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DAIKEN

DOOR HANGER AND SLIDING DOOR CLOSER SYSTEM

2007

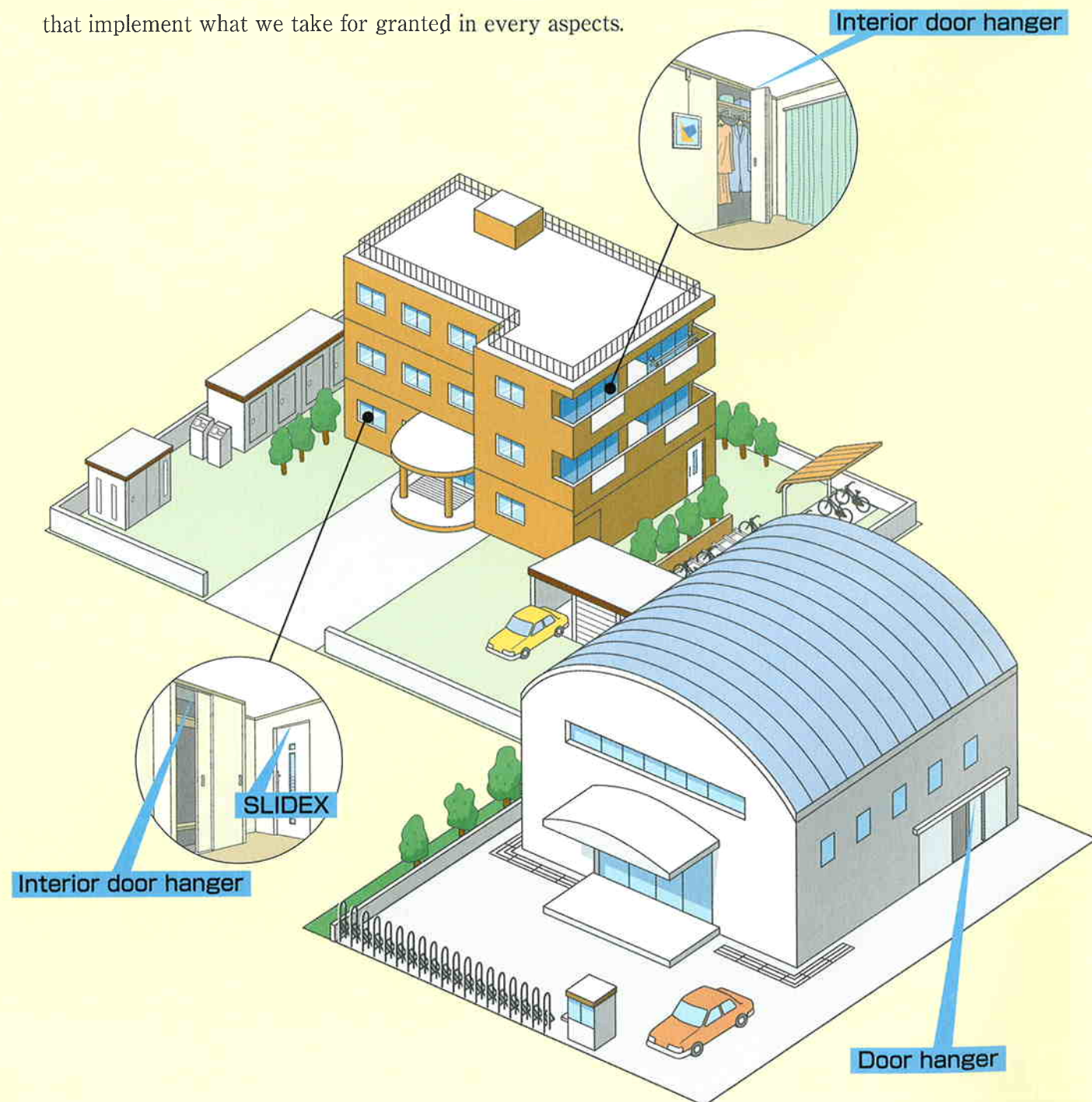
SLIDING DOOR CLOSER
INTERIOR DOOR HANGER



DAIKEN

We offer reliable hardware & door hangers with more emphasis on convenience, safety, and durability.

We need the latest techniques and devices to keep our daily life comfortable.
It is considering what we take for granted in our daily life,
but what we are not aware of, that sustains our comfort in a true sense.
Based on feedback from our customers,
DAIKEN is committed to research and development for creating better products.
Make the best use of DAIKEN's products
that implement what we take for granted in every aspects.



SLIDEX installation example



SLIDEX can be used for steel doors, aluminum frame doors and wooden doors in hospitals, offices, homes for elderly people and schools.



Example of interior door hanger installation



Interior door hanger FD-3/ SD-10



Interior door hanger FD-3



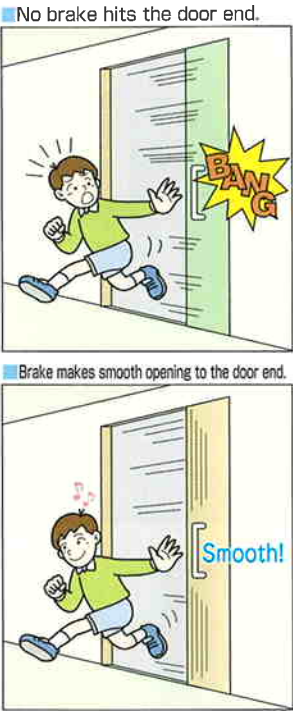
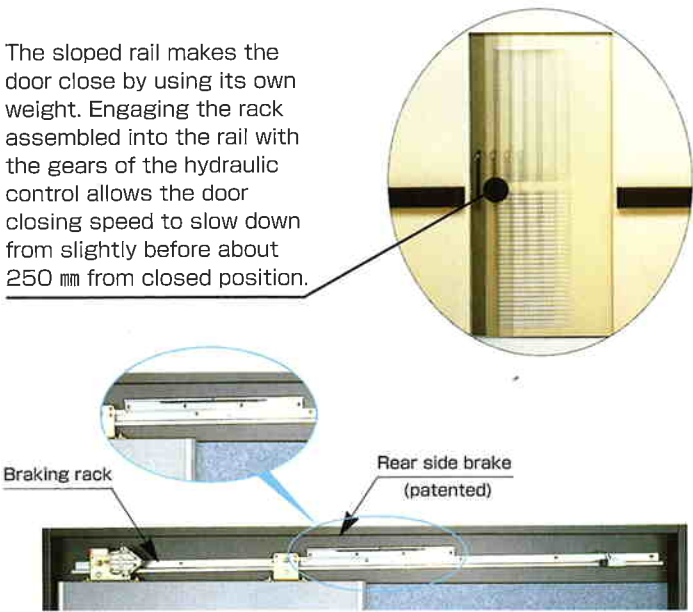
Screen door SD-20 in the audio-visual room



Meeting room partition PT-150

DAIKEN SLIDEX sliding doors are suitable for public facilities too where quietness and user-friendly are required.

The sloped rail makes the door close by using its own weight. Engaging the rack assembled into the rail with the gears of the hydraulic control allows the door closing speed to slow down from slightly before about 250 mm from closed position.



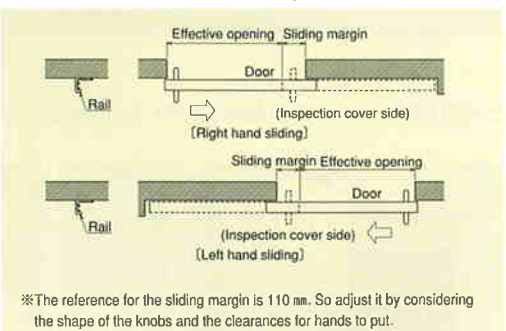
Using the rear side brake (PAT) with the back check function absorbs the impact on the door, allowing the door to close easily without damaging vertical frames when both closing and opening the door.

