



# Instruction Manual for Sliding Door V-SL

**WARNING:** Important safety instructions. It is important for the safety of persons to follow these instructions. Save these instructions.

- Precautions particularly important for safety are marked with the  sign.
- Read and fully understand the contents of this instruction manual, then handle the automatic door. Furthermore, make sure to follow the instructions mentioned in the instruction manual.
- Keep the instruction manual in a safe place where is easily accessible so that the manual can be used at any time.

Revision code 	-
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## ▼ Introduction

Thank you so much for choosing the NABCO automatic sliding door system.

NABCO automatic doors are designed and manufactured on the basic principle of “People’s Safety & Comfort” and also in accordance with “Power operated pedestrian doorsets. Safety in use. Requirements and test methods” complying with JIS A 4722.

This instruction manual, hereinafter referred to as “this document”, is edited for the facility owner and superintendent to operate the automatic door system safely.

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## ▼ Important notices

### ● For safety

To handle the automatic door system safely, be sure to follow the cautions listed below;

- In order to prevent system breakdowns and accidents, carefully read this document before using the automatic door system, and surely observe contents of this document.

Never conduct anything not mentioned in this document.

- Properly handle the system and manage the facility with fully understanding this document.

### ● For maintenance and inspection

To keep safety based on the standard JIS A 4722 and use this automatic door system continuously, it is necessary to perform maintenance and inspection periodically and continuously by your NABCO distributor. Perform maintenance and inspection properly.

### ● For transferring

When transferring the automatic door system, hand over the warranty certificate and the latest inspection report along with this document to the new user.

The new user should request the latest safety information. We shall have no responsibility for accidents and problems caused by improper operations against the latest safety precautions.

### ● For disassembling and modifying

- Never disassemble or modify the automatic door system.

We will take no responsibility for disassembling and modifying conducted by customers.

- When replacing a glass plate, make sure to use a safety one or the one with shatterproof film pasted.
- When doing works around the automatic door such as the floor work, contact your NABCO distributor in advance because sensor detection ranges etc. may be changed.



### ● For disposal



Dispose of the automatic door system following the related laws and regulations.

## ▼ Safety precautions

### ● Definitions of signal words

In order to prevent accidents and damages to properties, signal words are defined and indicated by sign as below:

Sign	Hazard level
 <b>WARNING</b>	Indicates a hazardous situation that, if not avoided, could result in death or serious injury of users.
 <b>CAUTION</b>	Indicates a hazardous situation that, if not avoided, could result in minor injury of users.
<b>CAUTION</b>	Indicates a hazardous situation that, if not avoided, could result in property damage.

Sign	Meaning
	Forbidden: Indicates actions, etc., that must not be performed.
	Instruction: Indicates actions, etc., that must be performed.

### ● Cautions for operation

The facility owner and superintendent shall observe the cautions listed below for operating the automatic door system.



#### Caution for troubles



**If you hear a strange sound, smell bad, or notice smoking from system, immediately turn off the power switch.**

There is a fire or blaze risk.

Please contact your NABCO distributor.

#### Caution for power outage





**Turn off the power switch in case of power outage**

If the power switch is left ON in case of power outage, the automatic door will be activated slowly when power is supplied again, so that pedestrians may collide with the automatic door.

## ● Cautions for operation (continued)


### WARNING

#### Caution for preventing accidents


- 
**If a trouble leading to an accident occurs, immediately turn off the power switch.**  
 If a cane, heel of high heels, or caster wheel of the shopping cart used by a person passing through the automatic door gets stuck in the guide rail, the person may be caught in the door. Immediately turn off the power switch to secure safety of the person.
- 
**Maintenance for the damaged supply cord**  
 If the supply cord is damaged, contact your NABCO distributor. Do not replace the cord by yourself. Service agent changes the cord and fix any problems.

### CAUTION

#### Cautions for strong wind

- 
**Turn off the power switch when the wind blows strongly.**  
 The door works unstably when the wind blows strongly, so that persons may collide with the door. Open and close the door manually.

#### Cautions for manual operation

- 
**Slowly open/close the door when operating manually**  
 Strong operation may cause damage to the door stopper of the door operator or derailing, so that your fingers may be caught between the door and frame or fixed sidelite. Slowly open and close the automatic door when operating manually.

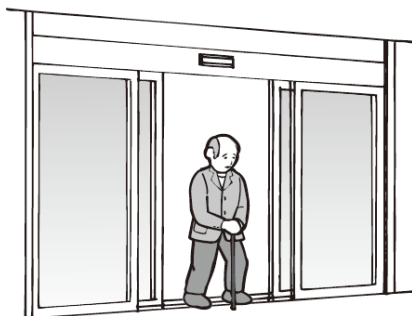
## ● Cautions for users

The facility owner and superintendent shall wake persons using the automatic door to the cautions listed below to operate the automatic door safely.

### Caution



**Do not stop on the doorway.**  
You could get caught in the door.



**Do not rush through the door.**  
**Do not cross the door diagonally.**  
You could collide against the door.



● Cautions for users (continued)

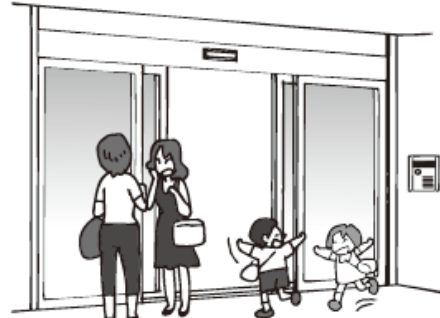
⚠ CAUTION



**Pass through the door after confirming the door is open.**  
You could collide against the door.



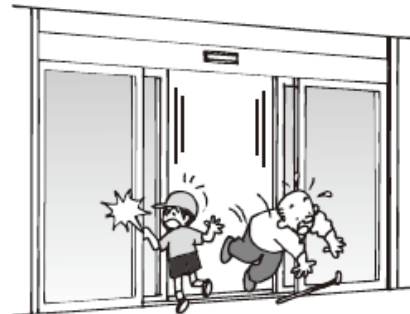
**Do not let children play near the door.**  
There is a danger to collide against the door or be caught in the door.



