

LAMP® FD30/50 HRP SLIDING DOOR SYSTEM

Installation Manual(Multiple Synchronized Sliding Door)

Part No.FD30HRP-2

FD30HRP-3

FD50HRP-2

FD50HRP-3

Thank you very much for selecting FD30/50 HRP SLIDING DOOR SYSTEM. Before starting installation, please read this installation manual thoroughly to install the door correctly. Improper installation may result in injury. To prevent such accident, please follow instructions described in this manual. After installing the door, leave this manual to the owner so that the owner is able to use this manual to check the door any time. The door system may be upgraded/improved without announcement, for change in dimensions or specifications, please confirm with delivered door system parts.

■ FOR YOUR SAFETY WORK AND OPERATION

⚠ symbol denotes "warning" and "caution" during work or operation. ⊘ symbol denotes the item which should be avoided to keep safety. ⊙ symbol denotes item which should be followed to avoid injury. If this item is not followed, injury may be resulted.

⚠ Warning: If this warning is not followed, it may result in injury or damage.



This sliding door system should be installed by experienced person who has correct knowledge. If the system is not installed correctly, the door will not operate smoothly, and or may cause injury.



Do not try to use this product for any other purposes other than originally intended for. Do not disassemble the components for any modifications. Do not use the system for applications that are out of specification. Any improper use might result in accident or injury. We do not take any responsibility for any damage, accident or injury occurring from an improper use, application or wrong installation.

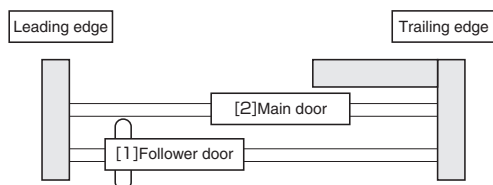
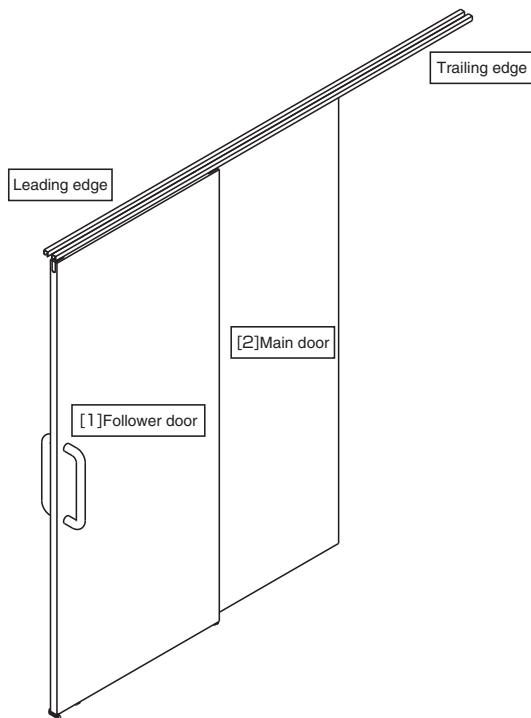


It is necessary to manufacture the frame with sufficient strength to endure the weight of door and impact shocks upon opening/closing the door. A frame with poor strength might result in improper and slower movement of the door. In the worst case, the door might drop down causing injury.

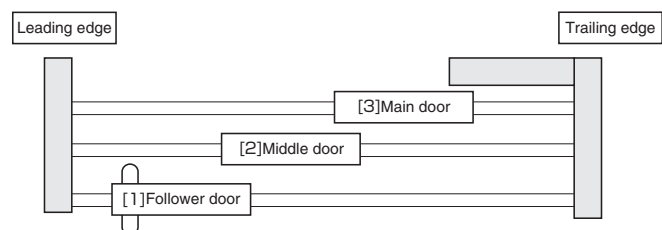
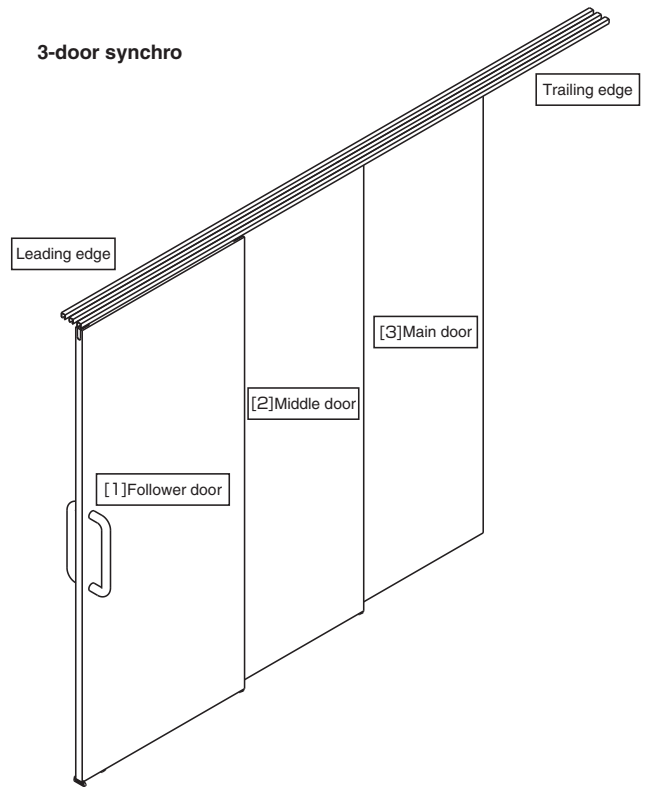
IMPORTANT:

- This manual describes the installation methods considered most safe and effective to set up and install the sliding door system. The installation procedures or methods can be changed to meet your working conditions or environments.
- In this manual, the dimensions are not considering margin of error or deformation of material. Therefore, please carry out each process such as cutting, taking care of deformation or other changes.