SLIDEX variations

	Right hand sliding	Left hand sliding	Double sliding
Type 30	HCS-30R	HCS-30L	—
	HCS-3015R	HCS-3015L	—
Type 30T	HCS-30TR	HCS-30TL	—
	HCS-3015TR	HCS-3015TL	—
Type 50	HCS-50R	HCS-50L	HCS-50W
	HCS-5015R	HCS-5015L	—
Type 50T	HCS-50TR	HCS-50TL	—
	HCS-5015TR	HCS-5015TL	—
Type 80	HCS-80R	HCS-80L	HCS-80W
	HCS-8015R	HCS-8015L	—
Type 80T	HCS-80TR	HCS-80TL	—
	HCS-8015TR	HCS-8015TL	—
Type 120	HCS-120R	HCS-120L	HCS-120W
Type 200	HCS-200R	HCS-200L	—
Type 60BL	HCS-60BLR	HCS-60BLL	—
One way sliding for 2 panels	HCS-X2R30	HCS-X2L30	—
Bi-parting sliding for 2 panels	—	—	HCS-XW40A HCS-XW40B
Horizontal rail 30 specification	HCH-30R	HCH-30L	—
	HCH-3015R	HCH-3015L	—
Horizontal rail 60 specification	HCH-60R	HCH-60L	—
	HCH-6015R	HCH-6015L	—
Horizontal rail 80 specification	HCH-80R	HCH-80L	—
	HCH-8015R	HCH-8015L	—
Bathroom 30 specification	HCH-30YR	HCH-30YL	—
	HCH-3015YR	HCH-3015YL	—
Bathroom 60 specification	HCH-60YR	HCH-60YL	—
	HCH-6015YR	HCH-6015YL	—
Bathroom 80 specification	HCH-80YR	HCH-80YL	—
	HCH-8015YR	HCH-8015YL	—

●Door widths up to 1500mm(effective opening: 1350mm) can be used for the HCS-3015R(L), HCS-5015R(L).
●Door widths up to 1500mm(effective opening: 1350mm) can be used for the HCH-3015(Y)R(L), HCH-6015(Y)R(L), and HCH-8015(Y)R(L).
※Slidex is specified for interior use and not recommendable for exterior use.

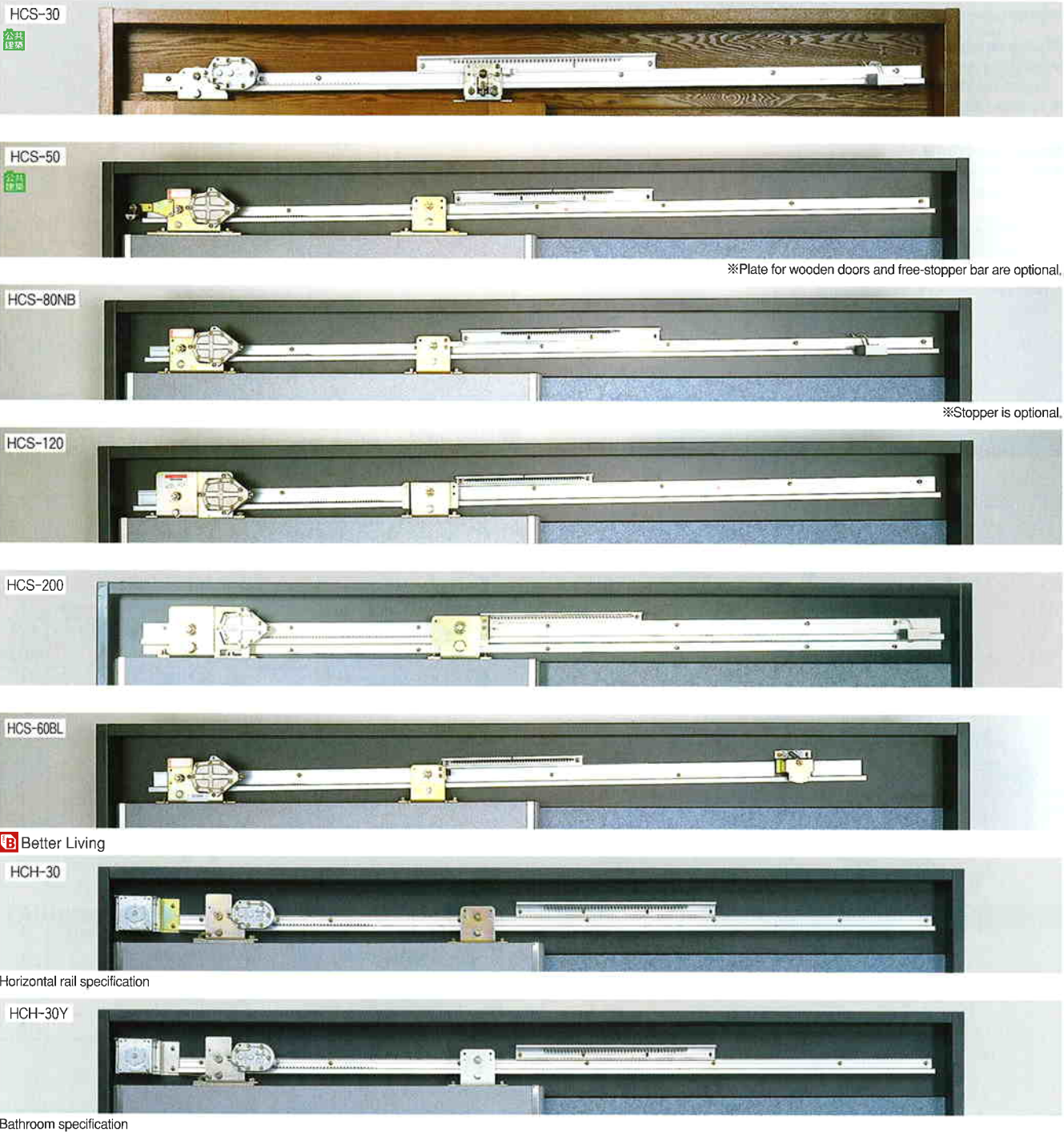
SLIDEX's descriptions for right or left hand sliding



※The reference for the sliding margin is 110 mm. So adjust it by considering the shape of the knobs and the clearances for hands to put.

Those with a square mark are qualified by Public Buildings Association.

Eight models depending on applications of door's types, and opening width.



- Toilet booth fitting and aluminum front fitting (auto-door frameless type) can be provided.
- Sliding door closers other than the HCS-60BL cannot be used for airtight specifications as they use rubber packing, mohair, and other products unsuitable for airtight specifications.
- It is unnecessary for the door top to have a slanting-cut. Cut horizontally. It can be adjusted by pitches between the frames.
- ※Acceptable together with wooden doors. (product on order)

House closer (slim-type sliding closer for family use) for ordinary residences corresponding barrier-free applications.

- The horizontal rail and constant-speed spring allow the door to close silently at a constant speed.
- Rails can be installed on the lintel and a drive unit can also be installed invisibly in the door, which provides a simple appearance.



"House closer (slim-type sliding closer for family use)"

25B HCD-25B

SLIDEX HCS-80NB

HCS-80NB;Door weight:15 to 80kg, Door width:900 to 1300mm (effective opening:750 to 1150mm)

※When using the stopper for door pocket, get sliding margin 100 to 150mm (to install and remove rear side brake on the door end at the opening).

Simple installation without professional techniques.

- Using the endless-type hydraulic control and a rack assembled into the sloped rail allow easy handling. (PAT)
- A wide range of applications for door weight is suitable for both wooden doors and steel doors.

Ideal functions

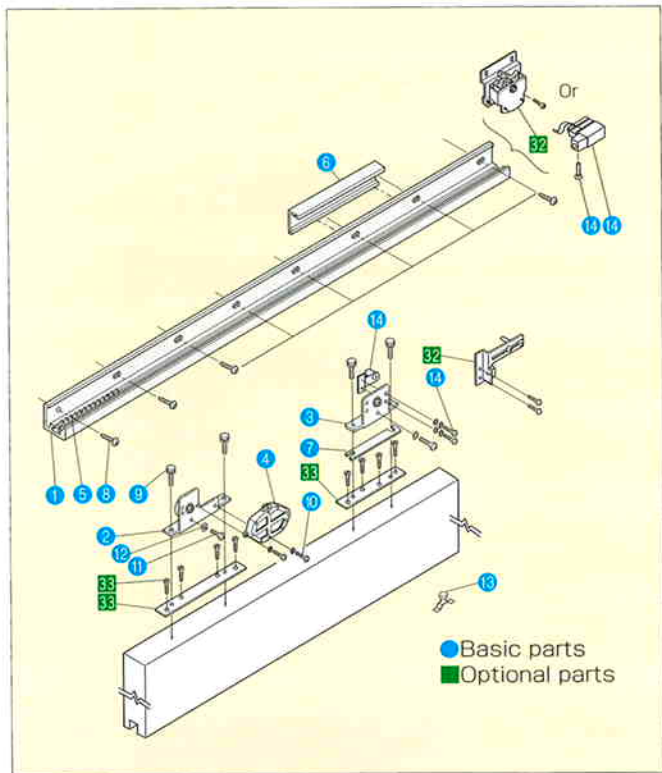
- Rear side brake on the door end side reduces the impact on the door when the door is opened strongly, preventing damage to hardware and stoppers. (PAT)
- The built-in temperature adjusting device (PAT) of the hydraulic control provides constant opening power and door-closing speeds regardless of opening dimensions in a range from minus 10 to 40°C, thus firmly controlling the door even under the small opening conditions.

