LAMP LDD-V® (Lapcon Door Damper) Installation instructions

Lapcon Motion DesignTec®

Thank you for selecting our product. Before starting installation, please read this manual thoroughly to ensure correct installation.

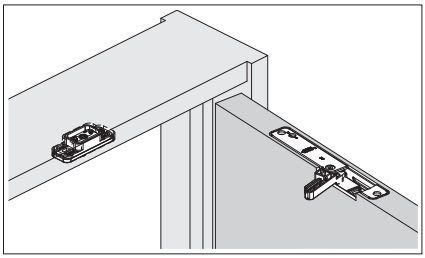
Instruction movies

With Jig

Without Jig

Product introduction

- Recessed type door damper completely concealed when the door is closed.
- When installed together with our HES3D concealed hinges, all the hardware is hidden for clean appearance.
- Damper unit will pull and close the door smoothly and firmly right before closing (within about 10°) and prevents slamming.

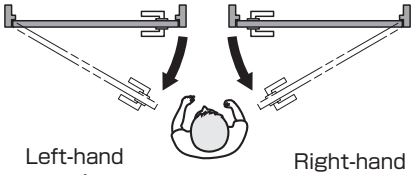


Specifications

Maximum door width	900mm (36″)
Minimum door thickness	33mm (1-5/16″)
Door weight range	15-40kg (33.6-88lbs.)

- Operating temperature is 0 to 40℃.

Item No,	Type
LDD-V-R	Right handed opening
LDD-V-L	Left handed opening



FOR YOUR SAFE WORK AND CORRECT INSTALLATION

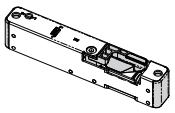
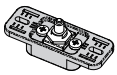
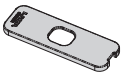
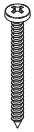
Warning Caution	Prohibited	Required

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

- This product is for indoor use only. Do not use outdoors where the item is exposed to the weather.
- Do not use in a windy place as strong wind decreases the damper function.
- Do not close the door with excessive force. It may cause damage or defect to soft close mechanism.
- Make sure to follow the designated measurements and specifications as well as horizontal and verticals angles. Make sure that the frame is not warped, since it may affect the movement of the door.
- Especially for the mortise cutting and cutout on the door, follow the specified dimensions. If the mortise is too deep, the arm may be caught in the mortise and the door cannot be opened.
- 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).

Parts List

【The following list indicate the right hand hinge for right side door hang. For left side door hang, a mirror image.】

No.	①	②	③	④	⑤	⑥	⑦
Product name	Door damper main unit	Counter plate	Counter plate cover	Binding head tapping screw (nominal 3.5×20)	Binding head tapping screw (nominal 4×45)	Cutout template (door side, frame side)	Installation instructions (this book)
Parts							
Quantity	1	1	1	2	2	1	1

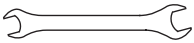
Optional Accessory (Sold separately)	No.	①	②
	Product name	Mortise jig (template)	Adjustment jig L / R (figure shown is for R)
	Parts	 ※ Provides easy mortise cutting by router.	 ※ Provides easy adjustment.

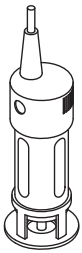

Phillips screwdriver


Flathead screwdriver


Socket wrench (14mm)