2-door synchro



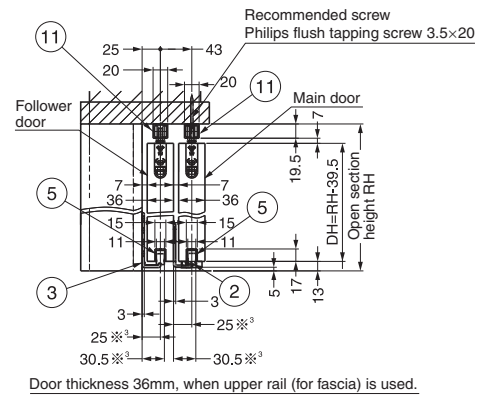
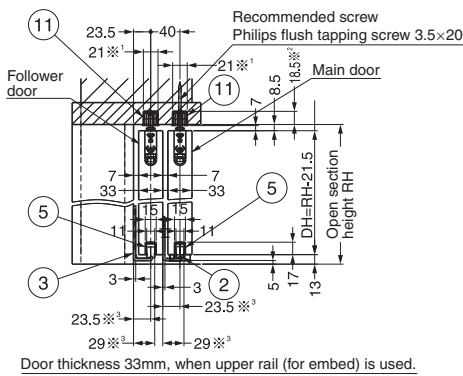
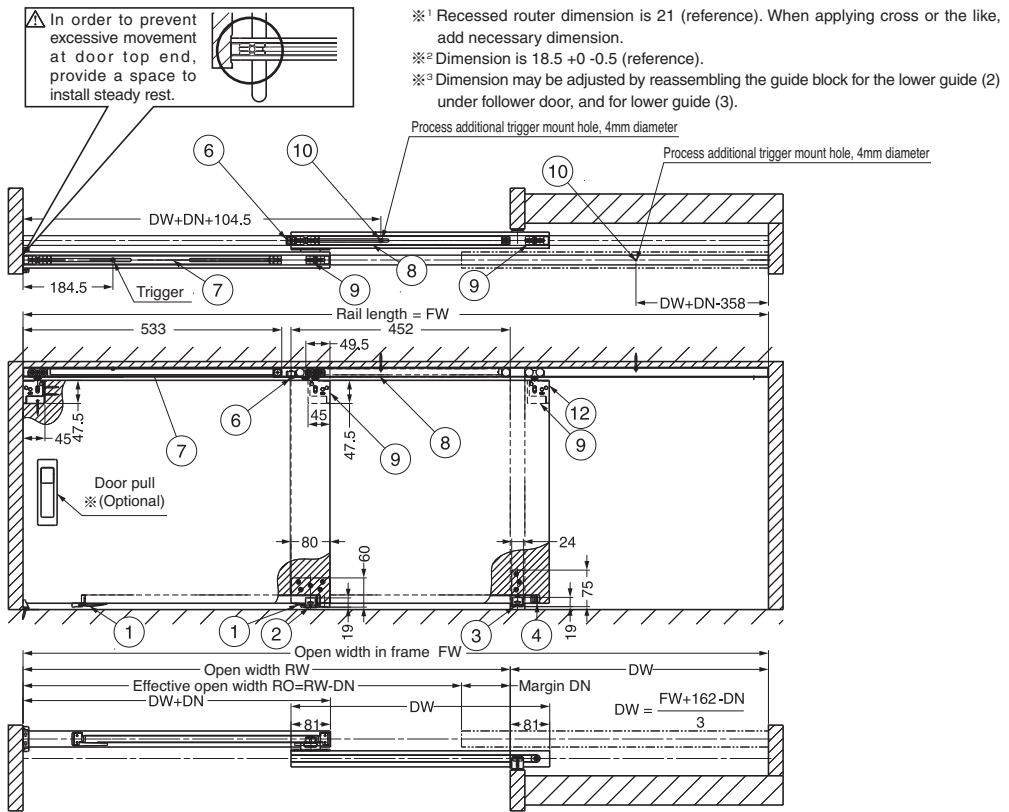
3-door synchro



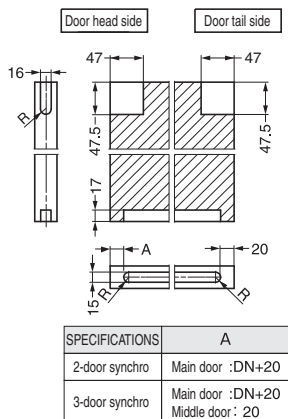
[FD30-H Synchro Type]

■ INSTALLATION DRAWING (EXAMPLE)

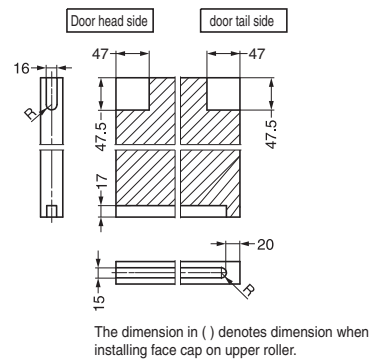
<2-door synchro>



■ Process dimension for main door and middle door (3-door synchro)



