LAMP® STACKABLE PARTITION DOOR SYSTEM FDP40V
Installation Manual(Column Stacking)

Thank you very much for selecting our product.
Before installation, please read this manual carefully to ensure proper installation.

■ About this product

This product is parts set for installation of sliding partition for indoor use.
It is possible to store stackable panel panel at a side rotating them ninety degrees as shown below.
Since panels are suspended, no bottom rail is needed. Thanks to exclusively designed rollers, smooth movement of panels are realized.

3 panels + 1 door, stored at right side

Partitioned status

Stackable panel 1
(SP1)

Stackable panel 2
(SP2)

Stackable panel 3
(SP3)

＊When installing door hinge, latch or the like, please follow the procedures written in the installation manual for each product.

Stored status

Stackable panel 3
(SP3)
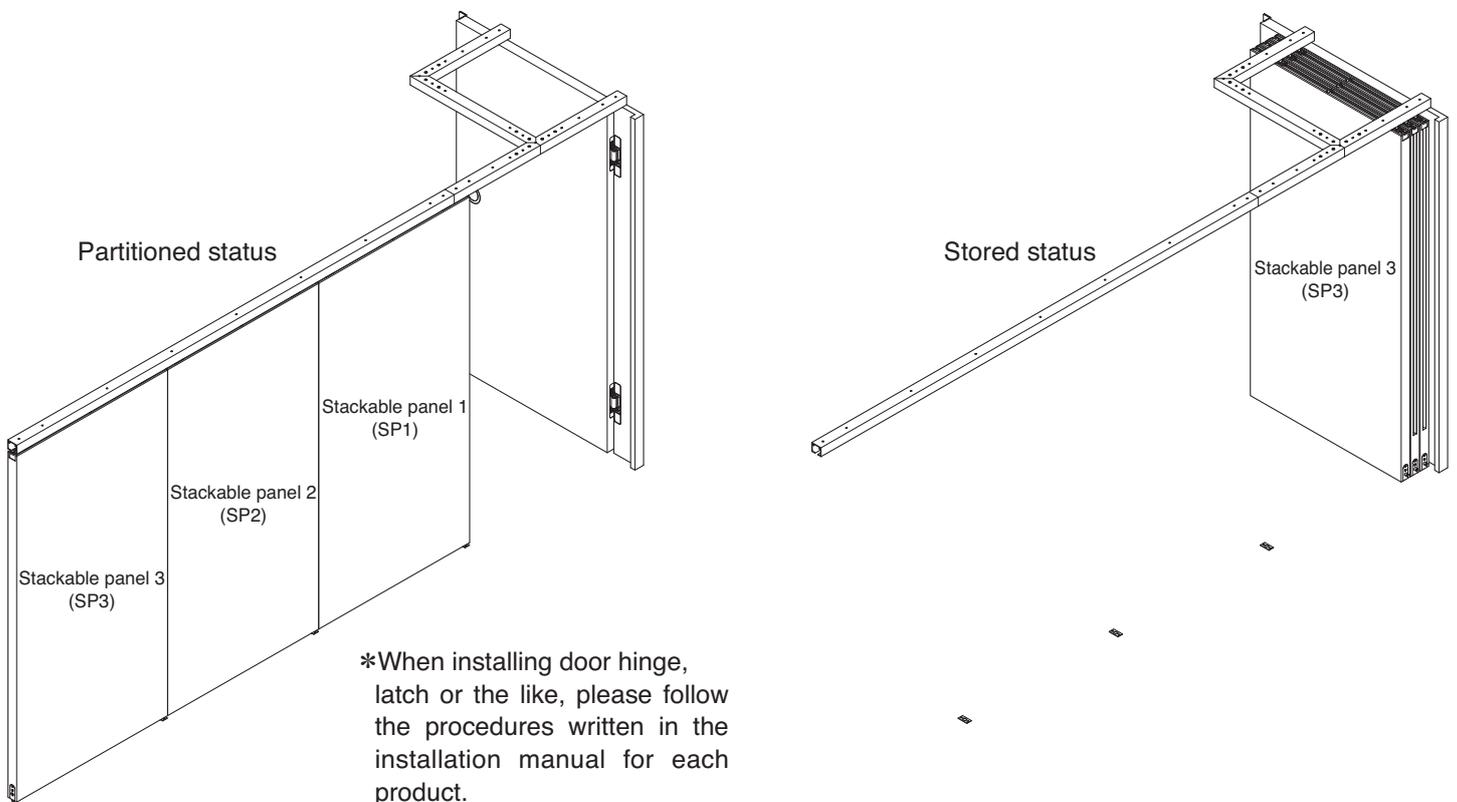
■ SPECIFICATION

Panel width	Panel height	Panel thickness	Panel weight (each panel)	Panel vertical adjust range
700 〜 900mm	Less than 2500mm	34 〜 40mm	Less than 40kg	Upward: 0mm Downward: 7mm

＊ When selecting the door, refer to the specification specified for hinge or the like.

■ FOR SAFE INSTALLATION

⚠ symbol denotes the contents requiring caution or warning.

🚫 symbol denotes the contents which should be avoided.

❗ symbol means instruction which is to be kept or followed.

⚠WARNING

If this warning is not kept, injury or damage to adjacent furniture may be resulted.

⚠ Installation of this product should be done by experienced person. Follow instructions on this manual.

🚫 If this product is not installed correctly, door may be able to work correctly causing damage and injury.

❗ This product should be used according correct purpose. Do not disassemble or make modification. Avoid using the product out of specification explained in this manual.
If accident or injury is resulted by above usage, we have no responsibility on mistaken application.

When manufacturing door and frame, consider their strength which is able to support door weight and schlock upon closing/opening door.The door or frame with insufficient strength may cause poor door operation. In worst case, the door will be dropped down. It is very dangerous.

⚠ PRECAUTIONS UPON INSTALLATION

● **Work with two or more persons.**
Especially, when installing door or panels, two or more persons are needed.Take care to avoid excessive inclination of door or panel as this may cause roller damage or damaging ceiling.
● Wood having sufficient strength must be used as core material for upper rail installation or door metal installation.
● **When using electric tool, pay attention to avoid over-tightening.**
Over-tightening may cause part deformation or damage of Phillips head.
● **After part installation, confirm that parts are securely fixed.**
Confirm tightening status of upper rail with door suspension part. Insufficient tightening causes drop of door.
● **During installation, take care not to damage ceiling or the like.**
Use protective material on the floor to avoid damage of floor or part.

■ COMPONENT PART

Left or right Stacking	No. of panel	① Upper rail	② Stacking rail		③∗ Upper roller Swing type	④∗ Upper roller, straight type	⑤ Hanging Bracket (two)	⑥ End cap
Left Stacking	3	1		Connect Plate 1 set	3	3	3set	6
	4				4	4	4set	8
Right Stacking	3	1		Connect Plate 1 set	3	3	3set	6
	4				4	4	4set	8

∗ ③ and ④: attached in the roller set for FDP40V-QR.
One adjustment spanner (nominal diameter of 10) is attached in addition to above.

【OPTION】	⑦	⑧	⑨	⑩	⑪	⑫	⑬
No, of Panel (excludlng door)	Flush bolt	Packing	Packing support rail	Bottom seal	3-dimensional adjustable hinge	Magnet Latch handle	Door stopper
3	3	2	2	3	2〜3	1	1
4	4	3	3	4			
	Must be used on stackable panel for fixing	Using to cover joints between panels Use together with flush bolt	To cover gap between panel bottom and floor together with flush bolt		Used for the door. Use ⑪ , ⑫ and ⑬ as a set. For detail of ⑪ and ⑫ , please refer to the manual attached on each part.		

■INSTALLATION DRAWING (EXAMPLE)

(Column stacking: 3 panels + 1 door right-side stacking)

＊Panel width PW ≦780
⇒P=60

780＜Panel width PW ≦ 900
⇒P ≧ Panel width PW-720

Connect plate

① ②

⑬

400

43

43

540

43

P＊

400

RW-800

800

When panels are stored

Stackable panel 3 (SP3)　Stackable panel 2 (SP2)　Stackable panel 1 (SP1)　Door

Room inside

540

A　60　540　60　540　60　540　20　A

Panel width PW　Panel width PW　Panel width PW　Door width DW

1　1　3.5 ＊＊　3.5＊

Total width RW　Room outside

＊＊ Dimension when specified HES3D-V135 hinge is used

④ ⑤ ③　④ ⑤ ③　④ ⑤ ③　⑥

36　(175.5)

⑧ ⑨　⑧ ⑨　⑪

10

Door
(not included in number of panels)

⑫

Stackable panel 3 (SP3)
Packing length: PH-200
Packing support rail length: PH-182

Stackable panel 2 (SP2)

Stackable panel 1 (SP1)

Panel height: PH=RH-20

Height of opening: RH

⑪

⑦ ⑦ ⑦

⑩ ⑩ ⑩ ⑩

170　160

FL

12　12　12

(10)　(10)

Panels are used, with door closed
Section A-A

When panel closed

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3

■ PROCESSING PANEL CUT-OFF

As for the dimension in [_____] (latch handle, latch handle receiver, hinge), refer to the manual of each part.