Door opening power categorized by door weight

Door weight (kg)	Door opening power (Newton)	Door opening power (kgf)
15	2.45	0.25
20	3.04	0.31
30	4.51	0.46
40	6.08	0.62
50	8.43	0.86
60	8.53	0.87
70	11.07	1.13
80	12.15	1.24

- Products are available in the right hand sliding HCS-80R, left hand sliding HCS-80L.
- Available for other width.

Detail of parts



Basic parts

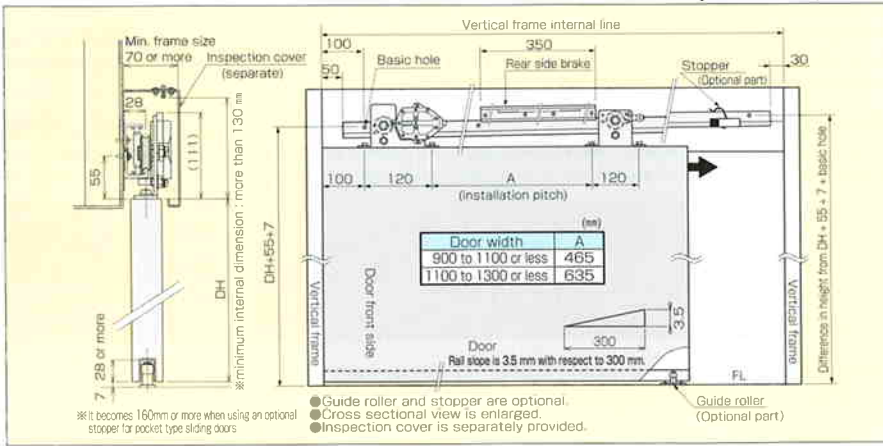
	Name	Material	Number
1	Aluminum rail Ø2200[Ø2800]	Aluminum materials	1
2	Front hanger roller (sash roller for door head)	Steel (chromate, resin)	1
3	Rear hanger roller (sash roller for door end)	Steel (chromate, resin)	1
4	Hydraulic control	ADC12 and others	1
5	Braking rack	Resin (with G), Urethane	1
6	Rear side brake	Aluminum materials, Resin, Urethane	1
7	Height control plate	Steel (processed steel plate)	4[6]
8	M5×16 pan head screw	Steel (chromate)	10[12]
9	M8×25 hexagon nut	Steel (chromate)	4
10	M5×16 pan head screw	Steel (chromate)	2
11	Latch hexagon special bolt	Steel (chromate)	2
12	Nominal 10 countersunk spring washer	Stainless	2
13	Guide roller	Stainless, Urethane (Retaining ring is steel.)	1
14	Stopper Door stop	Aluminum materials, Synthetic rubber	1
15	Stopper Roller	Steel (chromate, resin)	1
16	M6×20 hexagon bolt	Steel (chromate)	1
17	M5×12 pan head screw	Steel (chromate)	2

Optional parts

32	Delayed timer	Steel (chromate, resin, others)	1
33	Time adjusting plate	Steel (chromate)	1
34	Wooden door plate (large)	Steel (chromate)	1
35	Wooden door plate (small)	Steel (chromate)	1
36	Nominal diameter 5X30 countersunk tapping	Steel (chromate)	8

●Stopper 14 and delayed timer 32 cannot be used together.

Fit-in view The view is for a right hand sliding door. (Viewed from the inspection cover side)



HCS-80NB Installation Procedure

Described drawing of installation is for right hand sliding.

(1)Machining of rail

●Cut the rail 80 mm shorter from the internal line of the vertical frame (sash). [cutting stamp side]

When using optional parts such as stopper or delayed timer

- Insert the rail into the groove before cutting.
- Refer to the description for the optional part.

When double sliding rails or vertical frames are not installed

- Install a door stop on the door front.
- Refer to Instructions for door stop.

(2)Installation of machined rails on the upper frame

●Provide taps (M5 pitch 0.8) for installing the rail on the upper frame.
●Taps are raised 3.5 mm each with respect to a pitch of 300 mm.

Notes:
●When the position of the edge hole is 100 mm or more from the rail end, provide taps for positions within 50 mm from the edge.
●The instruction manual attached describes another tap machining, with the same finish.

(3)Installation of front hanger roller and rear hanger roller

●Install the hanger rollers with the basic position according to Table 1, under the door being closed.

●Insert the height control plate according to the door width in Table 2.

W dimension	D	E
900 to 1100 or less	600	465
1100 to 1300 or less	770	635

Door width (mm)	Height control plate
900 to 1100 or less	Unnecessary
1100 to 1300 or less	2 plates on the sash roller frame

HCS-80NB Installation Procedure

Optional parts

Installation procedures for other products differ slightly.
Use the instructions in the Instruction Manual attached to a product.

(4) Installation of the guide roller

●Install the guide roller at the center of overlapped portion.

When using the guide rail (optional part)

- Cut the guide rail by aligning it with the wooden door width.
- Cut in the bottom portion of the wooden door, and install the guide rail using the screw attached.

Note : Guide rollers other than 16 diameter cannot be used.

(5) Door hanging

●Fit the guide roller with the bottom portion of the door.
●Hang the sash rollers on rails.
●Check that the door can easily be opened and closed.

Cautions

- Take care so that the rail running face is not scratched when hanging the door
- Never start hanging door with Hydraulic control on front hanger roller.
- Be careful with your fingers. At this point, the brake does not yet work. Careless work will result in pinching your fingers.

Installation of the door latching bolt

●Insert the countersunk spring washer into hexagon special bolt for both the front and rear hanger rollers and tighten it.

Note: Face the convex side of the countersunk spring washer toward the head of the hexagon special bolt.

(6) Installation of the rear side brake

●Allow for the door to be fully opened or to be caught by stopper (optional part).
●Insert the rear side brake into the groove of the aluminum rail. (Refer to the drawing on the right.)
●Align the front side of the front hanger roller with the stamping position of the rear side brake center as shown in the drawing.
●There are four holes for installing the brake on the door end. Select the two positions which are even from the side, align them, and provide tap machining (M5 pitch 0.8) for the installation face.
●Tighten at the two positions using the pan head screw (M5×16) attached.

(Condition of the door being fully opened for right hand sliding)

(7) Installation of the hydraulic control

●Install the hydraulic control on the front hanger roller by using the pan head screw (M5×16) attached.
●Install it with the door more than half open. (Avoid the locations of the control rack and rear side brake.)

Adjustment of door closing speeds

●Adjust the needle valve of the hydraulic control using a flatblade screwdriver.
●Adjustment can be conducted at about 250 mm from the front where the door closes.
●Adjust the needle valve so that the door closes with an appropriate speed from the fully opened position.
●Open and close the door a few times to check control of speed.

Turn the valve to clockwise for slower.
Turn it anti-clockwise for faster.

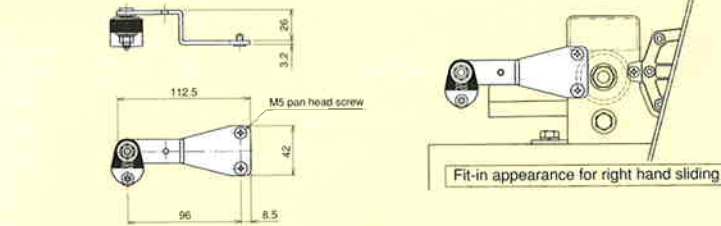
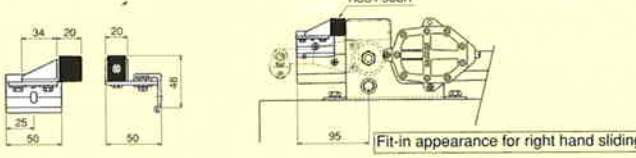
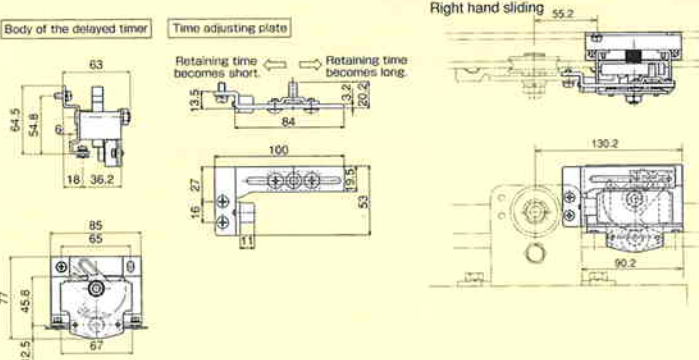
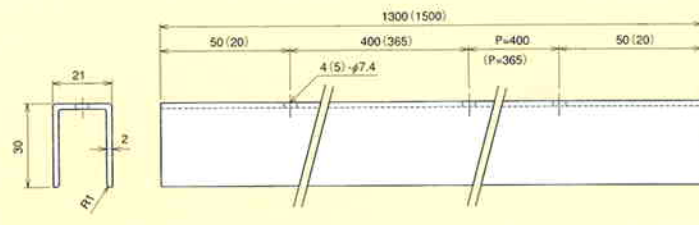
Note : Do not turn the needle adjusting valve more than 2 times.

