

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

ABOUT THE PRODUCT

- This product is a door closer hardware that is designed to be attached on the inside for outswing doors (push side, parallel arm installation). It can be used for both right-handed and left-handed opening.

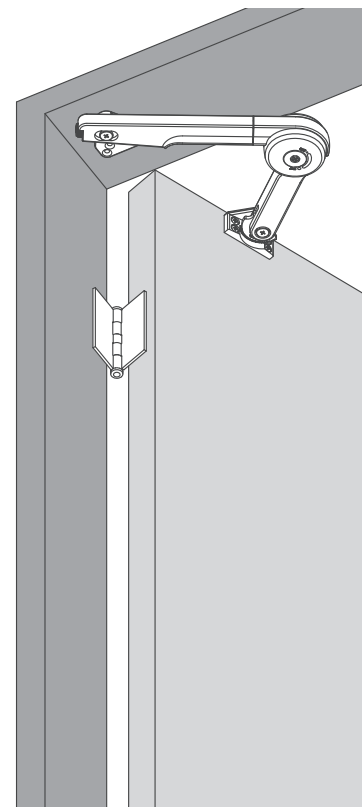
FOR YOUR SAFE WORK AND CORRECT INSTALLATION

Meaning of symbols

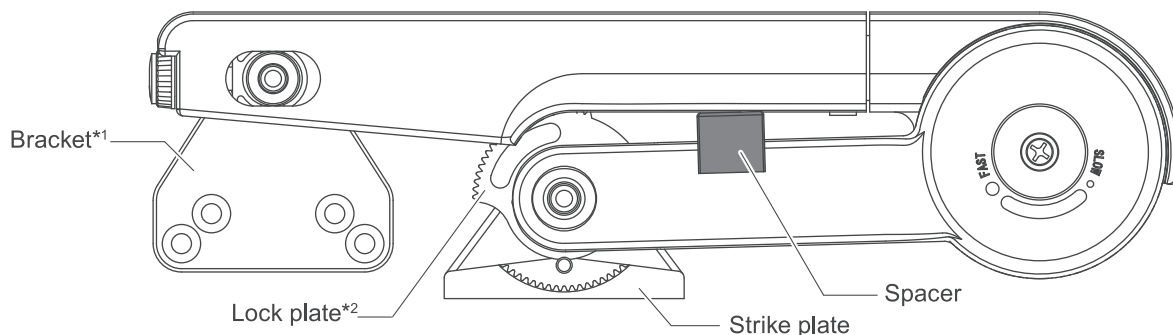
Warning Caution	Prohibited	Required
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Caution If not followed, injury or damage may result.

- ⊘ Do not use this product for any other purposes or with doors that are outside the specifications of this manual.
- ⊘ Do not disassemble or modify any parts other than those described in this document.
- ⊘ Do not use excessive force to further open the completely opened door or to open/close the door as this could result in malfunction.
- ❗ This product is a part for architectural fittings. After installation, please check the function and safety of the final product.
- ❗ The company is conducting strict checks on the products. However, if any defects are found on the product, contact the retailer.
- ❗ When cleaning heavy soiling, wipe off with neutral detergent diluted with water.
- ❗ Follow the specified dimensions, specifications, and alignment of the door and frame. Warping, tilting or twisting of the frame or door may cause failure.
- ❗ 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).
- ❗ The limitation on the operating temperature under which this product can be used is 5 - 40 degrees C. Fluctuations in temperature can cause a change in closing speed. This does not indicate malfunction.
- ❗ Please make sure to check the operation after installation.



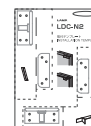
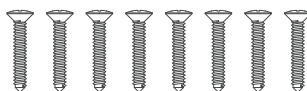
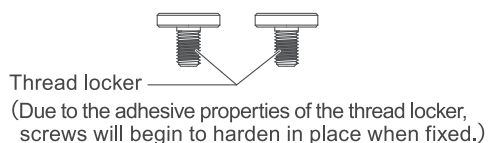
COMPONENT PARTS



Caution point during installation



- Main unit: 1 pc (The shape of bracket*1 and lock plate*2 varies depending on the model.)
The above drawing shows model LDC-N21S.

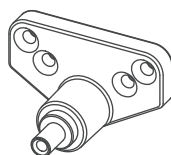


- Mounting screws: 2 pcs

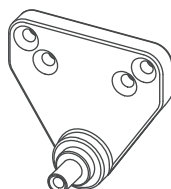
- Raised countersunk head tapping screw 5 × 30 : 8 pcs

- Template: 1 pc

*1 Shape of bracket

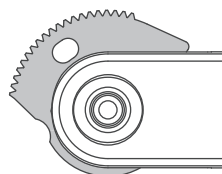


Bracket A

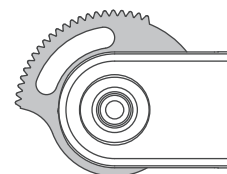


Flat bracket

*2 Shape of lock plate (serration part)



Without stopper



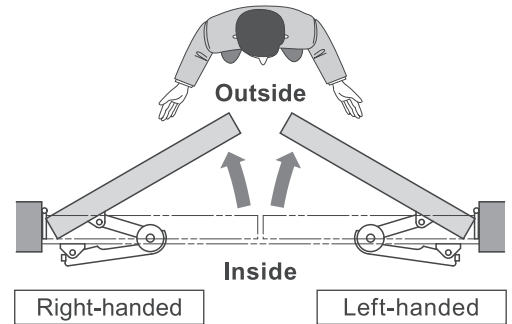
With stopper

CAUTIONS REGARDING INSTALLATION

Before installing this product, confirm the following contents.

