



TOSHIBA

TOSHIBA TE-S1 series escalator
Kindmover-II

Instruction Manual

For Operation Management

Please read this instruction manual carefully before operation
for correct and safe use,
and keep the manual handy for future reference.

Introduction

Thank you very much for using TOSHIBA TE-S1 series escalator “Kindmover-II”.

In order to ensure the escalator operates safely, maintenance is required. However, regular inspection by the operator on daily basis is necessary too.

Please assign an operator, who is directly in-charge of the operation of escalators.

To ensure an escalator is operated correctly and safely, the operator must read through this “Instruction Manual” carefully before the operation.

After finished reading this manual, please place it within reach of the operator.

When the owner or the operator is changed, please make sure that this manual is hand over to the next operator.

If you find any question or incomprehensible descriptions, please direct all inquiry to our local distributor.

This instruction manual describes the TOSHIBA TE-S1 series escalator.

Please ask our company if you have any questions.

Terms and Definitions

An owner is the person who owns the escalator.

An operator is the person who is directly in-charge of the operation of escalators in use.

An engineer is the person with professional qualification, who is in-charge of the maintenance of the escalator.

Kindly sign up the maintenance contract with our local distributor.

We assure you the satisfaction of high quality maintenance services.

Ensure quality performance and operation of your escalator.

- We understand the overall structure of the (elevator) escalator clearly, including the design, manufacture, sales, installation, and maintenance, the correct technical information.

Thus, our service is quality assurance.

Ensure efficient repair and parts replacement.

- We supply appropriate parts according to the model and have all of them ready in stock.

Repair service and part replacement can be done efficiently.

Quick action service is possible.

- In case of malfunction or emergency, our engineers are able to fix the problem in timely manner.

Take charge by professionals.

- Your (elevator) escalator is always maintained by professionals.

Only engineers who possess professional skills and qualification will be assigned to take charge of the escalator's maintenance.

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Definition of safety sign

Understand the following safety signs and their meaning. These signs are very important to alert the operators and users about the hazardous actions or locations.

Description of signs



Sign	Meaning of sign
 WARNING	Indicates “If erroneously handled, person may die or be seriously injured* ¹ ”.
 CAUTION	Indicates “If erroneously handled, person may be injured* ² only material damage* ³ may occur”.

*1: “Seriously injured” means blindness, injury, burn (high-temperature and moderate-temperature), electric shock, fractures, poisoning, etc. with long-lasting effects or that require hospitalization and/or long-term hospital visits for treatments.

*2: “Injured” means an injury, burn, electric shock, etc. for which the patient need not be hospitalized or need not be admitted to hospital for a long time.

*3: “Material damage” means additional damage originating from the failure of assets and materials, and involving livestock and pets.

Description of symbols

Symbol	Meaning of symbol
	Indicates prohibition (a forbidden action). The practical detail of the danger is depicted in the form of an image or a sentence within or near the symbol.
	Indicates a mandatory action (a compulsory action). The practical detail of the danger is depicted in the form of an image or a sentence within or near the symbol.

Notes

Please be sure to observe about the warning sign (warning, cautions) given in an instructions manual related safely. Please do not perform the operation and the handling which do not have a publication in an instructions manual. It may become the cause of failure of an accident resulting in injury or death and apparatus.

Disclaimer

Since our company cannot take responsibility about the failure resulting from following unsuitable managements and use, or an accident.

- Resulting from the different operation and the different handling from an instructions manual
- Resulting from the defect of maintenance, check, and repair
- Resulting from having converted the product
With convert, not only change of hardware but a partial change of the program of a microcomputer, data, etc. is included. Moreover, connection of the equipment for maintenance and parts is also included in conversion.
- Resulting from having used it except the parts which our company does not supply, or specification parts

Safety precautions

The following precautions apply to the Owner and the Operator of escalators.

! WARNING

■ Perform daily inspection (refer to page 25)

Perform daily inspection to avoid undesirable malfunction or risk of accident.



Mandatory
Action



■ Conduct regular and preventive maintenance.

Conduct regular inspections and maintenance on the escalators to detect and prevent problem before occurrence. Please contact Toshiba for further details.



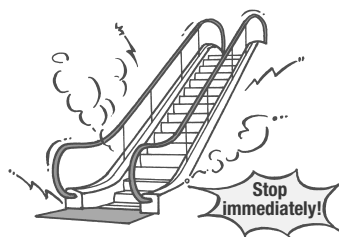
Mandatory
Action

■ Stop the escalator immediately in the event of failures, when smoke is emitted or there is any strange sound etc. (refer to page 16 for how to stop).

Stop the operation. Else, this may result in a fire or fault. Please contact the maintenance service company immediately.



Mandatory
Action



■ When water penetrates due to heavy rain etc., stop the operation immediately (refer to page 16 for how to stop).

Continuing operation under such circumstances may lead to undesirable accident. Please contact the maintenance service company after shutting down the operation.



Mandatory
Action

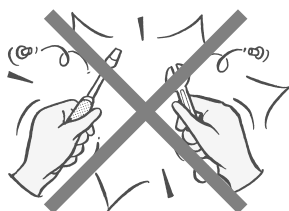


■ Do not repair, remodel or disassemble.

This may result in electric shock, serious injury, or fault. Please contact the maintenance service company if there are any problems occur.



Prohibition



■ Do not pour liquids, such as water, or apply wax etc. on the step and/or landing plate.

This may increase the risk of slipping on the steps and landing plate surface, which may lead to undesirable accident. Besides, leakage of liquids into the escalator may result in electric shock or malfunction.



Prohibition

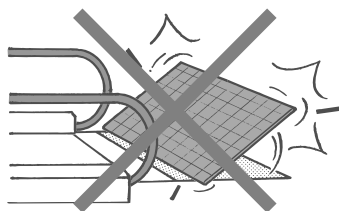


■ Do not remove the landing plate.

Since it houses a control panel, motor, etc. inside, this may result in undesirable accident.



Prohibition

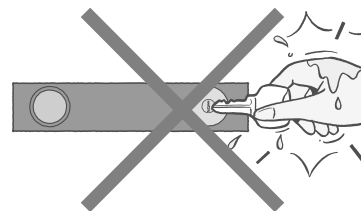


■ Do not operate key switches with wet hand.

This may result in undesirable accident.



Prohibition



Safety precautions

The following precautions apply to the Owner and the Operator of escalators.