Completion

Optional parts

Name	Parts	Dimensional drawing	Specification
Stopper	HCS-STR HCS-STL	Material: Body/aluminums (Alumite), rubber, stainless (SUS301), Stopper/steel (chromate), resin 	<ul style="list-style-type: none">●The stopper can hold the door fully opened.●The drawing shows a right hand sliding HCS-STR.※The direction of the door stop is opposite for a left hand sliding.●With the stopper roller installing screw.
Stopper for door pocket	HCS-TSTKR HCS-TSTKL	Material: Stopper door stop/ steel (chromate), rubber, resin Stopper arm/ steel (chromate), stainless (SUS304) 	

Optional parts

Name	Parts	Dimensional drawing	Specification
Free stopper (fixing type)	HCS-FSA	<p>Material: steel (chromate), rubber, lead</p> <p>● It always stops at the door opened position. Add a little force in the closing direction. Then it closes door automatically.</p> <p>※ If the door does not close due to dust on rail surface, wipe off it and control rubber with a wet cloth. Replace the stopper when the control rubber is worn out.</p> 	<ul style="list-style-type: none">● Applicable door weight is 15 to 60 kg.● No right or left hand.● Do not use outside the room.● Do not use in environments with high temperatures, high humidity, or dust.● Use the specified door stop on the door front (HCS-FSCS) for doors without vertical frame or double sliding doors.● With the installing screw.● The drawing is for right hand sliding doors, it is opposite for left hand sliding doors.
Door stop on the top of the door (for free stopper and fixing type)	HCS-FSCSR HCS-FSCSL	<p>Material: aluminums (Alumite), steel (chromate), rubber</p> 	<ul style="list-style-type: none">● Use this as a door stop on the top of the door when using the fixing-type free stopper.※ Cannot be used for the movable type free stopper.● Adjustment of about 5 mm back-and-forth can be performed after installation.● Can be used only for the HCS-50 and HCS-80.● With the installing screw (M5X25 pan head screw).
Delayed timer	HCS-DT80R HCS-DT80L ※HCS-DT120R ※HCS-DT120L ※product on order	<p>Material: steel (chromate), resin, rubber</p> 	<ul style="list-style-type: none">● The time from when the door is completely opened to when it begins to close can be adjusted. (0 - about 25 seconds, door weight is 60 kg)● Two types are available; the standard door weight up to 80 kg, and 120 kg. (product on order)● DT80 can be used for the HCS-30, -50, and -80.Notes: Cannot be used together with such optional parts of stoppers and free stoppers.● If the door is strongly opened, the timer may not perform properly due to the backlash.● Adjustment time differs depending on door weights and temperatures.● With the installing screw (M5X12 pan head screw).
Guide rail	HCS-GR HCS-GR15	<p>Material: aluminums (Alumite)</p> 	<ul style="list-style-type: none">● Use this together with a 16 dia. guide roller as a set.● Cannot be used for TALL guide rollers.● Cut it in accordance with its width.● With the installing screw (Nominal dia. 4X25 countersunk tapping).

SLIDEX Aluminum inspection cover

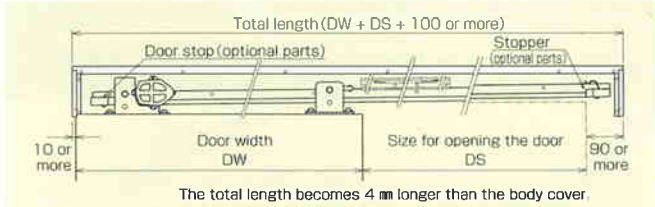
HCS-TK2000S/HCS-TK2500S/HCS-TK3000S/HCS-TK20B/HCS-TK30B

HCS-TK Aluminum inspection cover

Model	Color	Totallength	DW:Door width	DS:Door openable size	Door thickness
HCS-TK2000S	silver	2,000	1,000	900	40
HCS-TK2500S		2,500	1,250	1,150	
HCS-TK3000S		3,000	1,500	1,400	
HCS-TK20B	bronze	2,000	1,000	900	
HCS-TK30B		3,000	1,500	1,400	

Simple and economical construction

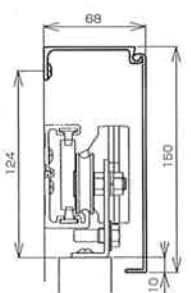
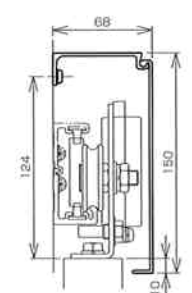
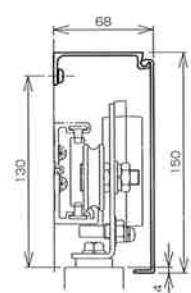
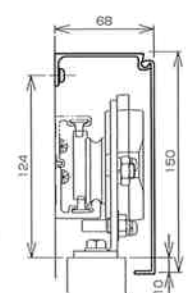
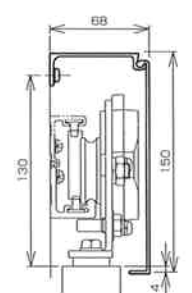
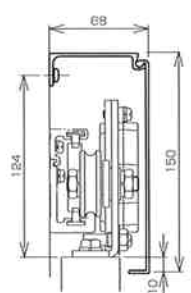
- Standardized inspection covers allow for quick delivery.
- Wall-fixing type.
- Cut the body cover and the front cover to use. (Need to make screw hole.)
- The SLIDEX body, door stops, stoppers, and doors are not included in a set of inspection covers.
- Use optional door stops and stoppers if vertical frames are not provided on both sides.
- When using the optional delayed timer and if the door width becomes larger, it is necessary to provide a cut in the position where the main body cover is to be installed. (This is because the delayed timer touches the main body cover.)
- The body cover, front cover, and side covers, one left and right, are prepared in a set with installing screws.
- The silver covers can be painted on. (We do not supply painted covers.)



Set the inspection cover 10 mm from the door front or more in the door closed position, and set it to 90 mm or more when it is used with optional parts on the door end. (If the optional parts are fixed within DS dimensions, the inspection cover on the door end can be set to 90 mm or less.)



※ It cannot be used together with stoppers applicable to door pocket.

					
HCS-30-3015	HCS-50-5015		HCS-80-8015		HCS-120


※ It cannot be used in addition to the above-mentioned products.

SLIDEX Horizontal rail type


Horizontal rail specification HCH Bathroom specification HCH-Y

Adding the new horizontal rail and bathroom specifications to the sliding door closer systems makes more variation of the sliding closer system.

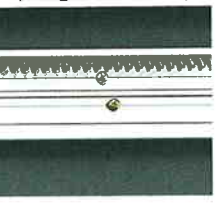
Built-in the temperature adjusting device in the hydraulic control provides a constant opening power and door closing speeds regardless of opening dimensions in a range from minus 10 to 40°C.




Engaging the rack assembled into the rail with the gears of the hydraulic control allows the door to close slowly from the 250 mm at front when closing the door.




Use of the rear side brake (PAT) on the door end which has the back-check function allows for less impact on the door and provides silent door closing without damaging vertical frames, even when opening the door strongly.




Horizontal installation of the rail gives easier job in marking.



For door-closing speed faster



For door-closing speed slower

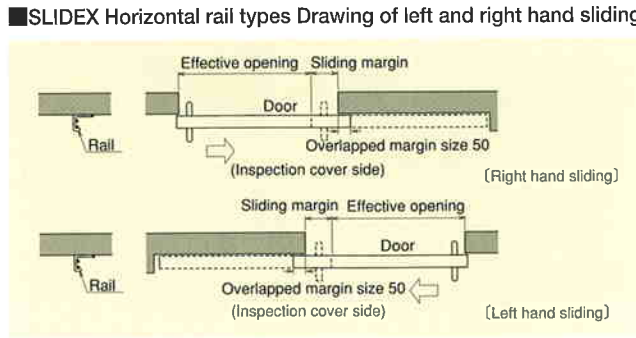


The speed of the power spring of the drive unit installed on the door can be adjusted with only a slotted screwdriver. The drawing is for right hand sliding doors, and it is opposite for left hand sliding doors.

The dacrotized treatment is provided for bathroom specification (HCH-Y) systems so that HCH-Y can be used at locations with high humidity, enhancing corrosion resistance.

※Not available for pantries, saunas and hot springs.