● Stackable panel 1 (SP1)
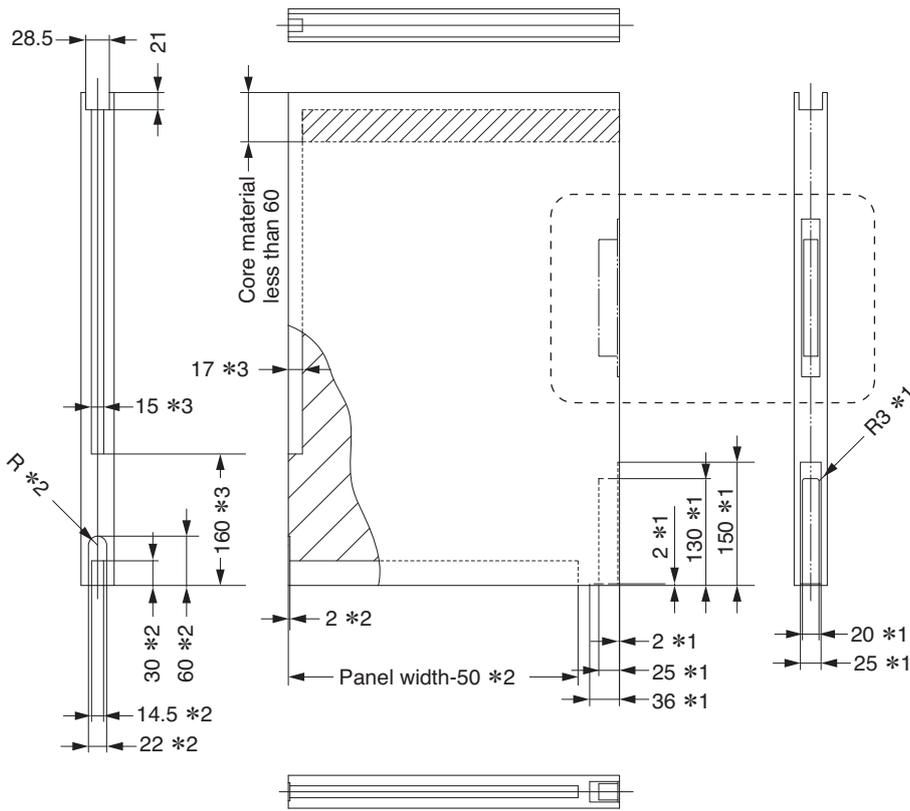
● Stackable panel 2 (SP2) (Four specification panel:need two panels)
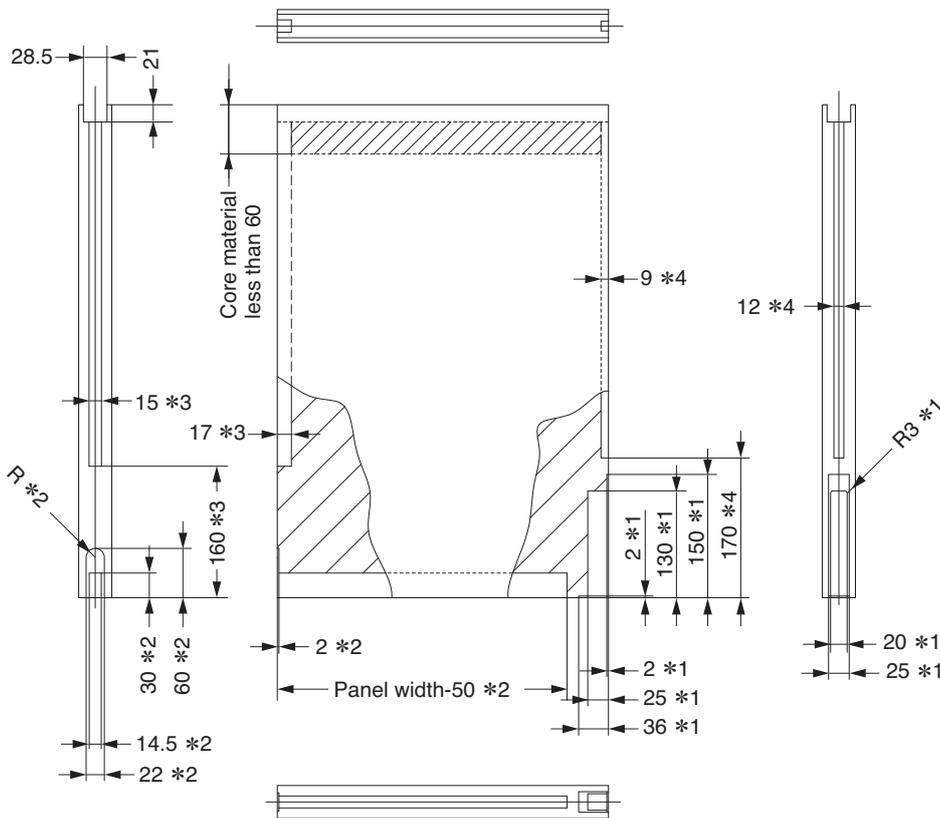
*1～*4 shows process dimensions when following optional parts are used.

Symbol	Part name
*1	⑦ Flush bolt
*2	⑩ Bottom seal
*3	⑨ Packing support rail
*4	⑧ Packing

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■ PROCESSING PANEL CUT-OFF

● Stackable panel 3 (SP3)

28.5
21
Core material less than 60
12 *4
9 *4
R3 *1
R *2
30 *2
60 *2
2 *1
130 *1
150 *1
170 *4
14.5 *2
2 *2
2 *1
20 *1
22 *2
Panel width-50 *2
25 *1
25 *1
36 *1
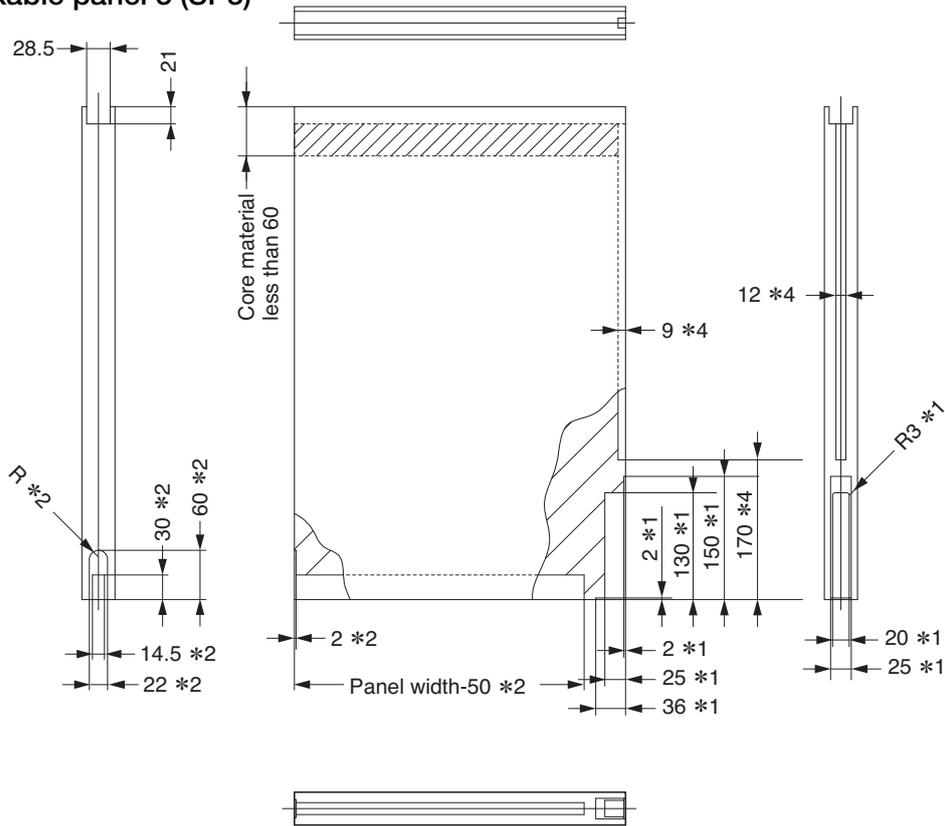
● Door   *Processing of 5: differs by door storing side (left or right)