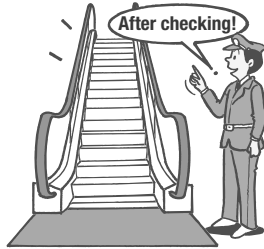
WARNING

- **Ensure the escalators are free of passengers and/or object before starting and stopping it.**

If it is made to start and stop, with a person or object present, this may result in undesirable accident.



Mandatory
Action



- **Stop the escalator before cleaning and maintenance (refer to page 16 for how to stop).**

Failure to do so may result in undesirable accident.



Mandatory
Action

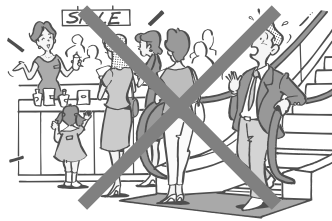


- **Do not hold an event which may create crowd around the landing plate from the escalator.**

The crowd will prevent passengers from getting off the escalator and lead to undesirable accident.



Prohibition

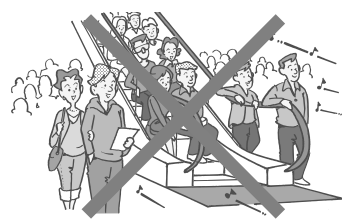


- **Do not use stopped escalator as seats.**

It will descend due to overloading, which may result in undesirable accident.



Prohibition



Mandatory
Action

- **Hold an event, please give instructions to or restrict the flow of passengers to have them keep a proper space in front upon getting on the escalator.**

If the landing area is crowded, it becomes impossible for a passenger to get off; this may lead to undesirable accident.



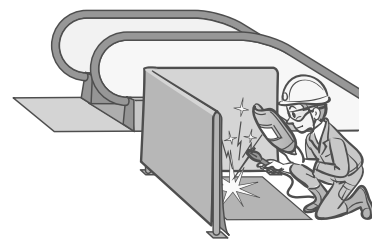
Mandatory
Action

- **Operation of a key switch finishes, remove an operation key and operator needs to keep it.**

If an operation key is kept inserted on a switch, this may result in undesirable accident.



Mandatory
Action



Mandatory
Action

- **Set up barricades when you suspend the escalator services to prevent people from using the escalators like staircases. Else, undesirable accident may occur.**

Otherwise, a trip or fall accident may occur.



Mandatory
Action

- **Affix warning labels at places where the passengers can notice them easily. Passengers should be alerted to prevent accidents and breakdowns.**

The operation supervisor should show users how to ride an escalator.

Please guide passengers with the following instructions.

! WARNING

■ **Do not get on the handrail and deck board.**

This may cause undesirable injury and accident.



Prohibition



■ **Do not lean your body (body parts) out of the handrail, or lean against a handrail.**

This may cause undesirable injury and accident.



Prohibition



■ **Do not ride the escalator with wheelchairs, baby carriages, and shopping carts, etc.**

This may lead to undesirable accident.



Prohibition



■ **Do not run or walk on the steps.**

There are possibilities of accident occurrence.



Prohibition



■ **Do not run on and off the step.**

This may lead to undesirable accident.



Prohibition



■ **Do not lean against glass (or a panel).**

This may lead to undesirable accident.



Prohibition

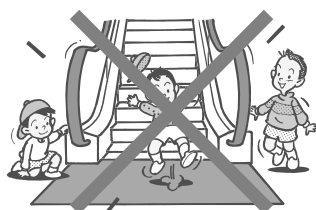


■ **Do not allow children to play around the escalators.**

This may lead to undesirable accident.



Prohibition



■ **Do not touch the step, comb, skirt guard panel, or handrail inlet with hand.**

This may lead to serious injury and undesirable accident.



Don't touch



Safety precautions

Please guide passengers with the following instructions.

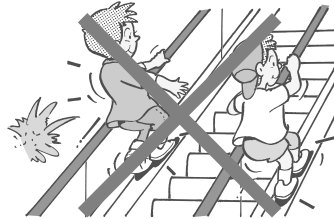
WARNING

■ **Do not climb or walk on the deck board.**

This may lead to undesirable accident.



Prohibition



■ **Do not use escalator in the event of a fire and/or earthquake.**

This may lead to secondary accident.



Prohibition

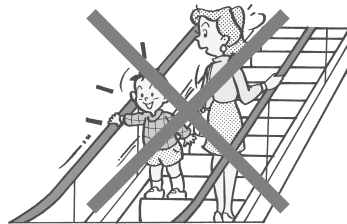


■ **Do not ride for reverse with a direction of movement.**

This may lead to undesirable accident.



Prohibition

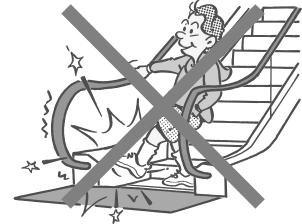


■ **Do not pull a handrail or kick away the skirt guard panel etc.**

A safety device may trigger an emergency stop, or result in unsynchronized motion of handrail and steps, causing undesirable accident.



Prohibition

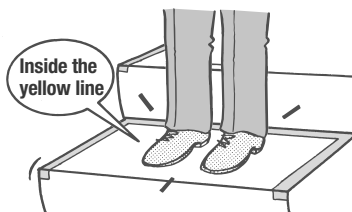


■ **Stand within the yellow line.**

If you stand on the yellow line, there are possibilities of injuring your feet.



Mandatory
Action



■ **Do not ride with clothes that possible to be caught by the escalator such as long skirts.**

The skirt may caught by the escalator and lead to undesirable accident.



Prohibition



■ **Hold the handrail firmly.**

This would help to prevent the occurrence of undesirable accident.



Mandatory
Action



■ **Small children must be accompanied and have their hand hold by the guardian.**

Negligence may lead to undesirable accident.



Mandatory
Action



Please guide passengers with the following instructions.

! WARNING

- Escalators with a width of 1000 mm allow up to two passengers to stand on the same step (while those with a width of 600 mm and 800 mm allow only one passenger on the same step). Accident has higher possibility to occur on a crowded escalator, passengers should leave sufficient space between themselves. Otherwise, passengers may fall, or unexpected accidents may occur.



Mandatory
Action



- Step over the comb when you get on/off the escalator. Failure to do so may lead to undesirable accident.



Mandatory
Action



! CAUTION

- Do not carry large baggage on the escalator. The passenger may tumble down with the baggage, or the baggage may hit the other passengers, which result in undesirable accident.



Prohibition



- Do not place any package etc. on the step, handrail, deck board, or landing plate. The package etc. may fall, and cause serious injury and undesirable accident.



