

LAMP® SFD TYPE SELF FOLDING DOOR MECHANISM INSTALLATION MANUAL

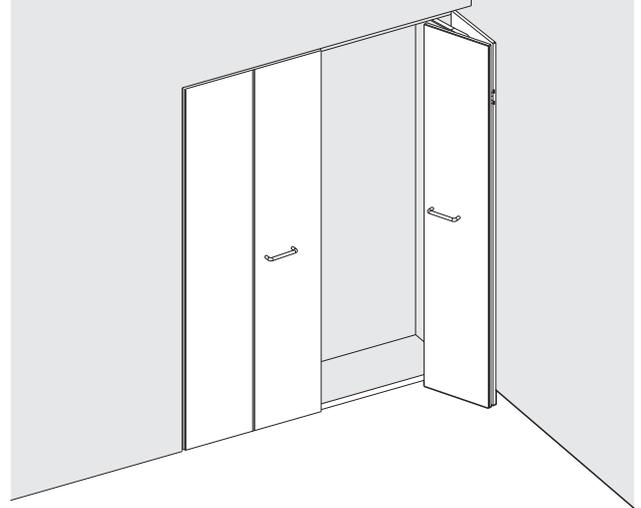


Thank you for selecting our product. Before starting installation, please read this manual thoroughly to ensure correct installation. Please keep this manual at hand for future reference.

Lapcon mount-on series



Lapcon is an innovative technology developed and designed for ultimate shock absorption and the smoothest opening and closing movement imaginable.



ABOUT THE PRODUCT

- This is a folding door hardware with a soft-closing arm for folding doors.
- Easy installation since no top or bottom rail is required.
- Thanks to the concealed hinge, it is possible to adjust the door vertically, horizontally as well as in depth.

SPECIFICATIONS

Max.Door width	380mm – 460mm
Max.Door height	2600 mm
Min.Door thickness	18 – 30 mm
Max.Door weight	8kg / door

- 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.
- Fixing or adjusting the door must be done from the inside.

FOR YOUR SAFETY WORK AND OPERATION

	This symbol denotes prohibited actions.
	This symbol denotes what must be done.

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.
- ⊘ Do not use this hardware for doors that are covering cookware or other devices that generates heat.
- ⓘ 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).

COMPONENT PARTS

No.	①		②			③	④
Name	Right hand unit body	Left hand unit body	Concealed hinges outlet specification	Concealed hinges outlet specification	Concealed hinges inset specification	Mounting plate	Center hinge
Item No.	SFD-3L-R	SFD-3L-L	H230-26/16T	H230-26/26T	H230-26/0T	230-P4W-32T	CH-75
Item	 Mounting plate 1pc Rubber bumper 1pc Accessory screw: Bind tapping screw 3.5×15 ... 4pcs Bind tapping screw 3.5×25 ... 3pcs Truss screw M4×6 1pc						
Quantity	1pc		Necessary quantity(see table)				

APPLICABLE DOOR RANGES

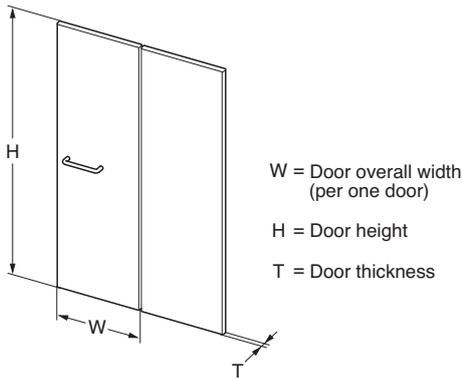


Fig. 1. Cabinet (for right-hand side)

* When using this mechanism it is necessary to consider the dimensions and the weight of an applicable door. Contact our sales representatives in case of installing to a door exceeding the following ranges.

Door overall width	W : 380mm~460mm (per one door)
Door height	H : max. 2600 mm
Door thickness	T : 18~30mm (Refer to Fig. 1)
Door weight	max. 8kg(per one door)

- The concealed hinges should be used as a door hanging device. The LAMP brand 230 series concealed hinges (product No. H230-26/16T or H230-20/26T for outset specification or product No. H230-26/0T for inset specification, 230-P4W-32T for mounting plate) are recommended.
- For connecting two doors be sure to use our standard center hinges (product No. CH75).
- The required quantities of slide and center hinges depend on the door height (Refer to Table 1).
- One each concealed hinges should be installed at a distance of 100mm from the upper and lower edges of a door. When using three and more concealed hinges, for strength it is recommended to install the middle concealed hinge slightly higher than the center point of the upper and lower concealed hinges. The other dimensions concerning the installation of concealed hinges differ depending on the concrete hinges.
- The center hinges should be installed at an equal interval along the door height. In this case the joint gap of 2mm between doors should be taken into account (Refer to Fig. 2).

