



**Li Lu Enterprise Co., Ltd.**  
**NK Elevator Co., Ltd.**  
**Nihon Koganei Elevator Co., Ltd.**

# Operation Manual

# Foreward

## The practitioner of customized elevator - LILU

Thank you for using our products, your approval will be the power to drive LILU keep growing.

LILU Elevator starts from human nature, and continuously pays attention to the demand of space “moving” with “ Moving space +”; from product sales, design, manufacturing, installation and after-sales maintenance services, the ultimate goal is to meet the diverse needs of customers.

Since its establishment in 1989, it has focused on elevator optimization, continued to develop new elevators, and established a complete service network. It uses customized concepts to provide safe, technological and efficient solutions to create an exclusive "mobile cabin" for your home and building.

Striving to excel until reaching perfection has always been our quality principle. Passed ISO 9001 international quality management system certification. The main products are customized elevators and after-sales maintenance services, providing customers with the safest, most comfortable, convenient and most economical products and services.

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# 1 、 Elevator introduce

Based on professionalism, comfort, safety, and innovation, we create a consistent service from planning, design, and production, and take advantage of limited space to design customized elevators for villas, shops, homes, etc. It can be installed in both new and old buildings, and can be designed to suit for your building's elevator.

## **01. Elevator machine roomless, saving building space**

- (1) According to the demand, elevator could be design as machine roomless, which allows flexible building design and saves many construction costs.
- (2) Microcomputer variable frequency variable voltage (VVVF) control system, greatly saving electricity costs.

## **02. Free of three-phase electricity, simple and cost-effective**

- (1) The residential elevator adopts frequency conversion control in addition to less power consumption during operation, and has a power saving design that automatically turns off the lights after stopping operation.
- (2) Single-phase or three-phase power can be used as the power source. Buildings without three-phase power can avoid the trouble of applying for three-phase power.

## **03. Can match the architectural design**

- (1) It is applicable to both indoor and outdoor in old buildings or new buildings.
- (2) It can be designed according to the building layout or needs.

## **04. Car cabin design, comfortable, soft and sweet**

- (1) Comfortable and soft boarding space, friendly operating equipment.
- (2) The car cabin can be designed for disabilities people.
- (3) The perspective window allows you to view the internal and external conditions.

## **05. Multiple safety devices, safe and secure**

- (1) The design meets to the national standards and regulations, safe and reliable.
- (2) The built-in telephone (optional) can connect to the home telephone, and it can be call to the outside if something happens.
- (3) For the speed governor and the anti-creeping device, if the steel rope is broken, the car will be locked in guide rail to avoid falling; there are

other safety devices such as emergency lighting, overload detection, motor brake, limit switch and so on.

- (4) Infrared door detector (light curtain): When a passenger is detected to cross during the door closing, it will automatically open to avoid accidents of people being hit by the elevator door, falling or being pinched.
- (5) Power failure automatic rescue system (optional): When a power failure occurs, the device will be automatically activated and the car will be sent to the nearest floor to avoid passenger being trapped.
- (6) UCMP (optional): When the elevator car moves unexpectedly, stop the car movement immediately to ensure the safety of passengers.

## 06. Own factory

- (1) Short production period to meet customer needs.
- (2) According to customer needs, flexible adjustment of specifications (customization).

## 07. Elevator specification

Persons / Capacity (Persons / kg)	Speed (m/min)	Entrance W (mm)	Hoistway (mm)		Cabin size (mm)
			Door: CO	Door: 2S	
3~5/ 200~300Kg	12~30	700 Above	1550x1200 Above	1300x1200 Above	750x750 Above
6/450Kg	30~45 60~90	810	1800x1700	1600x1700	980x1220
8/550Kg	30~45 60~90	810	1800x1750 1850x1800	1700x1850	1050x1350
9/600Kg	30~45 60~90	810	1850x1850 1900x1850	1700x1950 1750x1950	1100x1450
10/700Kg	30~45 60~90	810	1900x1850 1950x1850	1800x1950 1850x1950	1200x1450
12/800Kg	30~45 60~90	810	1900x1900 1950x1900	1900x2000 1950x2000	1300x1520
15/1000Kg	30~45 60~90	900	2300x1900	2300x2050	1600x1500

★ The above is the reference value, the actual size will increase or decrease due to the building layout, regulations, equipment or other factors.