**For young children, grownups take their hands in passing through the door.**  
There is a danger to collide against the door or be caught in the door.



**Do not touch the door or fixed sidelight.**  
There is a danger to tumble over or be caught in the door due to colliding against the door.



**The disabled person and persons around him (her) shall give care to safety of the disabled person when he (she) passes through the door.**



**Do not lean on the door or the fixed sidelite.**  
There is a danger to tumble over, collide against the door, or be caught in the door.



\* Fixed sidelite: a door panel that does not open/close.

## ▼ Outline

### ● Product described in this document

The NABCO automatic door system described in this document is as follows:

Product name: Automatic Door operator Type V

The system intended to be used under the following conditions:

- Temperature..... -20 to 50°C
- Relative humidity..... 20 to 90% (no icing or condensation)
- Electromagnetic field immunity... Industrial environment (JIS C 61000-6-2)
- When strong wind blows..... Suspend the automatic operation (operating manually)

#### [Note]

- For the detailed specification of the product, refer to the product catalog.  
The product catalog can be downloaded from our web site: <https://nabco.nabtesco.com/>
- This document describes functions and handling of the automatic door system by taking the typical automatic door (sliding door) system as an example. Please be aware that the described appearance and functions may be different from appearance and functions of the product used by you.

### ● System structure

The figure on the next page shows an installation example of the automatic door (sliding door) system. According to the kind and opening/closing type of the product, your automatic door system may be different in appearance from the product shown in the installation example. Furthermore, the figure shows the installation example to use various activation sensors, however, the best models of sensors are selected with considering environment of the installation location and possible usage of the automatic sliding door.

### ● Automatic door information sign

In order to improve safety for surroundings of the automatic door, it is specified in the standard JIS A 4722 to indicate the following information. The following sticker is provided for the NABCO automatic door. Surely put it on the door.

■Warning Label



A label warning against running into automatic doors and standing still on the doorway.

■Door pocket warning labels



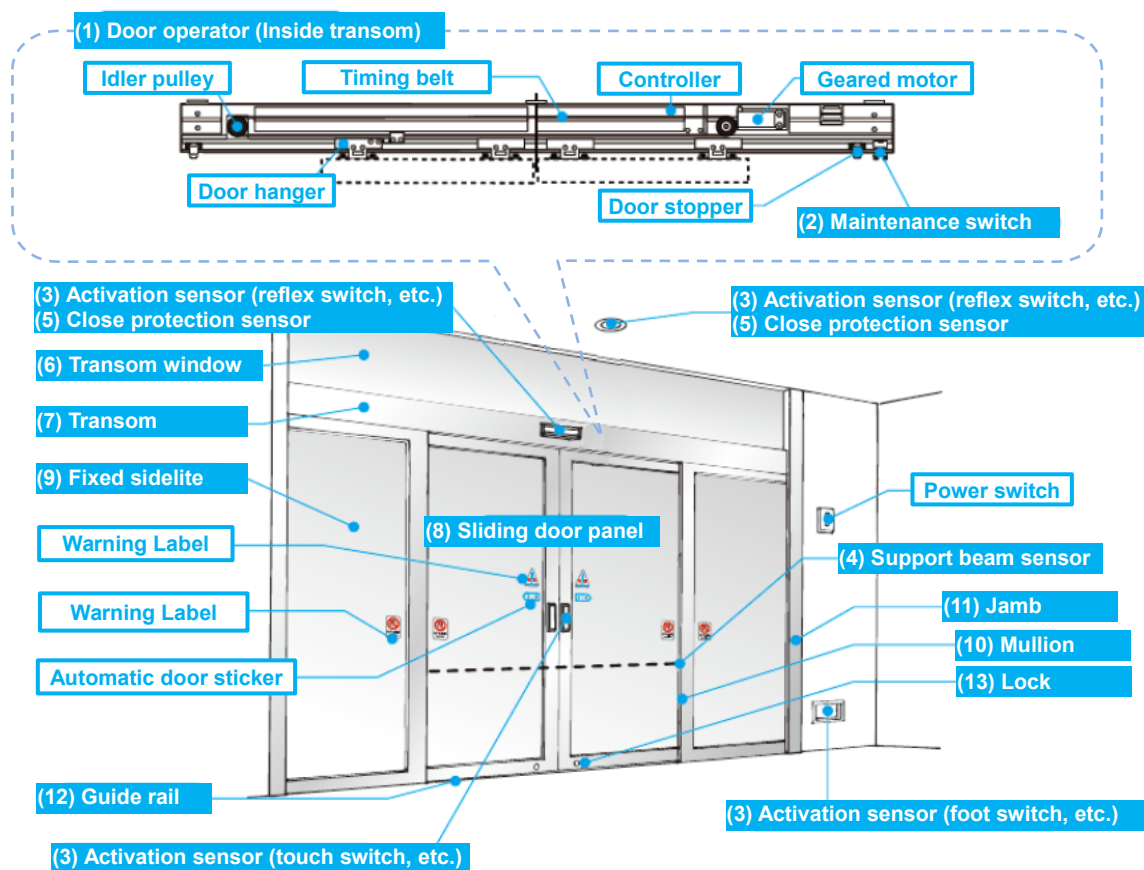
Labels warning, when door is opened, of finger shear between door and fixed sidelite mullion, pinching between door and jamb, and caught-in (crushing) between door and fixed sidelite.

■Automatic door sticker



A sticker to indicate that the door is an automatic door, and the opening/closing direction of the door.