Table 1. Required quantities of hinges (recommendation)

Door height (mm)	Concealed hinge (pcs)	Center hinge (pcs)
~ 500	2	2
500 ~ 1000	3	2
1000 ~ 1500	4	3
1500 ~ 2000	5	4
2000 ~ 2600	6	4

INSTALLATION DRAWING (EXAMPLE)

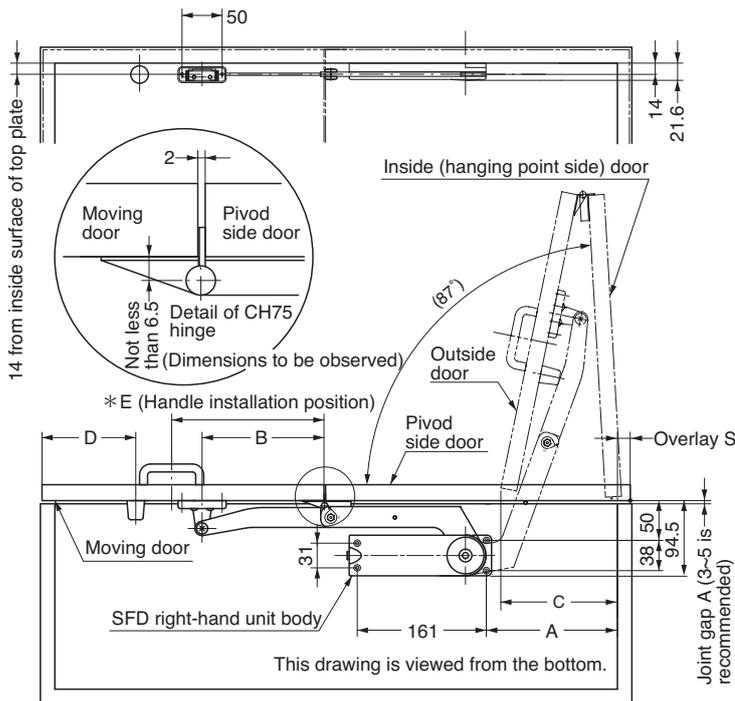


Fig. 2-1. Mounting dimensions for overlay specification (for right-hand side)

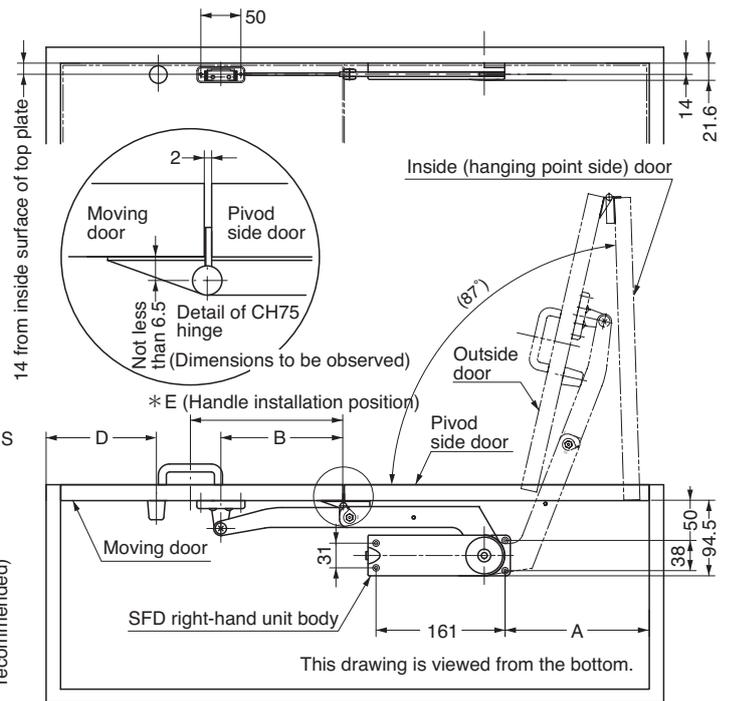


Fig. 2-2. Mounting dimensions for inset specification (for right-hand side)

