# LAMP. KF111-B FOLDING DOOR SYSTEM Installation Manual

Thank you for selecting our product. Before starting installation, please read this manual thoroughly to ensure correct installation. Please keep this manual at hand for future reference.

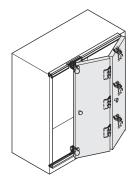
## **ABOUT THIS PRODUCT**

- This product is parts set for installation of folding door system for cabinets.
- The rails can be hidden by the overlay door panels.

## FOR YOUR SAFE WORK AND CORRECT INSTALLATION

This symbol denotes prohibited actions.

This symbol denotes what must be done.



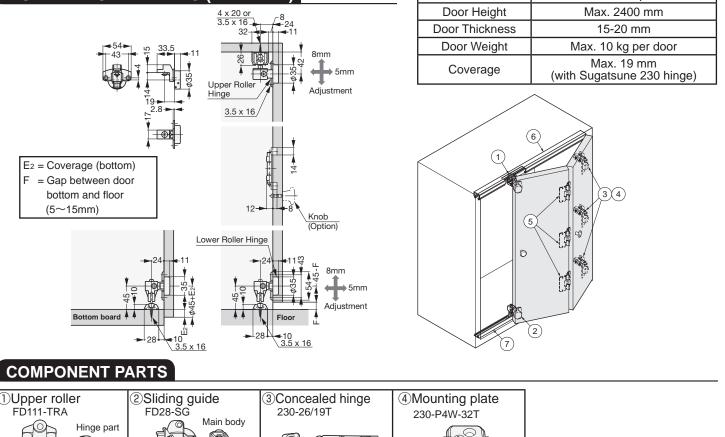
Max. 450 mm per door

Caution If these cautions are not followed, it may result in injury or damage.

- It is necessary to manufacture the cabinet with sufficient strength so it endures the weight of the 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 and cause injury.
- Do not disassemble nor modify any parts than those described in this document.
- Make sure to follow the designated measurements and specifications as well as horizontal and verticals angles. Make sure that the cabinet is not warped, since it may affect the movement of the door.
- This sliding door system is a part for furniture fittings. After installation, make sure to test the finished product thoroughly to ensure that it is well-functioning and safe.
- Make sure to test the screws for slack at regular intervals (one month from first usage, half year and then one time every year is recommended).