2 *5
52 *5
30 *5
30 *5
52 *5
R3 *5
R3 *5
Room inside
Room outside
Room outside
Room inside
Door open/shut side
Door open/shut side
Right at the time of storing
Left at the time of storing
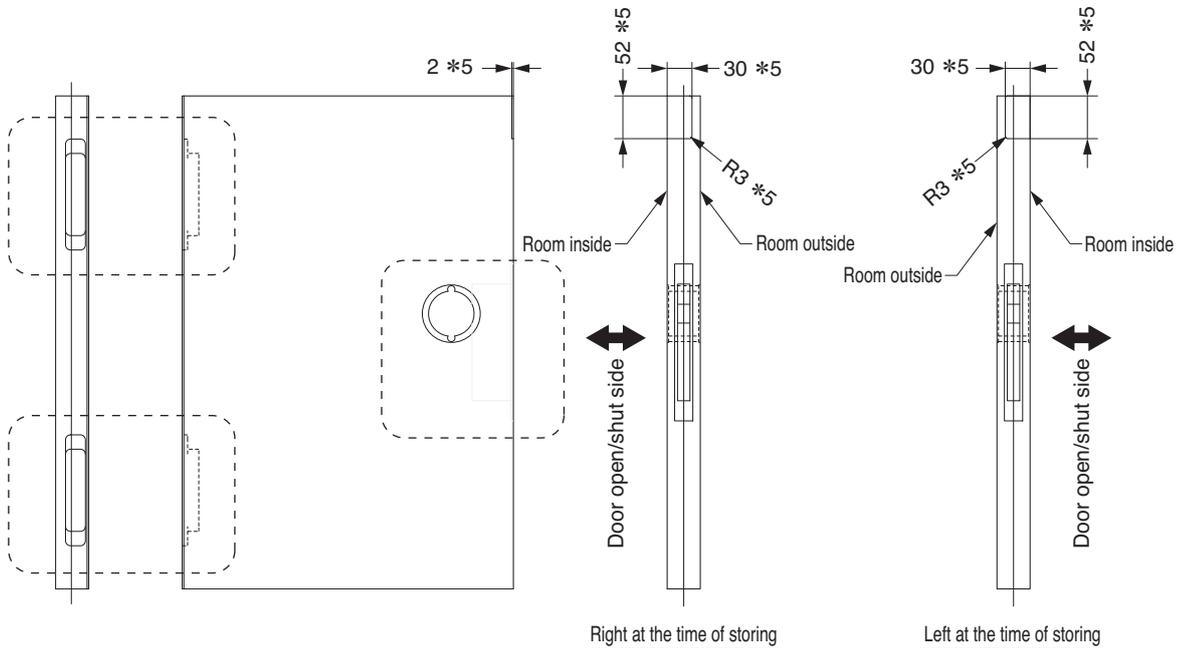
*1 ～ *5 shows process dimensions when following optional parts are used.

Symbol	Part name
* 1	⑦ Flush bolt
* 2	⑩ Bottom seal
* 3	⑨ Packing support rail
* 4	⑧ Packing
* 5	⑬ Door stopper

CHECK THE FOLLOWING PRIOR TO INSTALLATION

■Make sure that the ceiling is strong enough to support a load of 160kg (in the stacking part of the rail)

Maximum load of 160kg
Sufficient reinforcement is needed before installation.
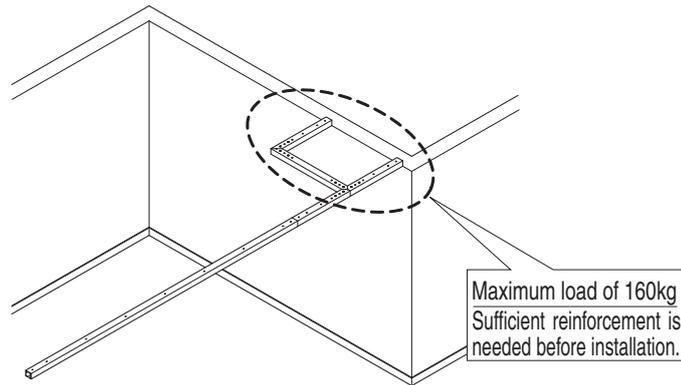
■Check ceiling for sag and floor for warp

Add beam to increase support force.

Height fluctuation should be less than 5mm

Ceiling
(rail installation)

Floor
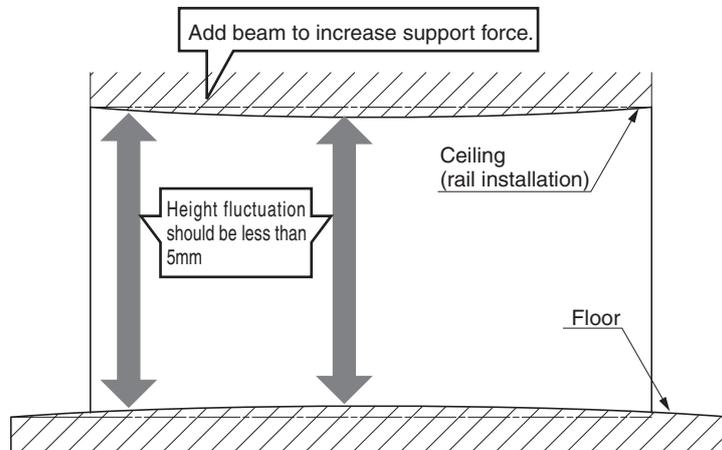
■Process when recessing the rail

More than 48 [52]

400

More than 48 [52]

More than 48 [52]

More than 48 [52]

540

Process in parallel and vertically
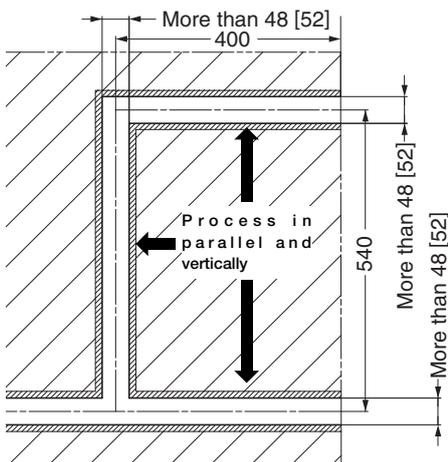
■when processing without gap between ceiling face and rail

- At first, install the rail to reinforce material behind the ceiling.
- Then, process the ceiling face to meet rail mount dimensions.

①Install rail.

②Process ceiling surface.

43
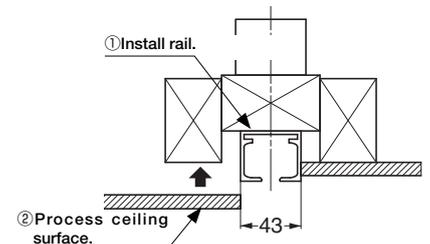
Dimension in[　]denotes when cloth is added.

36

32

(4)

43

More than 48 [52]

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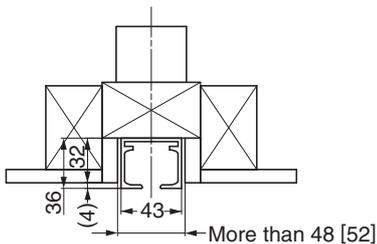
■ TOOLS NEEDED FOR INSTALLATION
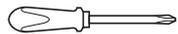
Phillips Screwdriver #2

Screw driver∗3

Adjust spanner
Order code:250-024-506
Part No.:FDP40-SP10

Plumb ∗1

Phillips tapping
screw (pan head)
∗3

Drill for wood 12mm dia. ∗1
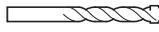
Drill for aluminum 5mm dia. ∗3

Adhesive for synthetic rubber
and wood ∗2

Electric drill ∗3
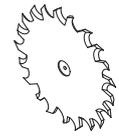
Saw for metal ∗3

∗1 used when installing flush bolt (option). If floor is supported by steel or concrete, select suitable drill in place of the drill for wood 12 mm dia.

∗2 used for installing packing (option) (acrylic modification silicon resin, elastic adhesive or the like)

∗3 used to install bottom seal (option) Please prepare one Phillips pan head tapping screw 4x20.

■ INSTALLATION PROCEDURES

1 Cutting upper rail ① and processing a hole

Referring "Shop Drawing", cut the rail to required length. With drill 5mm dia., drill a hole. Refer to the illustration below.

Do not cut the side for rail connection hole (Two 6mm dia. holes are provided)

Width RW-800

φ5 → 30

Cut section

2 holes are processed (for rail connection)

⚠ **CAUTION**

Clear rail from burr and aluminium dust.

⚠ **CAUTION**

Do not cut the end where two 6mm dia. holes are provided.
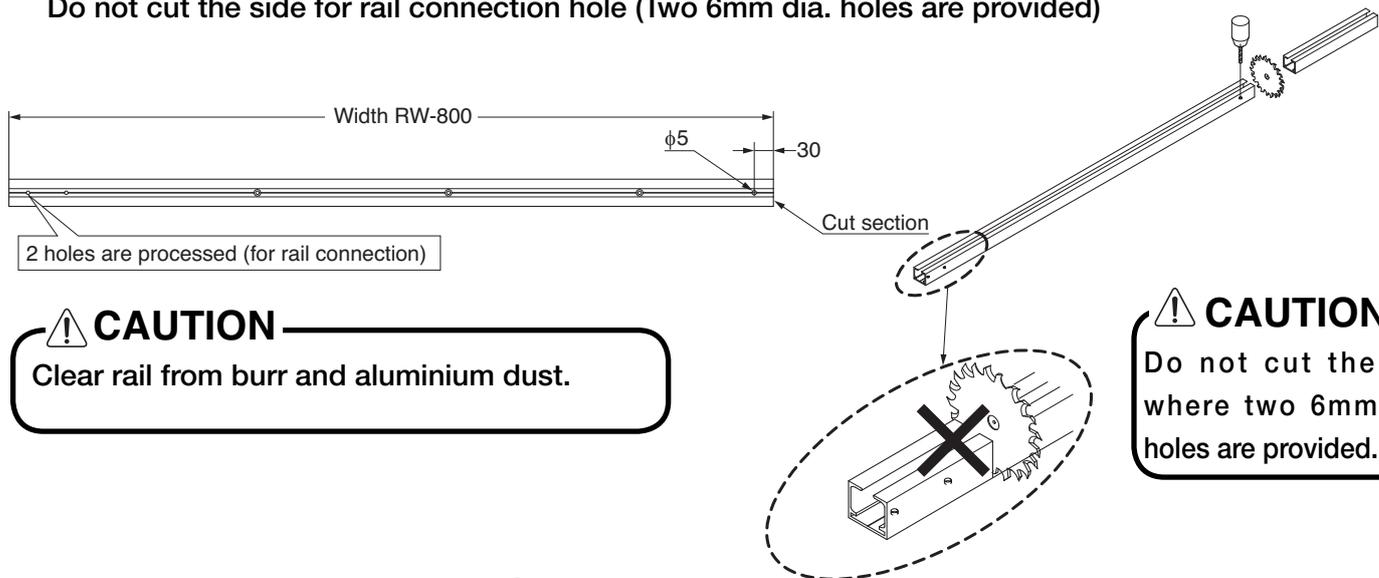
2 Installing hanging bracket ⑤ to panel

Fully insert hanging bracket into the cut-off at top end of panel. Install hanging bracket to all panels.