Table 2-1. Mounting dimensions for outset specification

Arm size	Standard door width	Width ranges of applicable door	Arm length adjusting mark	A	B	C	D	* E(Max.)
L	380	375 ~ 385	1	179.5-S	152	(145)	(150)	(190)
	390	385 ~ 395	2	184.5-S	155	(150)	(155)	(195)
	400	395 ~ 405	3	189.5-S	158	(154)	(160)	(200)
	410	405 ~ 415	4	194.5-S	161	(158)	(165)	(205)
	420	415 ~ 425	5	199.5-S	164	(162)	(170)	(210)
	430	425 ~ 435	6	204.5-S	167	(168)	(170)	(215)
	440	435 ~ 445	7	209.5-S	170	(172)	(175)	(220)
	450	445 ~ 455	8	214.5-S	173	(177)	(180)	(225)
	460	455 ~ 465	9	219.5-S	176	(181)	(180)	(230)

Table 2-2. Mounting dimensions for inset specification

Arm size	Standard door width	Width ranges of applicable door	Arm length adjusting mark	A	B	C	D	* E(Max.)
L	380	375 ~ 385	1	179.5	152	(160)	(150)	(190)
	390	385 ~ 395	2	184.5	155	(166)	(155)	(195)
	400	395 ~ 405	3	189.5	158	(168)	(160)	(200)
	410	405 ~ 415	4	194.5	161	(173)	(165)	(205)
	420	415 ~ 425	5	199.5	164	(177)	(170)	(210)
	430	425 ~ 435	6	204.5	167	(183)	(170)	(215)
	440	435 ~ 445	7	209.5	170	(187)	(175)	(220)
	450	445 ~ 455	8	214.5	173	(191)	(180)	(225)
	460	455 ~ 465	9	219.5	176	(197)	(180)	(230)

ARM LENGTH ADJUSTMENT

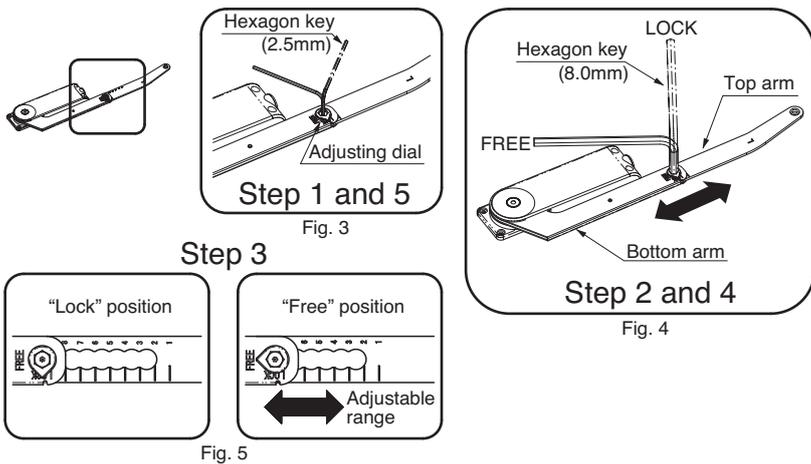


Fig. 3,4,5 Arm adjustment procedure

- step1 Using a hexagon key (2.5mm) loosen the socket screw securing the adjusting dial (Fig. 3).
- step2 Using a hexagon key (8.0mm) set the adjusting dial point to the "Free" position (Fig. 4).
- step3 Adjust the arm length when the adjusting dial point is set at the "Free" position (Table 2 and Fig. 6). For adjusting set the edge of the bottom arm to the numeral marked line shown on the inside end of the top arm.
- step4 Using a hexagon key (8.0mm) set the adjusting dial point to the "Lock" position (Fig. 4).
- step5 Using a hexagon key (2.5mm) tighten the socket screw securing the adjusting dial (Fig. 3).

⚠ Do not turn the adjusting dial by force. Otherwise product breakage may happen. After adjusting the arm length be sure to set the adjusting dial point to the "Lock" position and fix the dial with the socket screw.