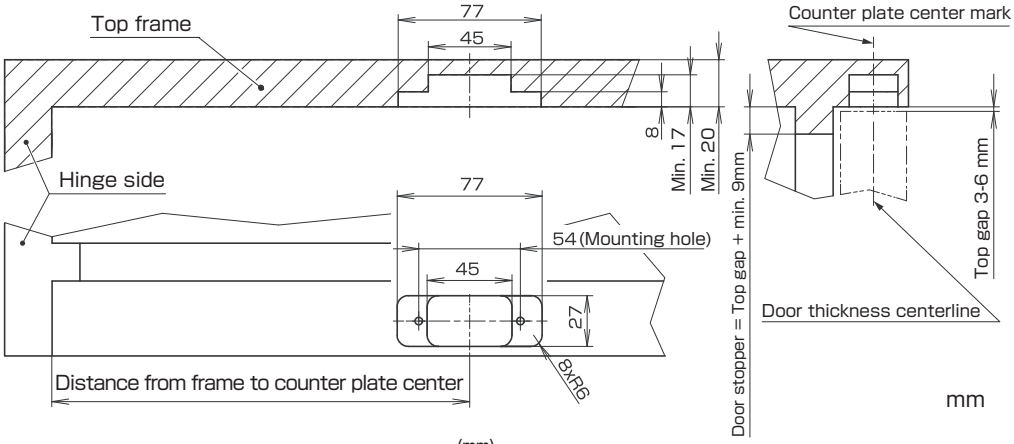
or


Open-end wrench (8mm,14mm)


Router・Trimmer

Preparation of frame

【The following dimensions and procedures indicate the right hand hinge for right side door hang. For left side door hang, a mirror image.】



(mm)

	Gap between hinge side door and frame				
	1	2	3	4	5
HES3D-120 HES3D-120A100 HES3D-H120-36 HES2S-140-A125	**220**	**221**	**222**	**223**	**224**
HES1F-140 HES3D-E160 HGS3D-S160SH HES3D-E190 HES3D-W190	**221**	**222**	**223**	**224**	**225**
HES3D-V135LGR HES2S-150-A110	**218**	**219**	**220**	**221**	**222**
Butt hinge	**224**	**225**	**226**	**227**	**228**

※ When the gap between hinge side door and frame is over 5mm, refer to the chart below.

Hinge	Distance from frame to counter plate center
HES3D-120 HES3D-120A100 HES3D-H120-36 HES2S-140-A125	219 mm + gap size
HES1F-140 HES3D-E160 HGS3D-S160SH HES3D-E190 HES3D-W190	220 mm + gap size
HES3D-V135LGR HES2S-150-A110	217 mm + gap size
Butt hinge	223 mm + gap size

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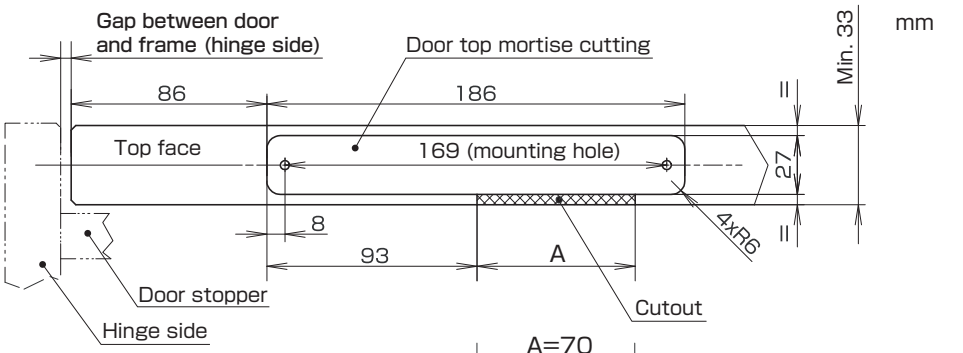
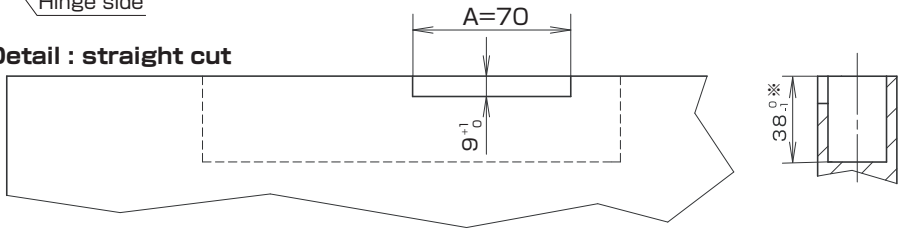
Preparation for the door

