



K Series (Post)

Instruction Manual

●Caution

Thank you very much for purchasing our product.

Please read this instruction manual carefully before installation to use the product for a long time.

Precautions on Installation

Improper handling of aluminum products during installation may cause abnormal corrosion, resulting in unexpected troubles, please pay attention to the following points.

1. Please confirm that the product is suit for the construction place's weather conditions (wind, snow, etc.).
2. To prevent damage, please do not construct this product where the snow slide directly on the product.
3. Avoid installation of the product in areas where strong winds blow, especially on cliff tops, on the roof top, or on the pathway of the wind.
4. Avoid installation of the product at places with large vertical difference such as edge. In windy areas, install the product not to be fluttered by wind. This product should be installed only on the ground.
5. The foundation drawing indicates the depth of embedding of the product. Pay sufficient attention to the amount (volume) of the foundation concrete when embedding the product in a weak ground. When the product is to be used in cold districts where frost heave is likely to occur, place foundation to the frost heave line or lower.
6. Using sea sand for making mortar may cause corrosion due to its high salt content. Please avoid use of sea sand or wash it thoroughly before using it for mortal.
7. Adhesive bonds for mortar and concrete may cause corrosion, therefore, avoid using them or choose the adhesive bonds which do not have calcium chlorides, chlorine compounds, or sodium silicate.
8. Make it sure not to attach mortal or concrete extract on the surface and inside of the aluminum products during construction. Those extract are strong alkaline and may cause uneven color or corrosion.
9. When using bonds or chemicals which may occur the corrosion during the construction work, avoid contact to the aluminum products.

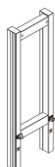
10. Please check the screws again that they are tighten up enough after completion of the installation work.
10. Avoid contact of aluminum products with dissimilar metals such as copper plate and lath. If their contact is inevitable, cover the surface with a plastic tape or insulate it with paint, etc.
11. Do not modify or remodel the product.
12. Please put items or equipment in order, and ensure the security especially collapse and falling while working in a high place and intensity of illumination by light in construction site.
13. Please make sure the security by each other and check the operator's health and implement the health management.

Packing List

●KA/KB *KA=Single Main Body, KB=1 Connection Main Body

	CODE	Packing Name	Type KA Single Open				Type KA Double Open				Type KB Single Open			
			3S	4S	5S	6S	3W	4W	5W	6W	3S	4S	5S	6S
H12	SKNA-K105	Hanging Unit H12	1	1	1	1	2	2	2	2	1	1	1	1
	SKNA-K108	Door Stop Post H12	1	1	1	1					1	1	1	1
H14	SKNA-K106	Hanging Unit H14	1	1	1	1	2	2	2	2	1	1	1	1
	SKNA-K109	Door Stop Post H14	1	1	1	1					1	1	1	1
H16	SKNA-K107	Hanging Unit H16	1	1	1	1	2	2	2	2	1	1	1	1
	SKNA-K110	Door Stop Post H16	1	1	1	1					1	1	1	1

Parts List

Hanging Unit		Code		
		SKNA-K105	SKNA-K106	SKA-K107
Parts Name	Shape	Quantity	Quantity	Quantity
Hanging Unit H12		1		
Hanging Unit H14			1	
Hanging Unit H16				1
Instruction Manual		1	1	1

Door Stop Post		Code		
		SKNA-K108	SKNA-K109	SKA-K110
Parts Name	Shape	Quantity	Quantity	Quantity
Door Stop Post H12		1		
Door Stop Post H14			1	
Door Stop Post H16				1

Construction Flow

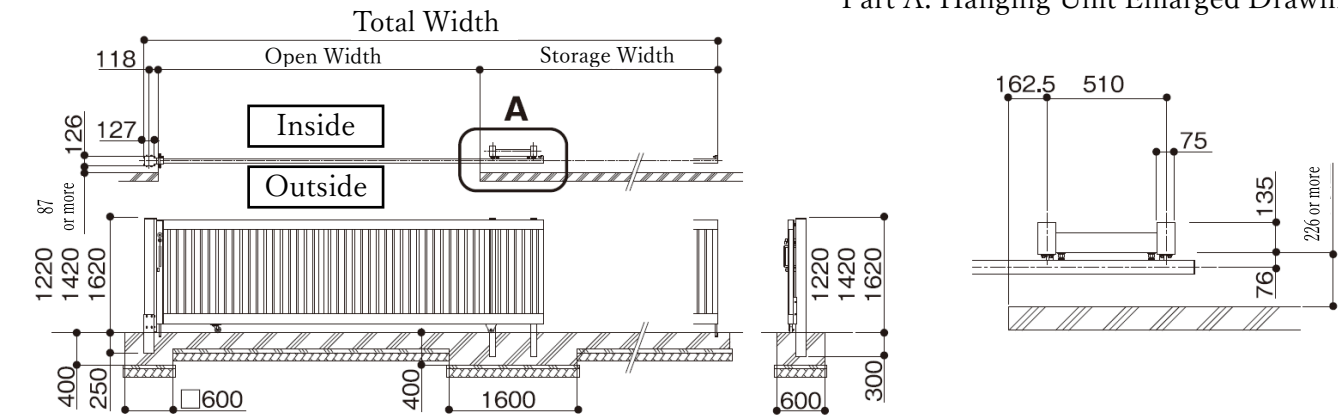
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Installation Drawing

■

Type KA Single Open

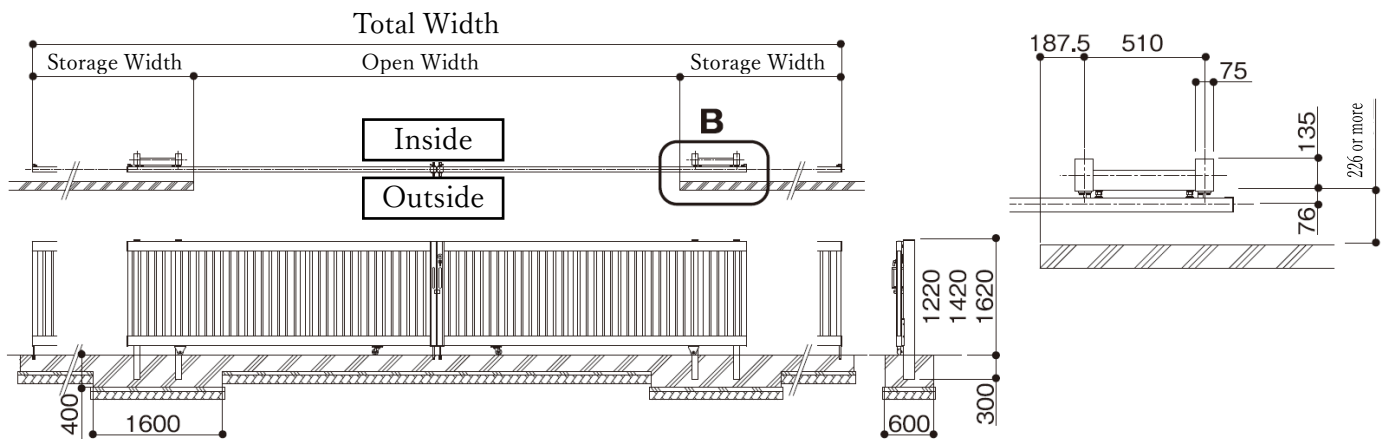
Part A: Hanging Unit Enlarged Drawing



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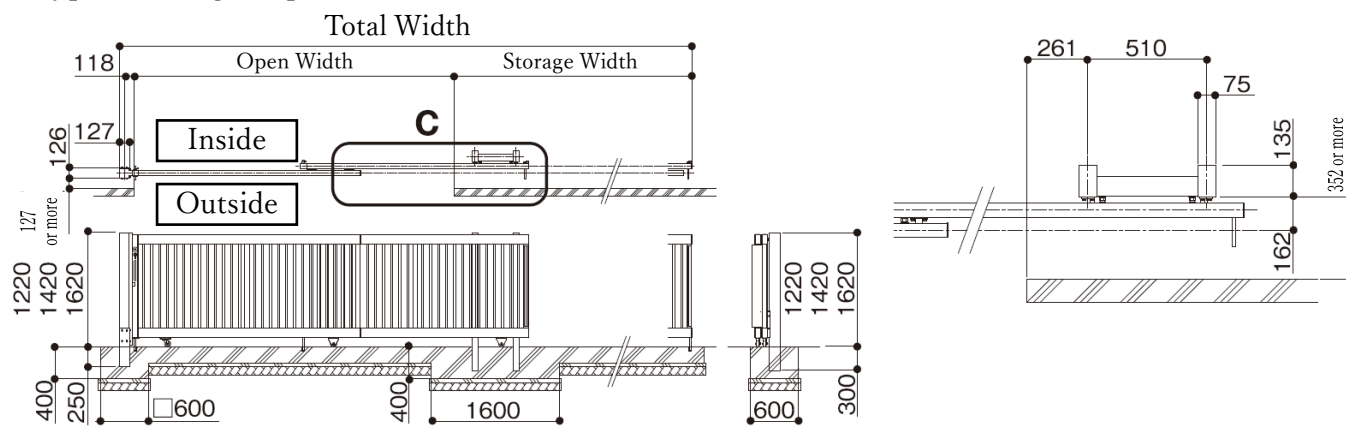
Type KA Double Open