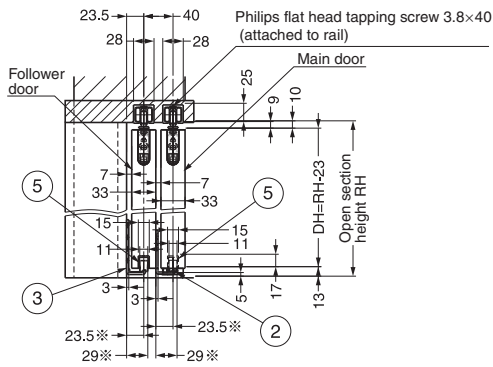
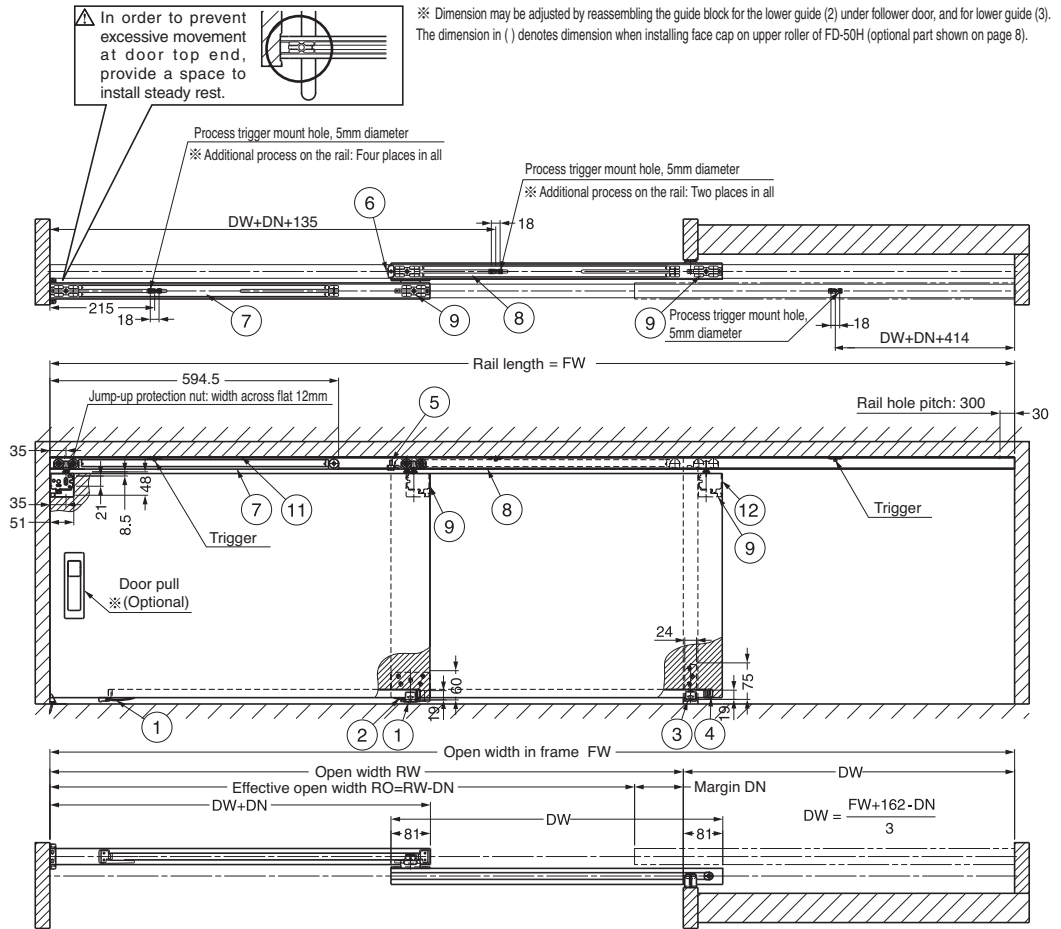
■ Follower door process dimension



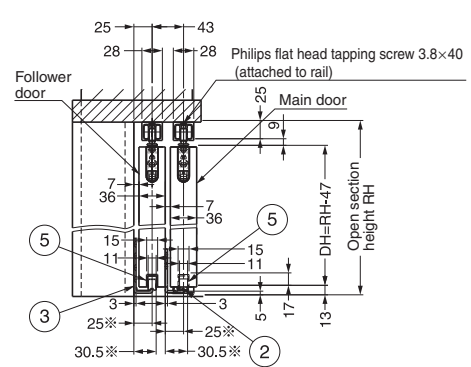
[FD50-H Synchro Type]

■ INSTALLATION DRAWING (EXAMPLE)

{2-door synchro}

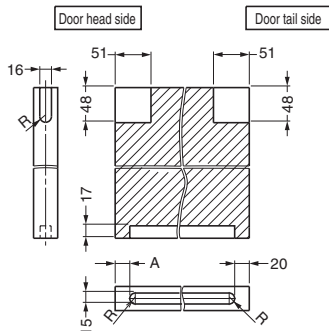


Door thickness 33mm, when upper rail (for embed) is used.



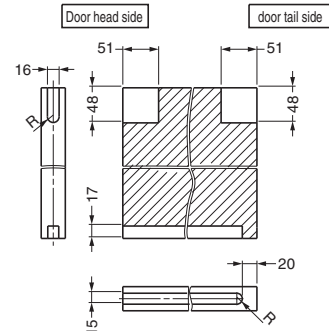
Door thickness 36mm, when upper rail (for fascia) is used.

■ Process dimension for main door and middle door (3-door synchro)



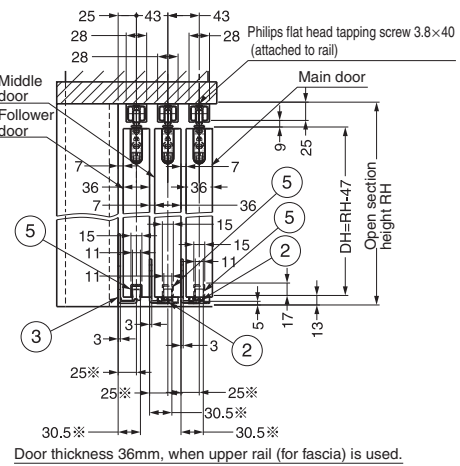
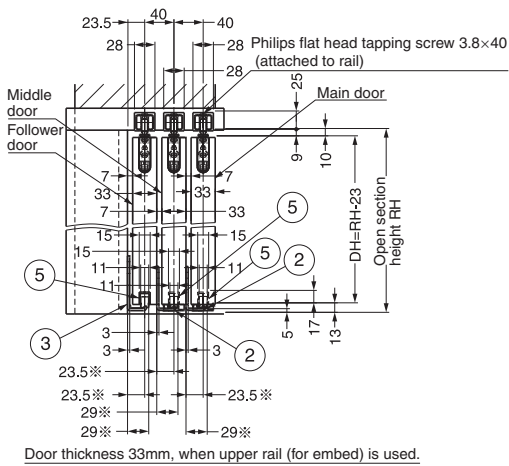
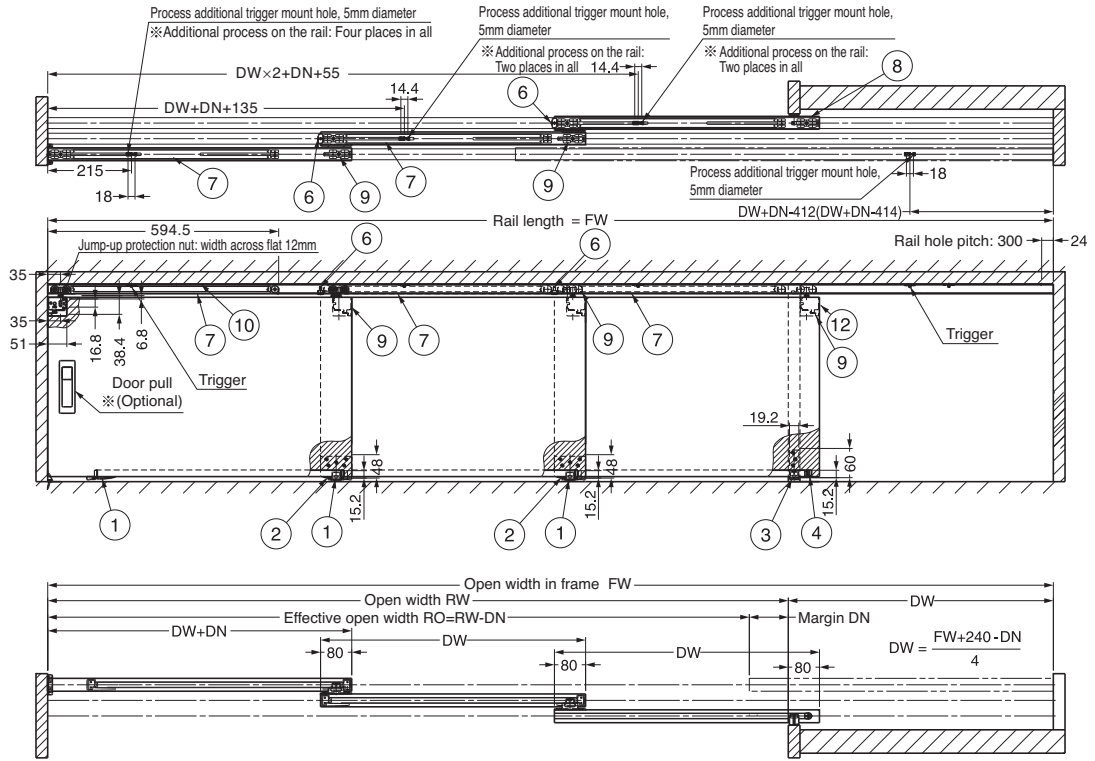
SPECIFICATIONS	A
2-door synchro	Main door : DN+20
3-door synchro	Main door : DN+20 Middle door : 20