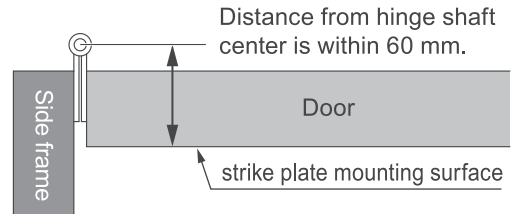
Hanging side of door

This product is designed to be attached on the inside for outswinging doors (push side, parallel arm installation). It can be used for both right-handed and left-handed opening.



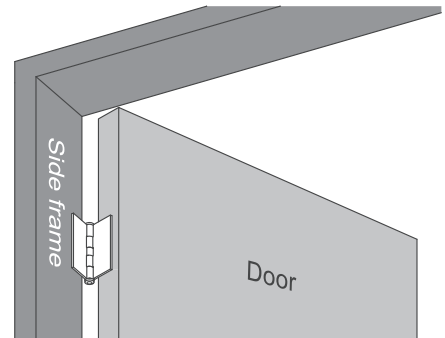
Places that can be used with the product

Use for doors in which the distance from the hinge shaft center to the strike plate attachment surface is within 60 mm. However, depending on the position for stopping the door (stop angle), a minimum distance from the hinge shaft center to the strike plate attachment surface may be required. If the distance is 60 mm or greater, please contact sales representative for consultation.



With Stopper (LDC-N21S, LDC-N22S)

Stop Angle	Minimum distance from hinge shaft center to strike plate mounting surface
75°	60 mm
80°	53 mm
85°	46 mm
90°	40 mm
100°	28 mm
110°	18 mm
120°	9 mm
130°	2 mm
135°~	0 mm

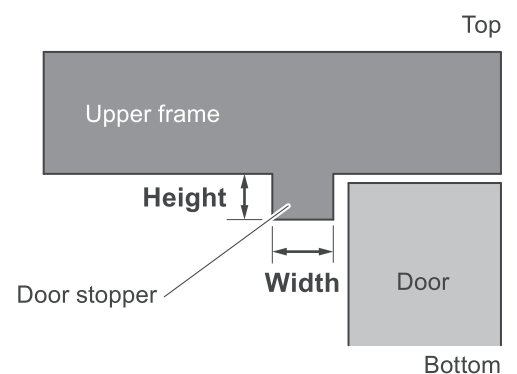
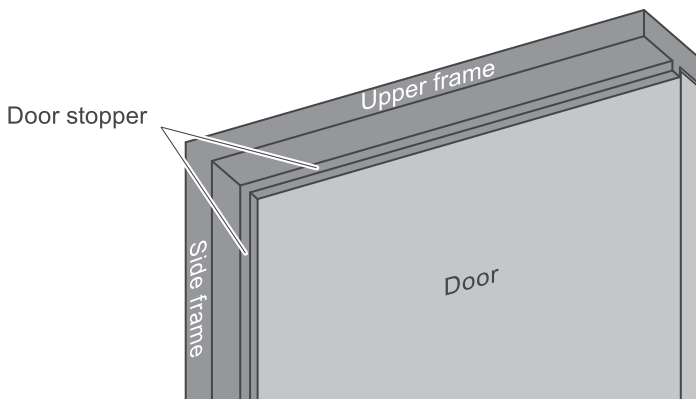


⚠ Caution

- Confirm that the door can be opened and closed with a force of **3 N•m** or less. The closing torque for the closer single unit in the latching range is **10 N•m**.

How to Select Bracket

- If the door stopper width is 30 mm or greater, or if there is no door stopper, use a Flat bracket.
- If the door stopper width is 20 mm or less and the height is 15 mm or less, use a Bracket A.
- If the door stopper width is 20 - 30 mm and the height is 15 mm or greater, consult with a sales representative.



SPECIFICATIONS

■ Applicable door specifications

Door Size: W900 × H2100 mm or less

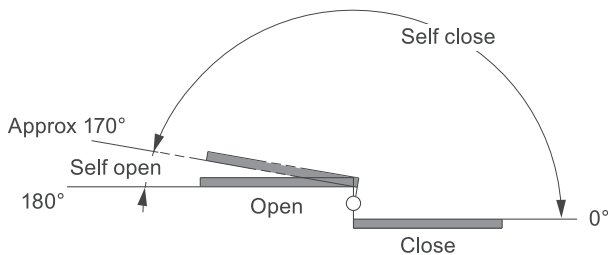
Door Weight: 15 - 45 kg

■ Models

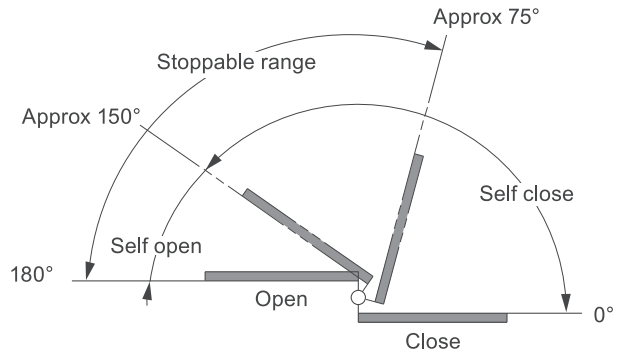
Models	Specifications		Self closing *1	Self opening *2	Stoppable range
LDC - N21	Flat bracket	Without Stopper	0°- Approx 170°	Approx. 170°- 180°	—
LDC - N22	Bracket A				
LDC - N21S	Flat bracket	With Stopper	0°- Approx 150°	Approx. 150°- 180°	Approx. 75°- 180°
LDC - N22S	Bracket A				

*1 : Self closing: Moves in direction of door closing.