## ● System structure



(1)Door operator	Set of the drive unit and control unit to open/close the door.
(2)Maintenance switch	Switch to power on/off door operator during maintenance.
(3)Activation sensor	Sensor to detect persons passing through the door and send the activating signal to the door operator.
(4)Support beam sensor	Sensor to detect persons or objects on the doorway which are difficult to be detected by the activation sensor and send the activating signal to the door operator.
(5)Close protection sensor	Sensor to monitor the area where persons or objects may collide against the door during closing. A detecting signal will be sent to the door if the sensor detects a person or object during closing.
(6)Transom window	Mounted between the ceiling and transom. Consisting of glass, etc.
(7)Transom	Case inside which door operator is installed.
(8)Sliding door panel	Door panel which can open and close.
(9)Fixed sidelite	Fixed door panel which does not open and close.
(10)Mullion	Vertical component which forms a division between the door opening and the door pocket.
(11)Jamb	Vertical component which forms a door frame.
(12)Guide rail	Rail installed on the floor to guide the door.
(13)Lock	Used to manually lock and unlock the door.



## ▼ Sensor functions

The best models of sensors are selected with considering environment of the installation location and possible usage of the automatic sliding door. In this section, cautions for and functions of the general activation sensor, support sensor and protection sensor are described.

### ● Cautions for handling sensors

Use a sensor with keeping the following caution in mind to show the maximum performance of the sensor.

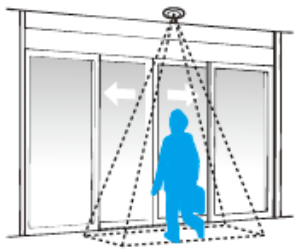
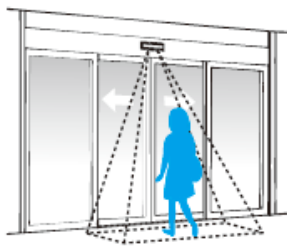

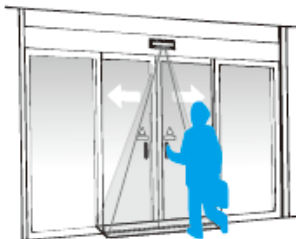


**Do not place or adhere any object which moves by wind in sensor detection areas.**

A movable object such as an umbrella stand, garden tree, poster or store curtain may be detected by a sensor so that the automatic door cannot close.


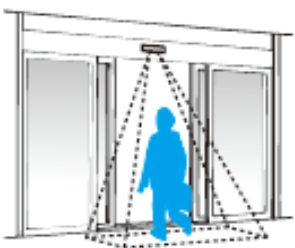
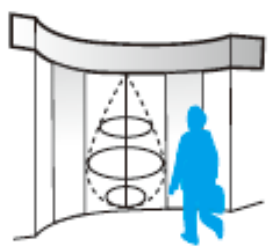
### ● Activation sensor

The activation sensor is an activator to open/close the automatic door. There are several types of activation sensors: the Infrared reflection type, radar type, touch type and so on, and sensors are selected to match usage of the automatic door.

Infrared reflection type and radar type	
<p><b>Ceiling mount type</b></p> 	<p><b>Transom mount type</b></p> 
<p>The door will be opened by detecting the reflection of infrared rays or microwaves (radar) from objects.</p>	
Touch type	
<p><b>Door leaf mount type</b></p> 	<p><b>Transom mount type (contactless)</b></p> 
<p>The door will be opened by lightly pushing a touch plate installed on the door face.</p>	<p>The door will be opened by placing a hand over the door face.</p>
<p>Other activators: Ten key switch, push button, etc.</p>	

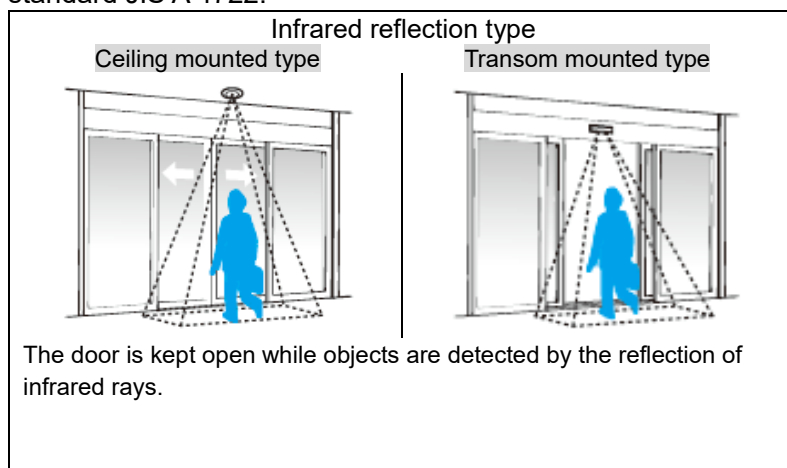
## ● Support sensor

The support sensors improve safety so that the persons passing through or stopping at places near the automatic door cannot be caught in the closing door. There are several types of support sensors: the photoelectric beam type, Infrared reflection type, ultrasonic wave type and so on. The support sensor is selected with considering combination with activation sensors. If a support sensor detects a person or object when the door is closing, the door will automatically move reversely to the full-open position.

<p>Photoelectric beam type Mullion mounted type</p>  <p>The door is left open while the light beam is blocked between a transmitter and a receiver installed on both sides of the door.</p>	<p>Infrared reflection type Transom mounted type</p>  <p>The door is kept open while objects are detected by the reflection of infrared rays.</p>	<p>Ultrasonic wave type Transom mounted type</p>  <p>The sensor keeps the detection area under surveillance by emitting ultrasonic waves. The door is left open while people are in the area.</p>
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## ● Protection sensor

The protection sensors monitor actuating areas of the automatic door so that persons passing through the automatic door or stopping between doors cannot hit on (collide against) the closing door. There are several types of protection sensors: Infrared reflection type and the type with as the activation sensor function as well. If a protection sensor detects a person or object when the door is closing, the door will automatically move reversely to the full-open position. In addition, self-diagnosis is carried out by each protection sensor every opening and closing of the door, so that the sensors have high reliability and safety in compliance with the standard JIS A 4722.