Phillips pan head tapping screw 5×40 (attached)

⚠**CAUTION**

Install bracket leaving 5mm space from panel end.

∗4.5mm hole at the end is not used.

5 → ← 5
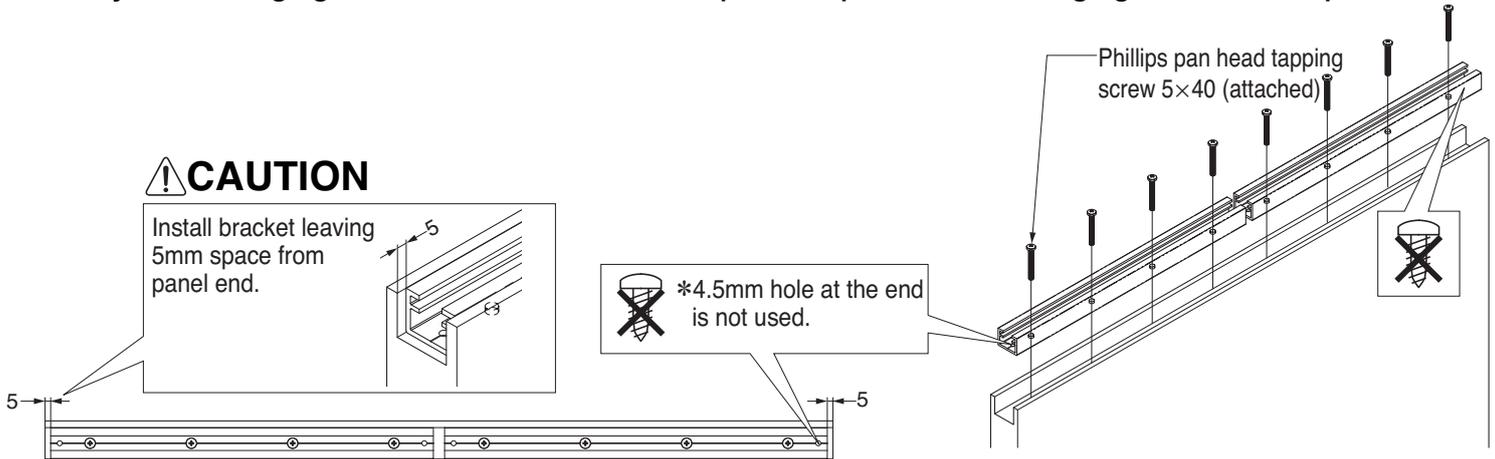
【Option 1】 **Installing flush bolt ⑦ to panel**
 Install flush bolt to the cut-off on stackable panel.

Attached screws

Attached screws
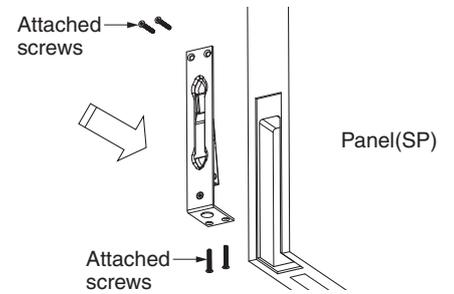
Panel(SP)

【Option 2】 **Installing packing ⑧ and packing support rail ⑨ to panel**
 （1）Referring to "Installation Drawing", cut packing and packing support rail to required length.

Packing rail

Panel height PH-182

Packing

Panel height PH-200

Stackable Panel (SP)

Use adhesive to install packing.
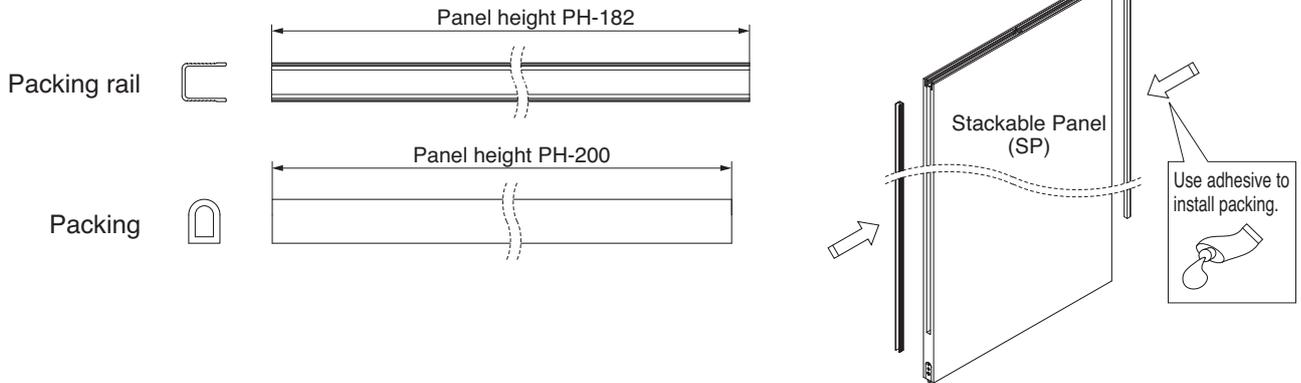
 （2）Install packing and packing support rail to the groove of stackable panel (SP).
     When installing packing use acrylic modification silicon resin, elastic adhesive or the like.

 （3）Insert packing support rail into groove of panel.（1）

【Option 3】 **Installing bottom seal ⑩ to panel**
 （1）According to the "Installation Drawing", cut bottom seal to required length.
     [Note] When installing bottom seal, use also flush bolt.
 （2） Cut bottom seal at cut side with a saw for metal. Then, make a hole with 5mm dia. drill.

Cut length = door width -50
Stackable panel:Panel width DW-50

Cut section

25

20

Although the parts shown below are included, they are not necessary.

φ5

10

＊This mount screw is not included.
Please get one Phillips pan head tapping screw 4×20.
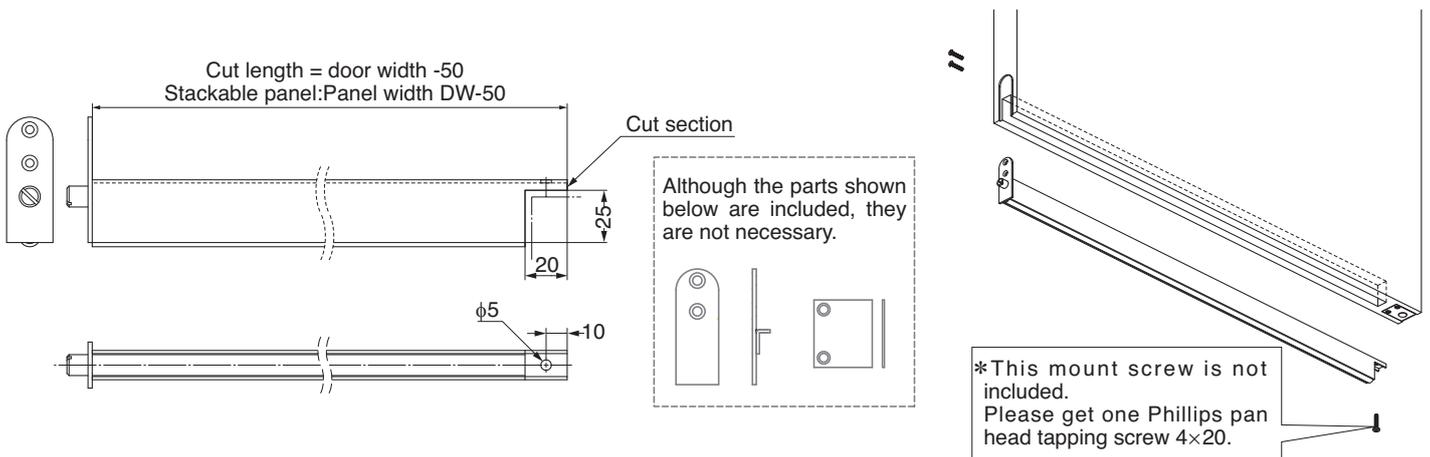
 （3）After processing bottom seal, install it to the groove at
     panel bottom. And, fix it with mount screw.

【Option 4】 **Installing door stopper ⑬ for door**
     Install door stopper to the position shown in right
     illustration with three mount screws attached.

Door

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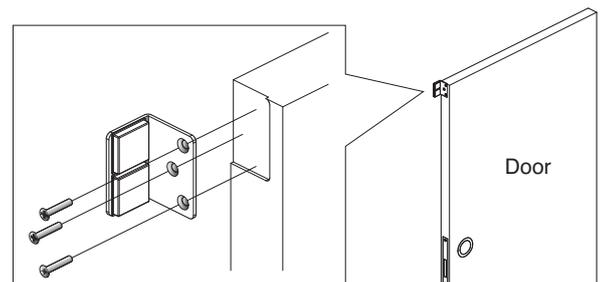
3 Installing stacking rail ②

＊ Illustration below shows right side stacking rails viewing from below.