*2 : Self opening: Moves in direction of door opening.



■ Without Stopper (LDC-21, LDC-N22)



■ With Stopper (LDC-21S, LDC-N22S)

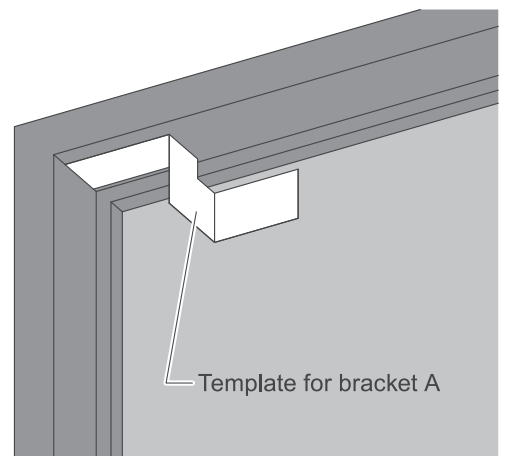
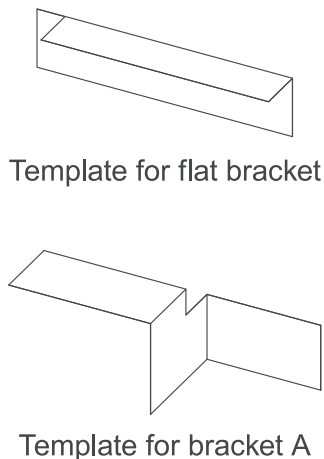
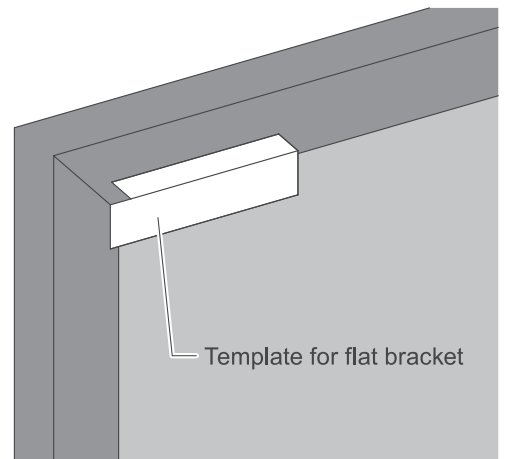
INSTALLATION PROCEDURE

The drawing below shows right-handed opening. Installation for left-handed opening is symmetrically opposite.

1 Determining the attachment position

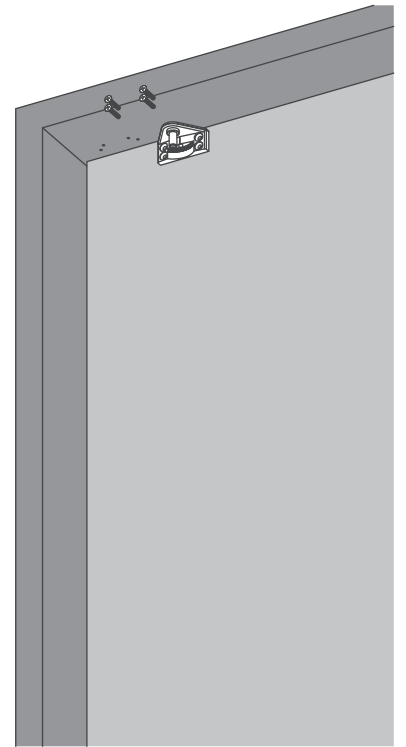
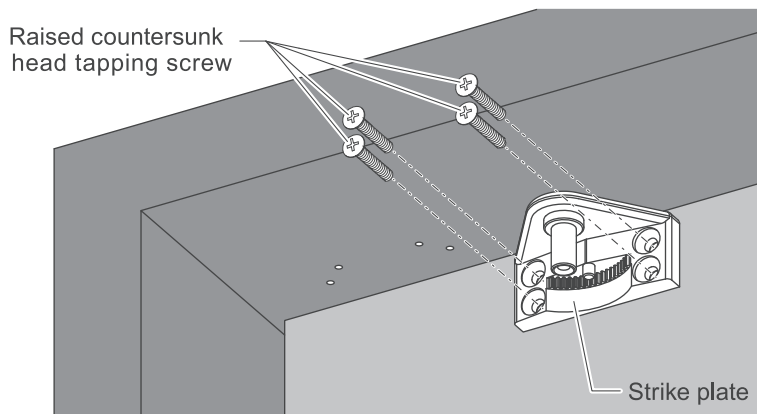
Use a template to determine the attachment position.

- 1 Cut the supplied template to the configuration described.
- 2 Bend the template as shown in the figure below according to the door specifications and the hanging side on which it is attached.
- 3 After closing the door completely, align the template with the upper frame, side frame and the door, and mark the mounting hole position for the bracket and strike plate using an awl or punch.
Create pilot holes with the recommended dimensions: $\phi 3 - 3.5$ mm, depth 20 - 25 mm.