## ● Self-diagnosis function of protection sensor

In accordance with the standard JIS A 4722, each protection sensor carries out self-diagnosis every opening and closing of the door to always check if the sensor (automatic door) works normally. If a protection sensor judges there is a failure or trouble, the door will be stopped at the fully open or closed position, or actuated in a slow speed to secure safety of the users.

## ▼ Safety standard for automatic door

Along with establishment of Japanese Standard JIS A 4722 “Power operated pedestrian doorsets. Safety in use. Requirements and test methods”, we have been making an effort to secure safety. In this section, the main items requested by the standard JIS A 4722, risks during opening and closing of the automatic door and countermeasures to the risks are described.

### ● Risk of opening the door

When the automatic door without safeguarding opens, there is a source of hazards such as collision against (impact on) the door at the fixed sidelite side, caught-in (crushing) between the door and jamb (wall). There is also a source of hazards such as finger shearing between the door and mullion, and drawing-in of hand or arm between the door and fixed sidelite.

### ● Risk of closing the door

When the automatic door without safeguarding closes, there is a source of hazards such as collision against (impact on) the door, caught-in (crushing) between doors, or between the door and jamb (wall).

### ● Safeguarding

The standard JIS A 4722 requests to safeguard users from hazard sources, and also indicates several protective measures for safeguarding.

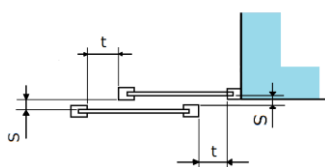
In order to safeguard users from these hazard sources, in the NABCO automatic doors, protective measures which are suitable for the automatic door installation environment and comply with the standard JIS A 4722 are taken for each hazard sources.

This section describes several protective measures in the standard JIS A 4722. Check the protective measures taken for your system and understand details of the measures.

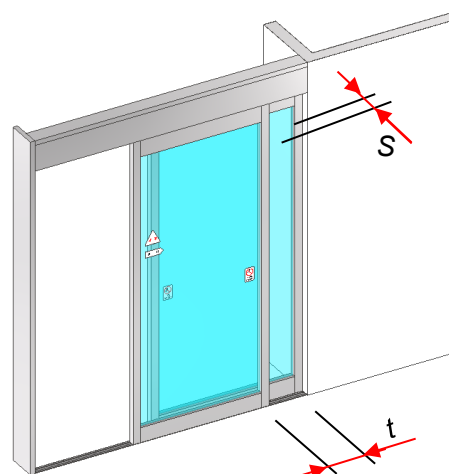
#### Safeguarding for opening

##### — Safety distances —

Users are protected from hazards such as finger shearing between the door and mullion, drawing-in between the door and fixed sidelite, and finger shearing between the door and frame of fixed sidelite by providing safety distances when the door is open.



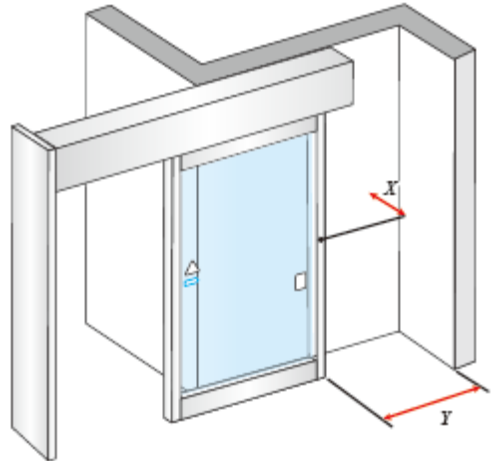
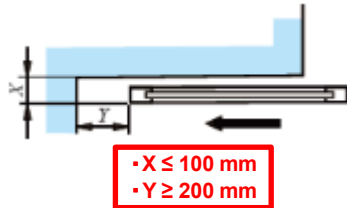
- If  $S \leq 8 \text{ mm}$  then  $t \leq 0 \text{ mm}$
- If  $S > 8 \text{ mm}$  then  $t \geq 25 \text{ mm}$



## Safeguarding for opening

### a) Safety distances 1

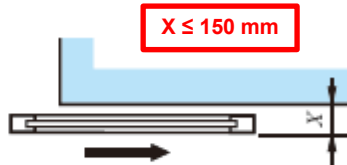
Users are protected from crushing between the door and wall/object by providing safety distance between the door and the wall/object if there is a wall/object and users may be caught between the wall/object and door when the door is open.



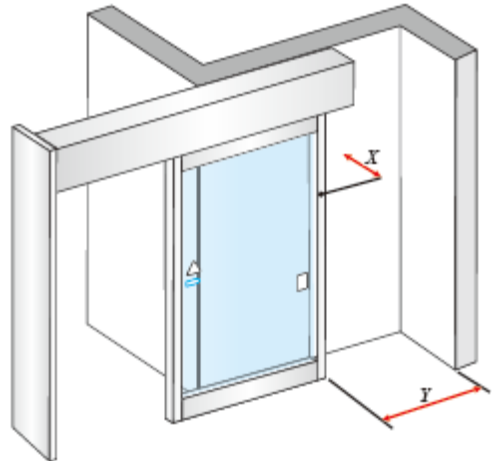
## Safeguarding for opening

### b) Limitation of door leaf forces

Users are safeguarded by limiting opening force of the door in advance.