SLIDEX variation Horizontal rail types		
	Right hand sliding	Left hand sliding
Type 30 (horizontal rail specification)	HCH-30R	HCH-30L
	HCH-3015R	HCH-3015L
Type 60 (horizontal rail specification)	HCH-60R	HCH-60L
	HCH-6015R	HCH-6015L
Type 80 (horizontal rail specification)	HCH-80R	HCH-80L
	HCH-8015R	HCH-8015L
Type 30 (bathroom specification)	HCH-30YR	HCH-30YL
	HCH-3015YR	HCH-3015YL
Type 60 (bathroom specification)	HCH-60YR	HCH-60YL
	HCH-6015YR	HCH-6015YL
Type 80 (bathroom specification)	HCH-80YR	HCH-80YL
	HCH-8015YR	HCH-8015YL



SLIDEX Horizontal rail type HCH-80/HCH-8015 HCH-80Y/HCH-8015Y

HCH-80 (Y) Door weight: 60 to 80 kg, Door width: 900 to 1,300 mm (effective opening: 750 to 1,150 mm)
HCH-8015 (Y) Door weight: 60 to 80 kg, Door width: 1,300 to 1,500 mm (effective opening: 1,150 to 1,350 mm)
※When using the stopper matching with door pocket of sliding doors, keep the margin 100 to 150 mm (to install or remove the brake on the door end at the opening).

- Simple installation without professional techniques
 - Using the endless-type hydraulic control and a rack assembled into the rail allow for easy handling. (PAT)
- Ideal functions
 - The brake on the door end side reduces the impact on the door even when it is strongly opened, preventing damage to hardware and stoppers. (PAT)
- New design for smooth opening and closing
 - The built-in temperature adjusting device (PAT) of the hydraulic control provides a constant opening power and door-closing speeds regardless of opening dimensions in a range from minus 10 to 40°C, thus firmly controlling door closing speed even from small opened position.

Door opening power categorized by door weight

Door weight (kg)	Door opening power (N)	Door opening power (kgf)
60	11.2	1.14
70	13.9	1.42
80	15.8	1.61

● Products are available in the right hand sliding HCH-80 (Y) R and HCH-8015 (Y) R and the left hand sliding HCH-80 (Y) L and HCH-8015 (Y) L.

Details of parts

Basic parts

Name	Material (horizontal rail specification)	Material (bathroom specification)	Number
1 Aluminum rail 2200 [22800]	Aluminum materials	Aluminum materials	1
2 Front hanger roller	Steel (chromate, resin)	Steel (dacrotized treatment), Resin	1
3 Rear hanger roller	Steel (chromate, resin)	Steel (dacrotized treatment), Resin	1
4 Hydraulic control	ADC12 and others	ADC12 and others	1
5 Braking rack	Resin (with G), Urethane	Resin (with G), Urethane	1
6 Brake on the door-end side	Aluminum materials, Resin, Urethane	Aluminum materials, Resin, Urethane	1
7 Power spring installing plate	Steel (chromate)	Steel (dacrotized treatment)	1
8 Height control plate (for control frame)	Steel (processed steel plate)	Steel (dacrotized treatment)	7 (1)
9 Power spring	Steel (chromate)	Steel (dacrotized treatment), Others, Resin	1
10 M5X16 pan head screw	Steel (chromate)	Stainless	10 [12]
11 M8X35 hexagon nut	Steel (chromate)	Stainless	4
12 M5X12 pan head screw	Steel (chromate)	Stainless	2
13 Latch hexagon special bolt	Stainless	Stainless (dacrotized treatment)	2
14 Nominal 10 dia. countersunk spring washer	Stainless	Stainless	2
15 M5X12 pan head screw	Stainless	Stainless	2
16 M4X6 pan head screw	Stainless	Stainless	2

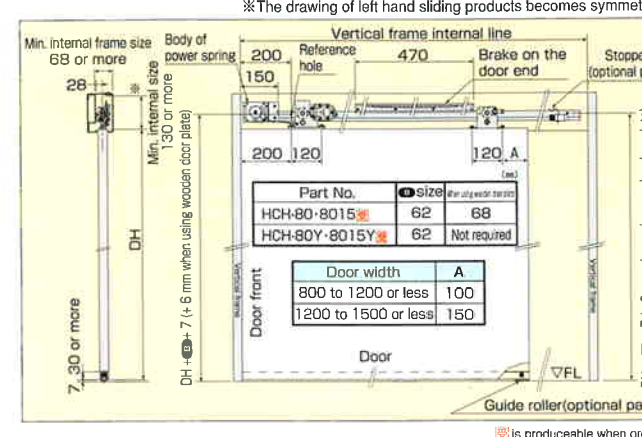
Optional parts

Name	Horizontal rail	Bathroom specification	Number
30 Guide roller	○	○	1
Stopper Door stop			1
Stopper Roller			1
M6X20 hexagon bolt	○	○	1
M5X12 pan head screw			2
32 Delayed timer body	○	×	1
Time adjusting plate			1
33 Wooden door plate	○	×	2
Nominal dia. 5X30 countersunk tapping			8

● Stopper 31 and delayed timer 32 cannot be used together.
● Bathroom specification 31 is the dacrotized treatment.

Fit-in view The view is for a right hand sliding door. (Viewed from the inspection cover side.)

※The drawing of left hand sliding products becomes symmetrical.



Part No.	Size	Door width
HCH-80-8015	62	800 to 1200 or less
HCH-80Y-8015Y	62	1200 to 1500 or less

● Inspection covers, guide rollers, stoppers, and guide rails are optional.
● Be sure to use a guide roller.
● Install the rail 6 mm up when using a wooden door plate.
● The minimum internal size for the installation surface is at least 160 mm* when using a stopper matching with door pocket of sliding doors.
● Be sure to install the frame vertically.
● Install the power spring wire at the door closed position. (Refer to P12, 13 for information about optional parts.)
Contact us for optional parts for bathroom specifications.

Optional parts

13

Installation example



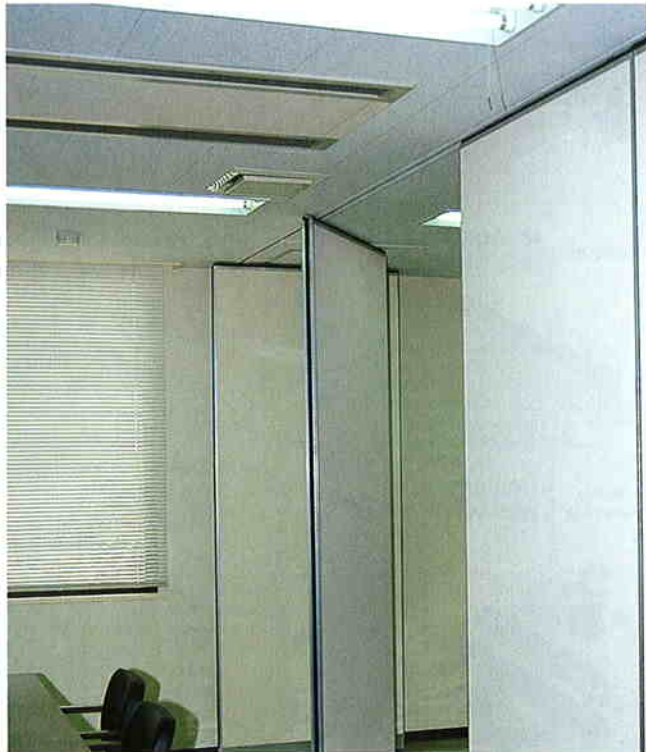
Interior door hanger FD-3, SD-10



Interior door hanger FD-3

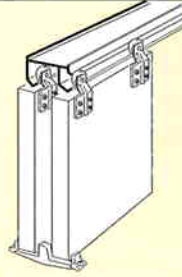


Audio visual room screen door SD-20

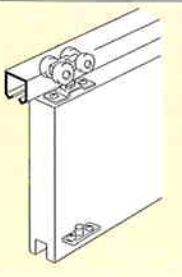


Meeting room partition PT-150

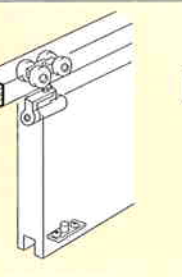
Product variations



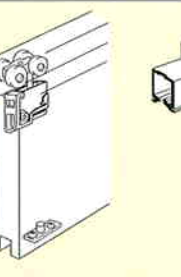
Sliding door hardware SD-5
● Door weight: up to 20kg



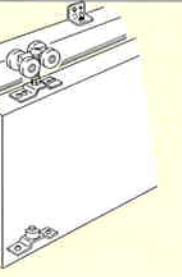
Sliding door hardware SD-10 (with plate) SD10-4WP
● Door weight: up to 30 kg
SD10-4WR
● Door weight: up to 50 kg



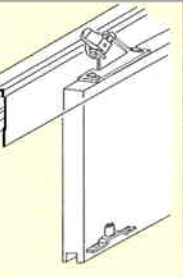
Sliding door hardware SD-10 (with bracket) SD10-4WB
● Door weight: up to 30 kg



