





ELEVATOR UPGRADE





Welcome to the SIGMA Modernization

Number 1 brand in elevators - SIGMA

The technology of the Next generation Elevator enhances the value of the buildings through leading technology.

Why don't you upgrade your elevator to SIGMA's modernization.

SIGMA is the best in modernization.

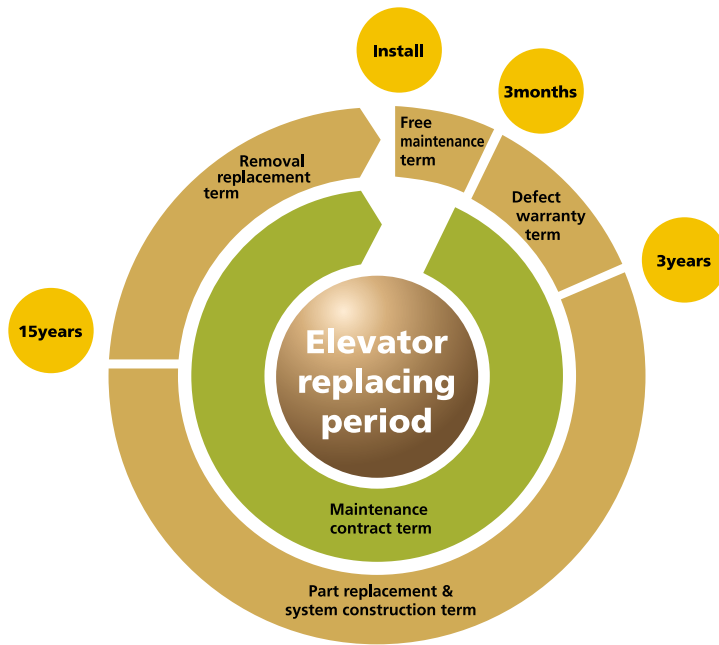
What is Modernization?



Modernization is a replacing package of part system which SIGMA has developed based on years of experience & technology. An innovative program that makes recycling possible by applying the latest model's system to existing elevators.



SIGMA. The architecture of elevators "Remodeling"



An elevator can last for around 15~25 years through consistent maintenance checking but generally after 10years the performance drops rapidly.

When using the elevator for more than 15years repair cost or chances of breakdown increase, therefore replacing the elevator is much safer and economical.

Also, just by replacing the elevator upgrades the value of the building.



SIGMA The features of Modernization



The creation of safe and refreshing quality upgrade

Upgrade Quality

Save Money

Cost reduction through various packages and shortening of construction period

SIGMA Modernization

Safety First

Applied by the world's most strict safety standard

Service Excellence

Fast & accurate service based on Integrated network system



Economic efficiency of SIGMA Modernization

Reduce an economic burden! Rise a satisfaction level!

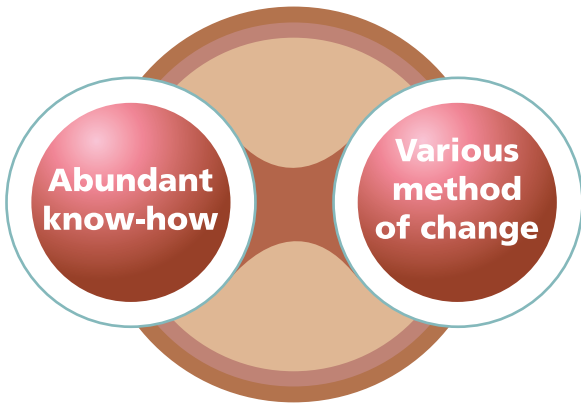
SIGMA modernization helps to reduce a consumption of electric power up to 50%, as well as capacity of electric equipment up to 30% ~ 50%.

Make an experience directly through the abundant know-how of SIGMA.




The Best Technology, The least economic burden Upgrade customer satisfaction

Through the various changing experience with applying the accumulated construction method, we can help you to reduce an inconvenience.