ASSEMBLY

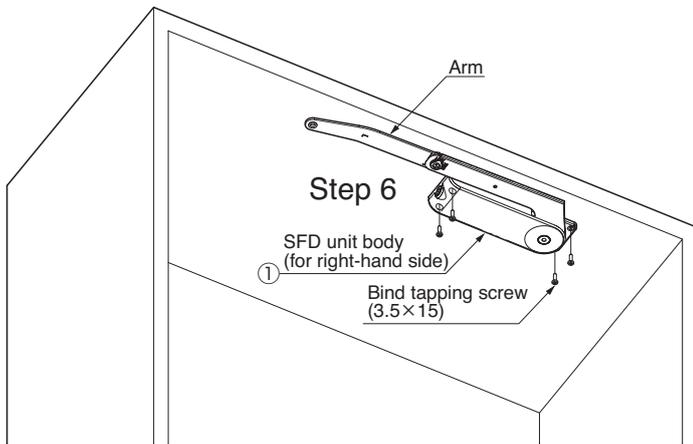


Fig. 6. Installation of unit body

● Installation of SFD unit body

- step6 Put the unit body ① the arm length of which has been adjusted according to the door width on the specified position of the inside surface of a cabinet (As for the mounting dimensions refer to Fig. 2 and Table 2) and fix it with the attached bind tapping screws (3.5x15) (Fig. 6).

⚠ The arm has a built in spring that puts force in the closing direction. When securing the arm to the door, make sure to hold the arm firmly and be careful to not pinch your hand.

● Installation of mounting plate and center hinges

- step7 Fix the mounting plate ④ and the rubber dumper ⑤ tightly to the specified position of the rear surface of a moving door with the bind tapping screws (3.5x25) ③ (Fig. 7).

- step8 Remove the hinge pin of the CH75 center hinge separating the latter into two halves and install them to the outside and inside (hanging point side) doors respectively. The hinge half with a holder should be installed to the inside door (Fig. 8).
* Refer to "■ Applicable door ranges" for necessary number of hinges.

- step9 Install the slide hinges to the Pivot side door (Fig. 9).
* Refer to "■ Applicable door ranges" for necessary number of hinges.

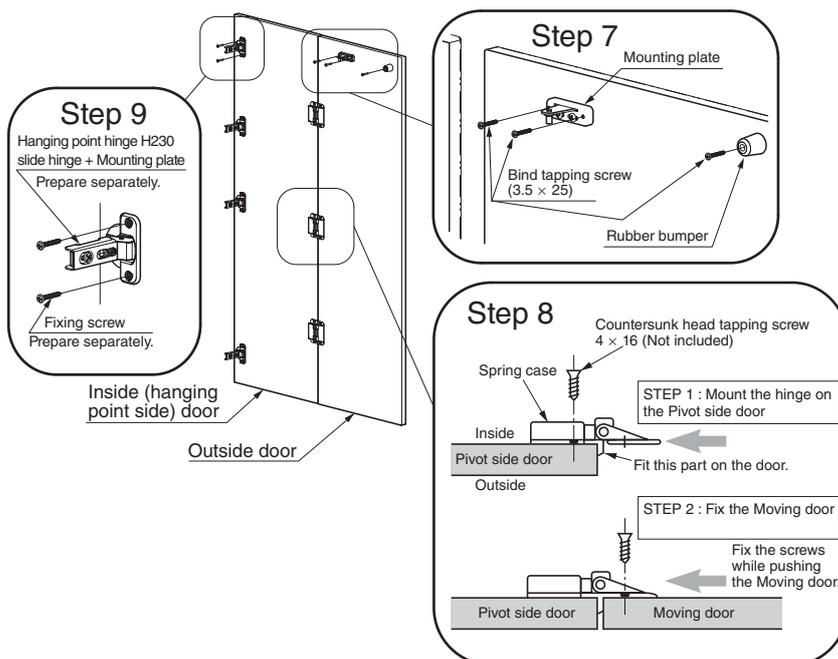


Fig. 7. Installation of mounting plate and hinges (for right-hand side)

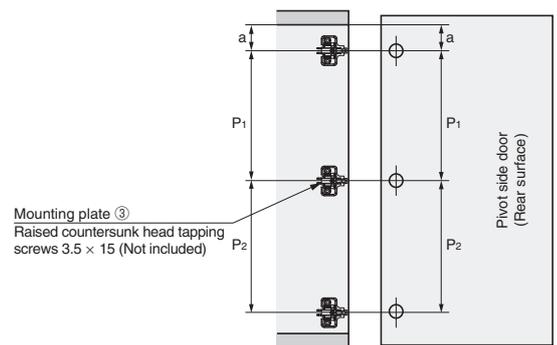


Fig.8. Fixing the mounting plates for Pivot side door

INSTALLATION OF DOORS TO CABINET

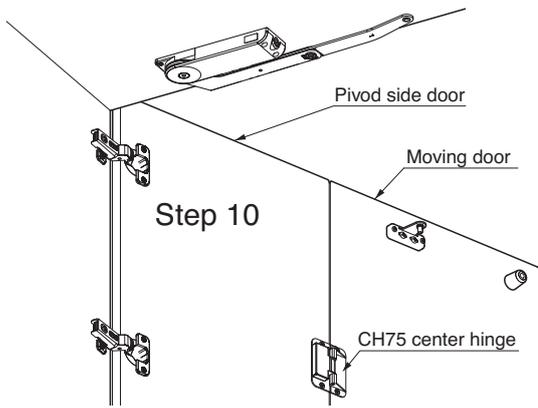


Fig. 9 Installation of doors (for right-hand side)

step10 Pull out the pin from center hinge as shown in the figure.