Part B: Hanging Unit Enlarged Drawing



■ Type KB Single Open

Part C: Hanging Unit Enlarged Drawing



■ Code and Dimension

● KA Single Open (mm)

Code	Total W	Open W	Storage W
SKNA1A-○○(R·L)-3S	7,015	3,000	3,833
○○(R·L)-4S	9,015	4,000	4,833
○○(R·L)-5S	11,015	5,000	5,833
○○(R·L)-6S	13,015	6,000	6,833

● KA Double Open (mm)

Code	Total W	Open W	Storage W
SKNA1A-○○-6W	13,716	6,000	3,858×2
○○-8W	17,716	8,000	4,858×2
○○-10W	21,716	10,000	5,858×2
○○-12W	25,716	12,000	6,858×2

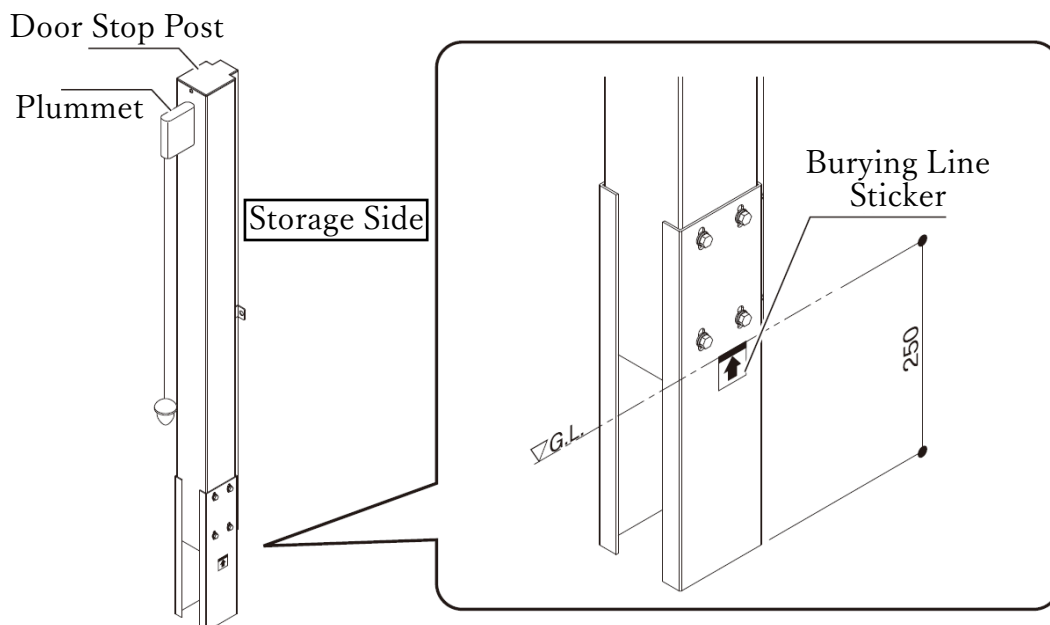
● KB Single Open (mm)

Code	Total W	Open W	Storage W
SKNA1B-○○(R·L)-3S	5,650	3,000	2,468
○○(R·L)-4S	7,150	4,000	2,968
○○(R·L)-5S	8,650	5,000	3,468
○○(R·L)-6S	10,150	6,000	3,968

- *1. Dimensions in foundation parts are standard sizes. Adjust them depending on the site condition.
- *2. ○○ in the table indicate H12, 14 and 16.
- *3. (R · L) in the table indicate Right side close(R) and Left side close (L).

2 Installation of Door Stop Post (Single Open Only)

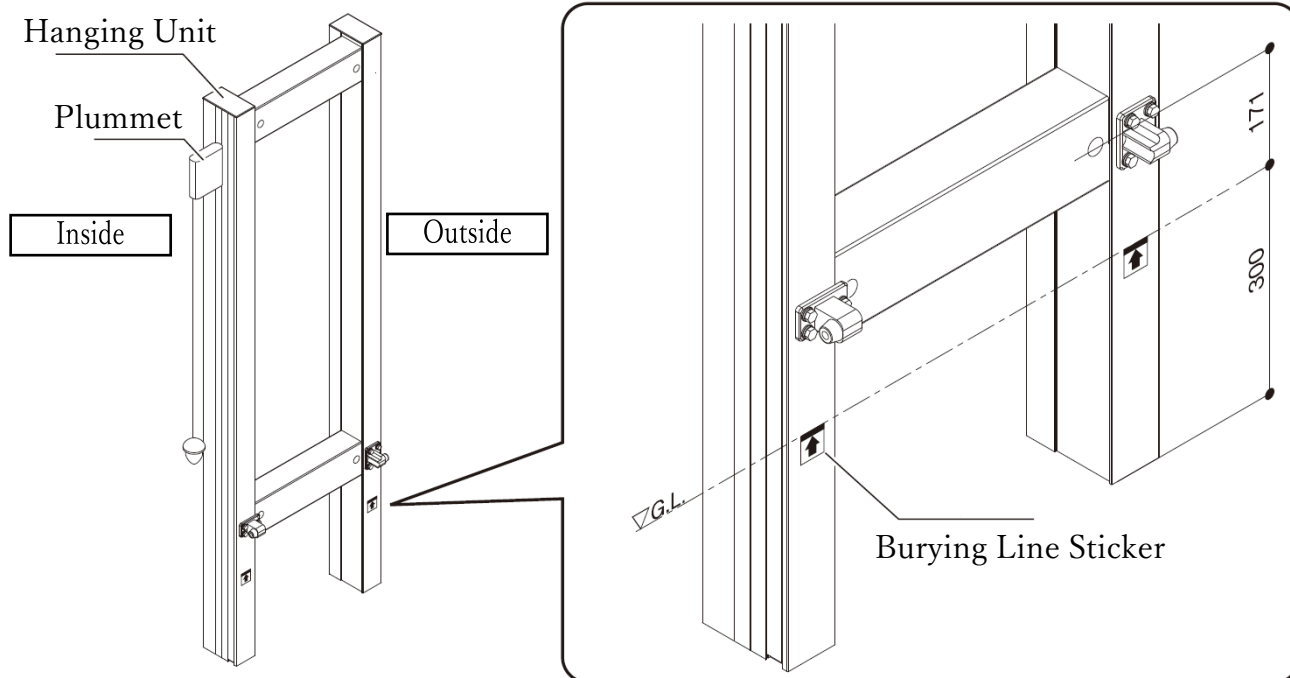
1. Refer to the installation position by confirming installation drawing, and confirm the door stop post's vertical by using plummet.



3 Installation of Hanging Unit

1. Refer to the installation position by confirming installation drawing, and confirm the door stop post's vertical and horizontal by using plummet.

*Adjust the height of the hanging unit so that the 300mm from underside edge of hanging unit become Ground Line (G.L.).



4 Burying of Door Stop Post and Hanging Unit

1. Confirm vertical and horizontal of door stop post and hanging unit.

2. Bury them by concrete.

* The opening and closing direction should be finished smoothly. The height difference in the opening and closing direction should be within 5 mm per 1 m, and if the construction length exceeds 5 m, the maximum height difference should be within 25 mm.