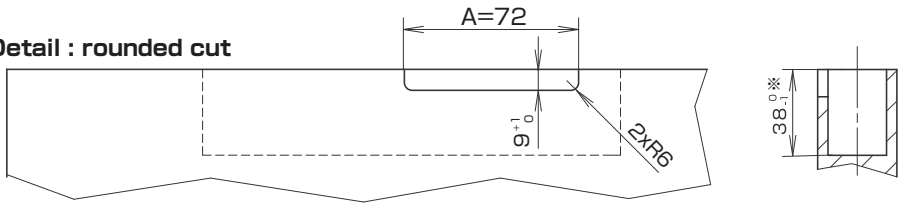
【The following dimensions and procedures indicate the right hand hinge for right side door hang. For left side door hang, a mirror image.】



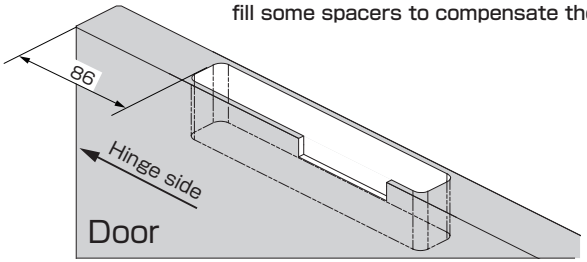
Cutout Detail : straight cut



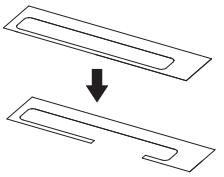
Cutout Detail : rounded cut



※If the depth of the mortise becomes deeper than the specification, fill some spacers to compensate the deviation.

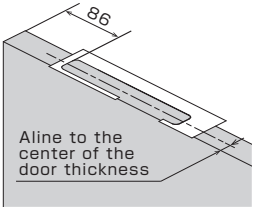


1 Processing of template

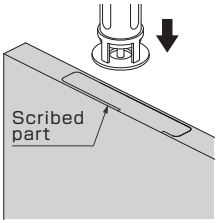


※ Be careful to cut the correct part out

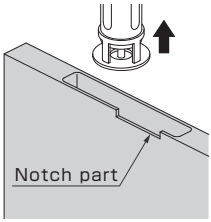
2 Place the template to the specified position and scribe the line



3 Process the door according to the line



4 Process the notch part

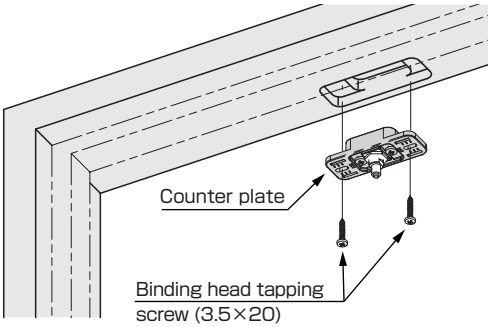


Installation

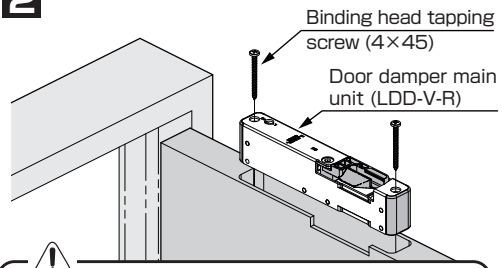
【Install the unit after completing the adjustment of hinge and case lock.】

Do not open or close the door before adjusting the installed counter plate. Operating the door without counter plate adjustment may result in malfunction, causing damage to the damper, door or frame.

1 Installing the Counter Plate



2 Installing the Door Damper



⚠ Before mounting, double check that the dimensions of the mortise and cutout are correct (See the cautions of page 1).