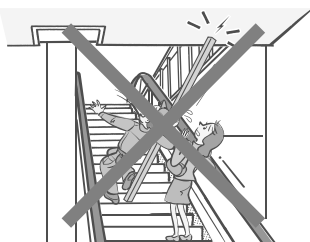
Prohibition



- Do not carry any long objects. The passenger may lose balance, leading to undesirable accident. In case, the object is stuck between a moving escalator and the ceiling, will cause damage to steps and undesirable accident.



Prohibition



- Do not use a stopped escalators as a staircase. This may lead to undesirable accident.



Prohibition



Safety precautions

Please guide passengers with the following instructions.

! CAUTION

■ Do not sit on the steps.

It may cause serious injury.



Prohibition



■ Do not take animals.

It may lead to undesirable accident.



Prohibition



■ Do not stop at the landing plate once getting off from the escalator.

The way of other passengers will be blocked, causing undesirable accident.



Prohibition

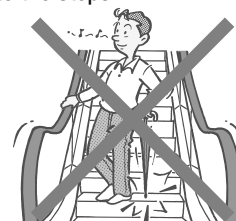


■ Do not touch steps with thin or pointy objects, such as the point of an umbrella.

It may be caught in between the grooves, lead to undesirable accident or damage to the steps.



Prohibition



■ Do not smoke while riding an escalator.

This may lead to undesirable accident.



No smoking

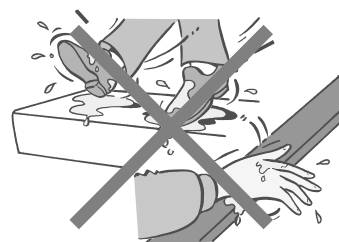


■ Do not get on escalator with wet shoes, or hold a handrail with wet hands.

Slippery steps and handrails may lead to undesirable accident.



Prohibition

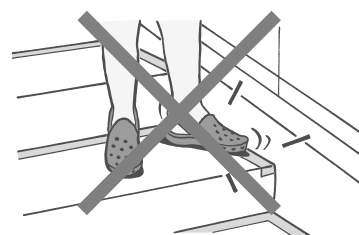


■ Do not force the head or heels of footwear of soft material, such as rubber or vinyl products, into the clearance between skirt guard panels or steps.

This may cause accident if the object is caught between a skirt guard panel and step. Moreover, this will trigger the safety device and emergency stop, which may lead to undesirable accident.



Prohibition



Please guide passengers with the following instructions.

CAUTION

■ **Be careful for not letting your stiletto heels to be caught in between the escalator steps.**

Stiletto heels may stuck in between the grooves or comb, leading to undesirable accident.



Mandatory
Action



■ **Do not ride the escalator with barefoot.**

This may lead to serious injury.

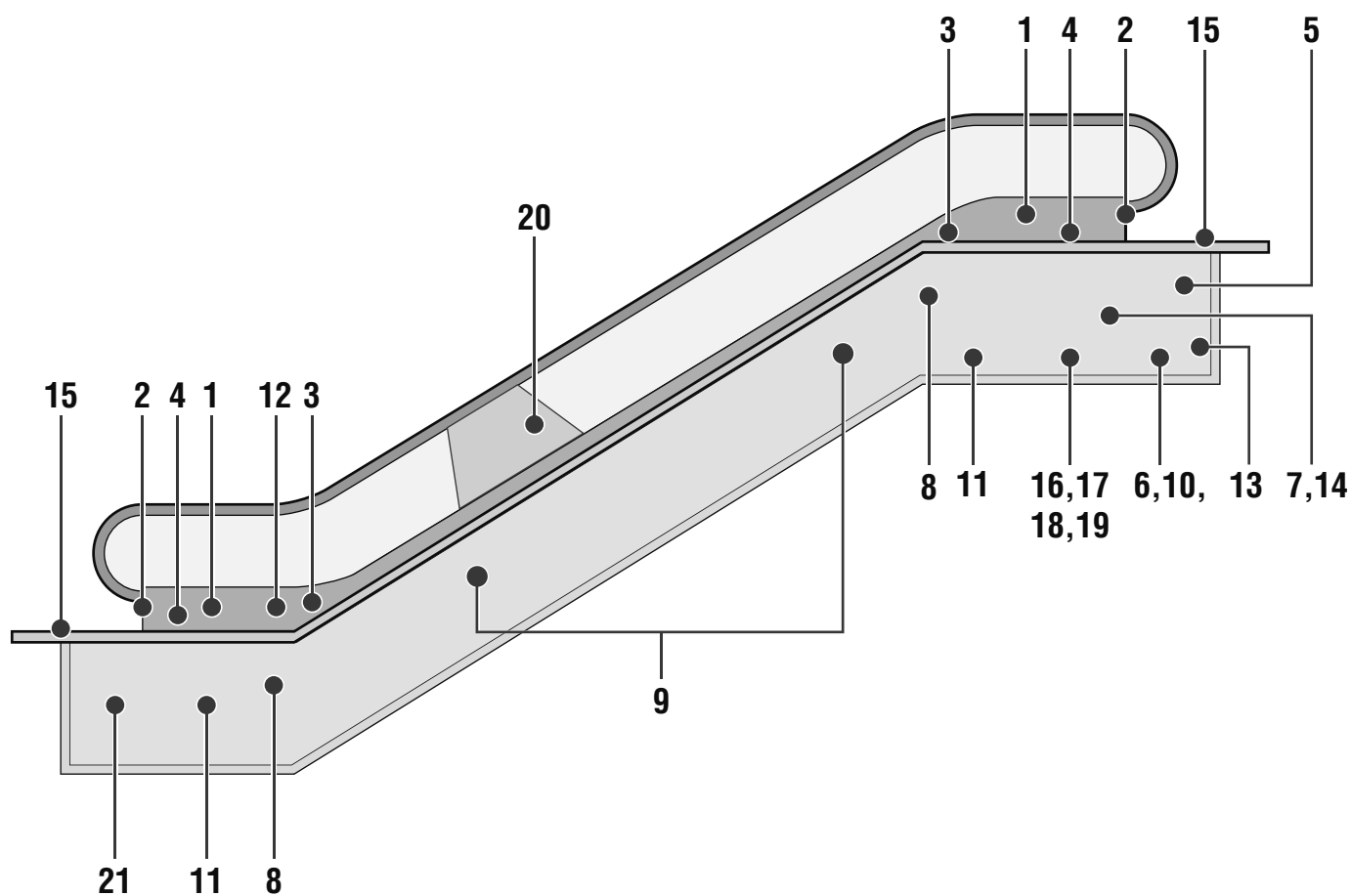


Prohibition



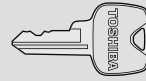
The Safety Devices

The following safety devices are equipped in escalator.
(It may not be equipped with specification.)