The height difference makes the move of the sliding door unsmooth.

KA (Main Body)

Instruction Manual

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23. When using bonds or chemicals which may occur the corrosion during the construction work, avoid contact to the aluminum products.

Packing List

	Packing Name	Code	Type KA Single Open				Type KA Double Open			
			3S	4S	5S	6S	6W	8W	9W	10W
H12	Vertical Lattice H12-3S R	SKNA-K9	1				1			
	Vertical Lattice H12-4S R	SKNA-K12		1				1		
	Vertical Lattice H12-5S R	SKNA-K15			1				1	
	Vertical Lattice H12-6S R	SKNA-K18				1				1
	Vertical Lattice H12-3S L	SKNA-K21	1				1			
	Vertical Lattice H12-4S L	SKNA-K24		1				1		
	Vertical Lattice H12-5S L	SKNA-K27			1				1	
	Vertical Lattice H12-6S L	SKNA-K30				1				1
	Lattice Panel A Basic 3.5S H12	SKNA-K33	2		3		4		6	
	Lattice Panel B Basic 4.6S H12	SKNA-K36		2				4		6
	Lattice Panel C Basic 3S H12	SKNA-K39	1				2			
	Lattice Panel D Basic 4.6S H12	SKNA-K42		1		1		2		2
	Lattice Panel E Basic 5S H12	SKNA-K45			2				2	
	Lock Door Frame H12 R	SKNA-K96	1	1	1	1				
	Lock Door Frame H12 L	SKNA-K99	1	1	1	1	1	1	1	1
	Lock Catch Door Frame H12	SKNA-K102					1	1	1	1
H14	★ Hanging Unit	SKNA-K105	1	1	1	1	2	2	2	2
	★ Door Stop Post H12	SKNA-K108	1	1	1	1				
	Vertical Lattice H14-3S R	SKNA-K10	1				1			
	Vertical Lattice H14-4S R	SKNA-K13		1				1		
	Vertical Lattice H14-5S R	SKNA-K16			1				1	
	Vertical Lattice H14-6S R	SKNA-K19				1				1
	Vertical Lattice H14-3S L	SKNA-K22	1				1			
	Vertical Lattice H14-4S L	SKNA-K25		1				1		
	Vertical Lattice H14-5S L	SKNA-K28			1				1	
	Vertical Lattice H14-6S L	SKNA-K31				1				1
	Lattice Panel A Basic 3.5S H14	SKNA-K34	2		3		4		6	
	Lattice Panel B Basic 4.6S H14	SKNA-K37		2		3		4		6
	Lattice Panel C Basic 3S H14	SKNA-K40	1				2			
	Lattice Panel D Basic 4.6S H14	SKNA-K43		1		1		2		2
	Lattice Panel E Basic 5S H14	SKNA-K46			1				2	
	Lock Door Frame H14 R	SKNA-K97	1	1	1	1				
	Lock Door Frame H14 L	SKNA-K100	1	1	1	1	1	1	1	1
	Lock Catch Door Frame H14	SKNA-K103					1	1	1	1
	★ Hanging Unit	SKNA-K106	1	1	1	1	2	2	2	2
	★ Door Stop Post H14	SKNA-K109	1	1	1	1				

	Packing Name		Code	Type KA Single Open				Type KA Double Open			
				3S	4S	5S	6S	6W	8W	9W	10W
H16		Vertical Lattice H16-3S R	SKNA-K11	1				1			
		Vertical Lattice H16-4S R	SKNA-K14		1				1		
		Vertical Lattice H16-5S R	SKNA-K17			1				1	
		Vertical Lattice H16-6S R	SKNA-K20				1				1
		Vertical Lattice H16-3S L	SKNA-K23	1				1			
		Vertical Lattice H16-4S L	SKNA-K26		1				1		
		Vertical Lattice H16-5S L	SKNA-K29			1				1	
		Vertical Lattice H16-6S L	SKNA-K32				1				1
		Lattice Panel A Basic 4.6S H16	SKNA-K35	2		3		4		6	
		Lattice Panel B Basic 4.6S H16	SKNA-K38		2		3		4		6
		Lattice Panel C Basic 3S H16	SKNA-K41	1				2			
		Lattice Panel D Basic 4.6S H16	SKNA-K44		1		1		2		2
		Lattice Panel E Basic 5S H16	SKNA-K47			1				2	
		Lock Door Frame H16 R	SKNA-K98	1	1	1	1				
		Lock Door Frame H16 L	SKNA-K101	1	1	1	1	1	1	1	1
		Lock Catch Door Frame H16	SKNA-K104					1	1	1	1
	★	Hanging Unit	SKNA-K107	1	1	1	1	2	2	2	2
	★	Door Stop Post H16	SKNA-K110	1	1	1	1				
Common Package		Horizontal Door Frame 3S R	SKNA-K1	1				1			
		Horizontal Door Frame 4S R	SKNA-K2		1				1		
		Horizontal Door Frame 5S R	SKNA-K3			1				1	
		Horizontal Door Frame 6S R	SKNA-K4				1				1
		Horizontal Lattice 3S L	SKNA-K5	1				1			
		Horizontal Lattice 4S L	SKNA-K6		1				1		
		Horizontal Lattice 5S L	SKNA-K7			1				1	
		Horizontal Lattice 6S L	SKNA-K8				1				1
		Parts Box Single Main Body 3S	SKNA-K111	1				2			
		Parts Box Single Main Body 4S	SKNA-K112						2		
		Parts Box Single Main Body 5S	SKNA-K113		1	1				2	
		Parts Box Single Main Body 6S	SKNA-K114				1				2

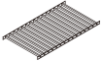
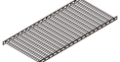
* ★ in the table shows the parts burying parts.

Parts List

Horizontal Lattice		Quantity											
Parts Name	Shape	SKNA-K1	SKNA-K2	SKNA-K3	SKNA-K4	SKNA-K5	SKNA-K6	SKNA-K7	SKNA-K8	SKNA-K9	SKNA-K10	SKNA-K11	SKNA-K12
Horizontal Door Frame 3S (R) (Upper Side)		1											
Horizontal Door Frame 4S (R) (Upper Side)			1										
Horizontal Door Frame 5S (R) (Upper Side)				1									
Door Lock Post Side Horizontal Door Frame 6S (R) (Upper Side)					1			1					
Storage Side Horizontal Door Frame 6S (R) (Upper Side)					1			1					
Horizontal Door Frame 3S (L) (Upper Side)						1			1				
Horizontal Door Frame 4S (L) (Upper Side)							1			1			
Horizontal Door Frame 5S (L) (Upper Side)								1			1		
Door Lock Post Side Horizontal Door Frame 6S (L) (Upper Side)													1
Storage Side Horizontal Door Frame 6S (L) (Upper Side)													1
Horizontal Door Frame 3S (R) (Underside)		1											
Horizontal Door Frame 4S (R) (Underside)			1										
Horizontal Door Frame 5S (R) (Underside)				1									
Door Lock Post Side Horizontal Door Frame 6S (R) (Underside)					1			1					
Storage Side Horizontal Door Frame 6S (R) (Underside)					1			1					
Horizontal Door Frame 3S (L) (Underside)						1			1				
Horizontal Door Frame 4S (L) (Underside)							1			1			
Horizontal Door Frame 5S (L) (Underside)								1			1		
Door Lock Post Side Horizontal Door Frame 6S (L) (Underside)													1
Storage Side Horizontal Door Frame 6S (L) (Underside)													1

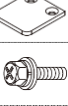
Vertical Lattice R		Quantity											
Parts Name	Shape	SKNA-K9	SKNA-K10	SKNA-K11	SKNA-K12	SKNA-K13	SKNA-K14	SKNA-K15	SKNA-K16	SKNA-K17	SKNA-K18	SKNA-K19	SKNA-K20
Vertical Lattice H12		2			2			3			3		
Vertical Lattice H14			2			2			3			3	
Vertical Lattice H16				2			2			3			3
Edge Vertical Lattice H12 R	 *with flush bolt attachment hole	1			1			1			1		
Edge Vertical Lattice H14 R			1			1			1			1	
Edge Vertical Lattice H16 R				1			1			1			1