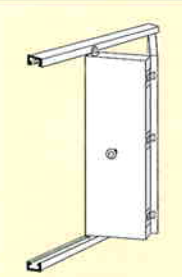
Sliding door hardware SD-10 (with adjustable bracket) SD10-4WT
● Door weight: up to 30 kg
SD10-4WRT
● Door weight: up to 50 kg



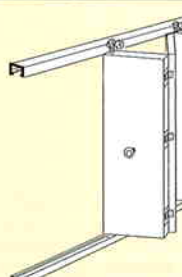
Sliding door hardware SD-15
● Door weight: up to 70 kg
SD-20
● Door weight: up to 120 kg



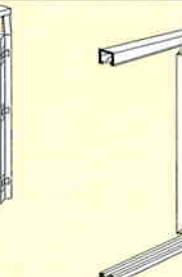
Sliding door hardware SD-40
● Door weight: up to 40 kg
SD-80
● Door weight: up to 80 kg



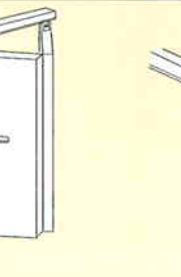
Folding door hardware FD-2



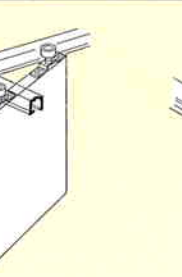
Folding door hardware FD-5



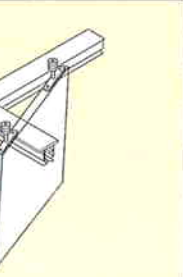
Folding door hardware SD-15

















Partition hardware SD-15
● Door weight: up to 25 kg



Partition hardware SD-15 PT-100
● Door weight: up to 100 kg



Partition hardware SD-15 PT-150
● Door weight: up to 150 kg

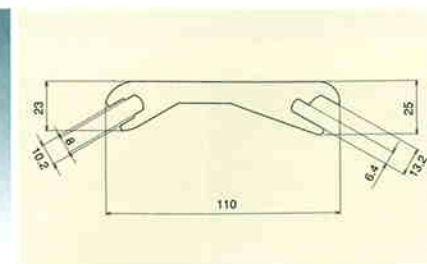
Type	Applicable weight (per door)	Type		Model No.
		Rail	Number	
One way sliding for 2 panels	30kg or less	Upper rail only	Two rails, one way sliding	SD10-X2RS SD10-X2LS
Sliding door	20kg or less	Upper rail only	Two pieces, bi-parting sliding	SD5
	30kg(50kg) or less(※)	Upper rails are required. (Lower rails can be selected.)	 One panel, one way sliding  Two panels, bi-parting sliding with one rail  Two panels, bi-parting sliding or cross sliding with two rails, etc.	SD10 (with bearing)
	70kg or less			SD15
	120kg or less			SD20
	40kg or less			SD40
	80kg or less			SD80
Folding door	Door width 300mm or less—up to 15kg 450mm or less—up to 10kg	Upper rail only	Two panels, one way sliding 	FD-1
		Both types of rails are necessary.	Four panels, bi-parting sliding 	(FD-11)
			Two panels, one way sliding 	FD-2
			Four panels, bi-parting sliding 	(FD-22)
	Door width 300mm or less—up to 25kg 450mm or less—up to 15kg	Upper rail only	Two panels, one way sliding 	FD-3
		Both types of rails are necessary.	Four panels, bi-parting sliding 	(FD-33)
			Two panels, one way sliding 	FD-4
			Four panels, bi-parting sliding 	(FD-44)
			Four panels, one way sliding 	FD-5
			Six panels, bi-parting sliding 	(FD-54)
Partition	Door width 450mm or less—up to 25kg, 600mm or less—up to 20kg 700mm or less—up to 17kg, 800mm or less—up to 15kg 25kg or less 100kg or less 150kg or less	Upper rail only	Eight panels, bi-parting sliding 	(FD-55)
				SD15
				SD15
				PT100 PT150

Note: Avoid using the above interior hardware at abnormal temperatures.
(※) The applicable weight 50kg of SD-10 is available by SD10-4WR·SD10-4WRT.

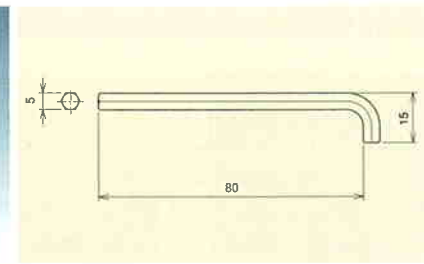
Interior door hanger SD15



SD15 specific spanner
SD15-HS



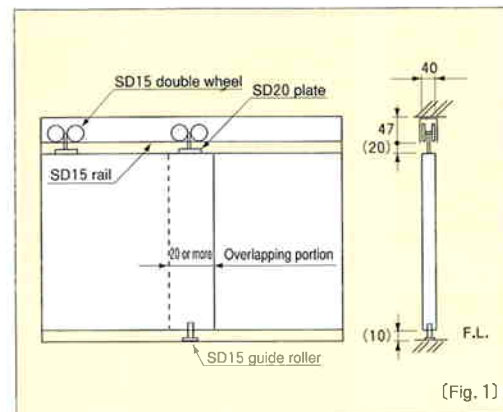
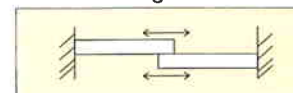
SD15 specific wrench
SD15-HW



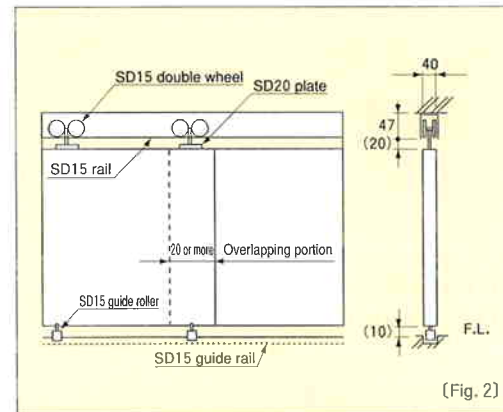
SD15 specific wrench
SD15-HW

Standard fitting

Double sliding door

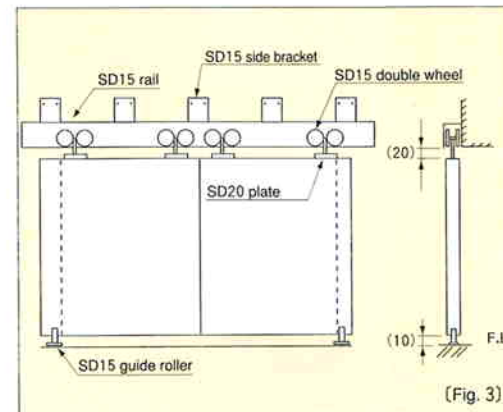
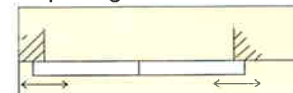


The guide rail is not installed on the floor.

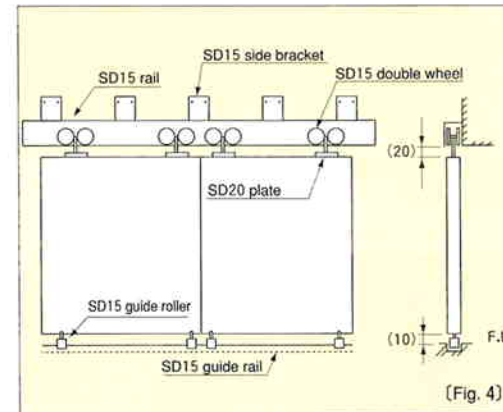


The guide rail is installed on the floor.

Bi-parting door

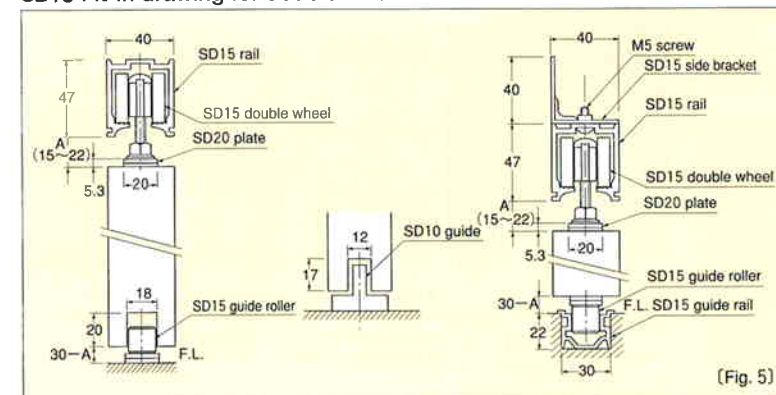


The guide rail is not installed on the floor.



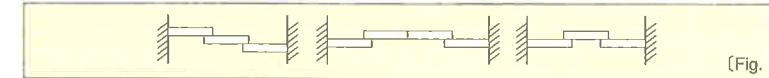
The guide rail is installed on the floor.