Y: Distance between door leaf and jamb (or wall)	Permissible dynamic forces
$Y \geq 200\text{mm}$	400N
$200\text{mm} < Y < 500\text{mm}$	700N
$Y \geq 500\text{mm}$	1,400N

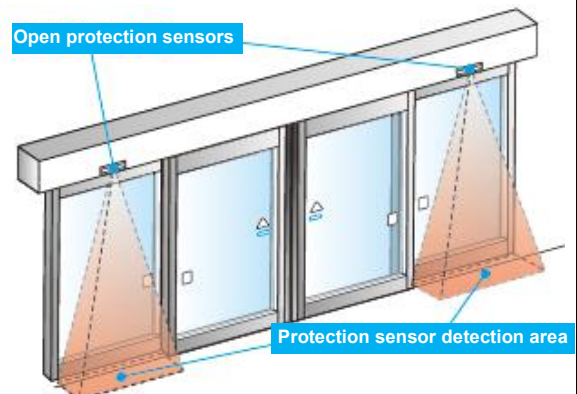


## Safeguarding for opening

### c) Protection sensors

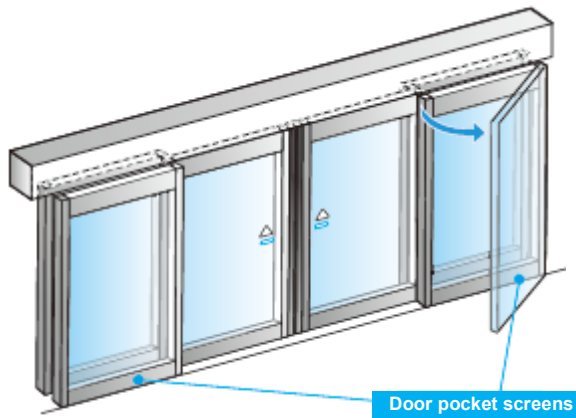
With providing protection sensor detection areas in the door opening ranges, users at the opening sides are protected by making the door stop or move slowly when sensors detect a person or object.

- Pass through the door after confirming the door is open. Since the door will stop or move slowly after a protection sensor is activated, there is a risk to collide against the door when a person passes through the door.



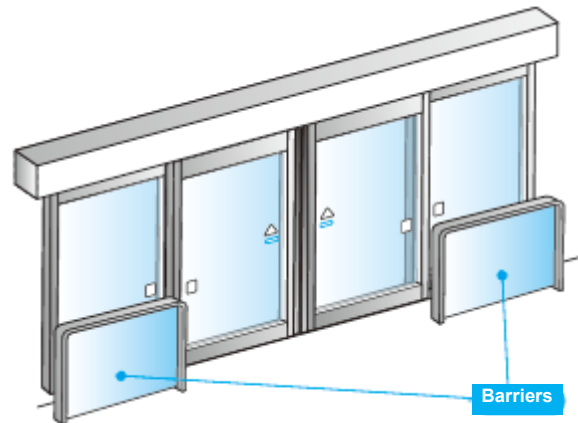
#### Safeguarding for opening d) Door pocket screens

With installing door pocket screens in front of the door opening range, users at the opening side are protected.



#### Safeguarding for opening e) Barriers

With installing barriers in front of the door opening range, users at the opening side are protected. The barrier is designed so that children cannot climb it or crawl under it easily.



#### Safeguarding for opening f) Low energy movement

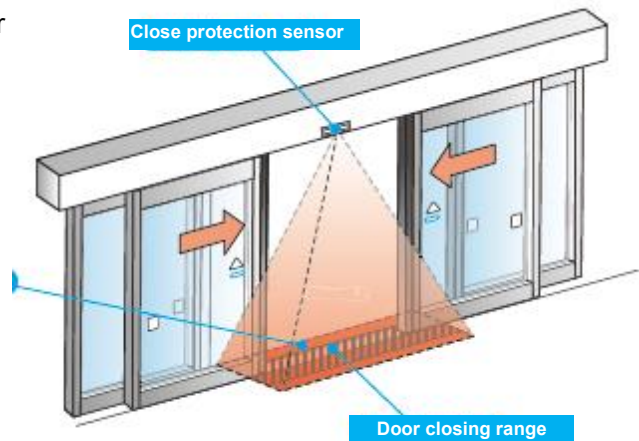
With limiting the door leaf force and kinetic energy during opening in advance, users at the opening side are protected.

\*In the JIS A 4722, it is required to satisfy one of measures of a) to f) as safeguarding for opening.

## Safeguarding for closing

### a) Protection sensors

With providing protection sensor detection area in the door closing range, users at the closing side are protected by making the door re-open when sensors detect a person or object.



## Safeguarding for closing

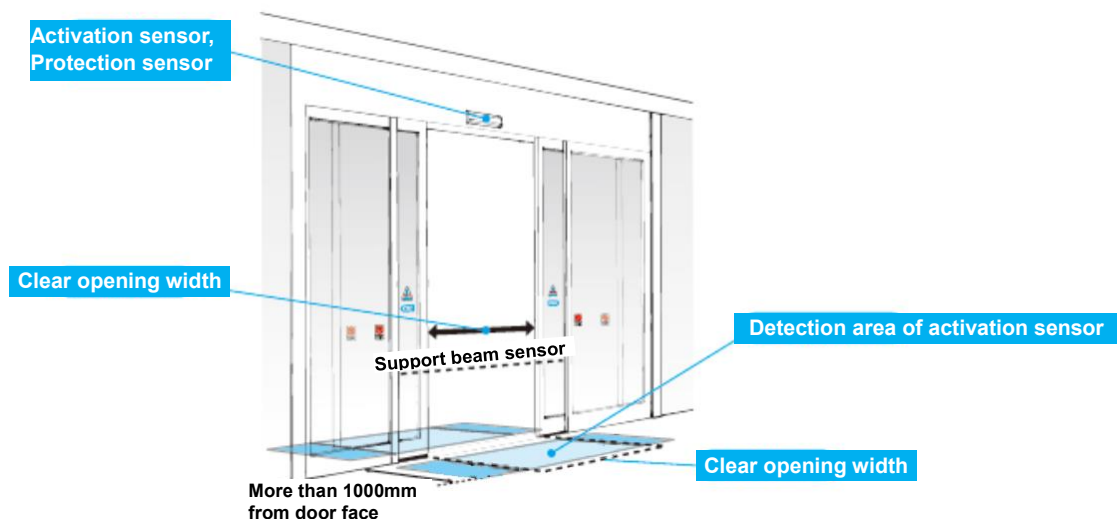
### b) Low energy movement

With limiting the door leaf force and kinetic energy during closing in advance, users at the closing side are protected.