Vertical Lattice L		Quantity											
Parts Name	Shape	SKNA-K21	SKNA-K22	SKNA-K23	SKNA-K24	SKNA-K25	SKNA-K26	SKNA-K27	SKNA-K28	SKNA-K29	SKNA-K30	SKNA-K31	SKNA-K32
Vertical Lattice H12		2			2			3			3		
Vertical Lattice H14			2			2			3			3	
Vertical Lattice H16				2			2			3			3
Edge Vertical Lattice H12 L	 *with flush bolt attachment hole	1			1			1			1		
Edge Vertical Lattice H14 L			1			1			1			1	
Edge Vertical Lattice H16 L				1			1			1			1

Main Body Panel		Quantity														
Parts Name	Shape	SKNA-K33	SKNA-K34	SKNA-K35	SKNA-K36	SKNA-K37	SKNA-K38	SKNA-K39	SKNA-K40	SKNA-K41	SKNA-K42	SKNA-K43	SKNA-K44	SKNA-K45	SKNA-K46	SKNA-K47
Main Body Panel A Basic 3.5S H12		1														
Main Body Panel A Basic 3.5S H14			1													
Main Body Panel A Basic 3.5S H16				1												
Main Body Panel B Basic 4.6S H12					1											
Main Body Panel B Basic 4.6S H14						1										
Main Body Panel B Basic 4.6S H16							1									
Main Body Panel C 3S H12								1								
Main Body Panel C 3S H14									1							
Main Body Panel C 3S H16										1						
Main Body Panel D Basic 4.6S H12											1					
Main Body Panel D Basic 4.6S H14												1				
Main Body Panel D Basic 4.6S H16													1			
Main Body Panel E 5S H12														1		
Main Body Panel E 5S H14															1	
Main Body Panel E 5S H16																1

Lock Door Frame		Quantity					
Parts Name	Shape	SKNA-K96	SKNA-K97	SKNA-K98	SKNA-K99	SKNA-K100	SKNA-K101
Lock Door Frame H12 R	 *with vertical door frame cover	1					
Lock Door Frame H14 R			1				
Lock Door Frame H16 R				1			
Lock Door Frame H12 L	 *with vertical door frame cover				1		
Lock Door Frame H14 L						1	
Lock Door Frame H16 L							1

Lock Catch Door Frame		Quantity		
Parts Name	Shape	SKNA-K102	SKNA-K103	SKNA-K104
Lock Catch Door Frame H12 R	 *with vertical door frame cover	1		
Lock Catch Door Frame H14 R			1	
Lock Catch Door Frame H16 R			1	1

Parts Box		Quantity			
Parts Name	Shape	SKNA-K111	SKNA-K112	SKNA-K113	SKNA-K114
Free Caster		1	1	1	1
Fixed Caster		1	1	1	1
Guide Roller Set A 4PCS		1	1	1	1
Vertical Door Frame Cover Back Plate		2	2	2	2
Hole Cap		1	1	1	1
Lock Door Frame Cap		1	1	1	1
Horizontal Door Frame End Cap		2	2	2	2
Stopper		2	2	2	2
Flush Bolt		1	1	1	1
Flush Bolt Case		1	1	1	1
Flush Bolt Case Spacer		1	1	1	1
Flush Bolt Holder		3	3	3	3
Connect Part Reinforcement A					4
Connect Part Reinforcement C					2
Free Caster Spacer		2	2	2	2
Adjustment Spacer		2	2	2	2
Vertical Lattice Screw Set (3.4S) Flat Head Screw M5×12L×12PCS		1	1		
Vertical Lattice Screw Set (5.6S) Flat Head Screw M5×12L×16PCS				1	1
Vertical Door Frame Cover Screw Set Pan-head Tapping Screw φ4.5×20L×10PCS		1	1	1	1
Horizontal Door Frame End Cap Screw Set Flat Head Tapping Screw φ4.5×20L×8PCS		1	1	1	1
Lock Door Frame Screw Set Truss Screw M6×12L×1PCS M5×12L×2PCS		1	1	1	1
Flush Bolt Screw Set Flat-head Hexagon Socket Screw M4×10×2PCS Hexagon Socket Head Bolt M6×25L×2PCS Spring Washer6-2×1PC Flush Bolt Case Cap 1PC		1	1	1	1
Stopper Screw Set Cross Recessed Hexagon Head Bolt M8×25L×4PCS		1	1	1	1
Caster Bolt Set Cross Recessed Hexagon Bolt M8×20L×2PCS M8×20L×2PCS (Colour=SC)		1	1	1	1
Connect Part Reinforcement Screw Set Truss Screw M5×10L×8PCS Low Head Screw M5×12L×34PCS		1	1	1	1
Spanner		1	1	1	1
Instruction Manual		1	1	1	1
Operation Instruction		1	1	1	1
For Customer		1	1	1	1