Door Width

## INSTALLATION DRAWING (EXAMPLE)

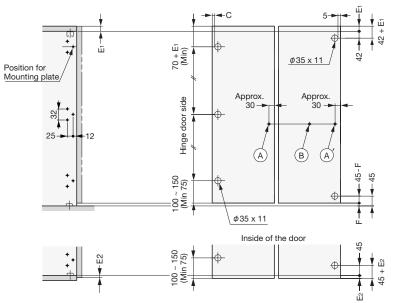


## CABINET / DOOR WIDTH DIMENSIONS

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Application		Hinged door at 90° open	Hinged door at 95° open	Other door at 87° open
2 Doors folding	$\begin{array}{ll} W &= \text{Width of inside cabinet} \\ W_1 &= \text{Width of door } (\widehat{1}) \text{ and } (\widehat{4}) \\ W_2 &= \text{Width of door } (\widehat{2}) \text{ and } (\widehat{3}) \\ W_3 &= \text{Width of door } (\widehat{3}') \\ E &= \text{Coverage} \\ \theta^\circ &= \text{Opening angle at hinged door} \end{array}$	$W_{1} = \frac{W + 2E - 4.8}{2}$ $W_{2} = W_{1} + 3.2$	$W_{1} = \frac{W + 2E - 7.8}{2}$ $W_{2} = W_{1} + 6.2$	$W_1 = \frac{W + 2E - 1.6}{2}$ $W_2 = W_1$
2 Doors folding and 1 swing open		W3 = W1	W3 = W1	$W_1 = \frac{W + 2E - 3.2}{3}$ $W_1 = W_2 = W_3$
$E = \begin{bmatrix} W \\ Door 3 \\ Door 2 \\ Door 2 \\ Door 1 \\ Hinge \\ B^{+} \\ W_{3} \\ 1.6 \\ W_{2} \\ 1.6 \\ W_{1} \\ W_{1} \\ Hinge \\ B^{+} \\ E \\ W_{3} \\ Hinge \\ B^{+} \\ E \\ W_{3} \\ Hinge \\ B^{+} \\ E \\ W_{3} \\ Hinge \\ B^{+} \\ Hinge \\ Hinge \\ B^{+} \\ Hinge $		$W_{1} = \frac{W + 2E - 6.4}{3}$ $W_{2} = W_{1} + 3.2$ $W_{3} = W_{2}$ $W_{1} = \frac{W + 2E - 9.6}{3}$ $W_{2} = W_{3} = W_{1} + 3.2$	$W_{1} = \frac{W + 2E - 9.4}{3}$ $W_{2} = W_{1} + 6.2$ $W_{3} = W_{2}$ $W_{1} = \frac{W + 2E - 15.6}{3}$ $W_{2} = W_{3} = W_{1} + 6.2$	
2 Doors folding and 2 Doors folding				
$E = \begin{bmatrix} \theta^{+} \\ W_{1} \\ 1.6 \end{bmatrix} = \begin{bmatrix} 0 \\ W_{2} \\ 1.6 \end{bmatrix} = \begin{bmatrix} 0 \\ W_{1} \\ 0 \\ 0 \end{bmatrix} = \begin{bmatrix} 0 \\ 0 \\ 0 \\ 0 \end{bmatrix} = \begin{bmatrix} 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{bmatrix} = \begin{bmatrix} 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{bmatrix} = \begin{bmatrix} 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{bmatrix} = \begin{bmatrix} 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{bmatrix} = \begin{bmatrix} 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0$		$W_1 = \frac{W + 2E - 11.2}{4}$ $W_2 = W_1 + 3.2$	$W_1 = \frac{W + 2E - 17.2}{4}$ $W_2 = W_1 + 6.2$	$W_1 = \frac{W + 2E - 4.8}{4}$ $W_1 = W_2$

## DOOR PROCESS DIMENSION

The drawing describes the right handed opening type. The left-handed opening type is a mirror image.



Knob Installation (Sold separately)

Recommended knob mounthing position (A) for opening & (A)' for closing the door. Install one knob at (B) position is also applicable for both opening & closing.

#### **INSTALLATIOIN PROCEDURE**

#### Cutting rails

Cut Upper rail & Lower rail to the required length.

Length = W - 1.5

E1 = Coverage (top)

E<sub>2</sub> = Coverage (bottom)

F = Gap between door bottom and floor( $5\sim$ 15mm)

#### **Required Parts**

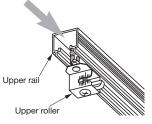
Door Height	Concealed hinge ③ Mounting plate ④ (pcs)	Center hinge ⑤ (pcs)
900 mm	2	2
1600 mm	3	2
2000 mm	4	3
2400 mm	5	4

Coverage at hinge door side	C - Dimension		
19 mm	5 mm		
18 mm	4(5) mm		
17 mm	3(4) mm		

() Showshinge adjustable range

# 2 Installing upper rail

Insert Upper roller to Upper rail before mounting.