■ Follower door process dimension



The dimension in () denotes dimension when installing face cap on upper roller.

<3-door synchro>



SPECIFICATIONS

	Effective open width(RO)	Door width (DW1,DWC,DW2)	Max. Door height (DH)	Min. Door thickness (Dt)	Max. Door weight	Vertical adjustment	Right-and-left adjustment
FD50 2-door synchro	1020~1840mm (When door is fully closed, with no DN)	680 ~ 1200mm	2400mm	30 ~ 38mm	50kg/door	-3 ~ +4mm	±2mm
	940~1760mm (When door is not fully closed, with DN 80mm)						
FD50 3-door synchro	1450~2760mm (When door is fully closed, with no DN)	680 ~ 1200mm	2400mm	30 ~ 38mm	50kg/door	-3 ~ +4mm	±2mm
	1370~2680mm (When door is not fully closed, with DN 80mm)						

- The closing speed of the soft closing type door may change due to ambient temperature, operating method or installation quality.
- Recommended ambient temperature range is 5 to 40 degrees centigrade.

COMPONENT PARTS

	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫
	for FD30-HRGU End stopper	for FD30-HRDG Door guide (door mount)	FD30-HBGF Door guide (wall mount)	FD30-HRDB Brock for bottom guide	FD30-HBRT1500SIL Guide track	FD30-HBB stopper block	FD50-WRH-DSC Dual soft closer	FD50-WRH-SC Dual soft closer	FD50-WRH upper roller	FD50-TRG additional trigger	FD50 TRM upper rail	Cover cap
FD50 2-door synchro	1x2	1	1	1	2	1	1	1	2	3	2	4
FD50 3-door synchro	2x2	2	1	1	3	2	1	2	3	4	3	6

As optional parts are offered. Please refer Page 8 for detail.

PARTS LIST

As for ⑦ to ⑪, please refer to instruction manual attached to each part.

No.	Name	Dimensional drawing	Specification	No.	Name	Dimensional drawing	Specification
①	End stopper		<ul style="list-style-type: none"> Material Polyacetar(POM) Finish Gray 		<FD30> Guide track		<ul style="list-style-type: none"> Material ABSresin Finish Black
②	Door guide		<ul style="list-style-type: none"> Material Stainless steel(SUS304) Finish Gray 	⑤	<FD50> Guide track		<ul style="list-style-type: none"> Material Aluminium alloy(A6063) Finish Anodized aluminum
③	Lower guide		<ul style="list-style-type: none"> Material Stainless steel(SUS304) Finish Natural 		<FD30> Bumper block		<ul style="list-style-type: none"> Material Steel(SPCC) Finish Chromating
④	Block for bottom guide		<ul style="list-style-type: none"> Material Rubber(EPDM) Finish Black 	⑥	<FD50> Stopper block		<ul style="list-style-type: none"> Material Steel(SPCC) Finish Chromating

ASSEMBLY

(This manual explains assembly procedures for single side sliding system.)

Confirmation before assembly	Check that dimensions of frame, floor, door and rail are correct.	Check that door is not warped.
	Check that frame and floor are not inclined.	Check that all parts are prepared.
	Check that door is processed correctly.	

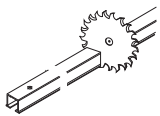
! If any foreign matter such as cutting chips remain in the rail may impact the performance of roller and guide, and cause abnormal sounds during door operation. Please carefully remove cutting chips or the like.

PROCEDURE 1 PREPARATION AND INSTALLATION

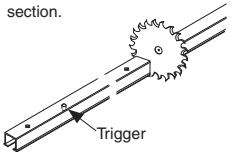
1. Cutting the rail

Cut the rail to required length, referring "Shop Drawing".

! Then, remove any cutting scrap from the rail.



! Cut the rail applying a reinforcer to prevent deformation of cut section.