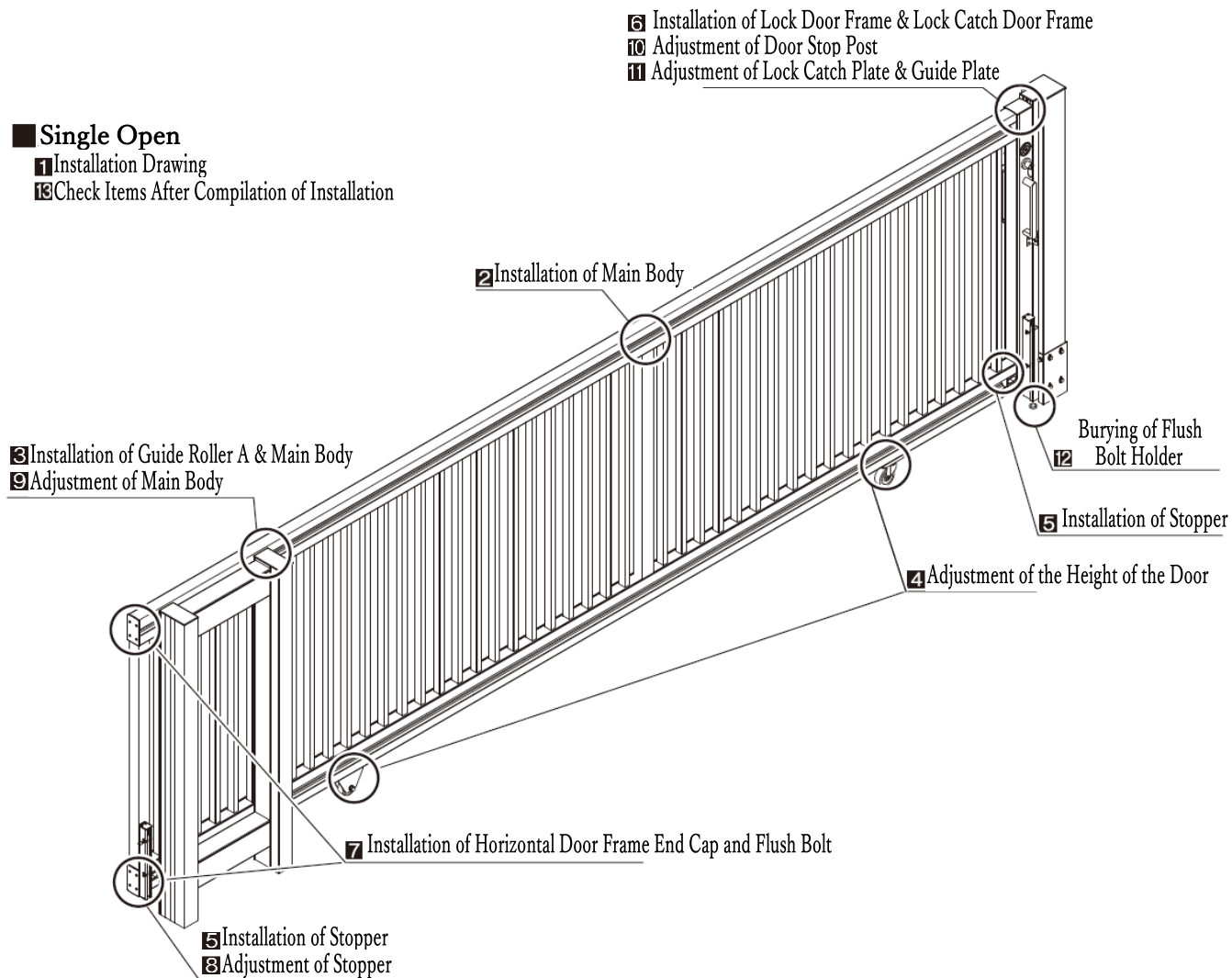
Construction Flow

1. Install this product **1** to **13** by referring to dimension table and installation drawing.

■ Single Open

1 Installation Drawing

13 Check Items After Completion of Installation



■ Double Open

1 Installation Drawing

13 Check Items After Completion of Installation

6 Installation of Lock Door Frame & Lock Catch Door Frame
11 Adjustment of Lock Catch Plate & Guide Plate

3 Installation of Guide Roller A & Main Body
9 Adjustment of Main Body

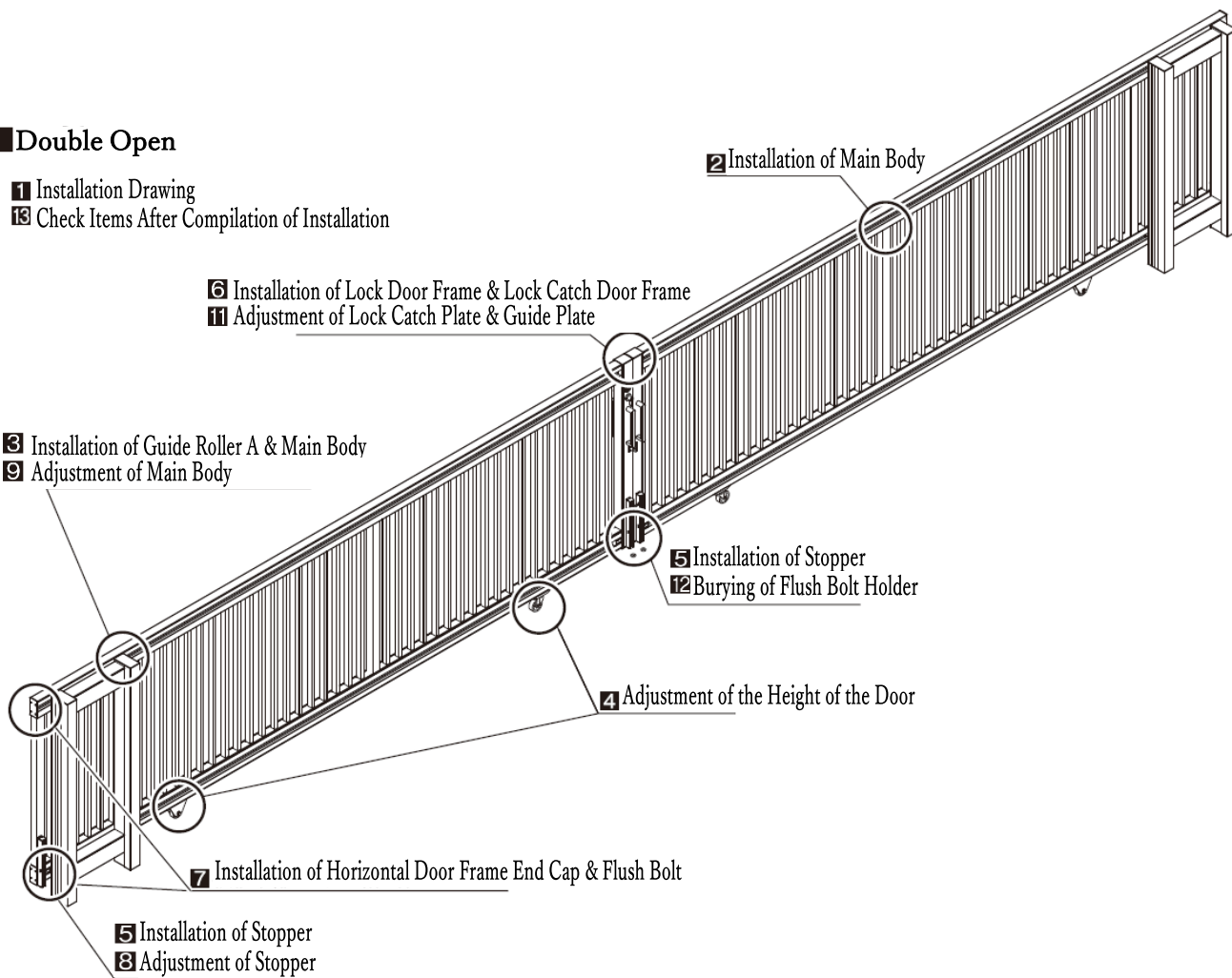
2 Installation of Main Body

5 Installation of Stopper
12 Burying of Flush Bolt Holder

4 Adjustment of the Height of the Door

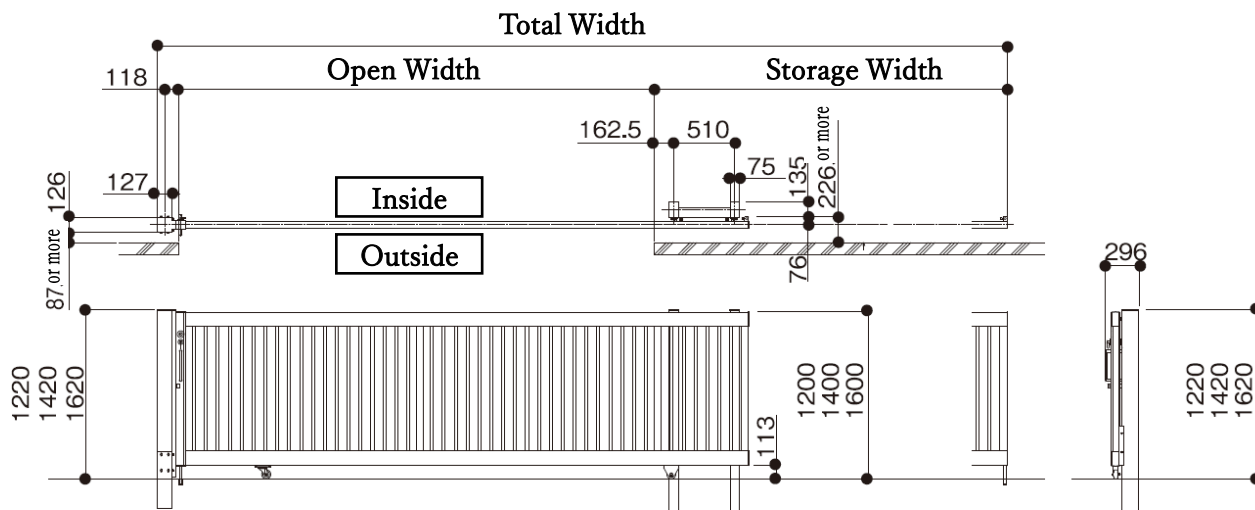
7 Installation of Horizontal Door Frame End Cap & Flush Bolt