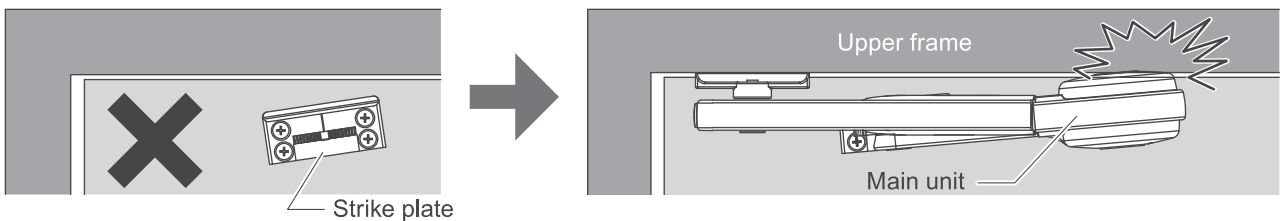
2 Installing the strike plate to the door

- Fix securely to the door, securely affix the strike plate to position on the door.



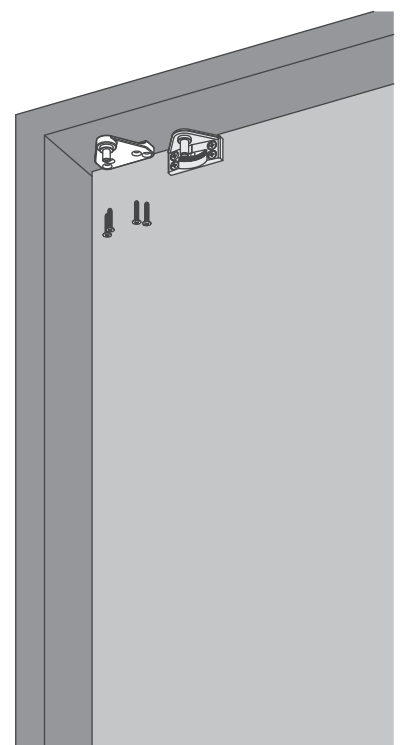
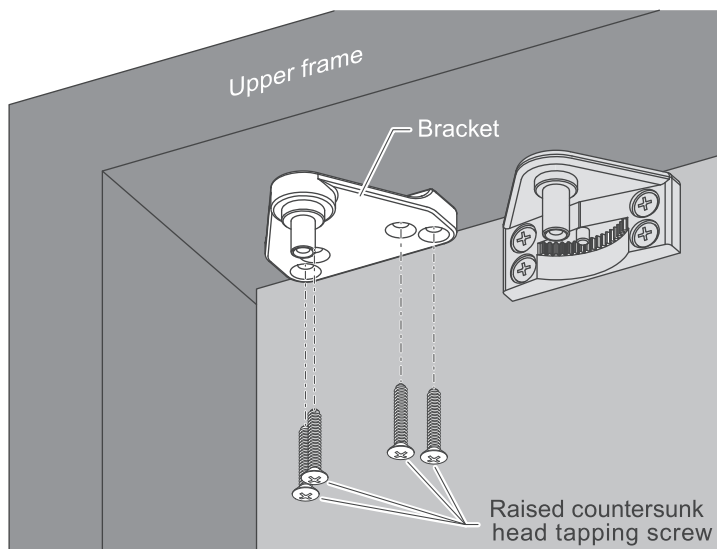
⚠ Caution

- ⊙ If the strike plate is attached at a slant, the closer main unit and upper frame will touch each other, making correct operation impossible.



3 Installing the bracket to the upper frame

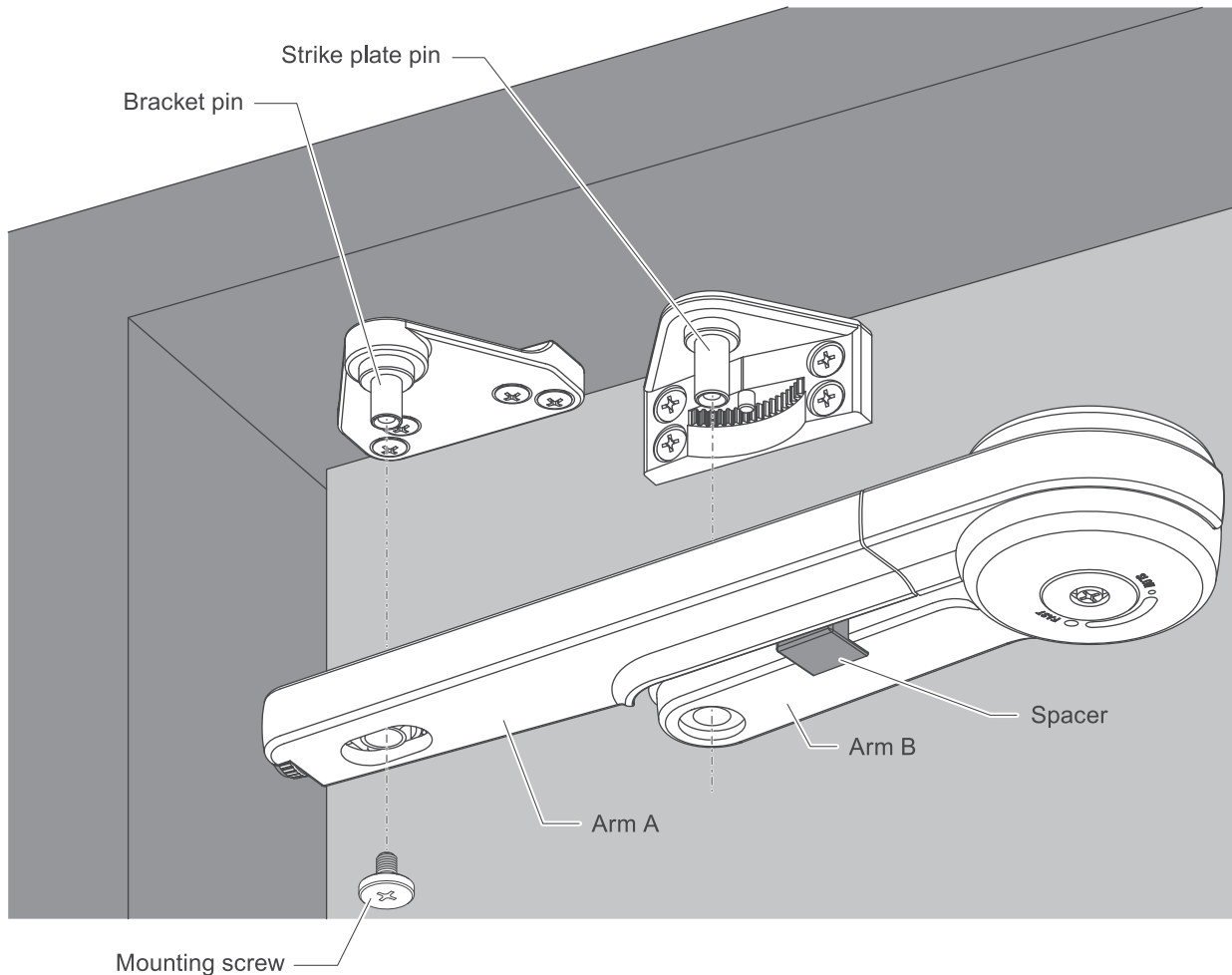
- Fix the bracket securely in position on the upper frame.