\*In the standard JIS A 4722, it is required to satisfy one of measures of a) or b) as safeguarding for

### ● Activation sensor detection range

By securing a specified detection area, activation sensors can detect persons coming towards the door earlier, so that the door is opened before they pass through the door. Thus, users are protected from colliding against the door.



## ▼ Initial work of the automatic door



### CAUTION



**Surely open and close the door one time after turning the power switch.**

Persons passing through the door could collide against the door which opens and closes slowly.

In the NABCO automatic door system, because work of the door is controlled by a microcomputer, the "learning work" is executed every time the power switch is turned on. The "learning work" is a control program with which the microcomputer determines the fully-open and fully-close positions and working distance of the door, and the following works are carried out at a low speed.

When the power switch is turned on.	When the door is open fully.	The door closes fully at a low speed.
	When the door is open partially.	The door closes fully at a low speed. After confirming the door is at the fully-close position, the door moves to the partial-open position at the normal speed, and then to the fully-open position at a low speed.
	When the door is closed fully.	Put the door (for approx. one second) in the closing direction to check the full-close position. If activation sensors are turned on, the door will move to the full-open position at a low speed.

\*The "learning work" will be carried out until a work from the full-close to the full-open or from the full-open to the full-close is completed. (The door will only move in the normal speed the distance which it has moved in a low speed.)

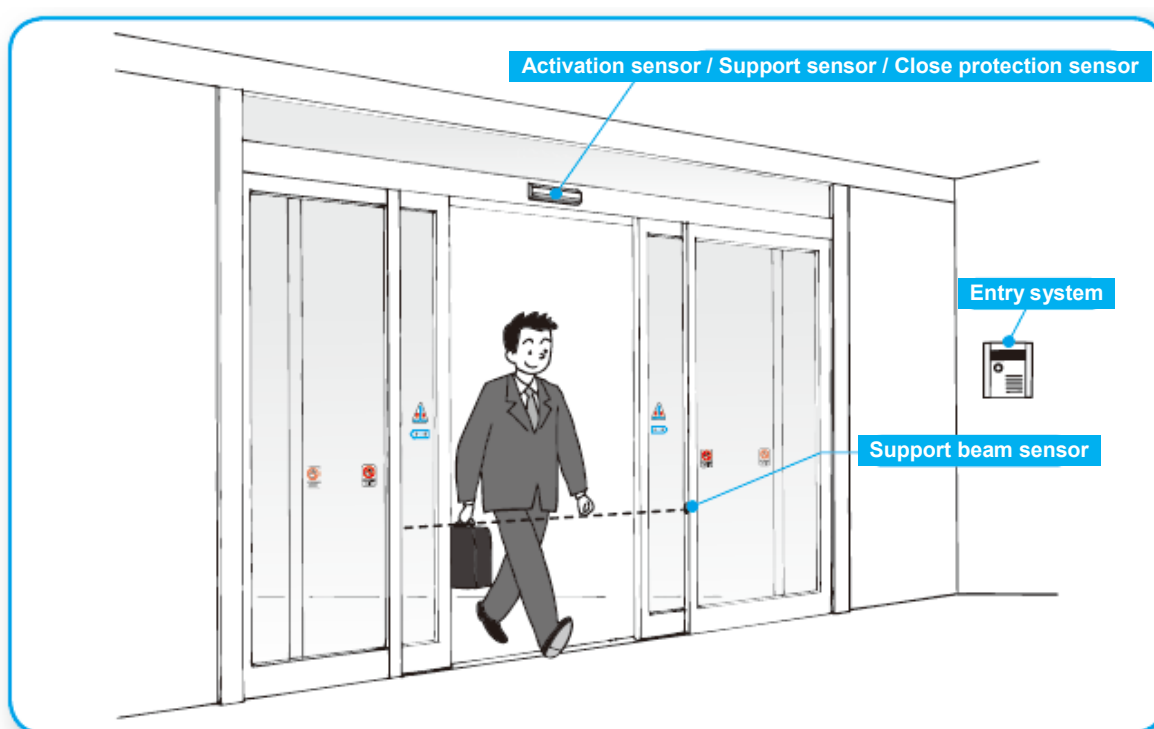
\*The automatic door will go to the normal work if the "learning work" ends.

## ▼ Opening/closing modes of the automatic door

In this section, working and operation of the automatic door in the standard JIS A 4722 opening/closing modes are described. Check the opening/closing modes used by you and refer to the related descriptions. Note that there are various opening/closing modes, and the modes described partially in this document. If there are no descriptions related to the opening/closing mode used by you, contact your NABCO distributor.

### ● Full automatic mode

It is a typical "full automatic opening/closing" of the door with indoor and outdoor activation sensors.



- If the activation sensor detects a person passing through the door, the door will automatically open fully. For a while after no person is there, the door will automatically close fully.
- If the activation sensor, support beam sensor, or close protection sensor detects a person passing through the door when the door is closing, the door will automatically move reversely to the full-open position. For a while after no person is there, the door will automatically close fully.
- If the door collides against an obstacle when closing, the door will automatically move reversely to the full-open position, and then automatically close fully.
- The door will stop opening if it collides against an obstacle when it is opening. Then the door will automatically close fully.



## ● Full/partial-open mode

**It is a mode in which the open position can be selected from the full-open position and partial-open position, and the two positions are switchable.**

- If the activation sensor detects a person passing through the door, the door will automatically open fully or partially. For a while after no person is there, the door will automatically close fully.
- If the activation sensor, support beam sensor, or close protection sensor detects a person passing through the door when the door is closing, the door will automatically move reversely to the full-open or partial-open position. For a while after no person is there, the door will automatically close fully.
- If the door collides against an obstacle when closing, the door will automatically move reversely to the full-open or partial-open position, and then automatically close fully.
- The door will stop opening if it collides against an obstacle when it is opening. Then the door will automatically close fully.