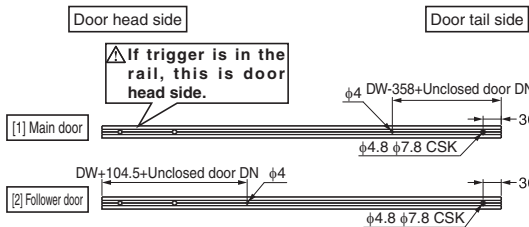


<FD30>

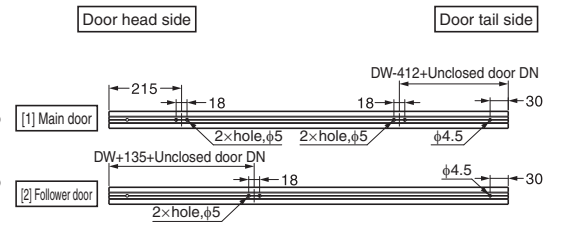
! Never cut trigger side of rail.

2. Hole processing

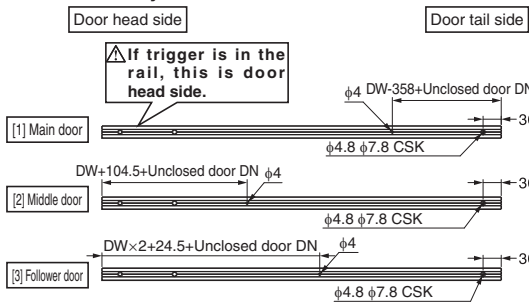
<FD30 2-door synchro>



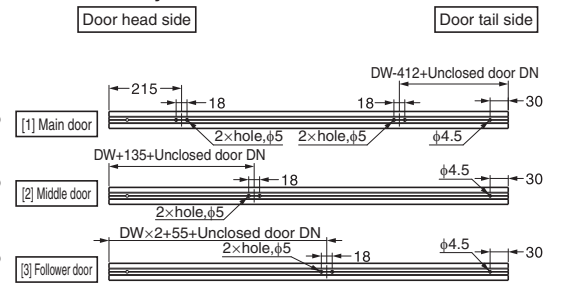
<FD50 2-door synchro>



<FD30 3-door synchro>

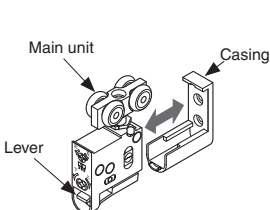


<FD50 3-door synchro>



4. Preparation of mounting parts

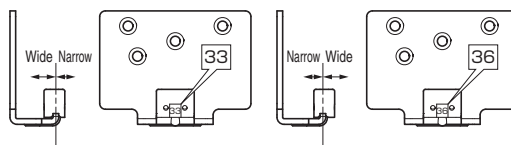
Pull up the lever of upper roller to separate main body from casing.



5. Assembling Door guide

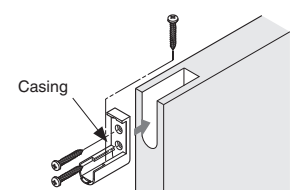
Install guide block to Door guide plate, referring the right table (marking).

Door thickness	Mark
30 ~ 34	33
35 ~ 38	36



6. Installing casing

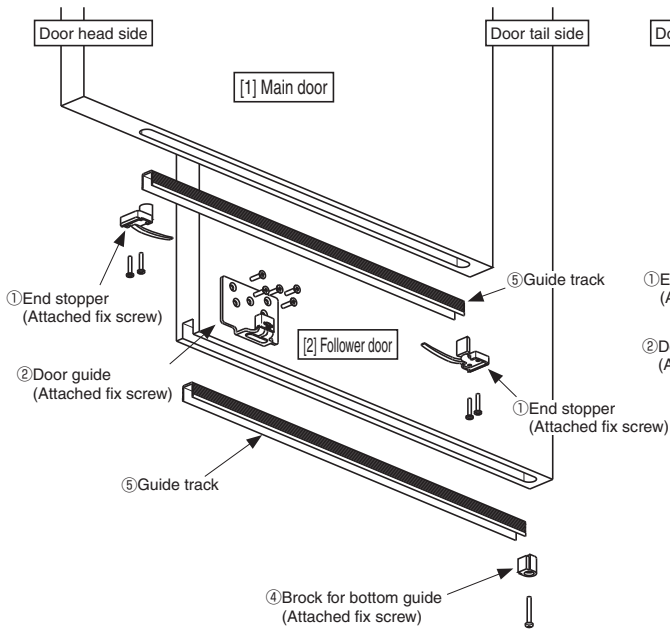
Firmly insert upper roller casing into the place as shown, fix it with attached screws.



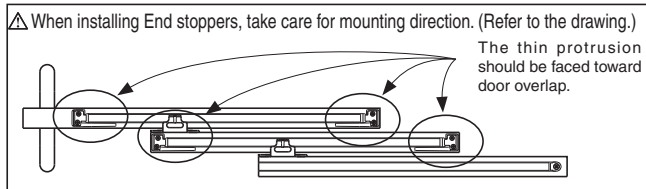
6. Assembling Guide track

⚠ When door arrangement is different, reverse the positions shown in the figure.

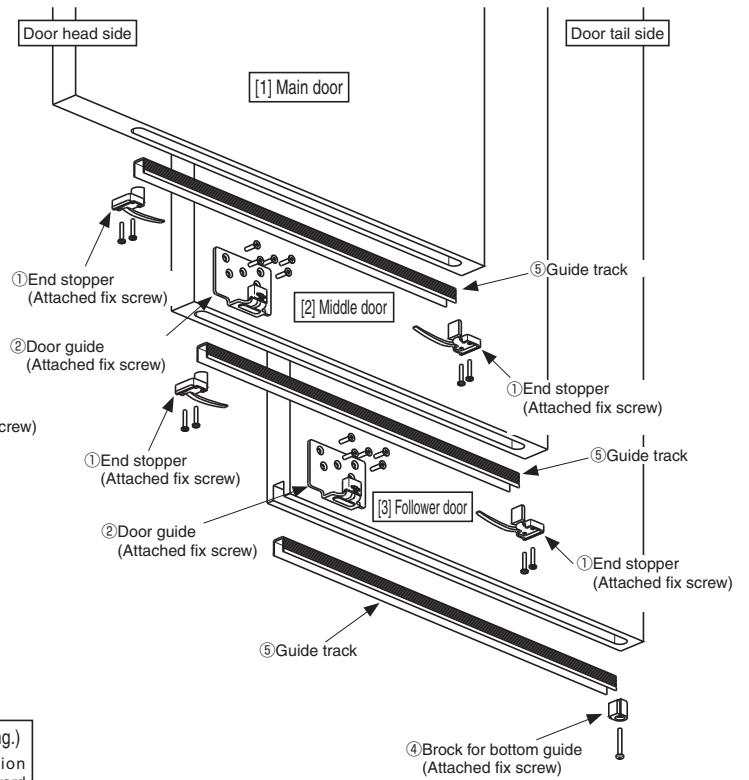
<2-door synchro>



※For installation of Guide track for FD50 door, please prepare screws separately.
Recommended screw: Philips flush tapping screw 4x20