4 Installing the Lapcon Closer main unit

Fixing arm A and bracket.

- 1 Close the door completely and, with the red spacer attached (when removed from the package), insert arm B in strike plate pin and arm A in the bracket pin.
- 2 Then, securely fix the bracket and arm A using supplied mounting screws.

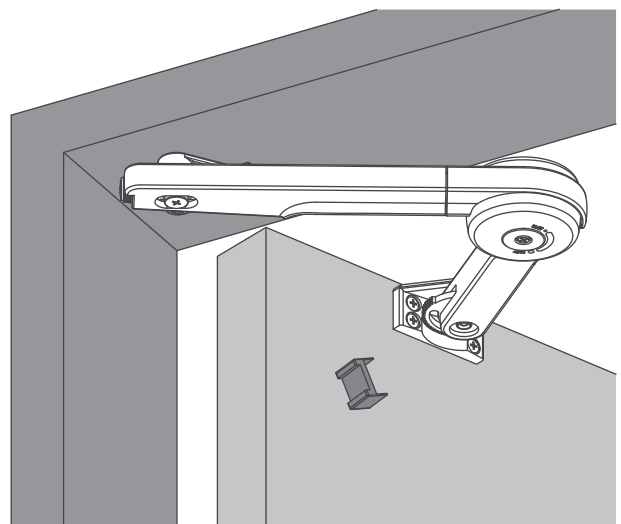
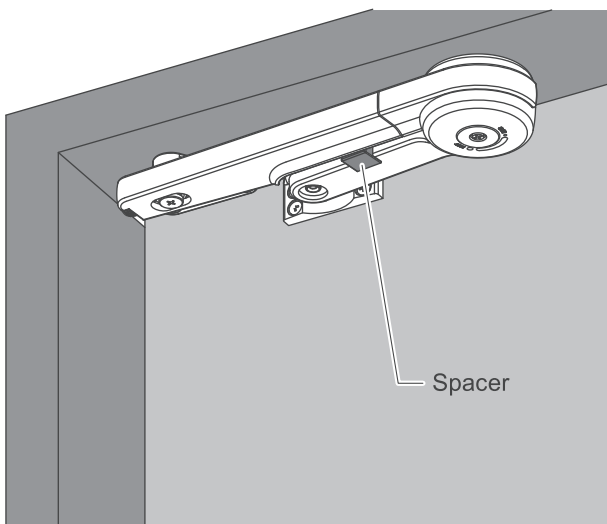


⚠ Caution

- ❗ The part may be damaged if an electric drill is used. Use a screwdriver instead of an electric drill.



Because the red spacer is no longer used after this step, open the door slightly and remove the spacer.

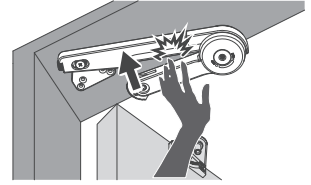


5 Installing the Lapcon Closer main unit

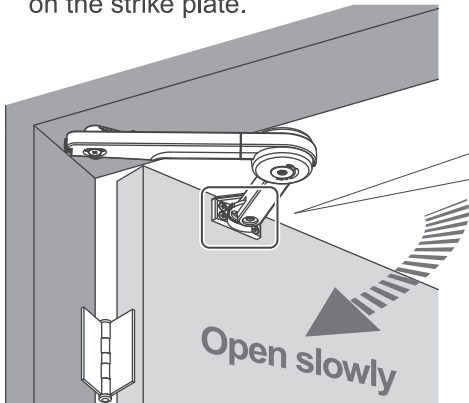
Fixing arm B and strike plate. Determining stop position.