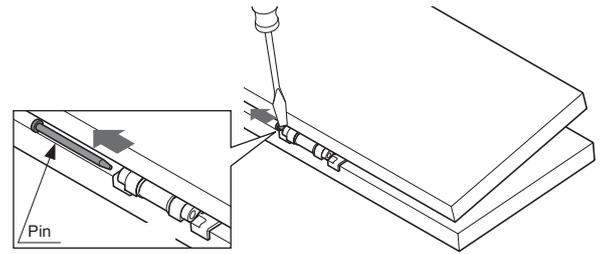


Fig.10

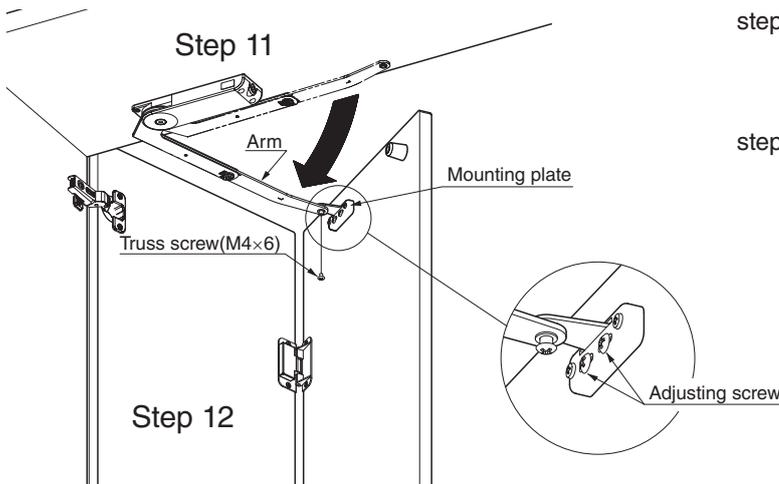


Fig. 11 Installation of doors (for right-hand side)

step11 Fit the projection of the mounting plate into the arm hole to the limit (Fig. 11), and then fix them tightly with the truss screw (M4x6). The tightening torque should be not less than 15kgf · cm (1.5N · m).

step12 When the door cannot be shut fully, loosen the adjusting screws of the mounting plate and fix the latter at the position where the door is closed fully. The adjusting screws are able to adjust the horizontal position in the range of ±5mm. After fixing the position be sure to tighten the adjusting screws additionally (Fig. 10).

ADJUSTMENT OF DOOR OPENING AND CLOSING SPEED

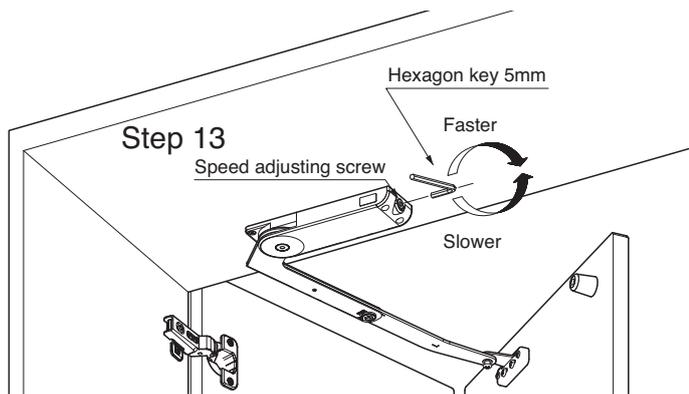


Fig. 12. Adjustment of door opening and closing speed (for right-hand side)

step13 Opening and closing the door, adjust the door opening and closing speed with the speed adjusting screw on the backside of the body. Speed adjustment is carried out with the 5mm hexagon key (Fig. 12).

Opening and closing speed will be faster when the adjusting screw is turned clockwise.

⚠ Turn the speed adjusting screw carefully. Too much force or torque to the speed adjusting screws may cause product damage.

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