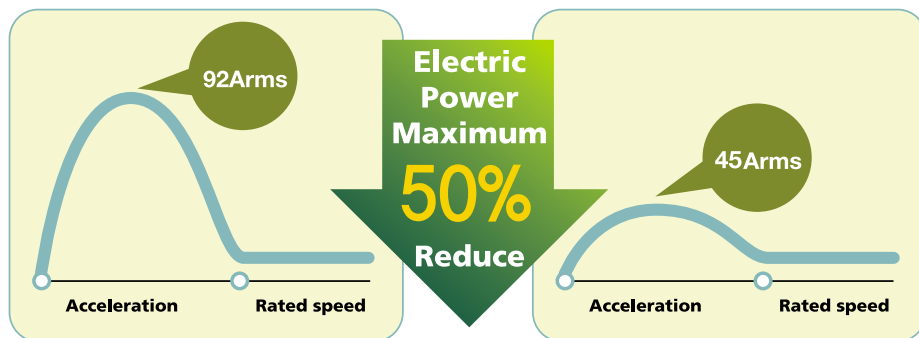
We can help you to reduce an economic burden with a various changing process characterized to elevator in use.



Reduce 50% of consumption of electric power and capacity of electric equipment. This is SIGMA know-how.

- Reduce 50% of consumption of electric power at maximum.

We can reduce elevator's consumption of electric power to about 30% ~ 50%, comparing to the old method, due to all application of VVVF that helps to reduce it to a minimum level by the computer.



- Reduce 50% of capacity of electric equipment

We can reduce an electric equipment of structure and self generator capacity to about 30% ~ 50% by using a most efficient system with a control of acceleration and retardation.



The safety of SIGMA Modernization

SIGMA Modernization applies for the strictest safety standard in the world.



Safety is SIGMA's philosophy



Safety First

World wide Job site safety standard application.

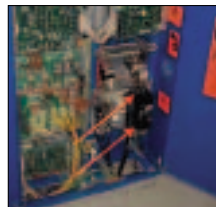
We're responsible for the safety of the elevator by applying the strictest safety standard.

Machine guarding



Prohibiting touching the rotating part in traction machine and preventing accident in advance.

High Voltage Guarding



Preventing high voltage electric shock accident in control panel.

TOCI Box



The safety device which operates emergency stop switch and stops elevator safely.



Availability of SIGMA Modernization

You can meet the dramatically improved new elevator in safety and function by applying control panel for modernization use only.

Availability of SIGMA Modernization



1. Reduce failure

Applying control panel for modernization use only, the rate of failure in uncontrollability can be greatly decreased.



2. Emergency rescue operation

In case of malfunction in control panel, it will descend the nearest floor and open doors in order to prevent the passengers kept inside the car. (Not available if the safety circuit fails.)



3. Forceful speed reduction

If the car does not smoothly lower its speed at the highest and lowest floor, the speed of car can be forcefully reduced to avoid safety accident.



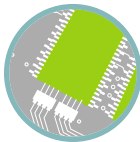
4. Efficient maintenance management

The recording of the key operating data enables elevator to efficiently manage the maintenance by means of statistic function.



5. Minimization of noise inside machine room

Adoption of IGBT enables the machine room to minimize the noise level.

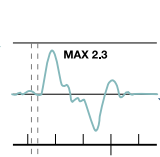
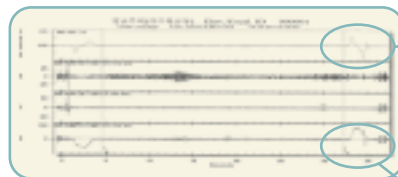


6. Improving the ride quality

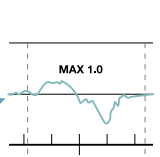
Due to the improvement of elevator control performance, vertical vibrations can be dramatically dropped and passengers may enjoy the good ride quality of elevator. (Less than 15 Gal)

Before

DB Control

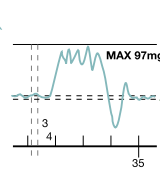
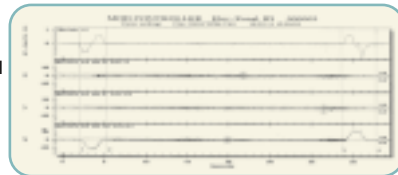