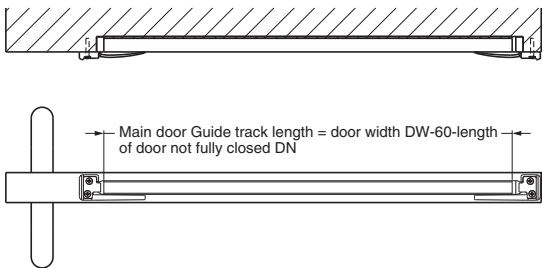


<3-door synchro>

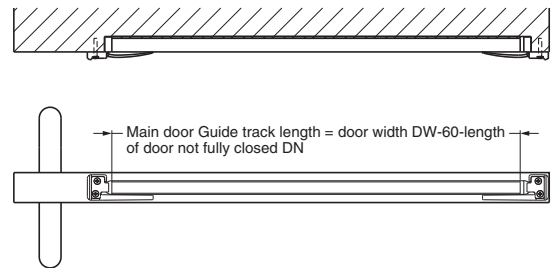


※For installation of Guide track for FD50 door, please prepare screws separately.
Recommended screw: Philips flush tapping screw 4x20

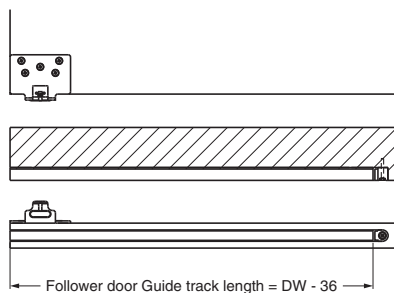
<2-door synchro: [1] Mounting parts on main door>



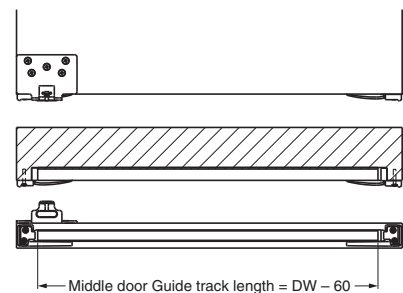
<3-door synchro: [1] Mounting parts on main door>



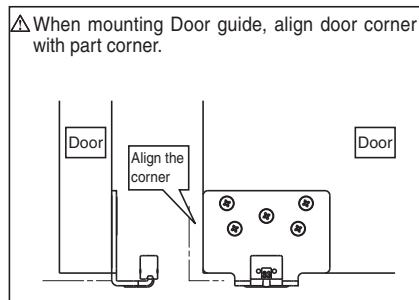
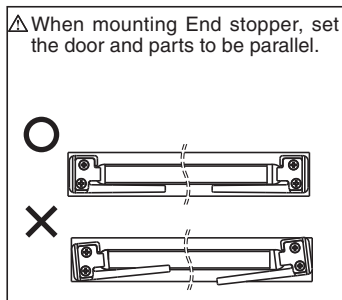
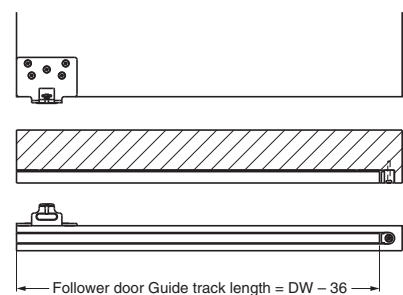
<2-door synchro: [2] Mounting parts on follower door>



