofing for machine rooms and opening work for machine room floors.
3. Installation of machine beam supports and spacers.
4. Cinder concreting and finishing after floor piping in machine rooms.
5. Installation of hooks or beams on ceilings in machine rooms.
6. Installation of stairs leading to machine rooms and stairs in machine rooms (if necessary).
7. Installation of lighting and windows.
8. Dustproofing of floors.

## ►Works for Equipment

1. Wiring of the power supply for motors and that for lighting equipment, and of grounding to power source panels of elevators in the Elevator shaft.
2. Wiring of the power supply to the supervisory panels.
3. Piping and wiring of intercoms outside hoistway and of others necessary for elevators.
4. Supply and installation of switching devices for emergency power supply in case of power failure and two pairs of relay contacts for normal / emergency power identification, and their piping and wiring (if necessary).
5. Piping and wiring of supervisory panels, alarm panels and inter-communication systems, etc., outside hoistways.
6. Furnishing of receptacles for inspection in pits.

## ►Temporary Works

It is required to arrange the following matters:
1. To secure the site office for installation work and the stock yard for materials without charge.
2. Enclosure to be used during the installation work.
3. Supply of electric power for installation work and the trial operation for adjustment.
4. Security of enough passage for carrying heavy goods.
5. On use of elevator for the construction work of the building, It is required to make contract with a separate written estimate.

### Note

During equipment planning of elevators, please take the following items into consideration:

1. Provide power facility so that voltage regulation of the power supply at the receiving terminals in the hoistway is kept within ±10% for the motor, and ±2% for the lighting equipments.

2. In the hoistways, please prevert the temperature from exceeding 40 °C and humidity from exceeding 90% (monthly mean) and 95% (daily mean).

3. Please do not allow any chemically toxic gas or an excessive amount of dust to enter into the hoistways, as these can corrode the metal or electrical contacts.

### When asking for an estimate, please inform us of the following:

1. Building name and address.
2. Desired type and number of set.
3. Number of stops.
4. Floor height.
5. Voltage and frequency of main power supply.
6. Desired completion date.

# Memo

# Global Network

● Head office／Manufacturing base
● Head office

**A** **TOSHIBA ELEVATOR AND BUILDING SYSTEMS CORPORATION**
**Head Office:** 72-34, Horikawa-cho, Saiwai-ku,
Kawasaki 212-8585, Japan
**Factory:** 1 Toshiba-cho, Fuchu City, Tokyo 183-8511

**B** **TOSHIBA ELEVATOR (SHENYANG) CO., LTD.**
**Head Office:** No.5 Feiyun Road Hunnan New District Shenyang,
The People's Republic of China

**C** **TOSHIBA ELEVATOR (CHINA) CO., LTD.**
**Head Office:** No. 685 Wen Chuan Road, Baoshan District,
Shanghai 201901, The People's Republic of China.

**D** **CHEVALIER (HK) LIMITED**
**Head Office:** 22nd Floor, Chevalier Commercial Centre, 8
Wang Hoi Road, Kowloon Bay, Hong Kong

**E** **CHEVALIER SINGAPORE HOLDINGS PTE. LTD.**
**Head Office:** 23 Genting Road #07-01/02 Chevalier House,
Singapore 349481

**F** **TOSHIBA ELEVATOR (MALAYSIA) SDN. BHD.**
**Head Office:** Wisma TMEL, No.15, Jln Kuchai Maju 4,
Kuchai Entrepreneurs' Park, Off Jalan Kuchai Lama,
58200 Kuala Lumpur, Malaysia.

**G** **TOSHIBA ELEVATOR MANUFACTURING ASIA SDN. BHD.**
**Head Office:** 2530, Lorong Perusahaan 10 Prai Industrial Estate
Prai 13600 Pulau Pinang, Malaysia

**H** **TOSHIBA JOHNSON ELEVATORS (INDIA) PVT. LTD.**
**Head Office:** 602, 6th Floor, C&B Square, Sangan Complex
127, Andheri Kurla Road. Andheri (East), Mumbai,
400059 India

**I** **TOSHIBA ELEVATOR MIDDLE EAST (L.L.C.)**
**Head Office:** P. O. Box 16733, Dubai, UAE

**J** **Toshiba Elevator (Vietnam) Limited Liability Company**
**Head Office:** No. 36, Street 96, Quarter 2, Thanh My Loi Ward,
Thu Duc City, Ho Chi Minh City, Vietnam

Together with our global partners, we connect with Asia and then the world,

through our technology and our spirit.

This planet is our shared heritage. We must live together, grow together and delight in one another.

**【For more information】**
**Toshiba Elevator and Building Systems Corporation**
Head office: 72-34, Horikawa-cho, Saiwai-ku, Kawasaki 212-8585, Japan

**https://www.toshiba-elevator.co.jp/elv/infoeng/**