## 2、Elevator structure and method of use

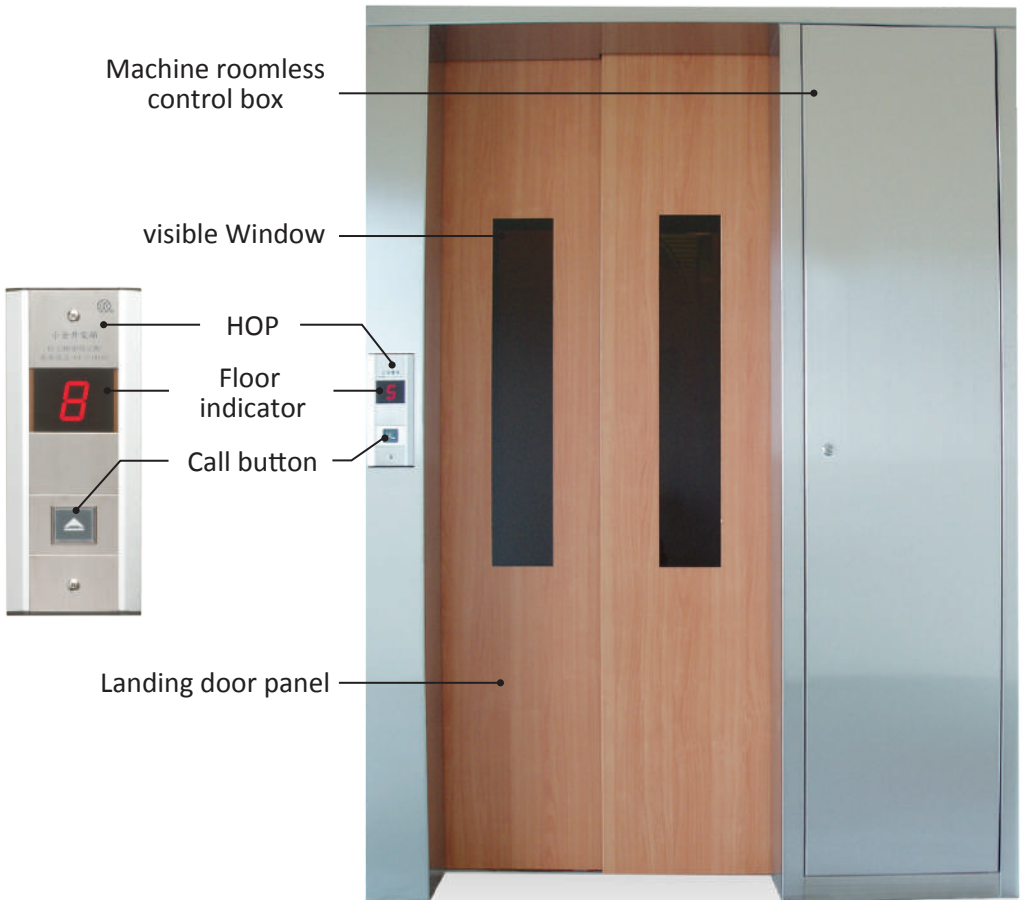
Car and car operation panel ~ The style will be slightly different according to the customer's choice.

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**Landing door and Hall operation panel ~ The style will be slightly different according to the customer's choice.**

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## **01. Hall operation panel's (HOP) call button:**

It is installed in each landing floor to call the car.

- (1) Press the "HOP call button". When the button light is on, the calling action is completed, and the button light is off when the car arrives.  
At the same time, the car door will automatically open, and you can enter and exit the car.
- (2) If the elevator just stops at the current floor level, press the "call button" to open the door.

## **02. Floor button:**

After entering the elevator, press the destination "floor button" (the light is on), and after confirming that no one is in or out, you can press the "door close button" to start, if not press the "door close button", The elevator will also close automatically.

## **03. Door close button:**

After entering the elevator and pressing the "floor button", after confirming that no one is in or out, you can press the door close button to start the elevator.

## **04. Power saving device:**

About 3 minutes after the elevator is closed door, if there is no operation (such as pressing the floor button), the power will be automatically turned off, and the lighting in the car will be turned off at the same time. If you need to use the elevator again, you only need to press any button on the operation panel. Then the power saving device can be released and elevator can be used.

## **05. Floor indicator:**

You can watch the floor display. When the elevator reaches the destination floor, the elevator door will open automatically. Please enter and exit the elevator quickly.

## **06. Door open button:**

When the elevator reaches the destination floor, the elevator door will open automatically. When the elevator door is closed, if there are still people coming in and out, you can press the "door open button," and the elevator door can open continuously.