<3-door synchro: [2] Mounting parts on middle door>

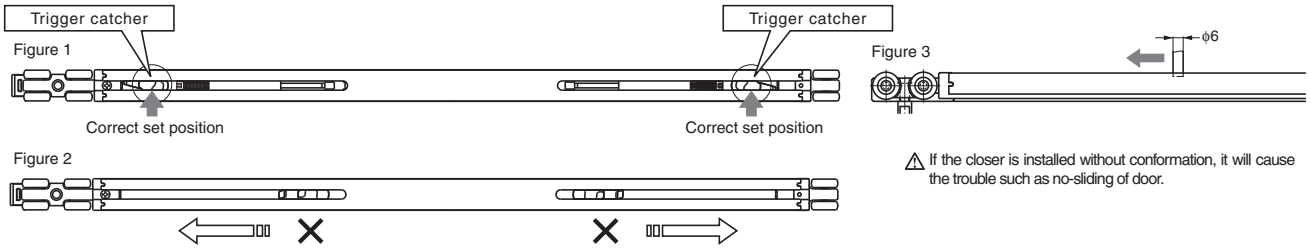


<3-door synchro: [3] Mounting parts on follower door>



8. CONFIRMATION BEFORE INSTALLING THE DUAL SOFT CLOSER

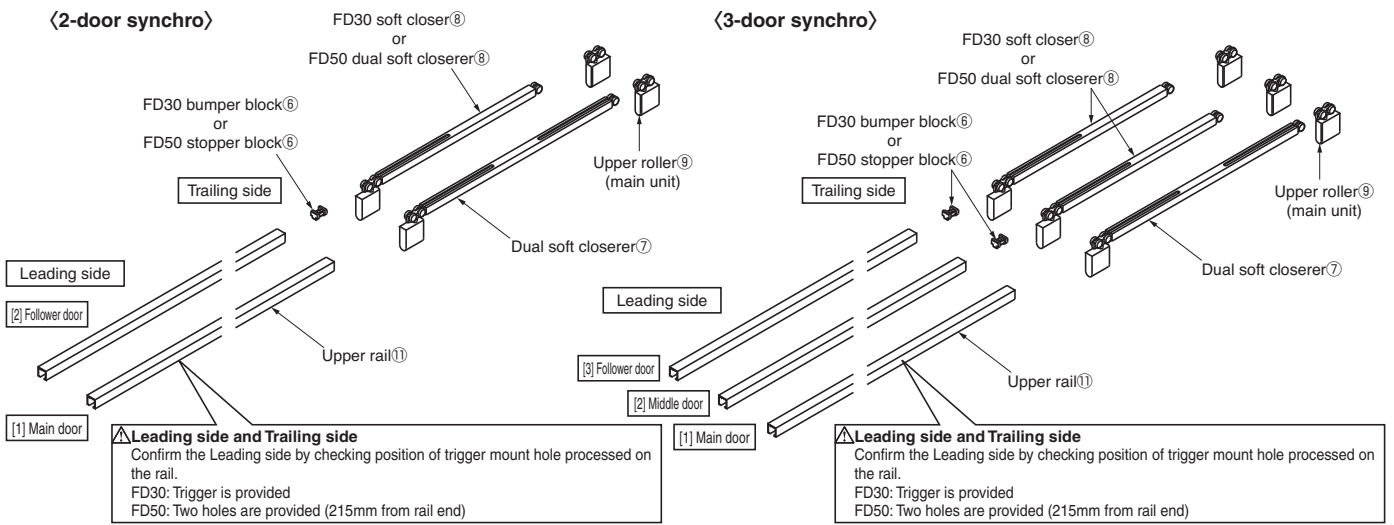
Confirm that the trigger catcher is at the position shown in Figure 1. If the trigger catcher is at the position shown in Figure 2, pull back the trigger catcher to position in Figure 1 using 6mm diameter hard bar.



9. Installing parts and mounting upper rail

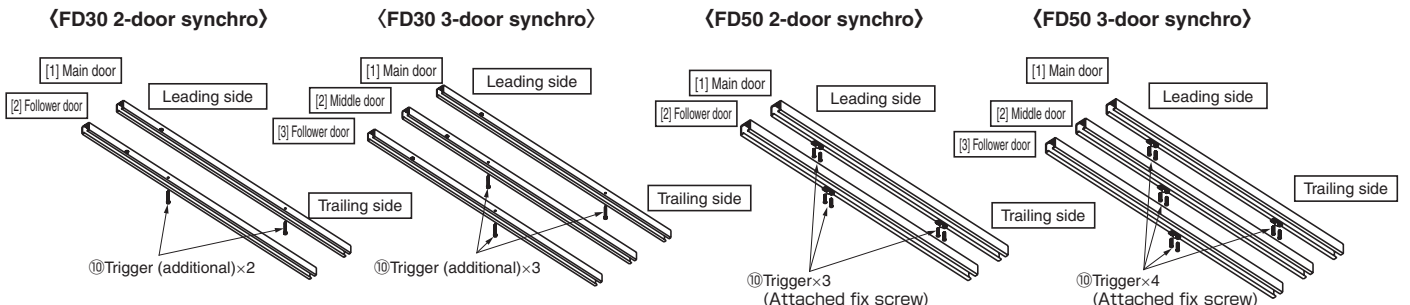
Insert upper roller of (dual) soft closer from the trailing side of the rail. Where there is no trigger (FD30) or without the hole at 215mm from the rail end (FD50). After setting the parts at correct position, hold them with tape.

⚠ Fix upper rail to upper frame with fixing screws, taking care the door head side and door tail side. As FD30 has no rail fixing screws, please prepare fixing screws. (Recommended fixing screw for FD30 upper rail: Phillips flush tapping screw 3.5x20)



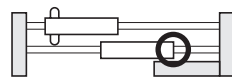
10. Mounting trigger

⚠ According to "Installation Drawing", mount trigger using trigger mount hole on the rail.
Fix the trigger on the rail with fixing screws vertically and fully tightening. If trigger is mounted slantwise, defective door operation will be resulted.

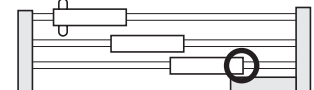


11. Installing lower guide

<2-door synchro>
[2] Install under follower door rail



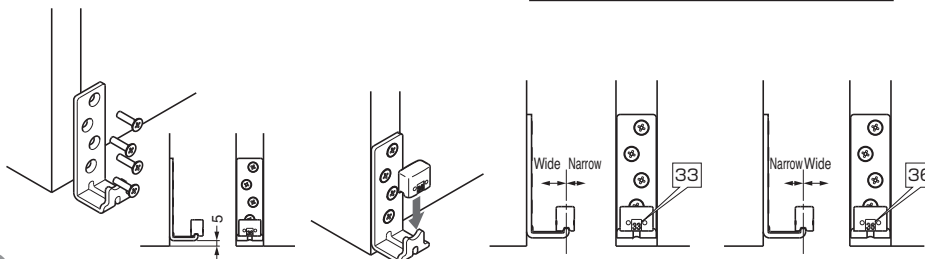
<3-door synchro>
[3] Install under follower door rail



<Door guide(wall mount)>
Referring "Installation Drawing", install base plate of Door guide, using attached mount screws.

Install guide block to guide plate to correct direction, as shown.

Door thickness	Mark on part
30 ~ 34	33
35 ~ 38	36



When floor guide is mount to floor. (Option)
Align the center of floor guide with vertical line from upper rail center.
With the door closed, set the convex part of floor guide to the position shown on the drawing. Fix it with attached screws.

Door (Trailing side)
15
19

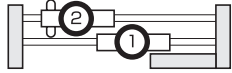
PROCEDURE 2

HANGING DOOR AND ADJUSTMENT

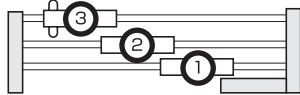
1. Installing doors

At first install the door ① as shown below.
Put a 13mm support under the door.
Insert the door guide into the door bottom groove.
Then, insert upper roller to the casing at both ends of upper part of door.