5 Installation of Stopper
8 Adjustment of Stopper

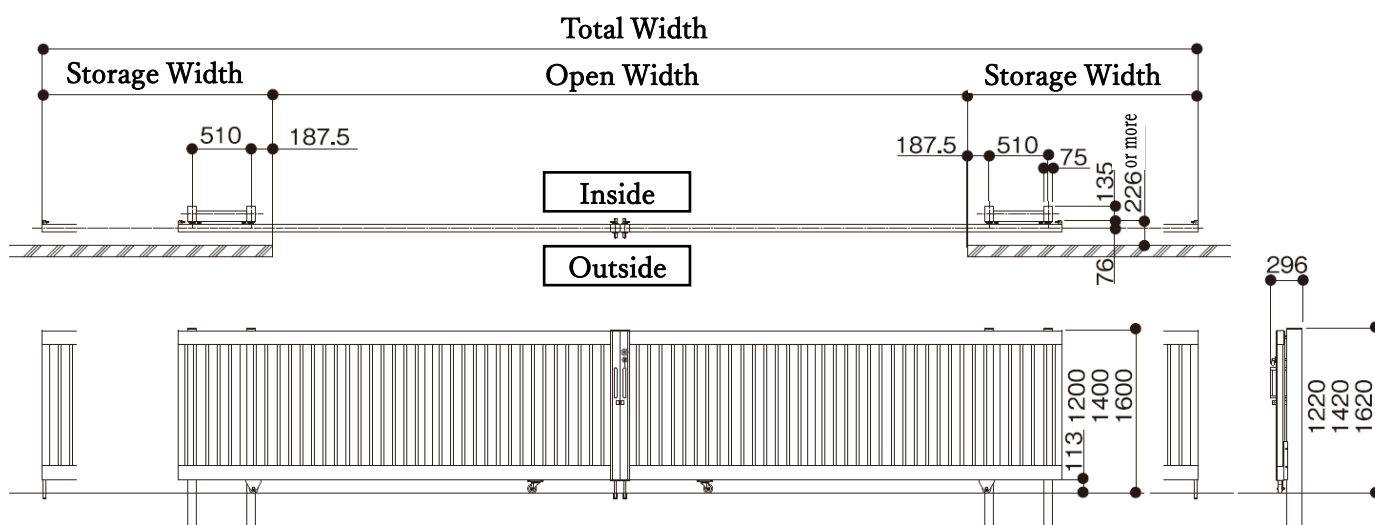


1 Installation Drawing

Single Open



Double Open



Dimension Table

Single Open

(mm)

Code	Total Width	Open Width	Storage Width
SKNA1A-○○(R·L)-3S	7,015	3,000	3,833
○○(R·L)-4S	9,015	4,000	4,833
○○(R·L)-5S	11,015	5,000	5,833
○○(R·L)-6S	13,015	6,000	6,833

Double Open

(mm)

Code	Total Width	Open Width	Storage Width
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○○-8W	17,716	8,000	4,858×2
○○-10W	21,716	10,000	5,858×2
○○-12W	25,716	12,000	6,858×2

*1. ○○ in the code indicates H12, 14, 16.

*2. (R · L) is indicates the right side close (R) or left side close(L).

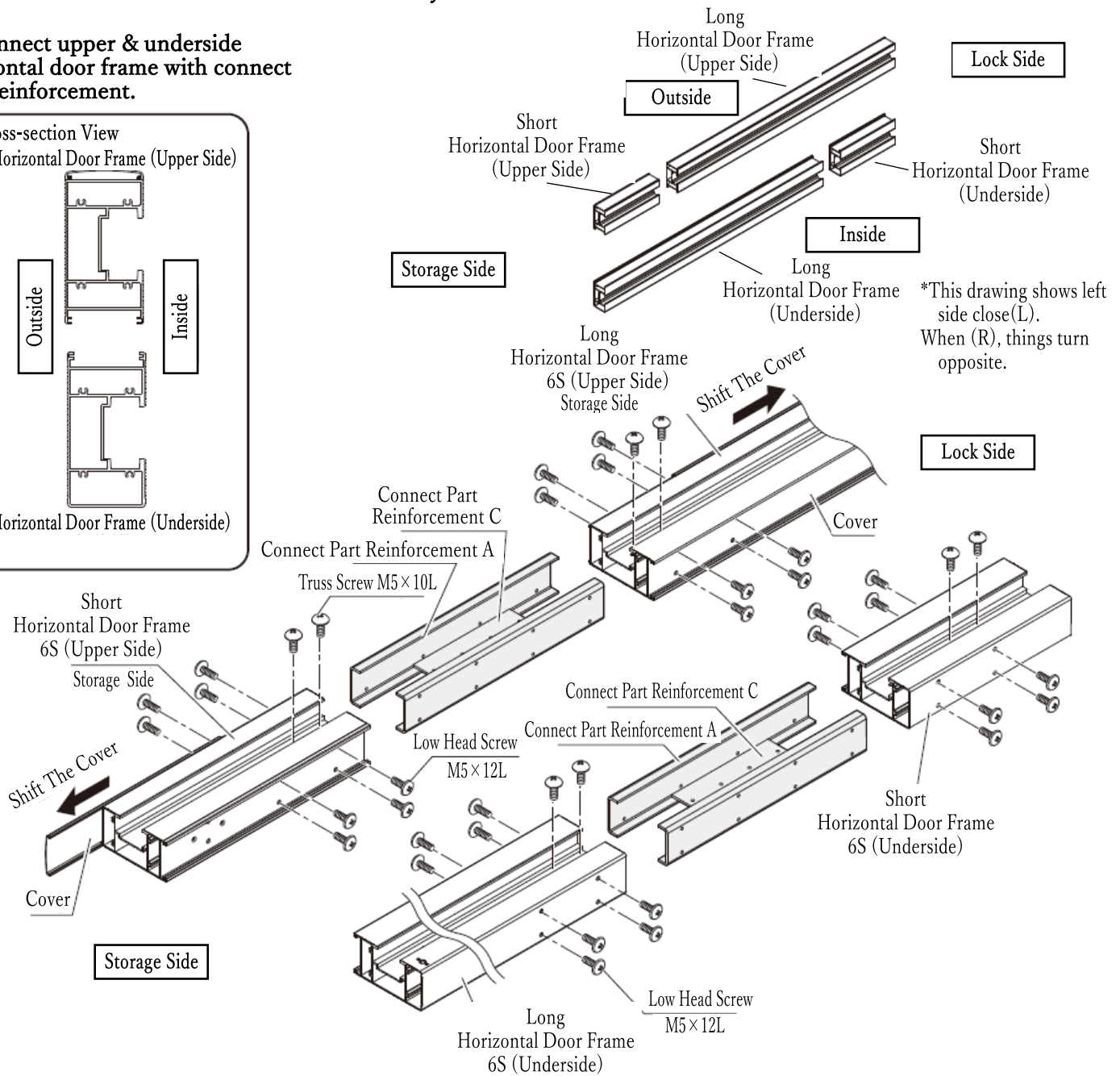
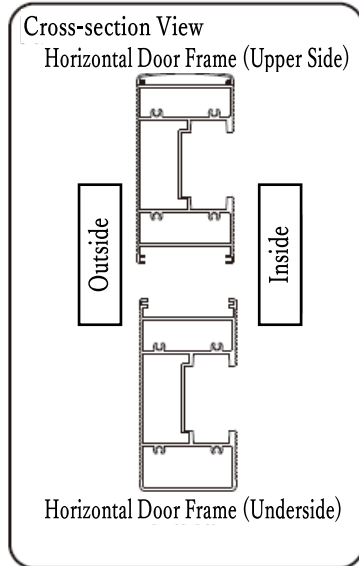
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Installation of Main Body Panel