SD15 Fit-in drawing for double wheel

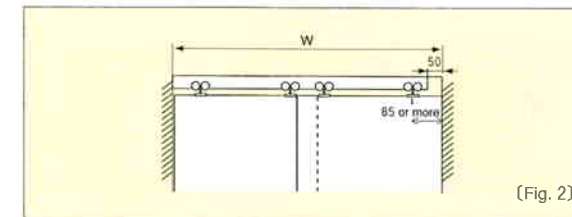


- Figures 1 to 4 show the double sliding of the two doors. The double sliding of three or more doors can be implemented (P.19 Fig. 1).
- The clearance (A) between the top of the door and SD15 rail is 15 to 22 mm when a SD20 plate is used. (Fig. 5)
- The clearance (A) between the door and the floor is 30 - (A) mm when a SD20 plate is used.
- The guide roller can also be used with the combination of a SD10 guide and the swing stop guide.

Interior door hanger SD15



(Fig. 1)



(Fig. 2)

- For better finishing, groove the ceiling and insert the upper rail in it.
- If a rail has been fully installed between the vertical frames, then the rail must be removed when performing wheel maintenance and replacement for double sliding doors.
- Therefore, as shown in (Fig. 2), if the rail width is set to about 50 mm less than the opening, and if double wheel is installed 85 mm or more apart from the end of the door, it is possible to easily remove only the wheel even after a rail has been installed. (It is not applied to SD15 inside plate.)

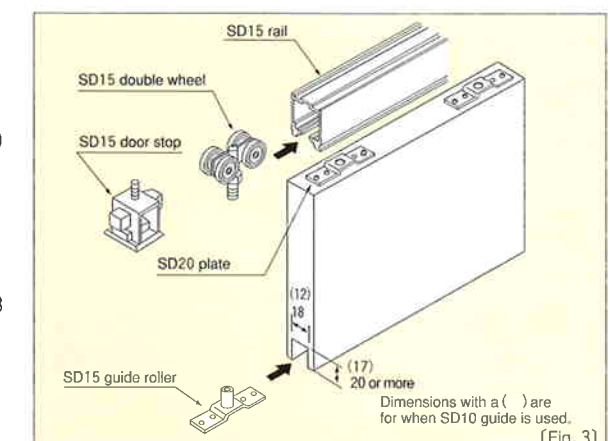
Installation procedure (installation procedure of SD20 plate, SD15 guide roller specifications)

Double sliding door

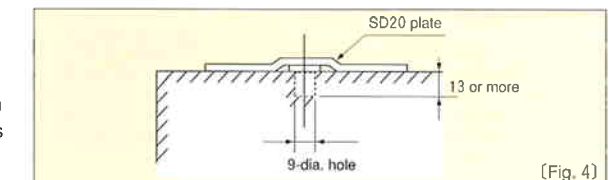
- Cut the SD15 rail by aligning it with an installation position.
 - Be sure to use a SD15 coupling pin when coupling the rail.
 - Completely cut the margin out of the cutting surface.
- Insert SD15 double wheel and SD15 door stop (door stop with the SD15 stopper) before installing the rail.
- Aligning with installation holes, install the rail in the desired position. (The installation holes are opened at about 300 mm pitch.)

Machining doors and installing parts

- Install SD20 plate on the top of the door. (Follow the installation position of Figures 3 and 4 on P.20 when using SD15 door stop or a door stop with SD15 stopper.)
 - Drill a 9 dia. hole by aligning it with the thread of the plate beforehand. (Drill holes with depth of 13mm or more when installing on wooden doors.) (Fig. 4)
- Install SD15 guide roller on the center of overlapping portion.
 - Be careful for the installing position so that the door is vertically hung.
- Groove holes 18 mm wide, 20 mm deep or more in the lower portion of the door. (Groove holes 12 mm wide, 17 mm deep or more when using a SD10 guide.)



(Fig. 3)



(Fig. 4)

- One plain washer and one M8 nut placed in the small case of the double wheel are necessary when using our apron, but are unnecessary when installing in combination with SD20 plate.

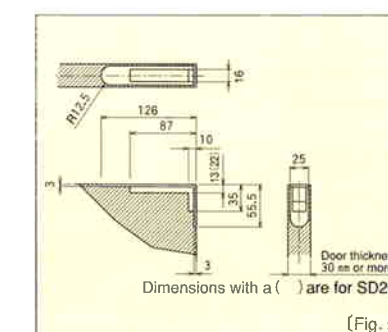
Door hanging

- Drop the grooved door into the guide roller, insert the double wheel bolt in the thread of the SD20 plate to raise the door. (The double wheel bolt is raised inside the rail.)
 - For easy hanging, using SD15 inside plate is recommended.
- Insert a spanner in the bolt to adjust the fittings. (It is convenient to use a SD15 specific spanner.)
- Holding the double wheel bolt, strongly tighten the countersunk washer nut on the plate side.

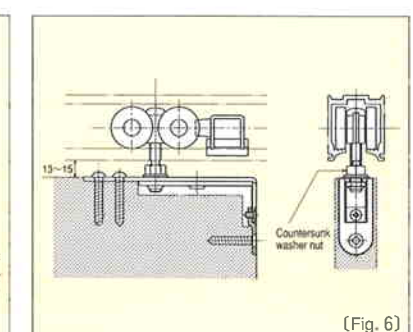
Procedure of part installation

SD15 inside plate/SD15-SPL

- Groove the door as shown Figure 5.
- Install according to installation procedures.(P.20 Fig. 1)
- The clearance between the door and the rail is 13~15 mm. (Fig. 6)

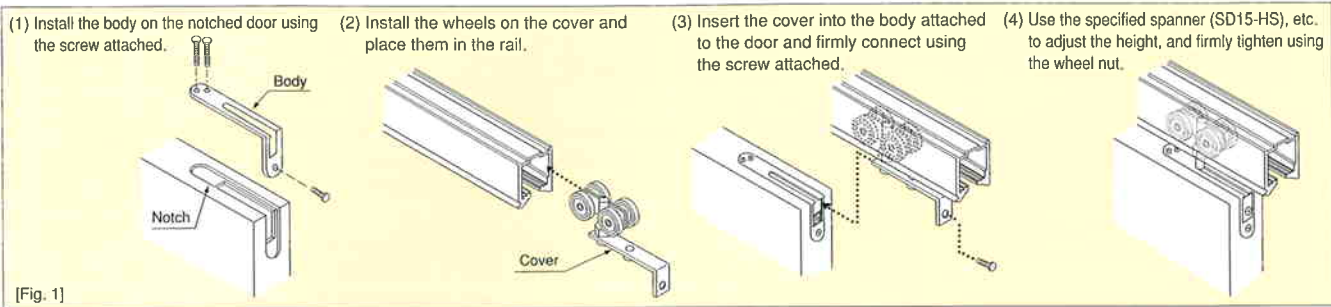


(Fig. 5)



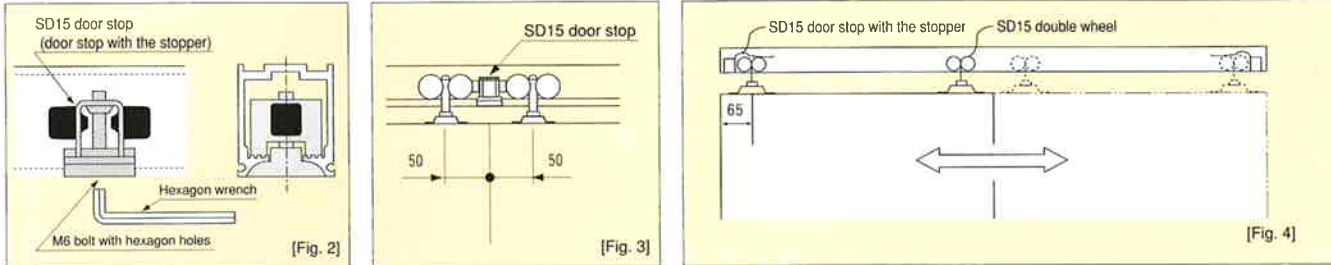
(Fig. 6)

Interior door hanger SD15



SD15 door stop /SD15-CS
SD15 door stop with a stopper /SD15-CST

- Insert the rail beforehand.
- Move the door stop or door stop with the stopper to the position for the door to be stopped, and fix it using a hexagon wrench. (It is convenient to use a SD15 specific wrench.) (Fig. 2)
- When using the door stop as a door stop for the door end, remove the external cushion. (It can be removed by pulling it out strongly.)
- Install the double wheel that contact the door stop at a position 50 mm from the end of the door. (Fig. 3) (It cannot be used for SD15 inside plate.)
- When using the door stop as a door stop for the door end, or when using the door stop with the stopper, install the double wheel at a position 65 mm or more apart from the end of the door. (Fig. 4)