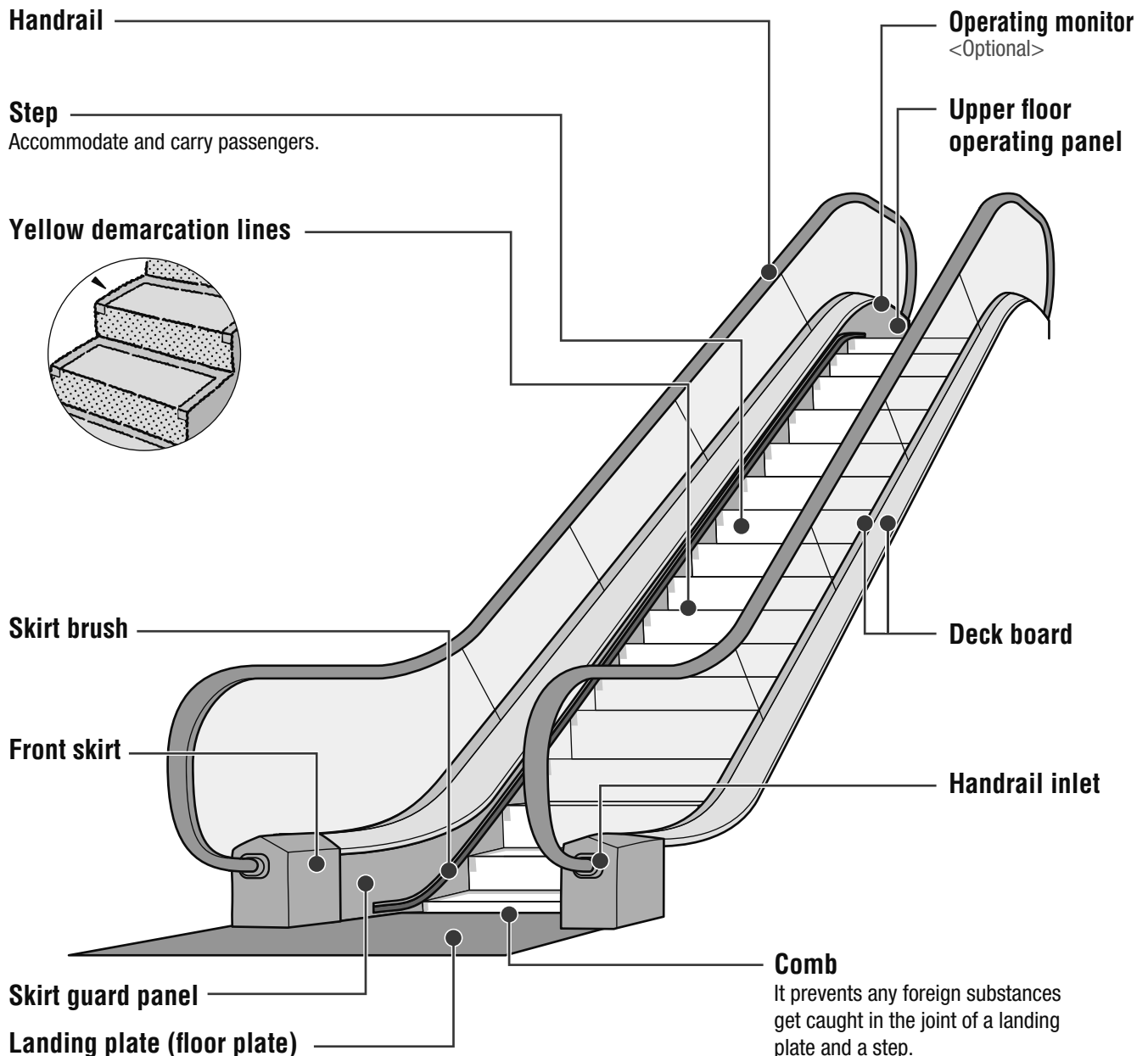
No.	Device name
1	Emergency stop button
2	Handrail inlet safety device
3	Skirt guard panel safety device
4	Comb safety device
5	Electric-circuit protection device
6	Electromagnetic brake
7	Broken drive chain detective device
8	Step abnormality detection device
9	Step sag detective device
10	Motor overheat protection device
11	Step missing detector
12	Handrail speed monitoring device
13	Fire shutter interlocking device
14	Ratchet wheel
15	Landing plate switch
16	Brake release checking device
17	Over speed monitoring device
18	Stopping distance detector
19	Reverse operation monitoring device
20	Running up prevention device
21	Broken step-chain detective device

Name and function of escalator's part

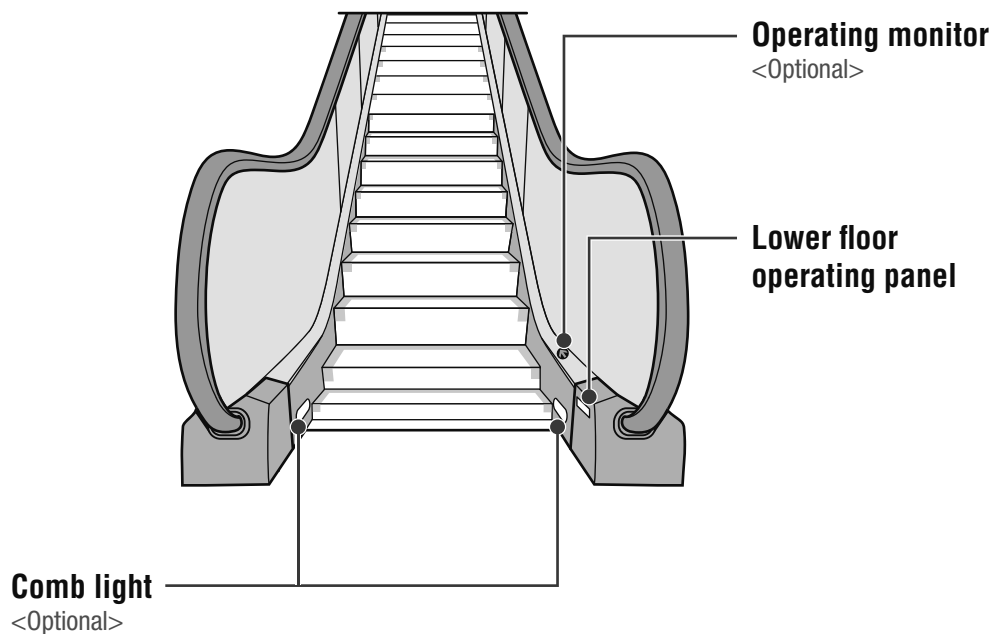


Operation key

Use to start up an escalator.
The operation key should be
keep by authorized person only.