2-1 Connecting Upper and Underside Horizontal Door Frame

Layout of Horizontal Door Frame

1. Connect upper & underside horizontal door frame with connect part reinforcement.

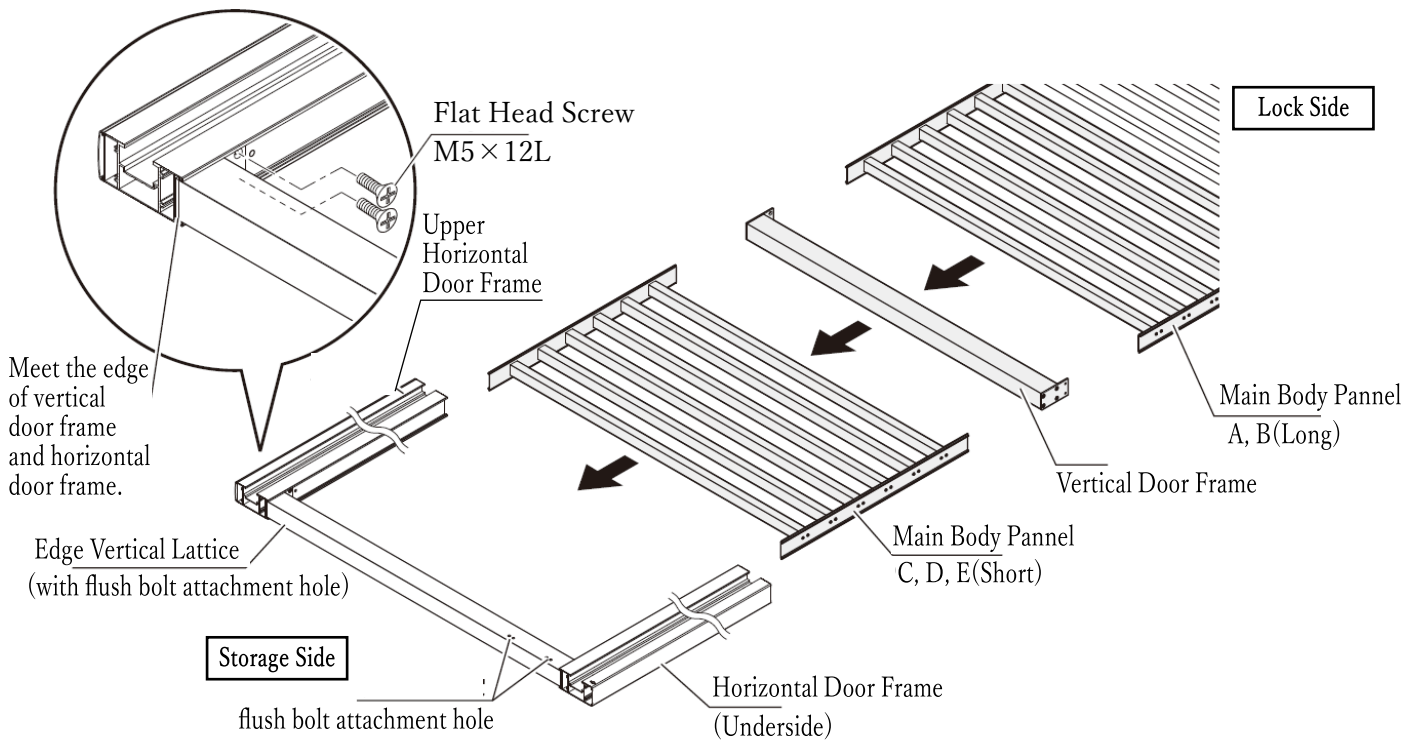


2-2 Connecting Upper and Underside Horizontal Door Frame

1. Install vertical lattice and main body pannel to upper side and underside horizontal door frame.

*Install vertical lattice (with flush bolt attachment hole) to the storage side.

*Each size has 2 types of lattice panels. Install shorter size to the storage side.



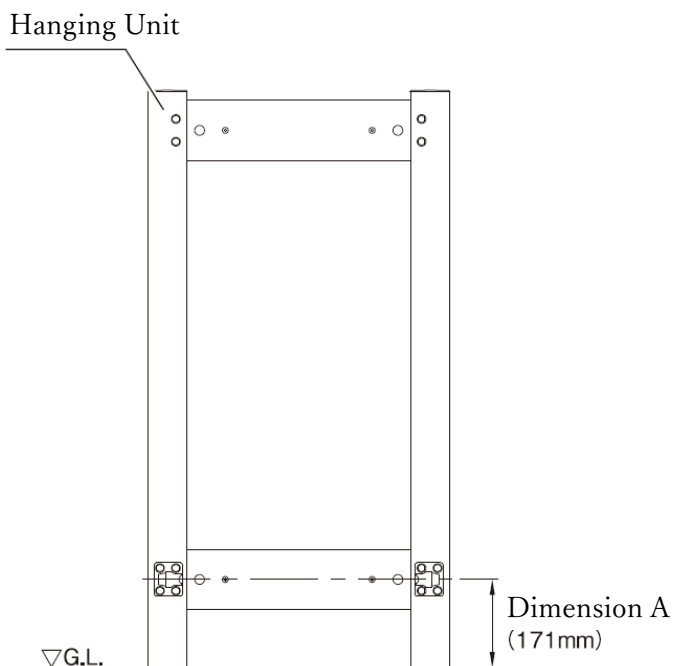
2-3 Installation of Fix and Free Caster

1. Measure the dimension A.

*Change the number of adjustment spacer and free caster spacer according to dimension A.

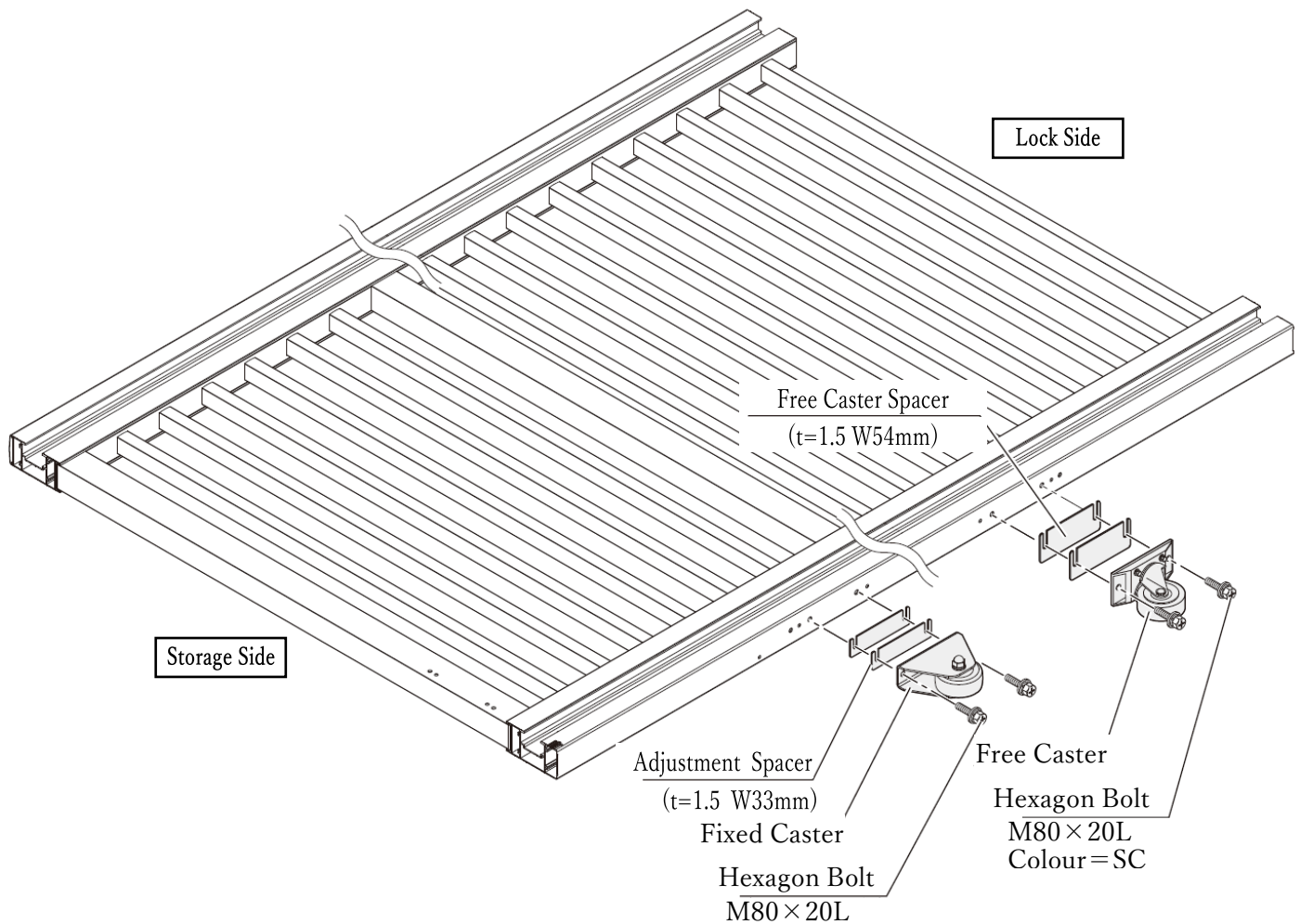
2. Install fixed caster.