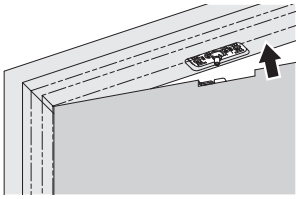
Adjustment Procedure (Without adjustment jig)

【When using Adjustment Jig (sold separately), the procedure will change. (See P14-15)】

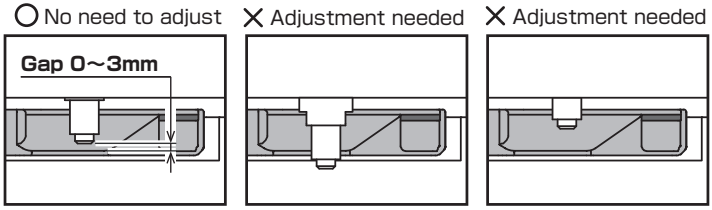
■ **Without adjustment jig** Vertical adjustment ➡ Depth adjustment ➡ Horizontal adjustment

Vertical adjustment　Vertical adjustment range : 0、−4mm

1 Stop the door right before closing

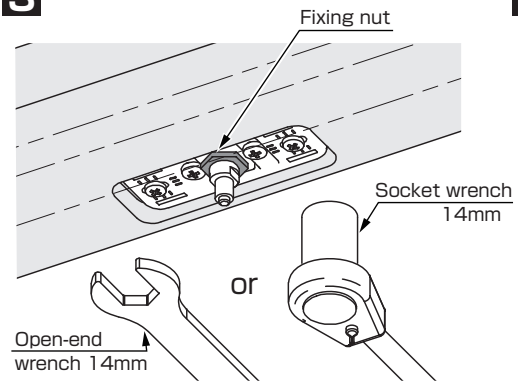


2 Position of the Shaft

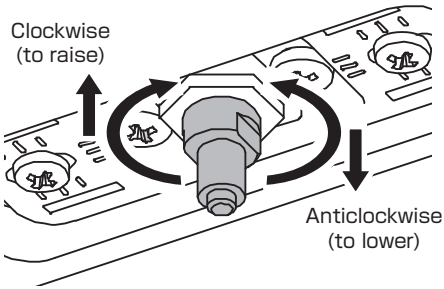


Adjustment method ←

3 Loosen the fixing nut of the shaft



4 Counter Plate adjustment



Adjust to the position "○ No need to adjust" shown in Step **2**

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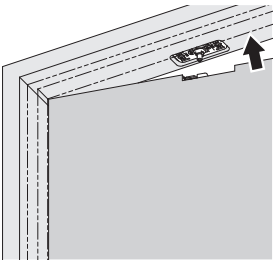
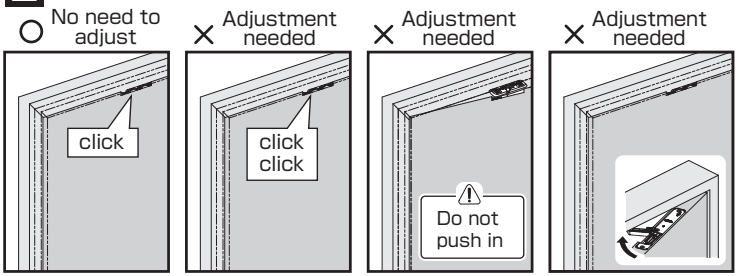
Depth adjustment