Based upon illustration, draw installation reference line on the ceiling.
Aligning rail mount holes to the reference line, install the rail with attached screws.

＊Two 6mm dia. Holes at this end:Do not insert screws in this stage.It will be used later.

Installation reference line

800

400

540

Align door center line (thickness) to installation reference line of the rail.

Installation reference line

Use flush tapping screw.
For connect plate flushscrew hole.

Use bind tapping screw for round hole of stacking rail.
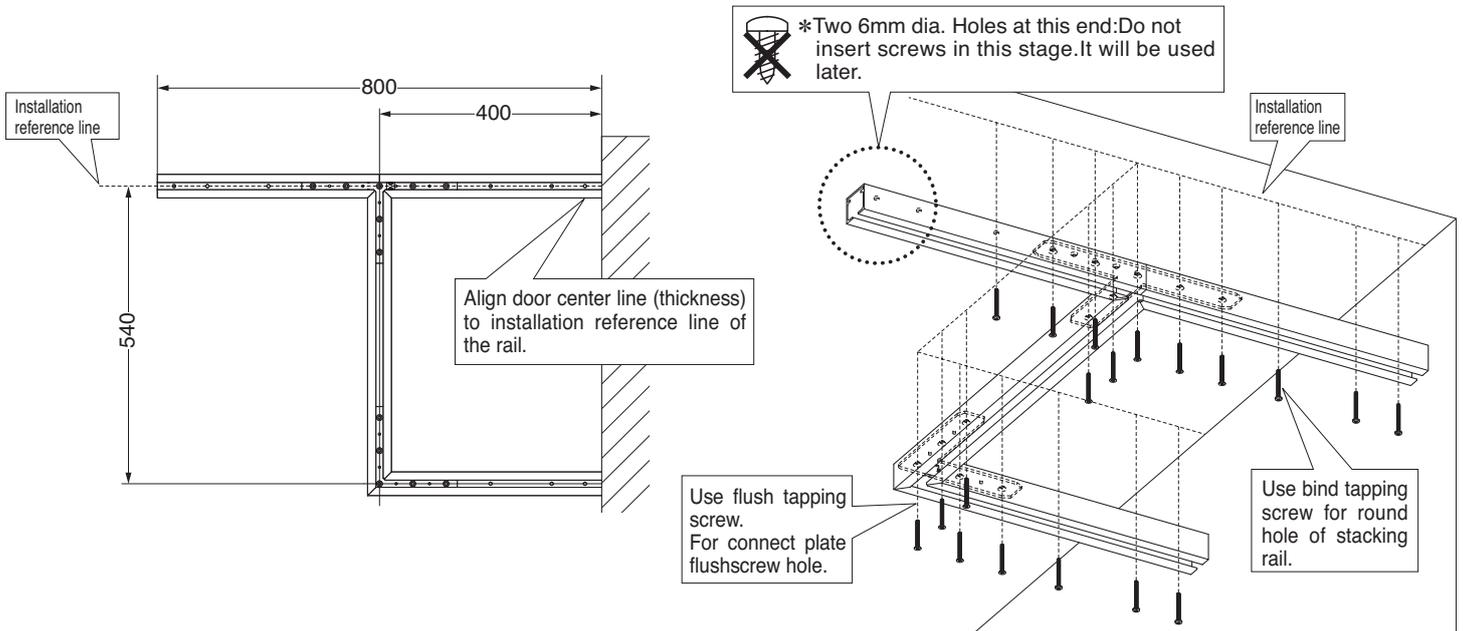
⚠ CAUTION

・Correctly screw-in the screw, without inclination.
・Depending upon the material of installation part, attached screw can not be used. In this case, prepare available screws separately.
・Never disassemble the stacking rail.

4 Inserting upper roller to stacking rail

【1】 Insert upper roller into stacking rail (one pair of rollers per panel).
【2】 Insert swing type roller into deep end of stacking rail. Insert straight-moving roller into front end of stacking rail.

Roller (Swing type)

With cap

Four rollers

White roller

Roller (Straight type)

With guide block

Two rollers

Black roller

⚠ Do not assemble improper parts.

Front side

Rear side

Swing type

Straight moving type
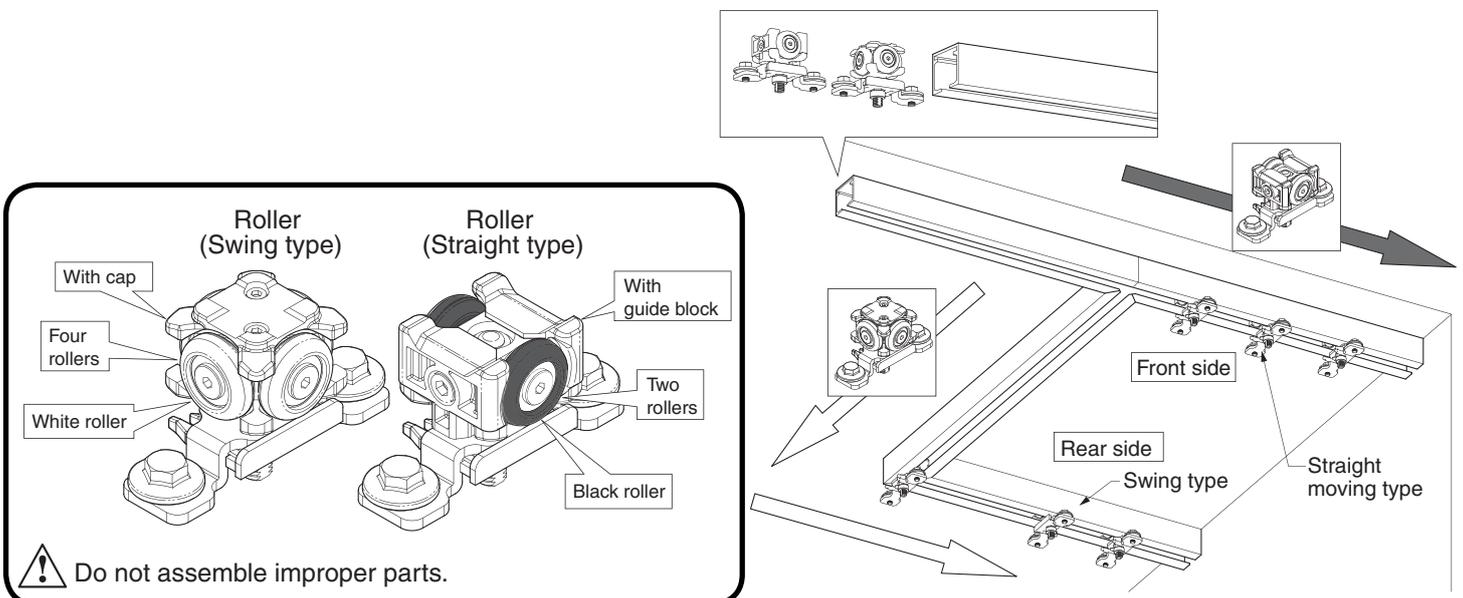
5 Installing upper rail

【1】 Insert connecting plate into upper groove. In this case, select the side where two 6mm dia. holes are provided in procedure 1.

【2】 Sliding connecting plate to insert it into upper groove of stacking rail. And connect upper rail to stacking rail.

⚠️

Leave no space between the upper rail and the stacking rail.

⚠️ Side having two 6mm dia. holes (for rail connection)

Two 6mm dia. holes (for rail connection)
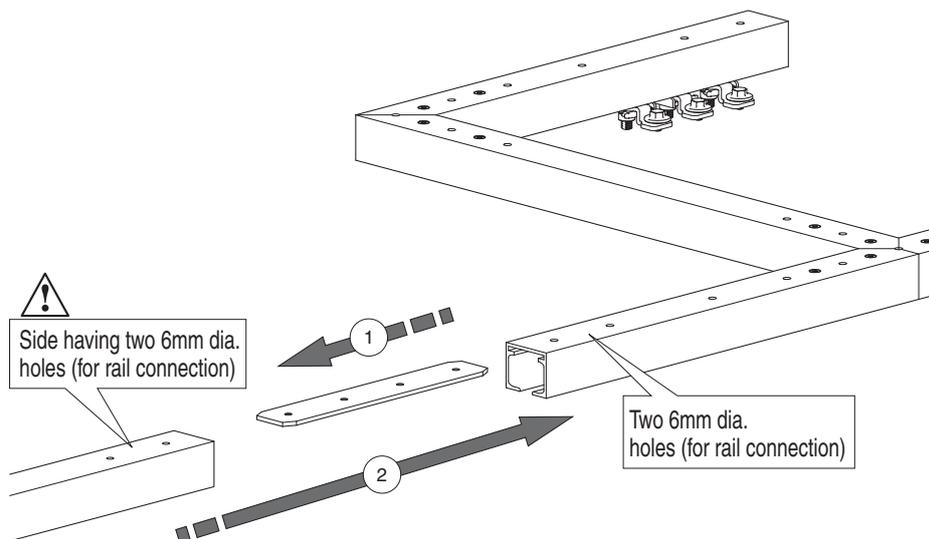
【3】 Align connecting plate flush hole with connecting hole on upper rail and stacking rail, fix the parts with four tapping flush screws.

【4】 With attached bind tapping screws, fix upper rail.