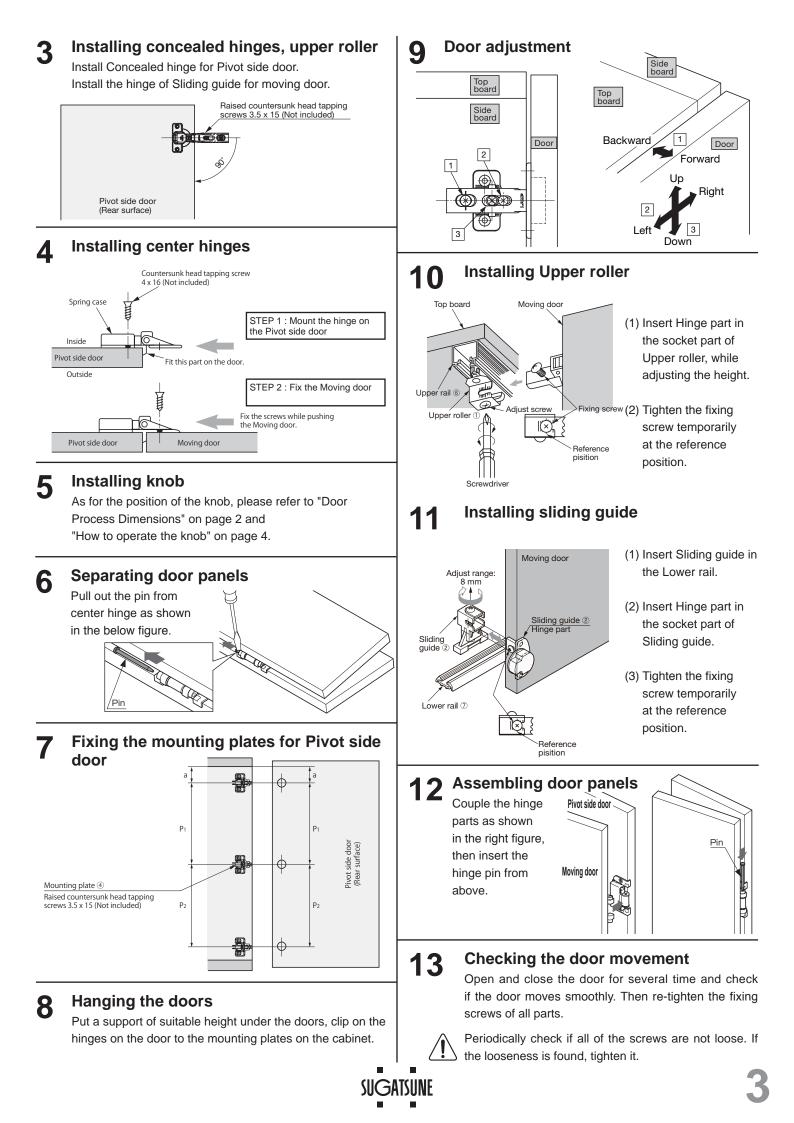


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Remove any dirt or aluminum chips from the rail as they would cause noise during operation.



When installing the rails, ensure that upper rail and lower rail are parallel.



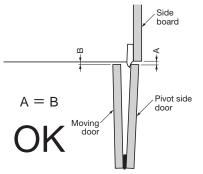
## ADJUSTMENT OF THE INCLINED DOOR

When the door is inclined a lot like the right illustration, adjust the door by the adjustment screws on the concealed hinges. Do not try to adjust it by the screws on the sliding guide.

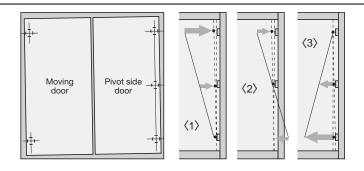
There are three ways of adjustment as below..

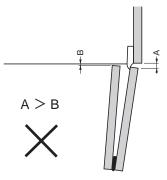
- $\langle 1 \rangle\,$  Reduce the upper gap by the top and middle hinges.
- (2) Reduce the upper gap by the top hinge and increase the lower gap by the bottom hinge.
- $\langle 3 \rangle$  Increase the lower gap by the bottom hinge.





Adjust the fore-and-aft position of the concealed hinges so that the both A and B gaps are the same.

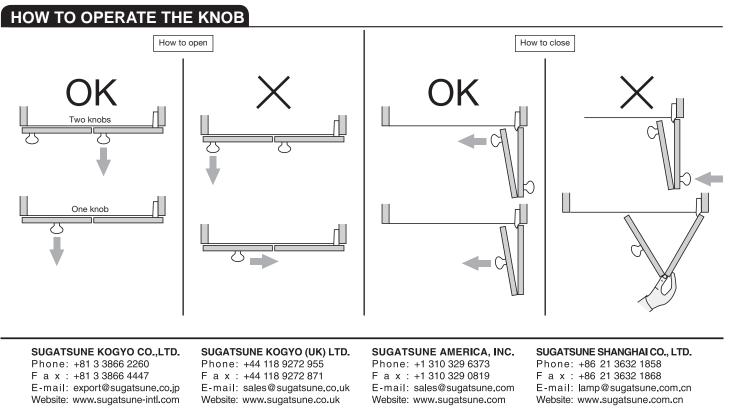




If "A" is bigger than "B", the closing action would not be smootht. Re-adjust the gaps as below.

1. Loosen all fore-and-aft-adjustment screws on the concealed hinges, and reduce the gap A, then re-tighten the screws.

2. If "A" is still bigger "B", increase the gap B by ajusting the screws on the sliding guides.



ISO9001(Japan Offices and Sugatsune America) and ISO14001(Chiba Production division and Logistics center), certified.