### **07. Infrared door detector (light curtain):**

If the elevator door is under closing, the elevator door will automatically open when someone is detected entering or exiting. Please enter and exit the elevator quickly at this time.

### **08. Extended door open button:**

If you are carrying goods, or people with disabilities, or have a large number of people entering and exiting, you can press the "Extended door open button" to keep the door open for longer time's purpose.

### **09. Alarm:**

In the event of a power outage or breakdown, please remain calm when you are locked inside the car. Press down "Alarm" button, release the button when someone returns. Or use the phone inside the car to communicate with the outside.

### **10. Overload:**

When the buzzer sounds, it means the elevator with overloaded cannot start. At this time, the last entrants are asked to leave the car one by one. The door can be closed and started after the buzzer stops.

### 3 、 Precautions

01. When the elevator door starts to close, please do not enter forcibly to avoid being pinched.
02. Do not rely on the elevator door, and pay attention to the position of the dress to prevent being caught by the door.
03. In case of overload (buzzer sounds), please exit one by one and wait for the next trip.
04. Please do not press non-destination floor buttons randomly to avoid hindering others.
05. It is forbidden to play and jump inside the car to avoid dangerous situations that may cause misjudgment of safety devices.
06. Smoking is prohibited inside the car.
07. In the event of a malfunction, it is forbidden to open the door and escape by yourself. You should use an external communication device such as a telephone or intercom to contact the outside and wait for the elevator technician to handle it for safety.
08. Please keep your belongings properly to prevent small items from falling into the door sill grooves.
09. To prevent debris from falling into the door sill grooves, please clean the door sill grooves regularly. If there are debris in the grooves, it may cause the car door to fail to close, and even cause the elevator to malfunction.
10. When carrying goods, pay attention to the collision of goods or trolleys against door panels and ceilings to avoid damage and deformation of the door panels, causing the elevator to fail to operate.
11. If there is a power outage notice, please stop the elevator operation before the notice time.
12. When the elevator encounters flooding, water leakage, etc., please park the car on the highest floor and stop using it.
13. If you suffer from flooding or water leakage, please contact the elevator company for testing and use it after it is without safety concern.
14. If the telephone or intercom for external communication in the car is not yet complete and cannot communicate with the outside, please be sure to bring equipment that can communicate with the outside person when you take the elevator. This is to avoid passenger can't contact outside people if any system failure occurred.
15. When entering and exiting the elevator, passengers should confirm that the car is parked properly and leveling with landing floor before use it.

# 4 、 Elevator maintenance 、 repairing

## 4-1 The importance of elevator maintenance

- (1) The life cycle of the elevator is 15 years. As long as it is used correctly and the original factory is designated for maintenance, the life cycle will have a chance to reach more than 20-25 years.
- (2) Improper use and non-continuous maintenance by professional manufacturers every year will increase failure rate, not only cannot reach the life cycle, but also increase the risk of use.
- (3) Elevator maintenance is the same as vehicles or other machines, even if it is maintained every day and checked from time to time, no one can guarantee "absolutely" that there will be no failures, but one thing can make sure is that continuous maintenance by professional manufacturers will reduce the probability of failures to ensure passengers' safety and extend the life cycle of the machine.

## 4-2 Maintenance Fee

Elevator maintenance includes regular inspections, regular maintenance, operation tests, etc. Professional manufacturers ensure safety through the SOP process. If the importance of safety to be ignored due to costs, and the maintenance did not cooperate with professional manufacturers for continuous maintenance, passengers will be exposed in danger situation.

## 4-3 Clean by yourself

In addition to the maintenance of the elevators by professional manufacturers, users must also clean them regularly to ensure smooth operation of the elevators.

- (1) Such as remove dust or extra materials from the sill grooves of the elevator to prevent those extra material affected the elevator door opening and closing to cause it malfunction.
  - (2) If the surface of the elevator buttons is stained, it must be cleaned in time to prevent the jammed keys from affecting the elevator operation.
  - (3) Keep the floor dry. If it gets wet, it may cause a short circuit of the machine and cause the elevator to malfunction.
- ★ **The elevator should be used frequently (at least 1-2 times a week). If it is not used for a long time, it may cause malfunctions; and if it is not used for a long time, the elevator power should be kept on. If it's power off for a long time, the control PCB and components could be damaged by moisture.**

## 5 、 Emergency response measures

Elevator companies are all adopt a 24 - hour system, receive abnormal notifications at any time, and rushing to the site to eliminate emergencies. Emergency accidents including passengers' trapped due to power outages or elevator failures, or human injuries caused by human negligence, as well as natural disasters such as floods, earthquakes, typhoons, and thunder strikes. In the unfortunate event of casualties, please contact the fire department (119) or the police agency (110) notified, and contacted professional elevator manufacturers at the same time. With the cooperation of professional manufacturers, rescues will be faster, more effective and safer.