Acceleration/
deceleration
shock
**50%
improve**

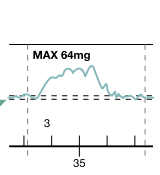


After

WWW Control

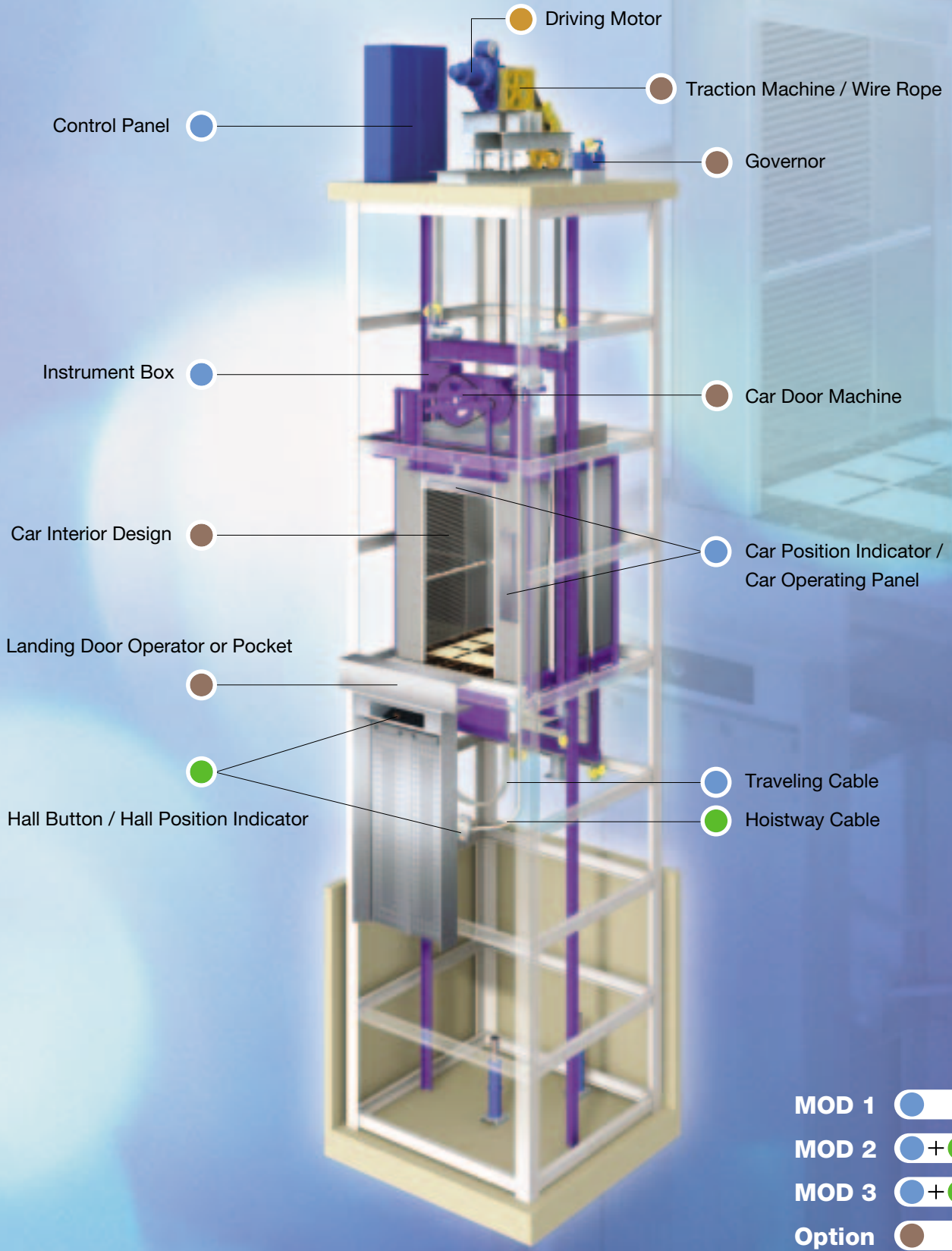


Vibration
(up&down)
**30%
improve**



7. High end interiors

The adoption of fascinating interiors inside the car can raise the value of building expecting with higher rental fee.



Diversity of SIGMA Modernization

SIGMA fulfill all the replacement condition, you can select one of them according to your budget and period.