Depth adjustment range : ±2mm

1 Close the door

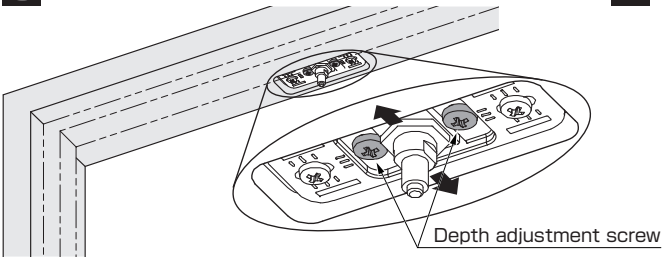


2 Position of the Shaft

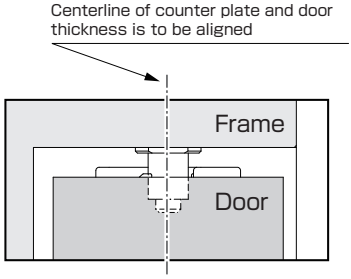


Adjustment method

3 Loosen the depth adjustment screws



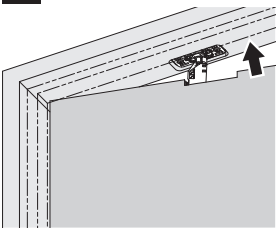
4 Counter Plate adjustment



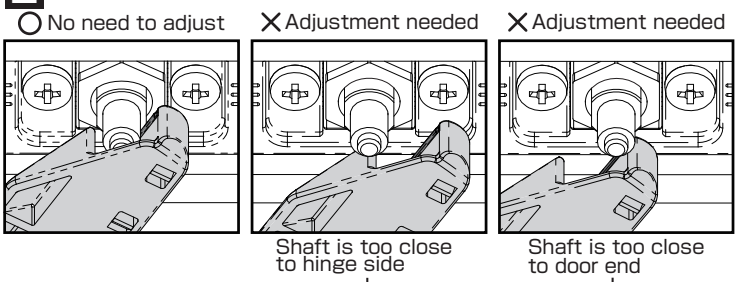
Horizontal adjustment

Horizontal adjustment range : ±3mm

1 Close the door

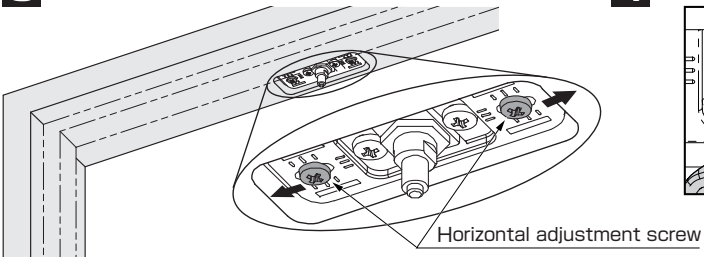


2 Position of the Shaft

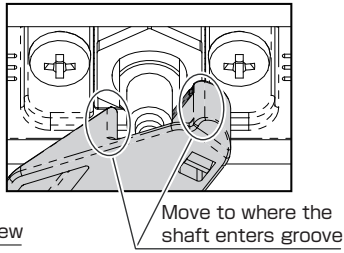


Adjustment method

3 Loosen the horizontal adjustment screws



4 Counter Plate adjustment



Adjustment Procedure (With adjustment jig)

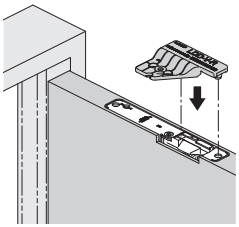
【When not using the adjustment Jig (sold separately), the procedure will change. (See P.12-13)】

■ **With adjustment jig** Horizontal adjustment ➡ Vertical adjustment ➡ Depth adjustment