### ★ There should be contingency measures when an emergency occurs:

Confirm the elevator status first, and contact the professional elevator manufacturer to inform the following status.

01. Is there anyone trapped in the elevator?
02. Service number (on the lift nameplate of the operating panel inside the cabin).
03. The address and contact number of the elevator location.
04. Fault conditions (such as power outages, car door conditions, elevator parking floors... etc.).

### ★ Contingency measures if someone is trapped:

01. Understand the current situation of the trapped persons.
02. Contact professional elevator manufacturers for rescue.
03. People outside the car must comfort the trapped passengers.
04. The trapped personnel must keep calm and wait for the professional elevator manufacturer to come to rescue.

### ★ Passengers inside and outside the car must remember not to destroy the elevator by themselves and escape forcibly to avoid further damage.

★ **Emergency accidents response measure of natural disasters or other failure / malfunction:**

**5-1 Power off**

- (1) Contact the power company. If the power outage is too long, you must ask the elevator company for rescue. When passengers are trapped in the car due to a power outage, the trapped persons must calm down and wait for the professional elevator manufacturer to come to the rescue, and the personnel outside the car should explain the situation to the passengers and instruct the passengers to wait patiently for rescue and comfort. The trapped personnel must remember not to destroy the elevator by themselves and forcibly escape, so as not to suffer more damage.
- (2) If the power is restored, press the destination floor button again to resume operation.

★ **To prevent power outages and passenger to be trapped inside the car, optional automatic power rescue system with additional charge will be a choice.**

**5-2 Fault**

When the elevator cannot be operated due to unknown reasons and the passengers are trapped in the car, the trapped persons must calm down and wait for the professional elevator manufacturer to come to the rescue, and the personnel outside the car should explain the situation to the passengers and instruct the passengers to wait patiently for rescue and comfort. The trapped personnel must remember not to destroy the elevator by themselves and forcibly escape, so as not to suffer more damage.

**5-3 Personal injury accident**

If you find someone injured because of the elevator, you should contact the elevator company and the police quickly (110) and the fire department (119) together to rescue.

**5-4 Fire**

- (1) When a fire breaks out, it is forbidden to take the elevator to avoid trapping; use stairs or other escape equipment to evacuate.
- (2) When you learn about a fire while boarding, please press all floor buttons to stop the elevator at the nearest floor and leave the car quickly.
- (3) After the fire, please contact the professional elevator manufacturer to check and confirm the safety before use.

## 5-5 Earthquake

- (1) When an earthquake occurs, it is forbidden to take the elevator to avoid being trapped.
- (2) When you feel an earthquake while boarding, please press all floor buttons to stop the elevator at the nearest floor and leave the car quickly.
- (3) In the unfortunate event of being trapped in the car, please stay calm and contact a professional elevator manufacturer to wait for rescue, do not forcefully escape by yourself.
- (4) After an earthquake (especially above an intermediate earthquake), please contact the elevator professional manufacturer to check and confirm that it is safe before use.

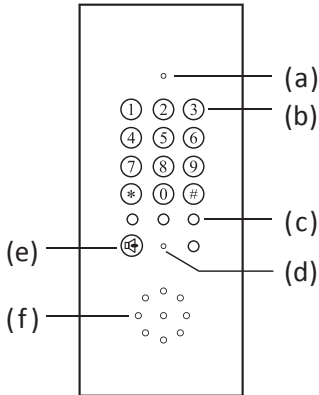
## 5-6 Flooded

When the machine room or pit is flooded due to firefighting activities or due to typhoons or other factors, the insulation of each machine will be inferior and cause malfunctions. At this time, the power must be turned off and the operation must be contacted by the professional elevator manufacturer for testing. Make sure it is safe before use.



★ Elevator's cabin is not an airtight space, although it is hot and sultry, but not with suffocation concern, people inside and outside the car must remember not to destroy the elevator by themselves, so as to avoid further damage. Waiting for the rescue of professional elevator manufacturers is the safest way.

★ Therefore, you should always be prepared and know where to call and how to contact, stay calm and contact the elevator company, inform the accident site address, describe the general situation of the accident or failure, whether anyone is trapped in the car, etc. In addition to contacting for rescue, the passengers must also be comforted. This is the best way to deal with it.