## ● Security mode (for main doors of residential buildings etc.)

**It is a mode in which a particular person can open the door with an intercom in a room or entry system.**

- When entering the building  
The automatic door opens with verification with an entry system or intercom. For a while after no person is there, the door will automatically close fully.
- When leaving the building  
If the activation sensor detects a person passing through the door, the door will automatically open fully. For a while after no person is there, the door will automatically close fully.
- When the door is open  
If the support sensor, support beam sensor, or close protection sensor detects a person passing through the door when the door is closing, the door will automatically move reversely to the full-open position. For a while after no person is there, the door will automatically close fully.
- When the door is closed  
The door will not open even a person or object is detected by the support sensor, support beam sensor or close protection sensor.
- When the door collides with an obstacle during opening or closing  
Working of the door when it collides with an obstacle during opening or closing is the same as working in the “full automatic mode”.

### ● Opening and closing speeds of the door

Considering safety furthermore, the following door opening and closing speeds suitable for installation environment are recommended.

	Office buildings	Hospitals or public facilities*
Opening speed	500 mm/sec or less	400 mm/sec or less
Closing speed	350 mm/sec or less	250 mm/sec or less

\* Places greatly used by elderly, children, wheelchair users.

## ▼ Daily operation

The daily operation of the NABCO automatic door is described below.

### WARNING



**Do not touch the power switch with wet hands.**

There is a danger of electric shock.



**Turn off power supply (breaker switch) if the power switch and its surroundings are wet.**

Wipe away moisture with dry clean cloth, and dry current-carrying parts fully.



**Do not open the access panel on the transom.  
Never touch the door operator inside the transom.**

There is a risk of electrical shock or that fingers are caught in drive parts.

## ● Start and finish operations

Start and finish operations are described below. If a trouble occurs in the check before starting, and in start or finish operations, also refer to “Troubleshooting” (Page 21)

### Check before starting

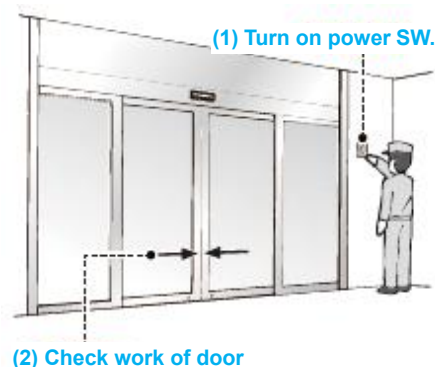
- ① Be sure to first unlock the door if it is an automatic door with lock.
- ② Check if there are abnormalities in appearance of the automatic door.
  - ⇒ Check if there is damage to the sash or deformation of frames.
  - ⇒ If there is any abnormality, take the following measures:

- Turn off power of the automatic door to prevent any unexpected accident.
- Please contact your NABCO distributor.

- ③ For the automatic door with guide rail, check if foreign objects fall into the guide rail.
  - ⇒ Open the automatic door manually.
  - ⇒ Remove foreign objects if they are in the guide rail.
  - ⇒ Manually move the automatic door to the full-close position.
- ④ Check if there are persons or objects in the automatic door work range.
  - ⇒ Request persons in the automatic door work range to get away from the range, if they stay in the range.
  - ⇒ Remove objects if they are placed in the range.

**Start operation**

- ① Turn on the automatic door power switch.
- ② Check if the automatic door transitions to the normal work after the initial work (refer to Page 15) is carried out.
- ③ Open and close the door one time to check if the door works normally and moves in the normal speed.

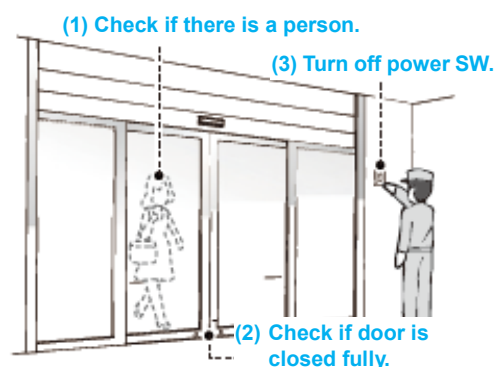
**Finish operation****CAUTION****Do not power off the door during opening and closing of the door.**

The door could move in inertia so that two parts of the door collide with each other, or the door collides against the door frame to damage appliances.

**For the automatic door with lock, surely unlock the door after powering off.**

If unlocking the door without powering off, appliances could be damaged due to working of the door.

- ① Check if there is a person using the automatic door.
- ② Make sure that the door is fully closed.
- ③ Turn off the power switch.
- ④ Lock the automatic door if it is one with lock.

**● Measures in case of power outage**

The measures in case of power outage when operating the automatic door are described below. If a trouble occurs during operating the automatic door, also refer to "Troubleshooting" (Page 21).

- ① Turn off the power switch immediately if power outage occurs.
  - ⇒ If the power switch is left ON in case of power outage, the automatic door will be activated slowly when power is supplied again, so that pedestrians may collide with the automatic door.
  - ⇒ If the door stops during opening or closing, the door can be moved by hand.
- ② When power outage is resolved and power is supplied again, restart the automatic door operation.
  - ⇒ Carry out steps described in "Checking before starting" and "Start operation".

## ▼ Daily maintenance

In order to use the automatic door system safely and comfortably for all times, we hope you to conclude a maintenance contract (refer to Page 23) and do the following daily cleaning and maintenance works by yourself.

### WARNING



**Surely turn off the power switch before daily cleaning and maintenance.**

Fingers could be caught in the door.

### CAUTION



**Never wash sensors with water.**

It causes malfunctions.



**If there are dirt, dew drops or water drops on support beam sensors, wipe off them with dry clean cloth.**

The automatic door may not close due to dirt or dew drops.

Post signs such as “Cleaning” or “Inspecting” during the maintenance work.