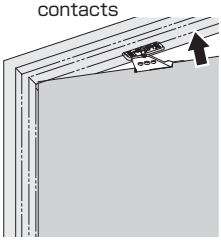
Horizontal adjustment

Horizontal adjustment range : 0、−4 mm

1 Fit the jig to the damper unit

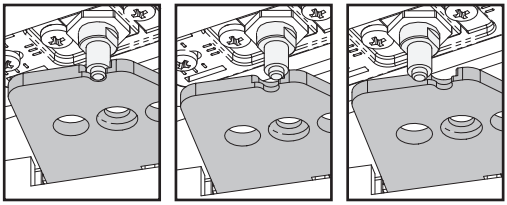


2 Close the door until the shaft and the jig contacts



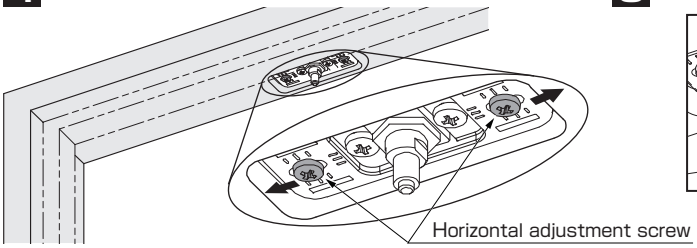
3 Position of the Shaft

○ No need to adjust　× Adjustment needed　× Adjustment needed

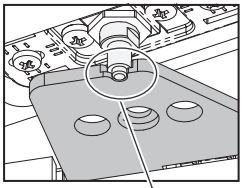


Adjustment method ◀

4 Loosen the horizontal adjustment screws



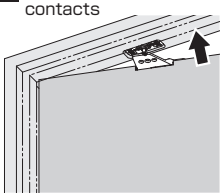
5 Counter Plate adjustment



Vertical adjustment

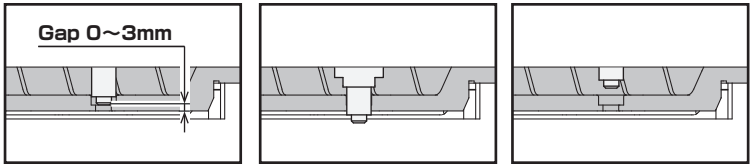
Vertical adjustment range : ±2mm

1 Close the door until the shaft and the jig contacts



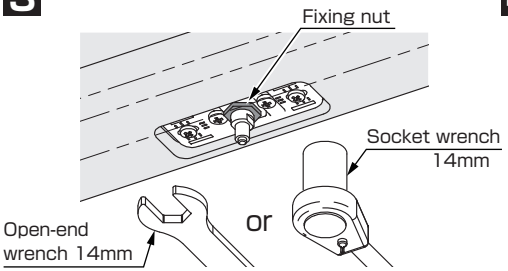
2 Position of the Shaft

○ No need to adjust　× Adjustment needed　× Adjustment needed

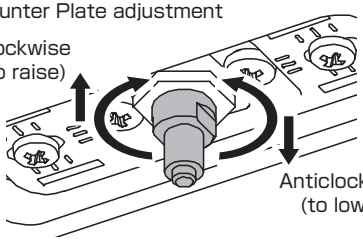


Adjustment method ◀

3 Loosen the fixing nut of the shaft



4 Counter Plate adjustment



Adjust to the position "○ No need to adjust" shown in Step **2**

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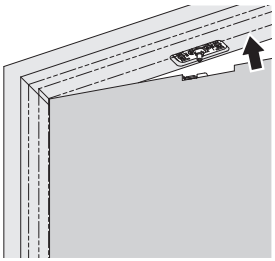
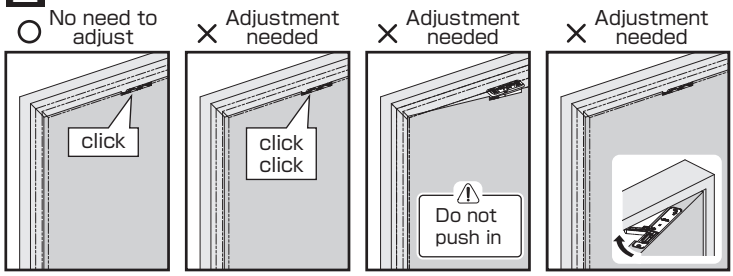
Depth adjustment