*About <Optional>, it may not be equipped with the specification at the time of delivery.



*About <Optional>, it may not be equipped with the specification at the time of delivery.

Upper floor operating panel



Lower floor operating panel



Symbol	Operation part name	Explanation
A	Emergency stop button	In case of emergency, stop the escalator immediately by pressing this button.
B	Up/down key switch	Select the moving direction by turning the UP/DOWN key switch.
C	Status indicator	The various states of escalator are indicated.

Operating procedures

WARNING

- **Before starting or stopping the escalator operation, make sure that there are no passengers on the escalator, and that there are no objects placed on the escalator.**

Starting or stopping the escalator when there are passengers on the escalator could cause the passengers tumble down the steps, which may lead to death or serious injury.

- **Operation of a key switch finishes, remove an operation key and operator needs to keep it.**

If an operation key is kept inserted on a switch, this may result in undesirable accident.

- **Do not operate keys and switches with wet hand.**

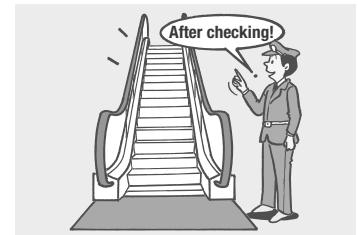
There is possibility of electric shock if water reaches internal electrical components from the operating keys, which may lead to death or serious injury. This could also cause equipment failures or breakdown.

Start up

1



Make sure that there are no passengers on the escalator, and that there are no objects placed on the escalator.

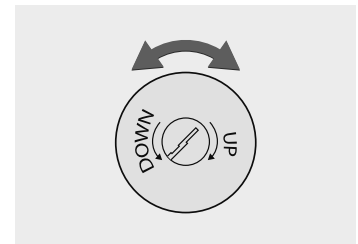
- If anyone is on the escalator, wait for them to get off.
- If any objects are placed on the escalator, remove them.
- If the escalator is interlocked to fire-proof shutters, make sure that the fire-proof shutters are completely open.

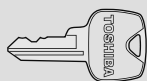


2

Turn to the desired direction of operation via the up/down key switch.

- After a buzzer sounding 3 seconds, escalator is operated in the desired direction.
- If escalator starts operation, please remove a key promptly (please do not hold 5 seconds or more).
- With lighting system, all of them will turn on at the same time.
- With operating monitor, it displays  on the getting on port and  on the getting off port.



**Operation key**

Use to start up an escalator.
The operation key should be
keep by authorized person only.

Shut down

1**Make sure that there are no passengers on the escalator.**

- If passenger is present, please wait for the person to get off from the escalator.

**2****Push the emergency stop button.**

- The escalator will stop.
- With lighting system and/or operating monitor, all of them will turn off at the same time.



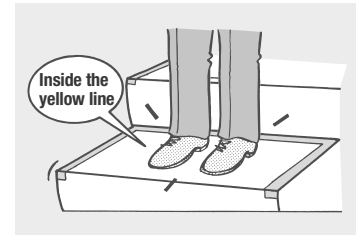
How to ride an escalator safely

Please also read the “Definition of Safety Sign” (refer to the page 3) and “Safety Precautions” (refer to the page 4 to 10) to the users via notice or announcements, etc. Please guide users directly, especially during rush hours.

1

Always stand within the yellow demarcation line of the step.

- If you stand on the yellow line, you may get your feet caught in between a moving step and the skirt guard panel, or between the steps.



2

Hold the handrail firmly.

- Hand of small children must be hold by the guardians.



3

Do not run or walk on the escalator.

- Escalators are not staircases; running or walking on escalators may lead undesirable accident.



4

Step over the comb when you get on/off the escalator.

- Give instructions to passengers, so they can get on and off the escalator safely especially for children, elderly and disabled passengers.



Attention to the owner and the operator

Escalators with a width of 1000 mm allow up to two passengers to stand on the same step while those with a width of 600 mm and 800 mm allow only one passenger on the same step. To avoid tripping or unexpected accidents due to contacts of passengers or with baggage, please make sure that passengers allow a proper space in front and behind them.

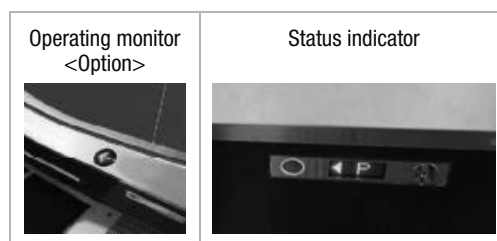
When the escalator is crowded with passengers, please give instructions to or restrict the flow of passengers to have them keep a proper space in front upon getting on the escalator to prevent crowd at the landing area.




It may lead to undesirable accident when landing area is crowded, please stop getting on the escalator immediately.

Definition of operating monitor's / status indicator's signs

Operating monitor indicates the moving direction of the escalator before passengers get on an escalator.

Status indicator displays a situation, when a safety device activated and escalator stops.



Operates normally		
Operating monitor	Getting on port	 Displays the direction of movement (Green, scrolling)
	Getting off port	 Display no entry sign (Red)
Failure occurs		
Operating monitor	Getting on / off port	 It is turned off.
Status indicator	Getting on / off port	M07 Emergency stop button at the lower floor was activated.
		M08 Emergency stop button at the upper floor was activated
		B8 Handrail speed monitoring device at the left-side was activated.
		B9 Handrail speed monitoring device at the right-side was activated.
		M03 <ul style="list-style-type: none">• Upper floor handrail inlet safety device was activated.• Upper floor comb safety device was activated.
		M05 <ul style="list-style-type: none">• Lower floor handrail inlet safety-device was activated• Lower floor comb safety device was activated.
		M04 <ul style="list-style-type: none">• Safety device for the upper floor skirt guard panels was activated. <Optional>• Upper floor step safety device was activated.<Optional>
		M05 <ul style="list-style-type: none">• Safety device for the lower floor skirt guard panels was activated. <Optional>• Lower floor step safety device was activated.<Optional>
		FIR Fire prevention shutter interlocking device was activated. <Optional>

When signs other than the above are displayed on a status indicator, please contact a maintenance service company.

Safety measures in case of emergency

In case of emergency stop

When the emergency stop button is pressed or a safety device had been activated, please follow the procedures stated below:

1

Inspect the handrail inlet, front skirt, comb, step, skirt guard panel, etc. (Refer to page 25 for the checking method)

- If any foreign object or problem is found, please contact the maintenance service company.
- If case of accident results in injury or death, please refer to page 19.