Item to be cleaned	Cleaning procedure	Notes
Doorway and surroundings	<ul style="list-style-type: none"> <li>Remove dirt, especially from guide rail groove and sensor detection areas.</li> <li>If the floor is wet, wipe off moisture with dry cloth. If leaving the floor wet, sensors could malfunction.</li> </ul>	If the installation place faces outdoors, carefully do cleaning in the season for leaves to fall, or after rainstorm.
Sash	<ul style="list-style-type: none"> <li>General contamination and hand-stain Wipe off the contaminated area using soft cloth moistened with neutral detergent and finish with dry cloth.</li> <li>Heavy and oily contamination Wipe off the contaminated area using alcohol or benzene and finish with dry cloth.</li> </ul>	If cleaning sash with alcohol or benzene, scratches, color change or frost may be caused on the sash surface according to the surface material. Check in advance if the surface material is the one to which no problem occurs even if sash is cleaned with alcohol or benzene.
Sensors	<ul style="list-style-type: none"> <li>When the sensor becomes dirty, wipe it with dry clean cloth. Dusts attached to the sensor detecting window will cause low sensitivity and will be a factor of malfunctioning.</li> </ul>	If the sensor mounting angle changes due to cleaning, the detection area of sensor (activation sensor or protection sensor) may change to cause the automatic door not to work normally, or the area to be safeguarded may not be covered. Be careful not to change the mounting angle.

## ▼ Troubleshooting

If troubles occur in the automatic door, check symptoms, take the following measures listed below for each symptom. If the situation does not change even though measures are taken, promptly contact your NBACO distributor.

### WARNING



#### **Never disassemble or modify this product.**

Unexpected accidents such as electric shock and finger caught-in could occur. We will take no responsibility for disassembling and modification conducted by you.

### CAUTION



#### **Immediately turn off the power switch if the trouble cause is unknown.**

If a trouble of which symptom and cause do not correspond to any symptom and cause listed below occurs, turn off the power switch of the automatic door because an unexpected accident may occur.

Please contact your NABCO distributor.

Symptom	Cause	Measures
The door does not open or close even by hand.	An obstacle stays on the doorway or is caught in the door.	Turn off the power switch and remove the obstacle.
	The door is locked.	Turn off the power switch and unlock the door.
The door moves in a low speed.	Judged as NG in the protection sensor self-diagnosis.	Turn off the power switch and contact your distributor.
	Stroke -learning has not yet completed.	Turn on the power again, open and close the door one time.
The door keeps open and does not close.	Judged as NG in the protection sensor self-diagnosis.	Turn off the power switch and contact your distributor.
The door opens/closes manually but does not operate automatically.	The power switch is off.	Turn on the power switch. Make sure that the maintenance switch lamp is on.
	The activation sensor does not turn on.	<ul style="list-style-type: none"> <li>Turn off the power switch and contact your distributor.</li> <li>For the touch switch type activation sensor, check the battery life and replace batteries if necessary. (Expected battery life is one to three years.)</li> </ul>
The door keeps open and does not close.	An obstacle stays on the doorway or is caught in the door.	Turn off the power switch and remove the obstacle.
	The activation sensor, support beam sensor, or protection sensor is in the state detecting an object.	Remove the object detected by sensor.
	Judged as NG in the protection sensor self-diagnosis.	Turn off the power switch and contact your distributor.
Abnormal noise or smell is generated from door operator.	The door operator may be failed.	Turn off the power switch and contact your distributor.

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## ▼ Maintenance contract

### ■ Recommendation of maintenance contract conclusion

In order to use the automatic door system safely and comfortably for all times, we recommend you to conclude a maintenance contract.

Outline of the maintenance contract is as following:

- You should conclude a maintenance contract with the related NABCO distributor.
- The NABCO distributor or an appointed company will conduct the periodic maintenance and inspection for the automatic door system responsibly.
- Items of maintenance and inspection vary with details of the contract.

However, the special items of maintenance and inspection according to particularity of the automatic door system installation region or environment, and troubles caused by a disaster or force majeure are not included to the maintenance contract, and non-free. For details of the maintenance contract, and inspection/maintenance items, contact your NABCO distributor.

When using the sliding door system, be sure to perform the specified maintenance and inspection (regular inspection, adjustment, lubrication, repair) and replace the parts as required. If using the sliding door system without performing maintenance and inspection, failures of the system or a serious accident may be caused.

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## ▼ Quality assurance and after-sales service

### ● Warranty period

The warranty period for supplied automatic doors is one year from the date of delivery.

### ● Warranty Coverage

Please confirm the contents of the warranty card issued at the time of delivery.

### ● Supply of repair parts

For our discontinued products, we will supply repair parts for 7 years for a fee.

However, please note that we may not be able to supply parts even if the product is less than 7 years old, depending on the condition of damage, availability of remaining parts, or lack of replacement parts.

\*If you have any questions about after-sales service, such as repairs or inspections after the product warranty period, please contact the distributor indicated on the automatic door or the "NABCO Network" at the end of this document.





## ▼ NABCO Network



<https://nabco.nabtesco.com/support/network/>

Sales Company in East Japan

NABCO SYSTEMS CO.,LTD.

☎(03)3593-0181

Call center: 0120-0725-86

URL: <http://www.nabcosystem.co.jp/>

Sales Company in West Japan

NABCO DOOR,LTD.

☎(06)6136-7284

Call center: 0120-891-222

URL: <https://www.nabco-door.co.jp/>

Sales Company in Kyushu Area

ORIENT INDUSTRIES,CO.,LTD.

☎(092)781-0511

Call center: 0120-686-727

URL: <http://www.orient-sangyo.co.jp/>

### ■ Distributor

Manufacturer **Nabtesco** Corporation Accessibility Innovation Company

<https://nabco.nabtesco.com/>

7-9, Hirakawacho 2-chome, Chiyoda-ku, Tokyo 102-0093, Japan

TEL (03) 5213-1156

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