Depth adjustment range : ±2mm

1 Close the door

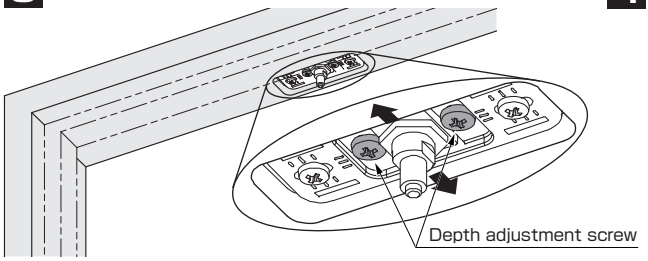


2 Position of the Shaft

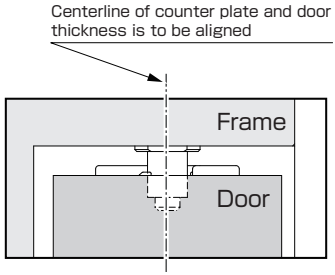


Adjustment method

3 Loosen the depth adjustment screws



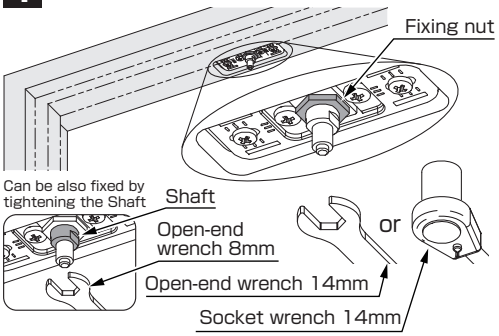
4 Counter Plate adjustment



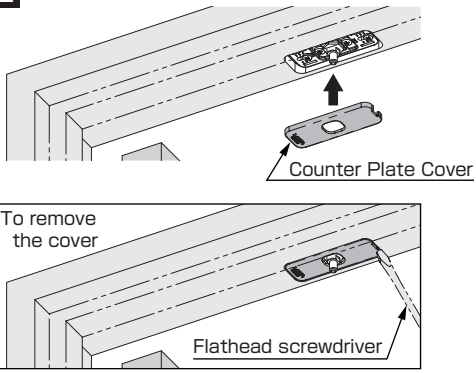
Working after adjustment completed

【The following procedure should be carried out AFTER the shaft adjustment with jig (P.14-15) or without jig (P.12-13) is completed.】

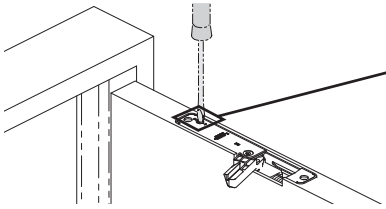
1 Retighten the fixing nut of the shaft

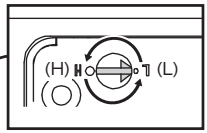


2 Installation of Counter Plate Cover



Setting of Damper Force





When setting the damper force, do not stop turning the shaft at any halfway point other than at L (weak) or H (strong).

L (weak): Setting at the time of shipment
H (strong): To slow the closing speed down

Trouble shooting

Problem	Cause	Solution
Unusual noise	Mounting position is not correct	Check the mounting position and make adjustments. See P. 2-3.
	Mortise measures are not correct	Check the mortise dimension and make adjustments. See P. 2-3.
	Incomplete adjustment	Re-adjust the Vertical/Horizontal /Depth/Damper Force. See P.4-5,7(without jig) / P.6-7 (with jig).
	Counter plate fixation or/and Shaft fixing nut loose	Final tighten the shaft fixing nut after adjustment completed. See P.7 and tighten the nut securely.
2 times click sound heard when closing	Improper depth adjustment	Depth adjustment of Shaft is needed. Depth adjustment range : ±2mm See P.5 (without jig) or P.7 (with jig).
Shaft does not enter the groove of the Arm	Improper vertical adjustment (too low)	Vertical adjustment of Shaft is needed. Vertical adjustment range : 0、−4mm See P.4 (without jig) or P.6 (with jig).
	Improper horizontal adjustment (one-sided)	Horizontal adjustment of Shaft is needed. Horizontal adjustment range : ±3mm See P.5 (without jig) or P.6 (with jig).
Arm remains folded	Centerline of counter plate and door thickness is not aligned	Depth adjustment of Shaft is needed. Depth adjustment range : ±2mm See P.5 (without jig) or P.7 (with jig).
	Improper depth adjustment	
Door will not close completely	Centerline of counter plate and door thickness is not aligned	
	Improper door size	Use a suitable door. See P. 1.