2

Start the escalator. (Refer to page 15 for how to start)

- In case you are unable to start the escalator, please contact the maintenance service company.

In case of accident results in injury or death

Stay calm and take action according to the following procedures:

Please contact the police/fire service, and maintenance service company immediately.

1

Press the emergency stop button immediately.

- The escalator stops.

2

Take the possible safety measures to rescue the victim(s).

- Please contact the fire station if the rescue is impossible, and in case of serious injury.
- Pay attention during the rescue operation and keep unauthorized people away from the spot.

3

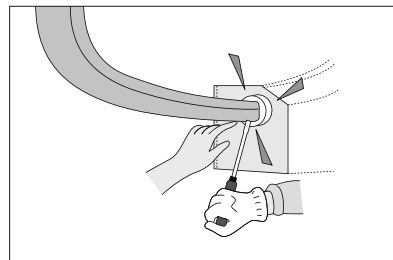
Contact the maintenance service company.

Examples of the rescue method

These rescue methods are examples. The rescue may be difficult depend on situation.
In such cases, please seek for professional help.

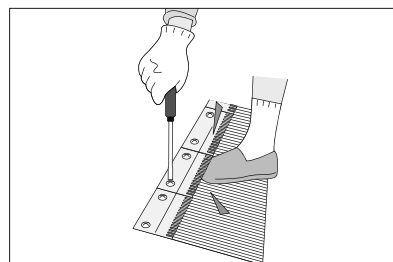
■ When fingers are caught in the handrail inlet.

Use tools (driver etc.) to help the victim to draw out his/her fingers from the handrail inlet.



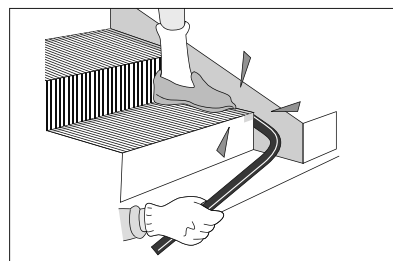
■ Hand and/or foot are caught in between the comb.

Remove the comb with a screwdriver.



■ The foot is caught in between the step and the skirt guard panel.

Use tools (bar, etc.) to widen the clearance between the skirt guard and step.



Safety measures in case of disaster

In case of disaster, it is very important for the supervisors to assess the situation calmly, take action promptly, and always ensure user's safety. Here, we explain the procedures to be taken in times of disaster.

In case of earthquake



■ **Please do not use the escalator in case of earthquake.**

Taking refuge on an escalator may lead to secondary accident.

■ **When you suspend the escalator services, put up barricades to prevent people from climbing up or down escalators like staircases to prevent undesirable accident.**

Otherwise, a trip or fall accident may occur.

1

Notify passengers about the occurrence of an earthquake by making announcement, and alert them for not to use the escalator.

- Please guide the passengers, so they can take refuge safely.

2

Stop the escalator. (Refer to page 16 for how to stop)

3

Carry out daily inspection, after the earthquake has subsided. (Refer to page 25)

- If any problem is detected, please contact the maintenance service company.
- If no problem is found, please resume the operation (refer to page 15 for how to start).

In case of fire



■ Please do not use the escalator in case of fire.

Taking refuge on an escalator raises the potential of secondary accident.

■ When you suspend the escalator services, put up barricades to prevent people from climbing up or down escalators like staircases to prevent undesirable accident.

Otherwise, a trip or fall accident may occur.

1

Notify passengers about the outbreak of fire by making announcement, and alert them for not to use the escalator.

- Please guide the passengers, so they can take refuge safely.

2

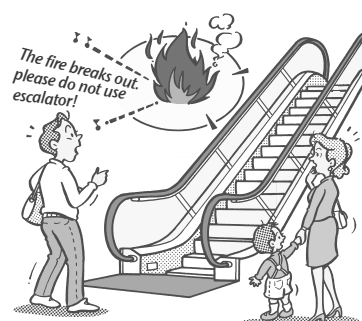
Notify the fire station immediately.

- Please also contact the maintenance service company.

3

Stop the escalator. (Refer to page 16 for how to stop)

- A fire prevention shutter may be activated, which will stop automatically.



Safety measures in case of disaster

Power outage notification

WARNING

■ When you suspend the escalator services, put up barricades to prevent people from climbing up or down escalators like staircases to prevent undesirable accident.
Otherwise, a trip or fall accident may occur.

1

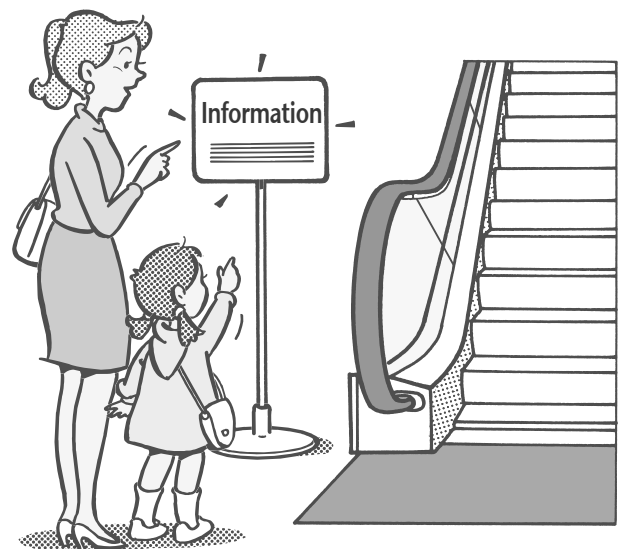
Notify users of the power outage via notice and announcement etc. in advance.

2

Stop the escalator, before the power is cut off.
(Refer to page 16 for how to stop)

3

Resume the operation, after the power is restored.
(Refer to page 15 for how to start)



In case of rainstorm



- If water penetrates into the escalator due to heavy rain etc., please stop the escalator immediately (refer to page 16 for how to stop).
Continues the operation may lead to undesirable accident, if the equipment/parts have been soaked in water, replacement may be required.
- When you suspend the escalator services, put up barricades to prevent people from climbing up or down escalators like staircases to prevent undesirable accident.
Otherwise, a trip or fall accident may occur.

In case of rainstorm (Possibility of water leakage)

1

Stop the escalator (Refer to page 16 for how to stop).

- When there is possibility of water leakage, please stop the escalator.

2

Create a dyke to prevent water from flowing into the escalator.



[After the rainstorm]

1

Check the landing plate to ensure there is no trace of water penetrated into the escalator.