Warning

⚠ If arm B comes away from the strike plate, the arm tends to return to the original position due to the spring force of the door closer. Be careful not to get your fingers caught.

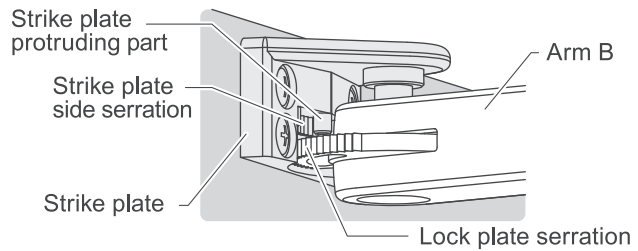


- 1 Open door so that the lock plate serration does not come into contact with the serration on the strike plate.



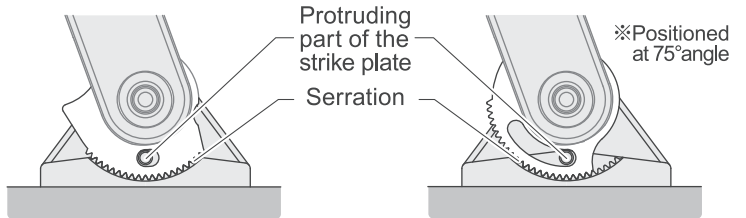
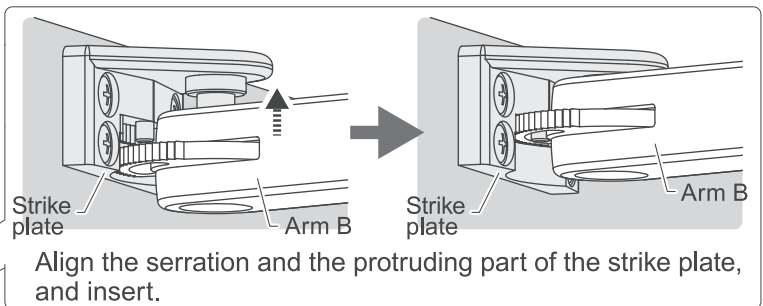
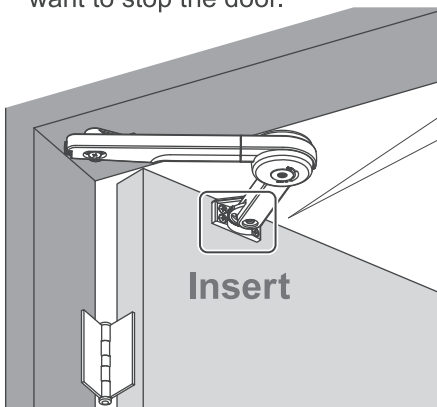
Caution

⚠ When opening the door, be careful that arm B does not come loose from the strike plate.



Condition with arm B displaced so that the serrations do not touch.

- 2 ■ Without Stopper:
Insert into the convex section of the strike plate.
- With Stopper:
Insert into the convex section of the strike plate at the angle (approx. 75°- 180°) at which you want to stop the door.



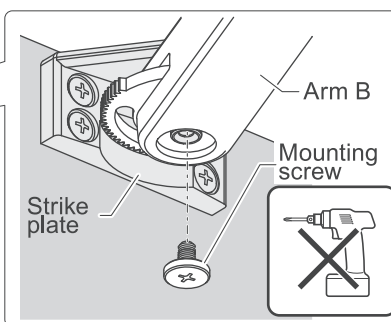
■ Without Stopper (LDC-N21, LDC-N22)

■ With Stopper (LDC-N21S, LDC-N22S)

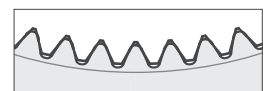
Caution

⚠ Make sure that the serration is correctly aligned and that the protruding part of the strike plate is inserted.