## Panel layout description

- (a) Microphone
- (b) Dial button
- (c) Memory button
- (d) Use indicator
- (e) Hands free button
- (f) Speaker

★ Functions and styles will vary slightly depending on the version

## Operation Instruction

### 01. This phone uses hands-free system.

Hands-free system which the effective distance is about 1 meter (if there is a barrier, it will be affected).

### 02. Incoming call

When a call comes in (the phone rings) → press the hands-free button to answer → When the call is finished → press the hands-free button to hang up.

### 03. Dial number

Press the hands-free key (use indicator light on) → and you can dial after hearing the tone → After the call is finished → press the hands-free button to hang up.

### 04. Memory number

- ▶ There are 3 pcs of memory button.
- ▶ In the on-hook state, dial the phone number, then press and hold the memory button for 3 seconds to complete the memory.
- ▶ The memory function of this phone needs to be reset if the power is outage.

### 05. Make a memory call ( There are 2 ways to make a memory call )

- (1) In the on-hook state → press the memory key (use indicator light is on) and automatically start hands-free and automatic dialing → Call finished → press the hands-free key to hang up.
- (2) In the on-hook state → press the hands-free key (use indicator light on) → press the memory key to automatically dial the number → Call finished → press the hands-free key to hang up.

# Induction machine operating instruction

(optional item with additional charge)

**Included: Induction machine x 1 、 Magnetic sensor card x 3**

## **Instructions:**

01. Place the "inductive magnetic card" 1cm in front of the induction machine.
02. When you hear a "beep" sounds, it means the induction is successful.
03. At this moment, you can press the button for the floor you want to go to.
04. After the induction is successful, you can press the floor button, and the number of seconds can be set from 1 to 60 seconds. The number of seconds must be set by the staff.

★ **Functions and styles will vary slightly depending on the version**

## Operation instructions for the automatic rescue system in case of power failure

(optional item with additional charges)

In the event of a power outage, the automatic rescue system will start automatically when the power outage occurs, stopping the elevator at the nearest floor so that the passengers can leave the car smoothly.

★ **Note:**

01. In the event of a power failure, the elevator will only stop at the nearest floor instead of the destination floor.
02. When the elevator fails due to non-power failure, the automatic rescue system will not start.
03. There is a battery in the automatic rescue system. It is recommended to replace the battery at your own expense after one year of lift installation to avoid long-term battery power loss and failure to drive smoothly. (The battery will be self-discharge even if it's not used).
04. Automatically rescue system with low battery power, when system start and send the passenger to the nearest floor, please do not use the elevator anymore due to low power. This is to avoid run out of power and cause a shutdown incident.

★ **Functions and styles will vary slightly depending on the version.**



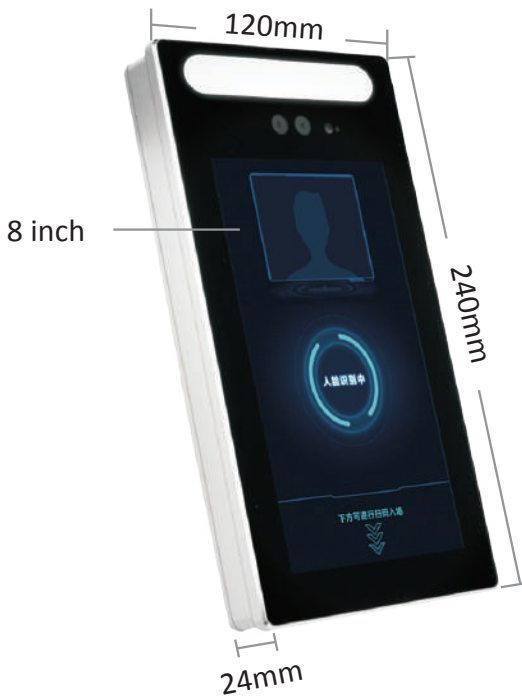
# Facial Recognition System

(optional item with additional charges)