Diversity of SIGMA Modernization

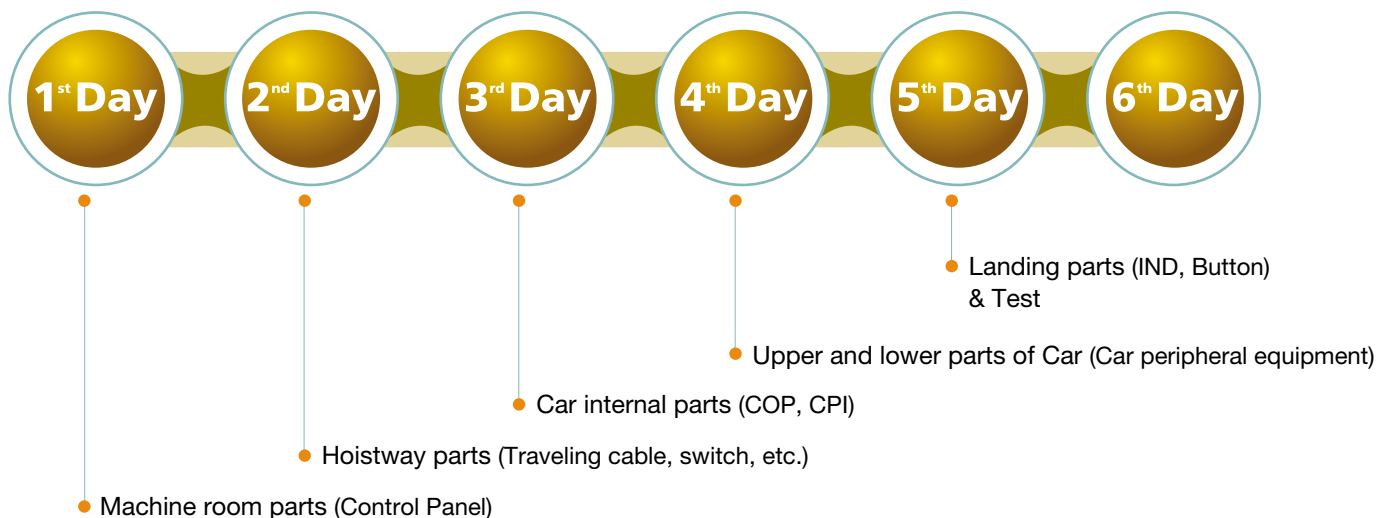


★ Replacement ■ Reuse

Classification	Item	MOD Package		
		MOD 1	MOD 2	MOD 3
Main Replacement Part	Control Panel	★	★	★
	Traveling Cable	★	★	★
	Car Operating Panel / Car Position Indicator	★	★	★
	Instrument Box	★	★	★
	Hall Button / Hall Position Indicator	■	★	★
	Hoistway Cable	■	★	★
	Driving Motor	■	■	★
Additional Replacement part (option)	Traction Machine / Wire Rope	■	■	■
	Car Interior Design	■	■	■
	Governor	■	■	■
	Car Door Machine	■	■	■
	Landing Door Operator or Pocket	■	■	■

- * Schedule and Item subject to change according to site condition
- ** For additional parts, it is possible to replace it optionally.
- *** SIGMA replacement methods are considered Safety & Quality at first.

MOD Package



Standard 1^{Car}



Specification

Ceiling	C-MX3(LGM-922)
Wall	STS Hairline + Etching(EW4-034)
CPI	CID-10
OPB	CBM-10
Door	STS Hairline + Etching(EH3-034)
Handrail	HR-04/34HL
Floor	Decotile

Standard 1 Entrance

1 For Ground floor

Jamb	J-311(STS Hairline)
Door	STS Hairline + Etching(EH3-034)
Hall IND	HID-A122
Hall Button	HBM-S43P

2 For Typical floors

Jamb	J-301(STS Hairline)
Door	STS Hairline + Etching(EH3-034)
Hall IND	VID-M432
Hall Button	with Hall IND

3 For Typical floors

Jamb	J-101(Painted Steel, LGP-015)
Door	Painted Steel(LGP-015)
Hall IND	VID-M432
Hall Button	with Hall IND



Standard 2^{Car}



Specification

Ceiling	C-HX2(LGM-922)
Wall	STS Hairline + Etching(EW3-027)
CPI	CID-10
OPB	CBM-31
Door	STS Hairline + Etching(EH2-027)
Handrail	HR-04/34HL
Floor	Decotile