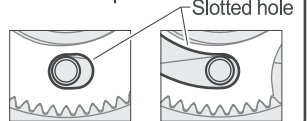
4



✓ Serration



✓ Protruding part of the strike plate



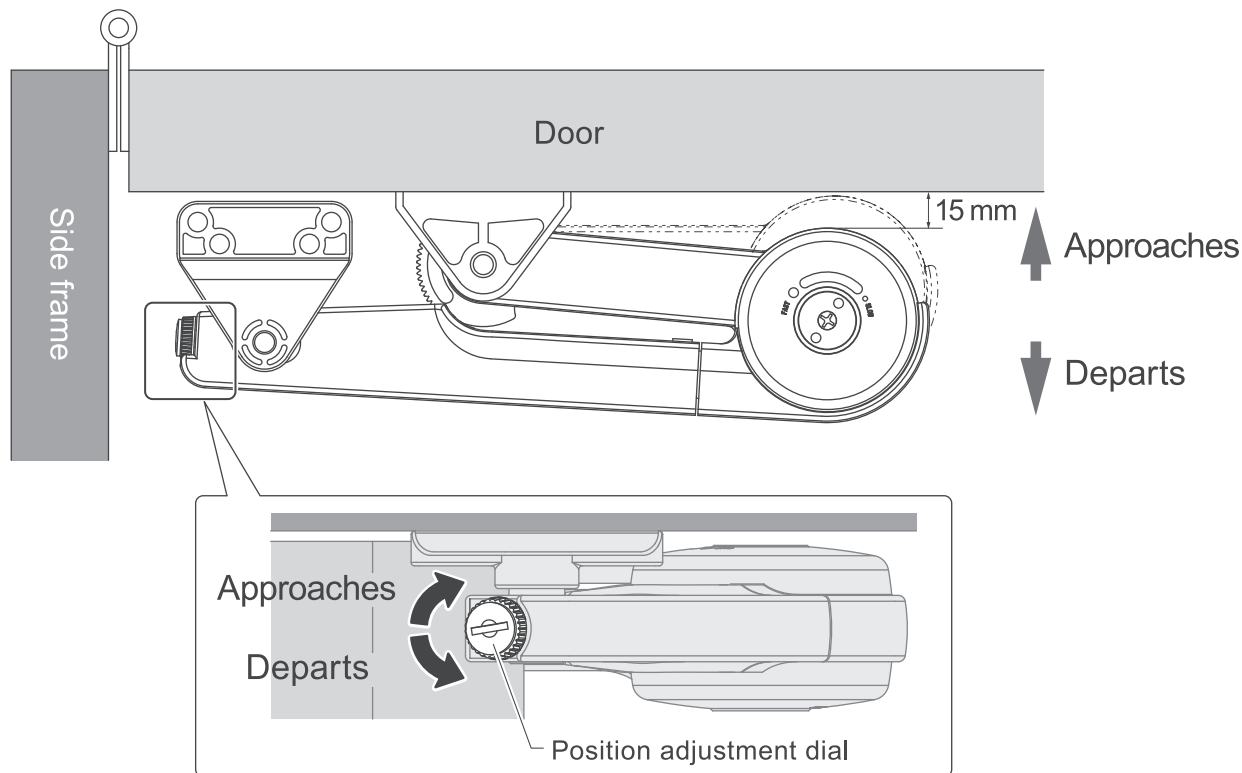
Warning

⚠ Adjust the stop angle of the door before the anti-loosening agent thread stopper hardens.

6 Confirmation after installation

- Confirm that the closer is not coming into contact with the upper frame and door stopper.
- Confirm that the closer mounting screw is not loose.
- When the door is completely closed, make sure that the folding part of the closer does not come into contact with the door. If adjustment is needed, adjust with the position adjustment dial while referring to the figure below (recommended distance between door and main unit: 15 mm).

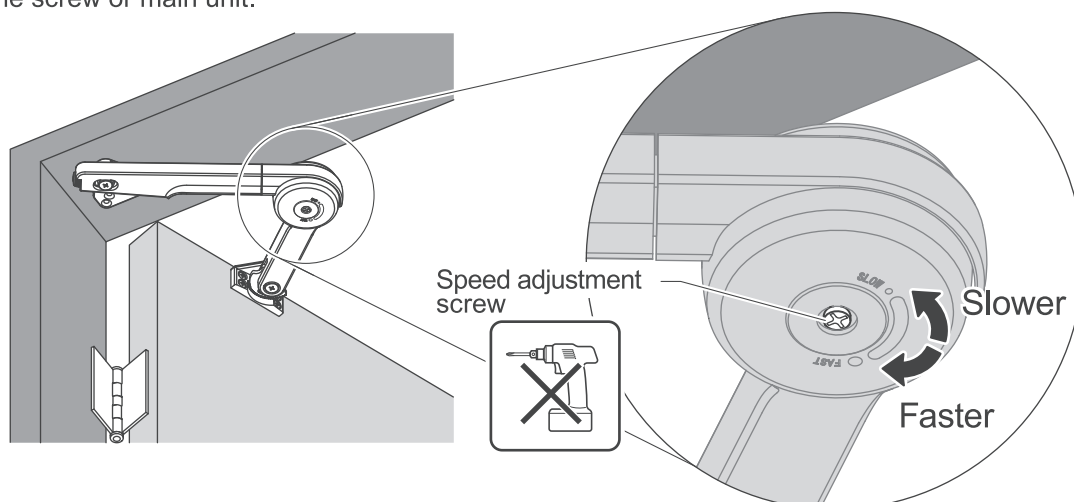
■ How to adjust closer position



■ How to adjust closing speed

When adjusting the closing speed, we recommend a speed in which it takes approximately 5 - 8 seconds from when the door is approximately 70 degrees open until it closes. If the speed is too fast, a weak buffering effect may occur when the door closes. When adjusting, use a No. 2 Phillips-head screwdriver.