NK-FA		
<b>Screen</b>	Size	8 inch, IPS LCD
	Luminance	350 LUX
	Resolution	800x1028
<b>Video</b>	Resolution	200Wx200W
	Number of Lenses	2
	Type	RGB Camera
	Aperture	2.0
	Focal length	6mm
	White balance	Automatic
<b>Core parameter</b>	CPU	4 core, 1.8GHz
	Device	2G
<b>General parameter</b>	Working	-10°C ~ 60°C
	Working humidity	10% ~ 90%
	Power	10W MAX
	Device size	240x120x24mm
	Weight	About 1.3kg
<b>Recognition ability</b>	Multi-person recognition	Identify 5 people at the same time
	1 : N person face recognition	The misrecognition rate is less than three - ten thousandths, and the recognition accuracy rate is 99.7%

- ★ The above specifications are reference values. If there are changes due to system or facility updates, please based on actual products.
- ★ Gated control, standard version, and layered control are the factory standard specification ( each of them are independent program). If there are additional functional requirements for other non-standard versions, it depends on whether the system can support and the cost will be slightly increased; if want to change to the new version after installation, There will be have expenses caused.

# NK-FA



## Preparation and instructions before us:

01. Please prepare a photo with clear features and non-covering face main features.
02. The photo format is: JPG (100~400KB), with a maximum of 1000 photos.
03. The name or job title corresponding to the photo or other titles to be displayed.
04. Corresponding to the preset floor of the photo character (if you have purchased this function).
05. There are three versions in the facial recognition system (standard version, gated control version, layered control version). Please refer to P26~28 for their respective functions. Each product is for independent use (including the installation location). The function and location cannot be changed after installation. If you need to change the function, you must re-purchase the other versions. Please carefully select the appropriate functional equipment.

## **Precaution**

01. Insufficient light or direct sunlight or reflection... and other external light sources will affect the recognition rate.
02. Please remove the objects that cover the facial features (such as masks) during identification to avoid misjudgment or failure to identify.
03. The standard height of the device: the HOP is about 125~135cm above the ground (based on the 110cm height from the unfinished surface ground to the HOP box as a reference value); if installed in the car, it will be adjusted to the most suitable position according to the COP specifications , in order to meet the height of 140~160cm from car floor as much as possible; if the optimal preset position is not possible due to the terrain or the car, please adjust the posture of the recognized person during recognition so that the full face can be displayed on the screen.
04. The best recognition is the frontal distance 100cm~200cm, and the recognized person needs to be displayed entire face on the screen.
05. For those who are installed outdoors or in other damp places, please install their own protection guard /cover to avoid damage to the equipment due to wet or damage.
06. Please use the market available special screen cleaning tools to wipe. Do not use water, cleaning agents, rough tools, etc. to wipe off non-screen cleaning products to avoid damage to the equipment.
07. The recognition function of this system may not be successfully recognized in some cases, such as twin (multiple) births or if there is a difference between the photos he saved and currently face feature (such as plastic surgery, development, face injury... etc.), please provide the latest photo or multiple photos again in this situation.
08. After the same person is successfully identified, the identification will be automatically excluded within one minute to avoid repeated identification.
09. Do not use it when there is a power outage or the elevator is abnormal.
10. The system displays and pronounces in Chinese during recognition, and does not support other languages.

## **Troubleshooting**

01. If you cannot identify, please confirm whether the identified person has provided a photo and saved it in the system.
02. If there is an error that cannot be identified or the function cannot be executed, please use the "de-control key" (if equipped) to release it, and then contact our customer service engineer for inspection and repair.

03. For those who cannot be excluded temporarily, please contact our customer service engineer for inspection and repair.
04. Please keep the "De-control Key" (if equipped) properly.

## 6 、 Safety instructions for elevator passengers

01. Do not use elevator if there is no external communication device or the device not yet completed.
02. Do not stand by the door when taking the elevator. In the event of a fire or earthquake, do not use the elevator for safety.
03. When the elevator stops, the occupants in front of the operation panel should first confirm that the door action will not trap the incoming and outgoing passengers, and then to press the "close" button.
04. Do not press non-purpose floor buttons randomly, so as not to hinder others use.
05. In the event of an elevator failure, please do not panic. You should use the telephone or intercom that can be used to communicate with the outside persons, and wait for the professional elevator manufacturer to deal with it. If you destroy the equipment by yourself and escape of trouble, It will be more dangerous.
06. Do not let children take the elevator alone to avoid accidents.
07. Overloading is prohibited to avoid danger.
08. Do not smoke in the car, so as not to affect the health of others.
09. Do not jump or shake in the elevator to avoid danger.
10. The elevator should keep running frequently (at least 1-2 times per week). Infrequent use may cause malfunctions.

MEMO



A series of 18 horizontal gray bars, stacked vertically, serving as a template for writing the memo's content.

# LILU ELEVATOR

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