<2-door synchro>

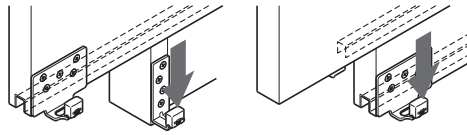


<3-door synchro>



○ Inserting lower guide in door bottom groove

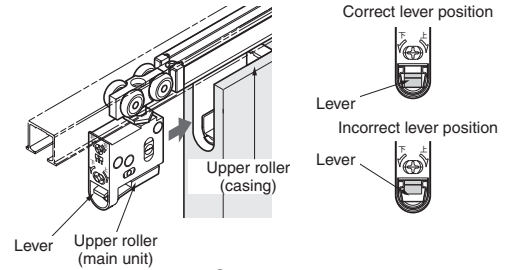
Hold the door with 13mm support to take balance, match convex of lower guide with groove under door.



○ Inserting upper roller (main unit) into door upper casing

Insert upper roller (main unit) into door side casing, push in lower side of upper roller until click sound is heard.
Confirm that the lever is positioned at the mark on upper roller (main unit), as shown.

△ Confirm that upper roller (main unit) does not come off from casing. Check for both leading edge and trailing edge.



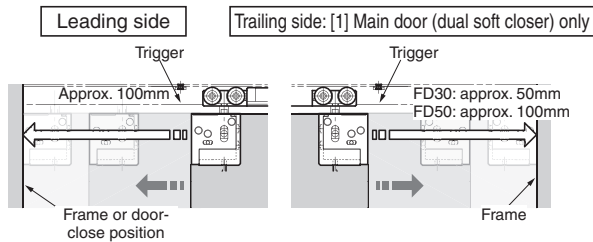
2. Confirming soft close movement and Fixing bumper block and stopper block.

Remove 13mm support under the door.

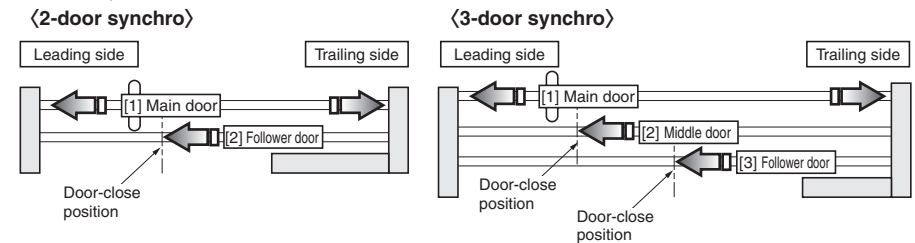
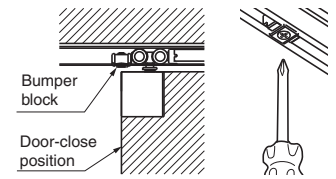
Slowly move the door toward door top to confirm that door closer starts its function at 100mm before full-close position. Also confirm that door is fully closed.

[1] As for the main door (dual soft closer), same operation confirmation as explained above.

If necessary, adjust position of bumper block and stopper block in the rail so that the position is realized as shown in "Installation Drawing". Then fix them by tightening them with screws.



○ Correct position of bumper block and stopper block



3. Door adjustment

Adjust door position with adjustment screw at upper roller (main unit)

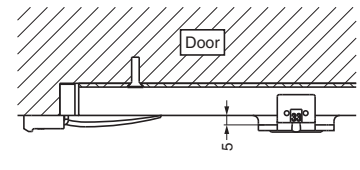
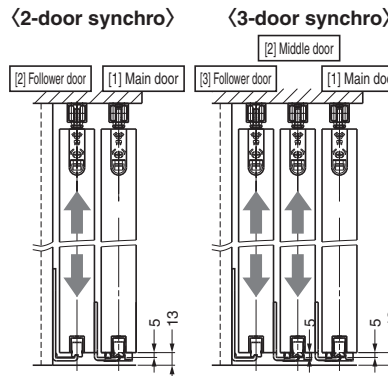
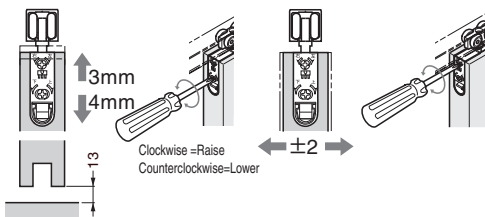
At first, make vertical adjustment of the [1] main door so that clearance between upper rail and floor becomes parallel with clearance of 13mm.
Then, adjust middle door and follower door vertically so that clearance between door bottom and upper face of lower guide becomes 5 mm.

△ Do not turn adjustment screw more than adjustment range.

△ To avoid damage on the adjustment screw, do not use motor screw driver.

Vertical adjustment: 7mm

Left-to-right adjustment of door ±2mm



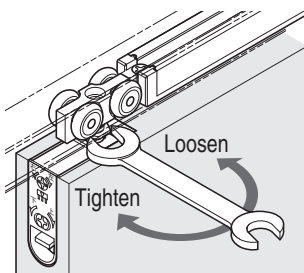
△ After finishing vertical adjustment of door, repeat confirmation of soft closer function. (Refer to "Procedure 2", 2. Confirming soft closer function)

When soft closer is not able to make full-closing, clearance between door bottom and upper face of lower guide may be less than 5mm.

In this case, adjust middle door and follower door height to lower the door slightly.

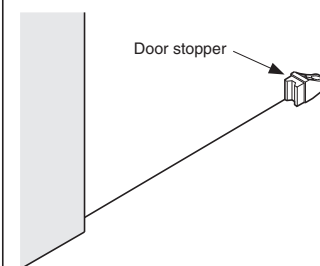
4. Fixing jump-up prevention nut

Tighten dual soft closer and upper roller jump-up prevention nut with spanner 12.



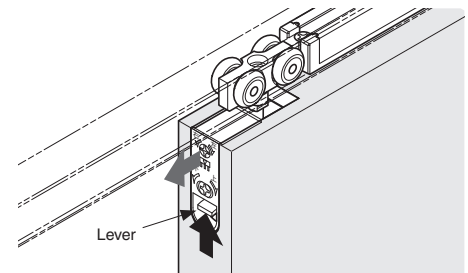
When vertical frame is not used

Install door stopper.
Use the stopper offered as option 4.



When removing the door

Use a 10mm support under the door. Then pull out the upper roller main unit from the door while raising the lever.



Final confirmation Confirm that all screws are securely tightened. And, confirm that all screws are used without mistake.