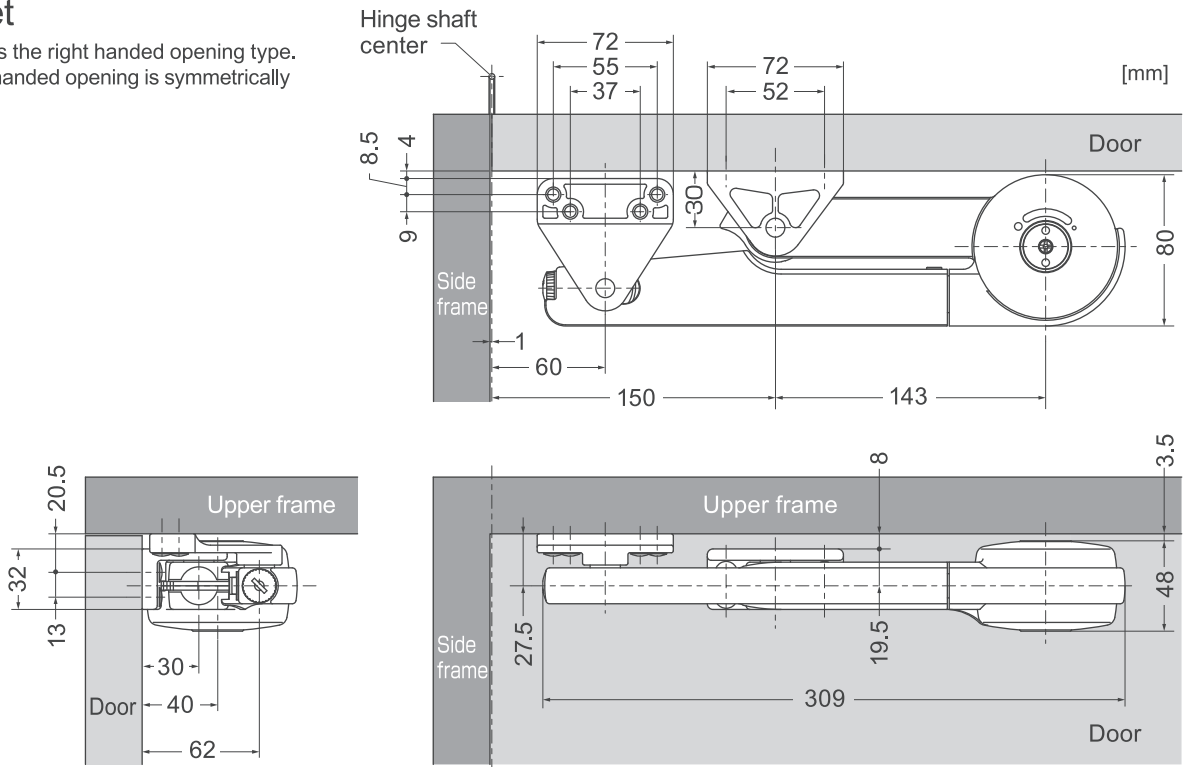
The range for turning the speed adjustment screw is about 1 rotation from the slowest setting position (position at which screw is most inserted) to the highest setting position. The equipment is adjusted at normal temperature (approx. 24 degrees C) at time of factory shipment. The range for turning to the slow direction or fast direction is not a set value. Be aware that if the screw is unnecessarily turned beyond the turning range, this could result in damage to the screw or main unit.



When not using the supplied template, confirm the attachment position here.

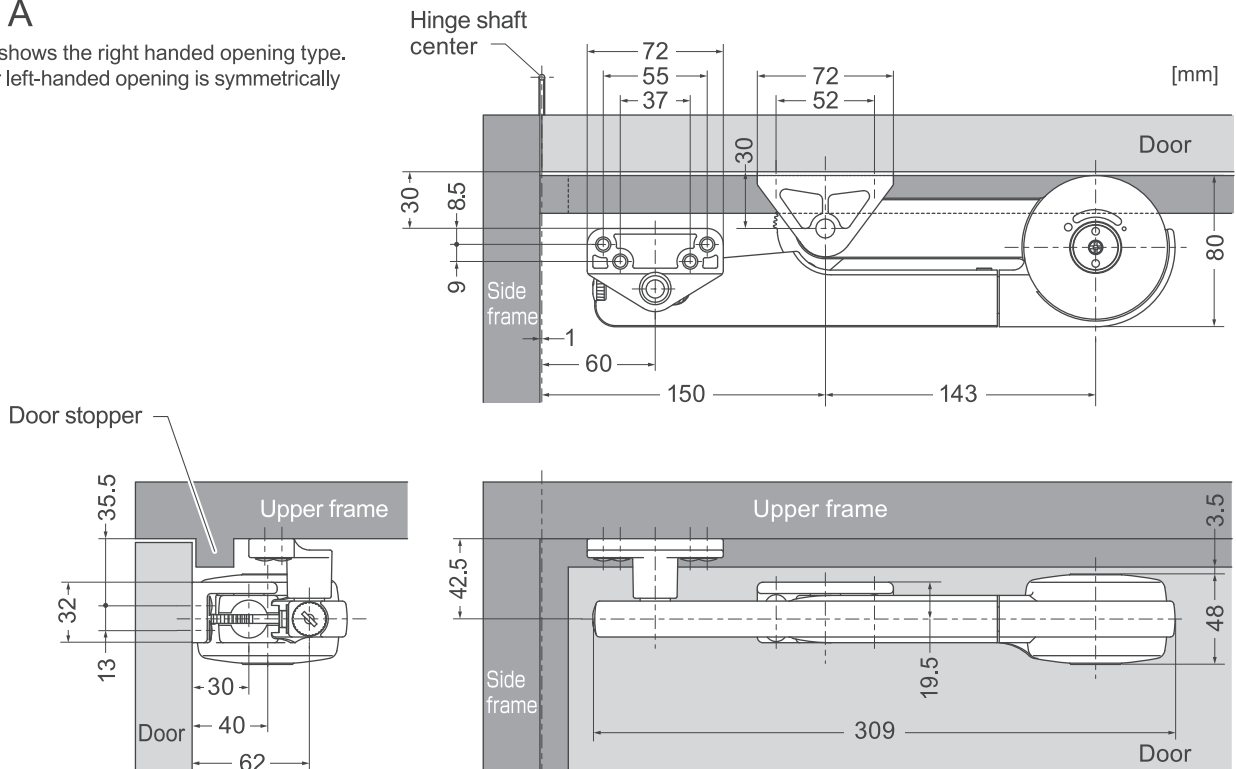
Flat bracket

This drawing shows the right handed opening type. Installation for left-handed opening is symmetrically opposite.



Bracket A

This drawing shows the right handed opening type. Installation for left-handed opening is symmetrically opposite.



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