⚠️ CAUTION
Leave no gap between the rails.

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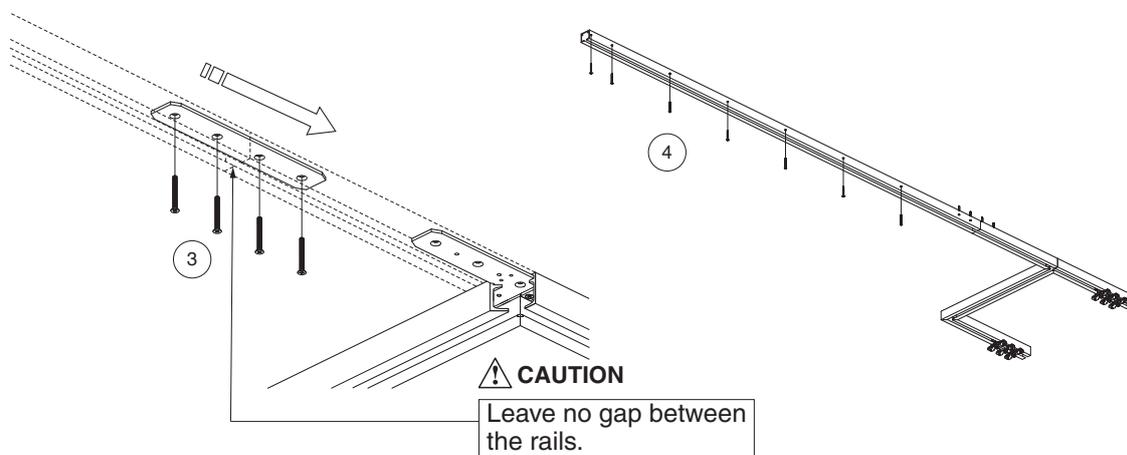
6 Hanging stackable panel

Install panels in the following order.
　① Stackable panel 3 (SP3)
　② Stackable panel 2 (SP2)
　③ Stackable panel 1 (SP1)

Panel in operation

Stacking rail

③ Stackable panel 1 (SP1)
② Stackable panel 2 (SP2)
① Stackable panel 3 (SP3)
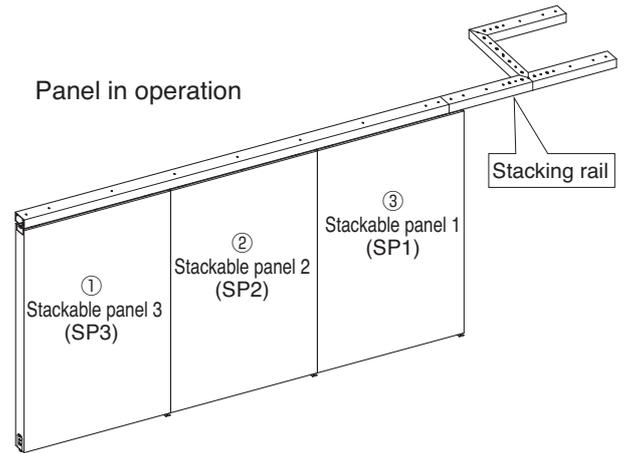
【1】 Preparation of upper roller
　　Pull out two upper rollers, worked in **4** Inserting upper roller to stacking rail, toward upper rail side.

①Roller (Straight moving type)

②Roller (Swing type)

Front side

Rear side
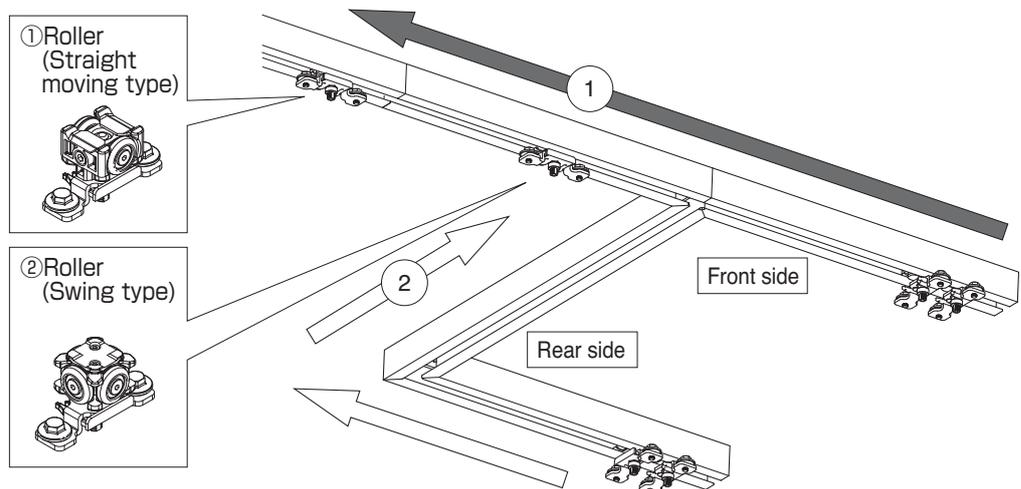
（1） Pull out straight moving type roller ① at first.
　　Then, pull out swing type roller ② .

（2） Loosen upper roller tightening bolts.

Stacking rail side

① Roller (Straight moving type)　②Roller (Swing type)
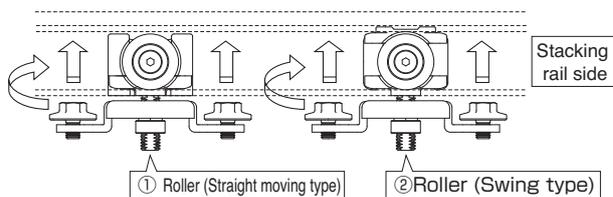
【2】 Confirming panel direction
When using following optional parts, it is necessary to confirm panel direction before installation.

Stacking rail side

Packing

① Stackable panel 3 (SP3)

Bottom seal

Flush bolt

Stacking rail side

Packing

② Stackable panel 2 (SP2)

Bottom seal

Flush bolt

Stacking rail side

Latch receiver
∗When latch is used on the door

③ Stackable panel 1 (SP1)

Bottom seal

Flush bolt
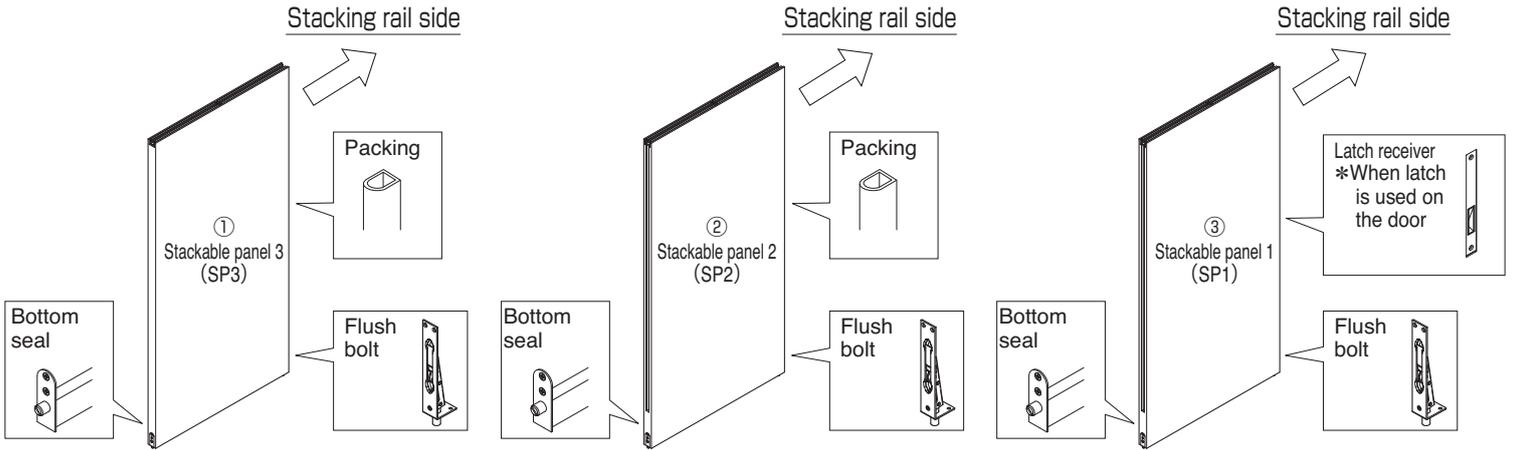
【3】 Hanging stackable panel 3 (SP3)
(1) Position panel 3 (SP3) at upper rail.

(2) Place 10mm support under the panel. Insert upper roller from the side of hanging bracket at top end of the panel.

(3) There are two types of upper rollers: Straight moving type and swing type. If assembled position is not correct, stacking rail will not function.

(4) After installing two upper rollers, remove 10mm support.

⚠ **CAUTION**
Panel hanging should be done with more than 2 persons.

② Roller (swing type)

Stacking rail side

① Roller (Straight moving Type)

Insert upper roller plate into upper groove of hanging bracket.