- If any of water trace is detected, please stop the operation and contact the maintenance service company (refer to page 16 for how to stop).
- If there is no trace of water leakage, please resume the operation (refer to page 15 for how to start).
- Although the outdoor escalators are designed to withstand certain extent of rainstorm, but we would recommend you to stop it in advance, like a normal escalator during rainstorm.

[If any parts of the escalator had been soaked in water during operation]

1

Please stop the operation immediately and contact the maintenance service company.

- Please do not resume operation under any circumstances unless procedures such as the insulating measurement test etc. draining, dryness check have been done by an authorized technician.

Procedure for daily inspection

WARNING

■ Please conduct daily inspections.

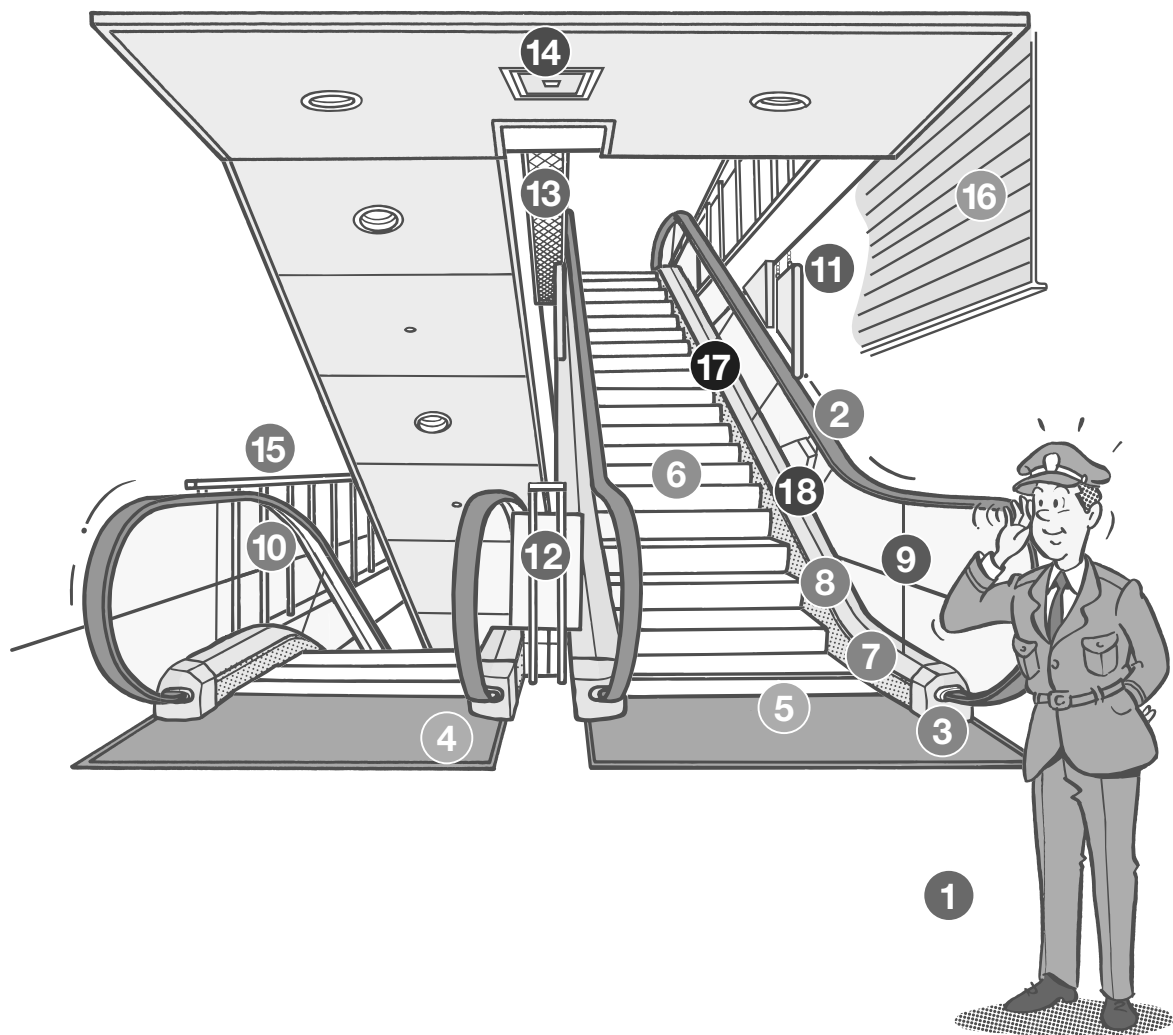
Conduct regular inspections daily to prevent undesirable problem and accident.

Please conduct the following inspection every day.

If anything unusual occurs, please contact the maintenance service company.

Please check the surrounding facility installation situation at the time of test runs and round checks.

If the safety equipment is deficient, or any obstacle exists, do not operate the escalator under any circumstances.



Inspection		Content of inspection
①	Operational status	<ul style="list-style-type: none"> • Ensure there is no sign of abnormal sound. • Ensure there is no sign of abnormal vibration.
②	Handrail	<ul style="list-style-type: none"> • Ensure there is no sign of abnormal flaw. • Match the step speed. • Ensure there is no sign of abnormal vibration.
③	Handrail inlet safety	<ul style="list-style-type: none"> • Ensure there is nothing missing or damaged. • Ensure nothing is caught.
④	Front skirt	<ul style="list-style-type: none"> • Ensure there is nothing missing or damaged. • Ensure nothing is caught.
⑤	Comb	<ul style="list-style-type: none"> • Ensure there is nothing missing or damaged. • Ensure nothing is caught.
⑥	Step	<ul style="list-style-type: none"> • Ensure there is nothing missing or damaged. • Ensure nothing is caught.
⑦	Operating monitor <Optional>	<ul style="list-style-type: none"> • Ensure there is nothing missing or damaged. • Ensure the display operates normally or does not blink.
⑧	Skirt guard panel	<ul style="list-style-type: none"> • Are not in contact with a step. • Ensure the clearance between steps is not excessive. • Ensure nothing is caught.
⑨	Glass pane/Deck board	<ul style="list-style-type: none"> • Ensure no damage
⑩	Lighting/ Skirt guard panel lighting <Optional>	<ul style="list-style-type: none"> • Ensure it operates normally or does not blink. • Ensure that there is no damage or crack on the acrylic cover of the skirt guard panel lighting. • Ensure the skirt guard panel lighting is operates normally and not flickering.
⑪	Wedge guard	<ul style="list-style-type: none"> • Ensure no damage. • Ensure it does not shift.
⑫	The partition plate for ingress prevention	<ul style="list-style-type: none"> • Ensure no damage. • Please provide partition plate prevent the passengers from falling from the clearance between the balustrade and the fall prevention fence, etc. in a landing place.
⑬	Falling object prevention net	<ul style="list-style-type: none"> • In order to catch falling objects, to prevent accident, please install a net for protection.
⑭	Speaker	<ul style="list-style-type: none"> • It is effective if you use announcements over a store's public address system etc. for guidance, PR, etc. concerning the right method of getting on and off escalators.
⑮	Fall prevention fence	Please install a fence around the escalator to prevent small child nor any object from falling accidentally.
⑯	Fire prevention shutter interlock device	In the event of fire, it is necessary to isolate the escalator from the outside.
⑰	Skirt brush	<ul style="list-style-type: none"> • Ensure no damage. • Ensure it does not shift.
⑱	Running up prevention device	When a child brings close to the side of escalator easily, in order to apply on a deck board, to reach and to prevent the falling accident, please form a partition plate in the middle of a deck board.