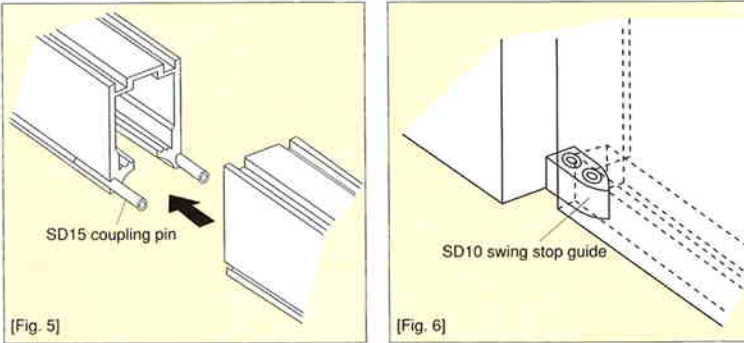


SD15 coupling pin / SD15-JP

- Insert the right/left coupling pins halfway into either rail groove to be coupled beforehand, pat the other rail end, and install them with good balance. (Fig. 5)
- When the rail cannot be moved left and right, insert both pins into one rail groove and hold it temporarily. Aligning both rails with each other, pat the end of the coupling pins using a flatblade screwdriver from the rail side, and move the pins to the center of the rail joints.

SD10 swing stop guide/ SD10-GF
(used with SD10 guide as a set.)

- For double sliding doors, install by contacting the guide to the lower portion of the left and right door stop frame.
- Install SD10 guide on the center of the doors. (Figs 6 - 7)
- ※ The center of the right and left doors becomes a swing stop with SD10 guide/SD10-GP, but swinging cannot be prevented if nothing is installed on the left and right ends of the doors.



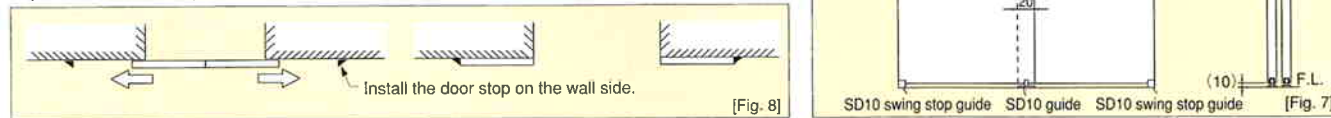
SD15 end seal /SD15-ES

- Peel the back sheet and paste it on the small rail outlet.

SD15 door stop with the rubber bumper /SD15-ST

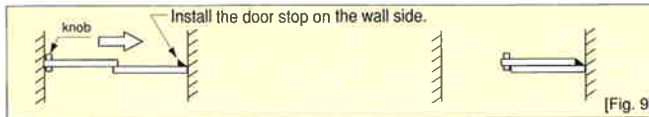
(Example of use) 1... bi-parting door (Fig. 8)

- Installing the door stop on the wall or the door enables the door to be placed in the desired position.



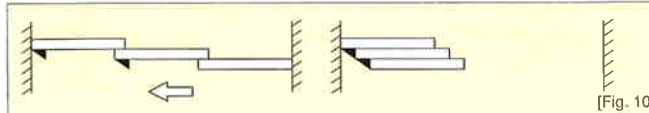
(Example of use) 2... double sliding door (Fig. 9)

- The knob can be installed so as not to hit the door.
- Concave-shaped knobs can prevent finger pinch.



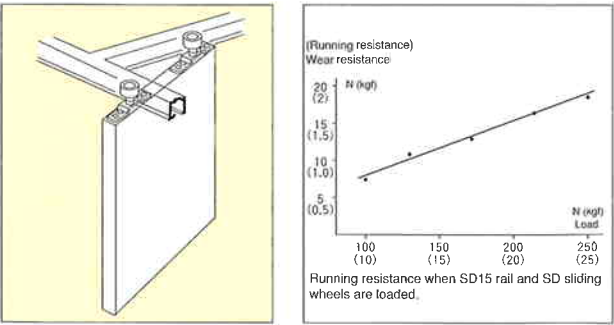
(Example of use) 3... It is possible to link three or more sliding doors. (The doors are linked when opening, but not when closing.) (Fig. 10)

- When installing a door stop on a wall or door, it is appropriate to install at the upper position from the center of the door height.



Interior door hanger SD15

SD15<Partition hardware> (panel weight is up to 25 kg for each)



Panels for partitions can be freely moved.

This is orthogonal light-weight partition hardware that uses aluminum rails and specific plastic sliding wheels with superior on friction resistance. With combinations of L-type, T-type, and X-type rails, panels (doors) can be freely moved and stored. Using the ceiling guide allows the wheels to smoothly run from the connecting position of the rails. It can be widely used in ordinary residences, offices, party rooms, and other such locations.

- Weight of up to 25 kg per panel can be applied.
- Panel height is up to 3 m. It is required that operations can be performed on the upper side from the panel center.
- Apply grease on the liner running surface at the connecting position of T-type and X-type rails.
- If the weight exceeds 25 kg, consider a linking door storage system that uses curved rails, PT100 Partition Hardware, or PT150 Partition Hardware.



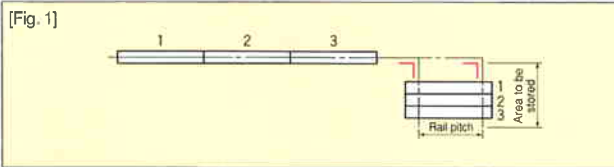
<Y-type storage>



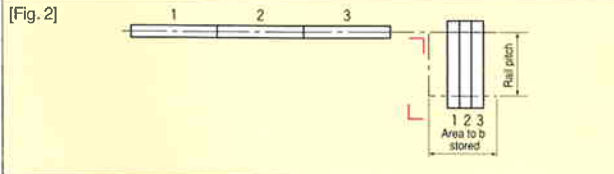
<F-type storage>

Interior door hanger Partition

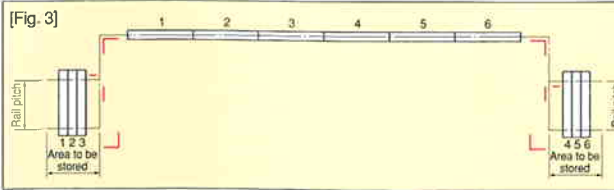
1. F-type storage



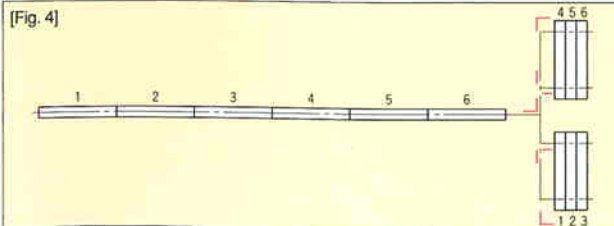
2. Y-type storage



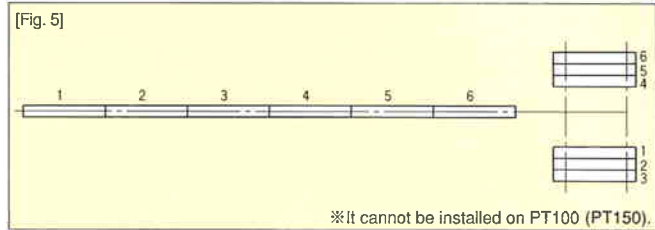
3. Y-type storage



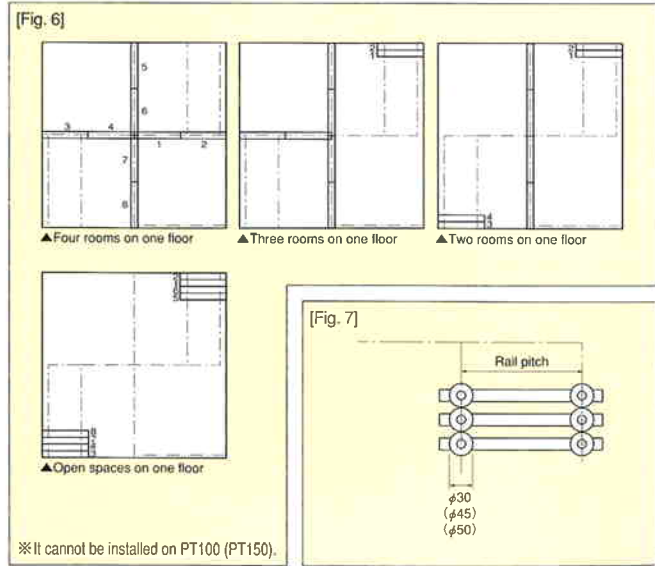
4. Y-type double storage



5. F-type double storage



6. Complex-type storage



Please contact us for use of PT-100 & PT-150.