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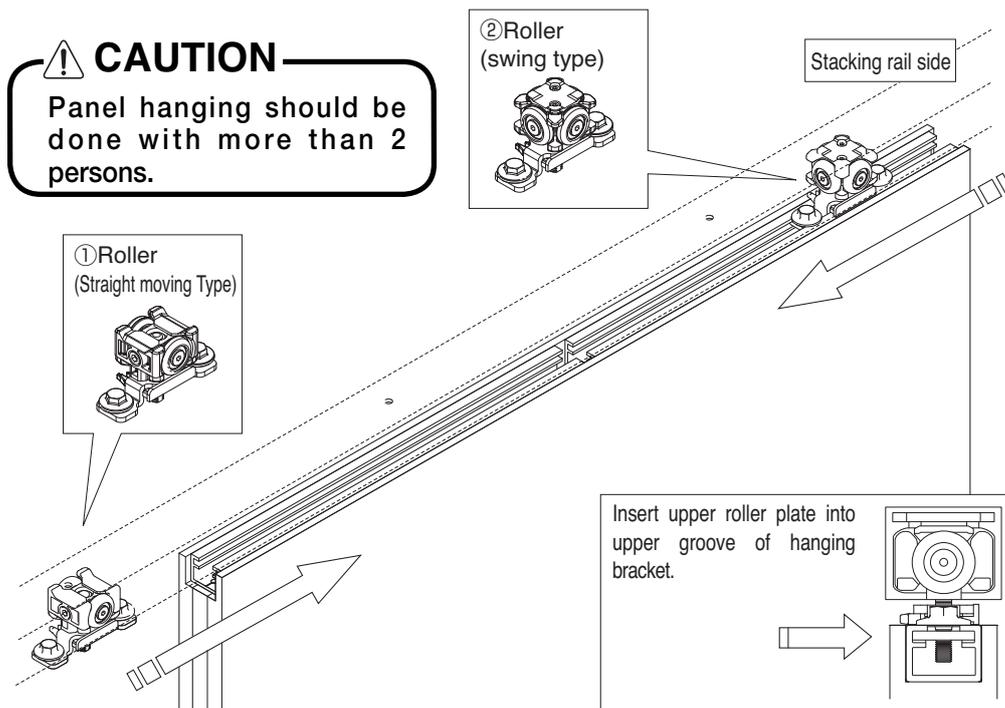
【4】 Adjusting upper roller pitch, and tightening upper roller mount bolt
（1）Slowly move panel (SP3) from upper rail until stacking position of the rail. By moving panel slowly, upper roller position changes and align with stacking section pitch.

（2）Adjust upper roller position by moving to both directions so that the panel smoothly at stacking section. Adjust door tail side upper roller is positioned at 60mm(＊) from panel end.

（3）After adjustment, tighten upper roller fixing bolt with spanner (10mm) to fix upper roller.

Rear side

⚠ Take care for drop of panel

Front side

Rear side | 540 | 60 ＊ | Front side

＊ 60mm position of upper roller (this side) from panel end: Change as required by installation site.
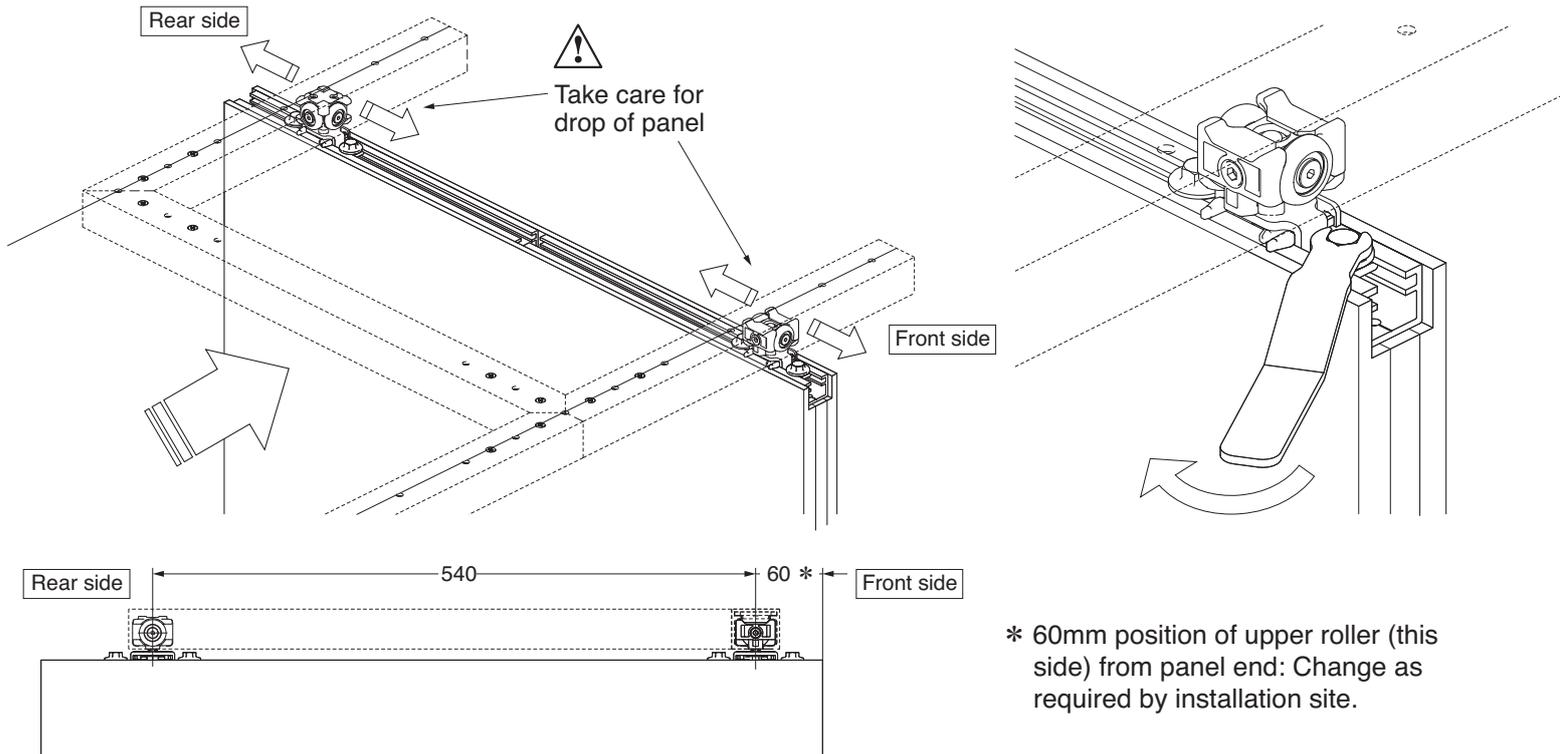
【5】 Confirming stackable panel movement
Slide out the stackable panel from stacking position to upper rail (straight). Repeat 2 to 3 times to confirm (smooth)movement. Also, retract the panel (from straight rail to stacking position) for 2 to 3 times to confirm smooth panel movement.
If unsmooth operation is experienced, readjust upper roller installation pitch to correct.

【6】 Hanging stackable panel panel 1 and 2 (SP1 and SP2)
Install panels 1 and 2 on the rail, following above procedures (【1】 to 【5】).

During installation pay attention to the following :
1) Installation order: Panel 2 (SP2) at first, then panel 1 (SP1).
2) Direction of stackable panel. Refer to 【2】 Confirming panel direction (Page 12).

⑦ Panel-to-panel alignment (Adjusting vertical position)

【1】 Pull out all stackable panel as shown.

(1)
 ① Stackable panel 3 (SP3)
 ② Stackable panel 2 (SP2)
 ③ Stackable panel 1 (SP1)

 Align joints between vertical frame and panel
 in the order of ① to ③

Right side stacking type

Stacking rail

③ Stackable panel 1 (SP1)

② Stackable panel 2 (SP2)

① Stackable panel 3 (SP3)
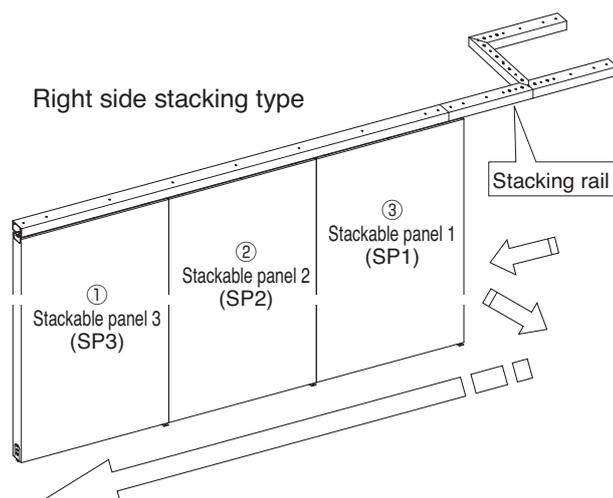
(2)Remove nut rotation stopper from upper roller.

Nut rotation stopper
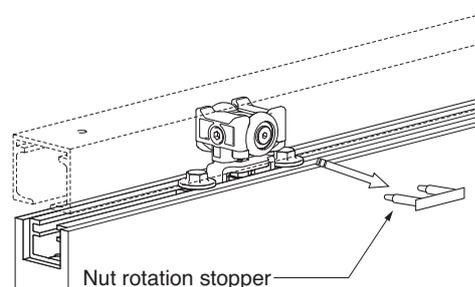
(3)Adjust upper roller vertical position adjusting
 nut with attached spanner (10mm), to
 required height.