Note:

- Please remove any object that triggered emergency Stop in ③, ⑤, ⑥ and ⑧ (refer to page 16 for how to Stop).
- ⑦, ⑩ and ⑪ are optional, depend on situation.

How to clean and maintain

⚠ WARNING

■ Please do not pour liquids, such as water, or apply wax etc. on the step and/or landing plate.

This may increase the risk of slipping on the step and landing plate surface, which may lead to undesirable accident. Besides, leakage of liquid into escalator may result in electric shock or malfunction.


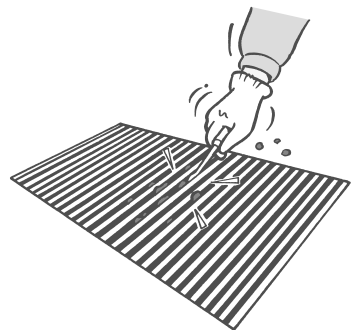
■ Please stop the escalator before cleaning and maintenance (refer to page 16 for how to stop).



Failure to do so may result in undesirable accident.

⚠ CAUTION

■ Please do not use benzene, a thinner, a gasoline, etc.

These solvent may cause degradation and discoloration of escalator material.

Cleaning area	The cleaning method	
Handrail	<ul style="list-style-type: none"> • Wipe with a dry soft cloth. • Wipe stubborn stain with neutral detergent diluted to about 1%. Remove the moisture with dry cloth later. After the handrail is dried, please apply slide agent* with a cloth to the handrail surface. When the liquid is dried, please wipe the handrail with a dry cloth. Keep in mind that the handrail may get scratched if it is neglected or over-wet with too much silicone. ● Stop the escalator. Clean only the exposed portion of the handrail. When the cleaned section is thoroughly dried, operate the escalator to expose remaining section and continue with the cleaning operation. <p>*An example slide agent Toshiba Silicone emulsion TSM 630 <GE Toshiba Silicones Co., Ltd.></p>	
Comb / Step / Landing plate	<ul style="list-style-type: none"> • Remove rubbish etc. with a vacuum cleaner. • Remove any rubbish the groove of the comb or step. 	

Cleaning area	The cleaning method	
Glass panel / Deck board	<ul style="list-style-type: none"> Wipe with the dry soft cloth. Wipe stubborn stain with neutral detergent diluted to about 1%. Remove the moisture with dry cloth later. Please read the instruction manual for how to use the glass cleaner. 	
Illumination cover/ Operating monitor/ Front skirt	<ul style="list-style-type: none"> Wipe the stain with neutral detergent diluted to about 1% strength. Occasionally, wipe of the stain with plain water. Remove the moisture with dry cloth and apply antistatic agent. Users should read the instruction manual for how to use the antistatic agent. 	


WARNING

- Please apply a slide agent to the skirt guard panel once or twice a month.

Inadequate slide agent may cause the shoes etc. to become drawn into the clearance between the step and skirt guard panel.

- Please do not allow the slide agent adhere to a step.

Else, it may lead to undesirable accident.

Cleaning area	The cleaning method	
Skirt guard panel	<ul style="list-style-type: none"> Please apply a slide agent* once or twice a month. (When a fluoro-resin coating skirt is used, please apply once every three months.) <p>*An example slide agent Toshiba Silicone emulsion TSM 630 <GE Toshiba Silicones Co., Ltd.></p>	

Guidelines of maintenance and operation for escalators

WARNING

■ **Please implement legal regular inspection and maintenance checks.**

The escalators should be inspected and maintained regularly to ensure the safe use of escalators and its performance.

Please consult with our company regarding the inspection and maintenance.

■ **The oil etc. used lubricious may be accumulated in the lower truss of the escalator.**

Please conduct regular inspection to prevent oil leakage problem.

Precaution:

- Please do not enter into any maintenance contract with any unauthorized/unqualified maintenance company.
- Please do not engage in the recovery of oil by any means other than through a maintenance operator.
- Please dispose recovery oil properly to avoid environment pollution.

As described above, escalators must be a safe means of transportation that can be used conveniently in our daily life. Of course, to ensure safety, the equipment itself must be designed to be safe, but at the same time, it should also be properly used and maintained.

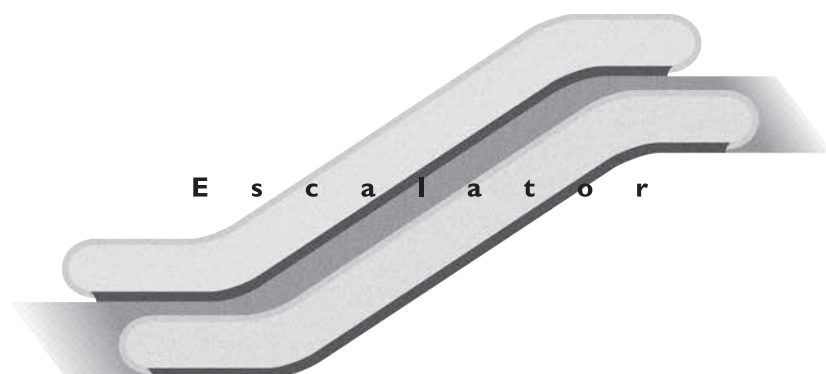
In order to prevent accidents and ensure safety, the owner and the operation supervisor of escalators should fully understand them and perform daily maintenance and operation properly.

Note

Please contact our local distributor when you need to dispose or remove escalators.



Memo



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

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- The data given in this catalogue are subject to change without notice.
- Revised publication effective Mar. 2019