Standard 2^{Entrance}

1 For Ground floor

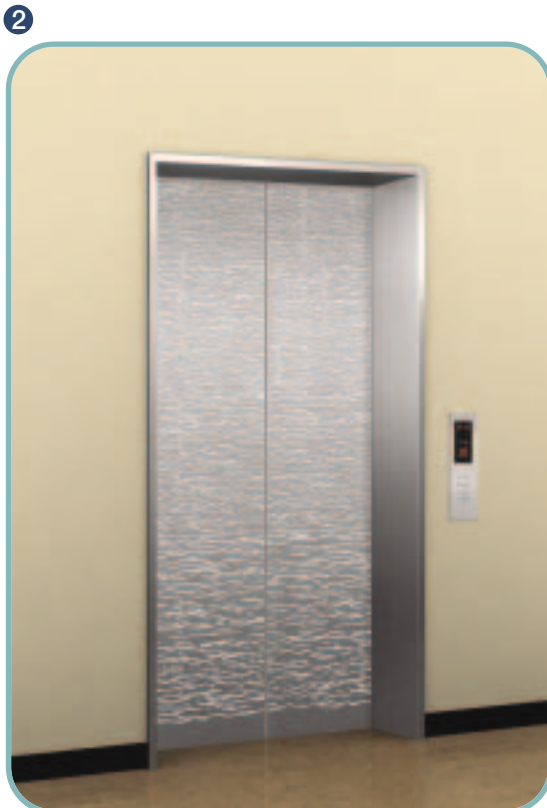
Jamb	J-311(STS Hairline)
Door	STS Hairline + Etching(EH1-027)
Hall IND	HID-A122
Hall Button	HBM-S42P

2 For Typical floors

Jamb	J-301(STS Hairline)
Door	STS Hairline + Etching(EH2-027)
Hall IND	VID-M422
Hall Button	with Hall IND

3 For Typical floors

Jamb	J-101(Painted Steel, LGP-934)
Door	Painted Steel(LGP-934)
Hall IND	VID-M422
Hall Button	with Hall IND



Fixtures

Car Operating Panel



CBM-10

Vertical Hall Indicator



VID-M432 VIX-M532S

Operating Panel for disabled



CBM-42SH

Horizontal Hall Indicator



HID-C132(without Transom panel)



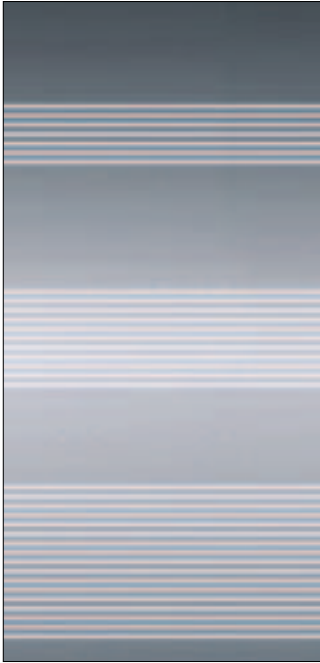
HIX-A122



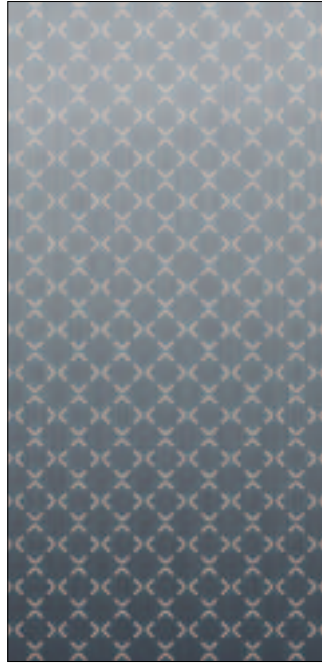
HID-A122

Etchings

Etching Pattern



Car Door : EH3-034
Car Wall : EW4-034



Car Door : EH1-064
Car Wall : EW2-064



Car Door : EH1-001
Car Wall : EW2-001



Car Door : EH1-070
Car Wall : EW2-070

Hall Button



HBM-S83



HBM-S42