(0mm)

Standard height ＊

7mm

Vertical position adjuster

Up

Down
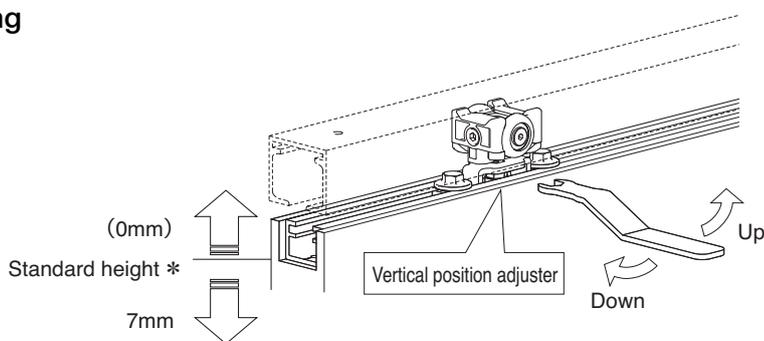
＊Default setting
 Dimension between rail to panel: 10mm

(4)After adjustment, reinstall nut rotation
 stopper to upper roller.

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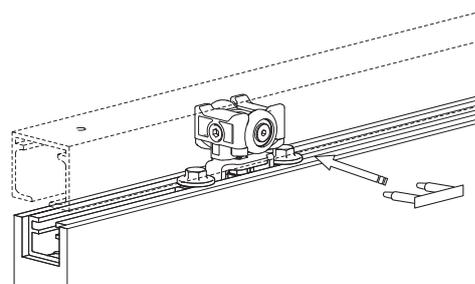
【Option 5】 Installing strike for flush bolt

（1）Install strike for flush bolt on each panel in the order shown below,
confirming mount position for each panel.
  ① Stackable panel 3 (SP3)
  ② Stackable panel 2 (SP2)
  ③ Stackable panel 1 (SP1)

③ Stacking rail
② Stackable panel 1
(SP1)
① Stackable panel 2
(SP2)
Stackable panel 3
(SP3)
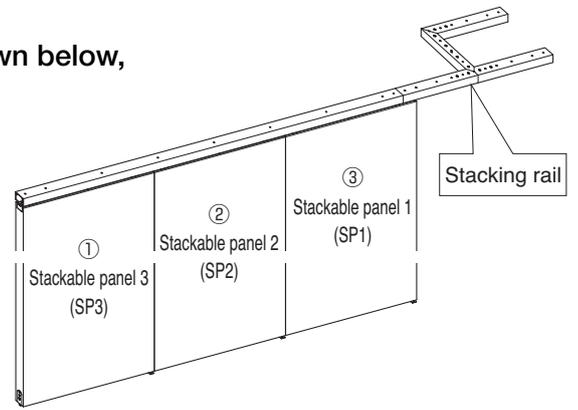
（2）Using a plumb, determine the correct position
for installing a strike for flush bolt, which
should be just under the upper rail.

Plumb
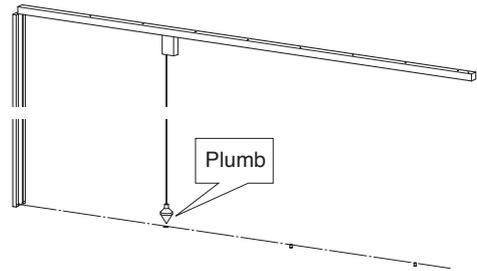
（3）Install flush bolt strike as shown below. After installation, extend all panels to confirm they are installed
correctly.

Joint 1 →｜←   Joint 1 →｜←

Stackable panel 3 width   Stackable panel 2 width   Stackable panel 1 width

12 →｜←   12 →｜←   12 →｜←

12mm dia. hole: depth 10   12mm dia. hole: depth 10   12mm dia. hole: depth 10

Stackable panel 3 width-12   Stackable panel 2 width +1   Stackable panel 1 width +1

Confirm the position with
the panel closed.
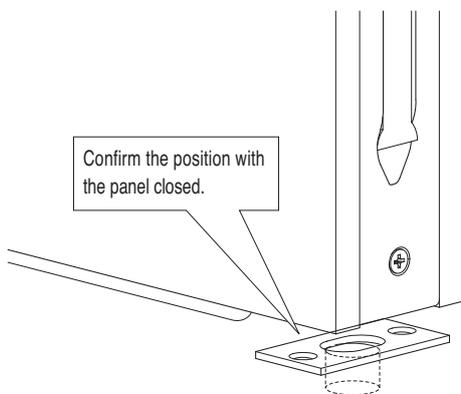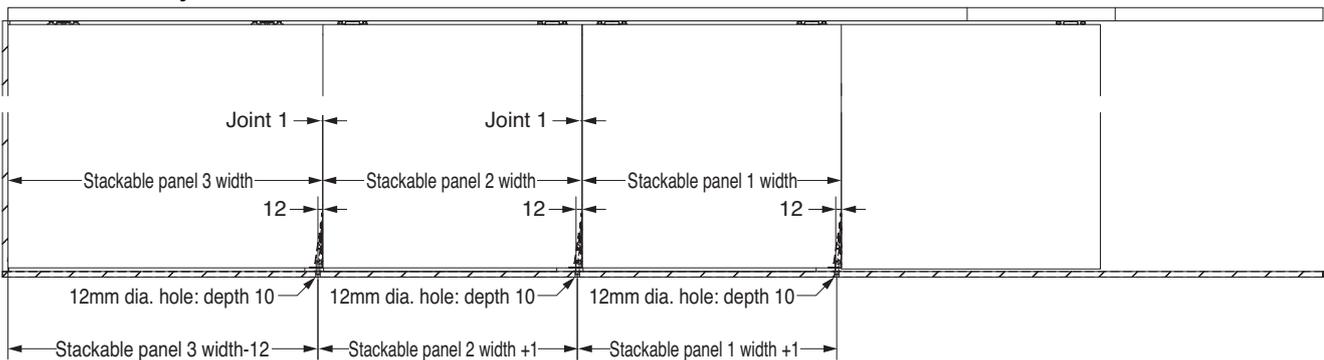
（4）After determining
strike position, drill
floor to open 12mm
dia. hole with depth
of 10mm.

12mm dia. hole
Depth: 10
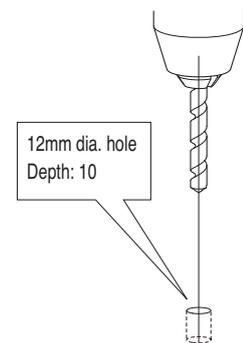
（5）With two attached
mount screws, fix
the strike on the
floor.
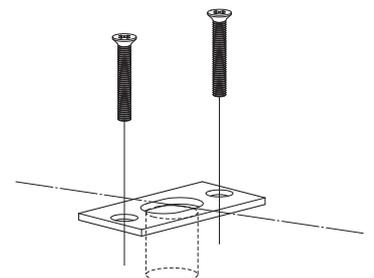
【Option 6】Adjusting bottom seal

（1）By rotating bottom seal pin with screw driver, clearance between bottom seal packing and floor.

(2)For each panel, adjust the floor-to-bottom seal packing by turning this bottom seal pin.

(3)After fixing the stackable panel with flush bolt, confirm vertical position of bottom seal.

Counter clockwise
→Gap to floor is increased.

Clockwise
→Gap to floor is decreased.
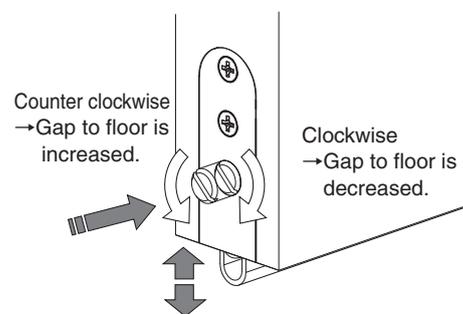
🞥 Mounting end cap

Insert the end cap at the panel top (2caps per panel).
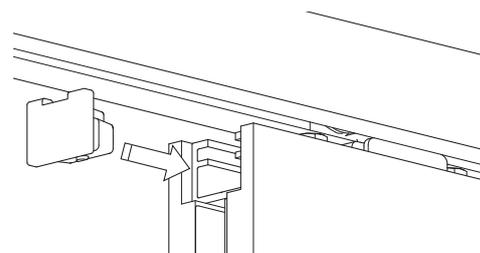
■ TROUBLESHOOTING

TROUBLE	CHECK	SOLUTION
Panel does not go in stacking rail.	Check if panel's upper roller mount pitch deviates from stacking rail.	Adjust upper roller mount pitch. If upper roller set bolt is loosened, retighten. Refer to " 🞦 -（4）Adjusting upper roller pitch, and tightening upper roller mount bolt"
Panel is caught during operation.	Check if screw installing upper rail to ceiling is loosened.	Upper roller may contact to screw. Loosen the screw.
	Check if upper rail is jointed to stacking rail correctly.	Check if the connecting plate is used between the upper rail and the stacking rail. Refer to " 🞥 Installing upper rail."
Abnormal sound during opening/ closing.	Check if foreign matter or aluminum powder is remained in upper rail.	Clean inside of upper rail.
	Check roller of rail for existence of foreign matter or aluminum powder.	Remove the roller by removing rail, and clean the roller.
	Check if the screw installing rail to ceiling for looseness.	Retighten screw to avoid roller contact against screw.
Heavy movement of panel.	Check if panel contacts to the floor.	Confirm rail screw is not loosened. Readjust panel height so that clearance between panel bottom and floor becomes 10mm.
Panels move freely.	Check if upper rail is installed horizontally.	Reinstall upper rail horizontally using level gauge.