3. Install free caster.



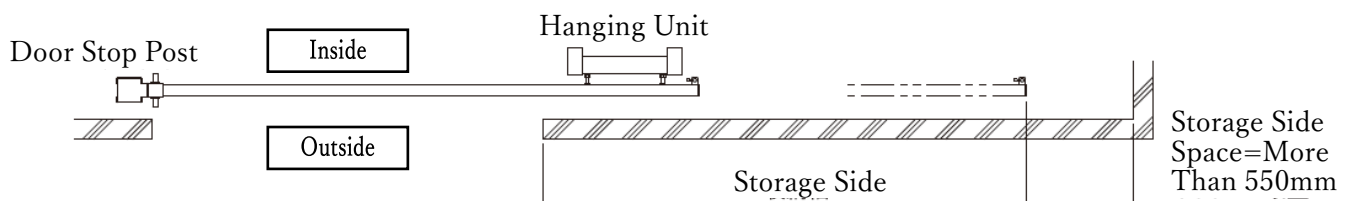
(mm)

Dimension A	Fixed Caster, Adjustment Spacer	Free Caster, Free Caster Spacer
$171 < A$	2	2
$169.5 < A \leq 171$	1	1
$A \leq 169.5$	0	0



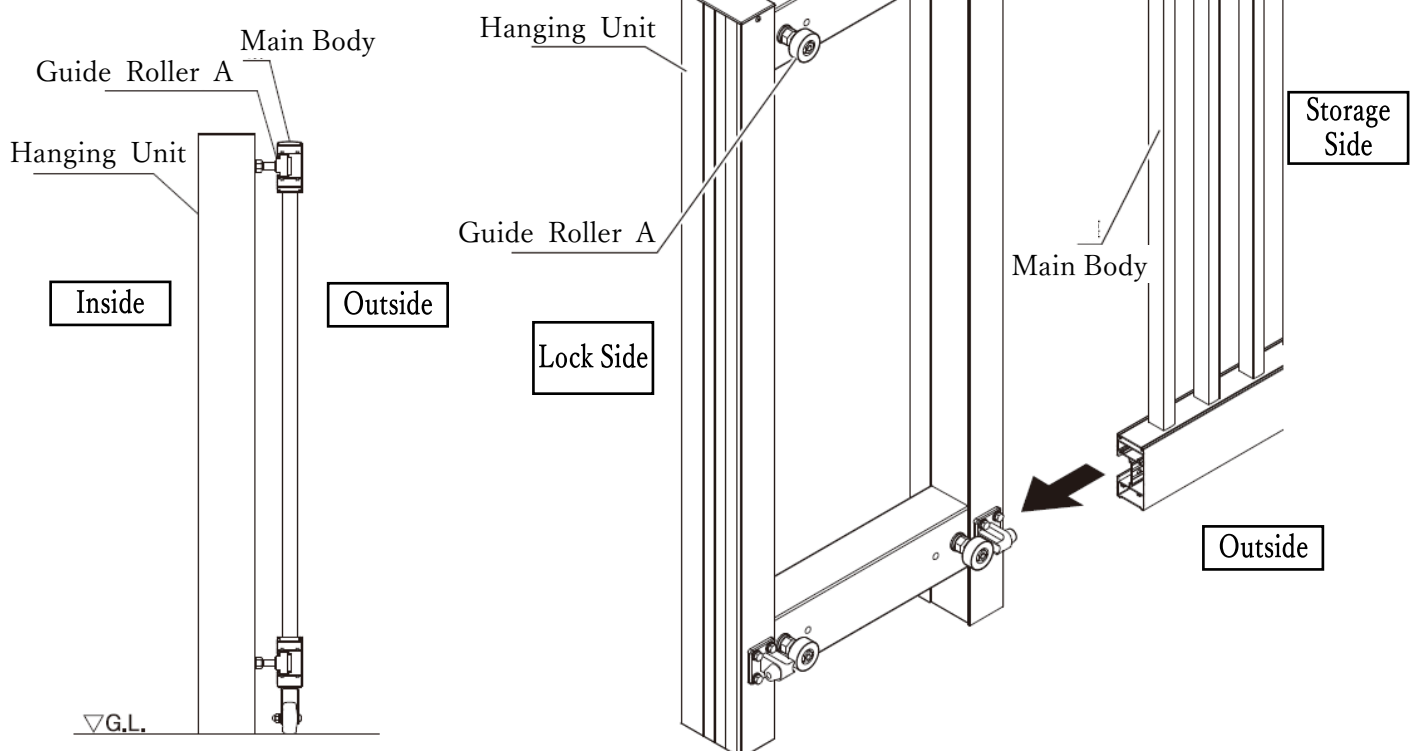
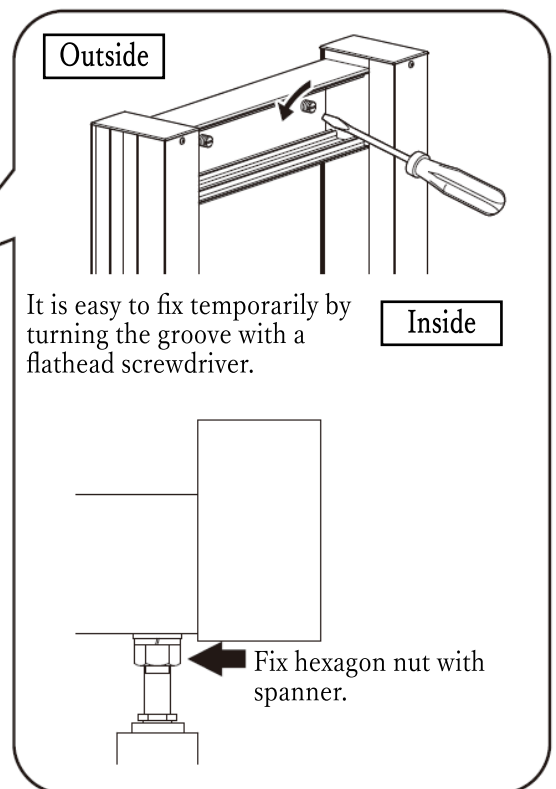
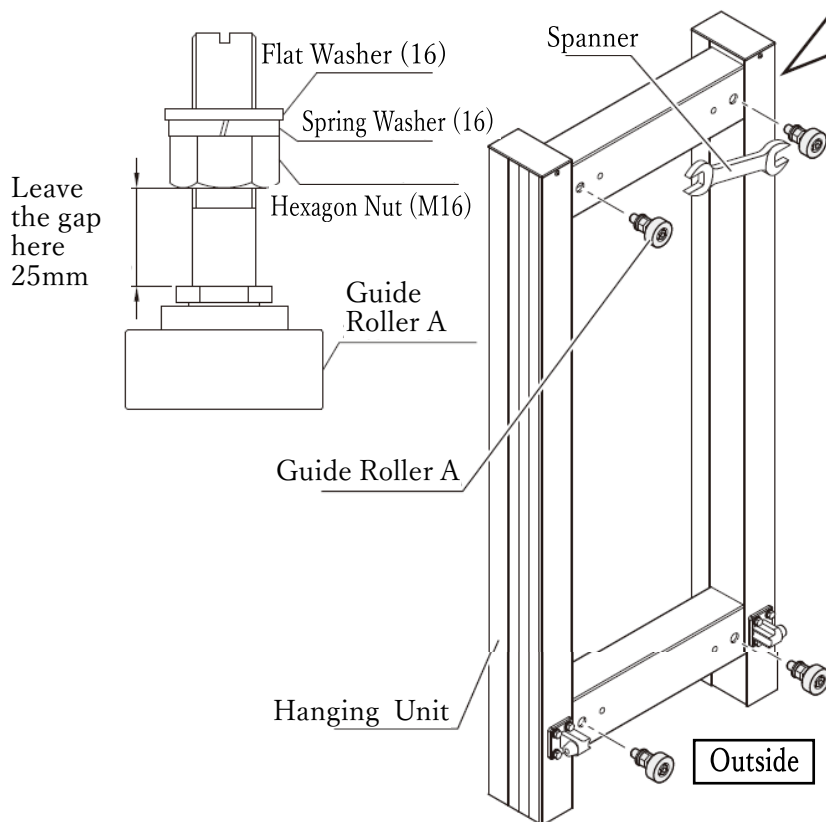
3 Installation and Adjustment of the Guide Roller

1. Select the installation procedure depending on whether the storage side space is more than 550mm or less than 550mm.



When the storage side space = more than 550mm.

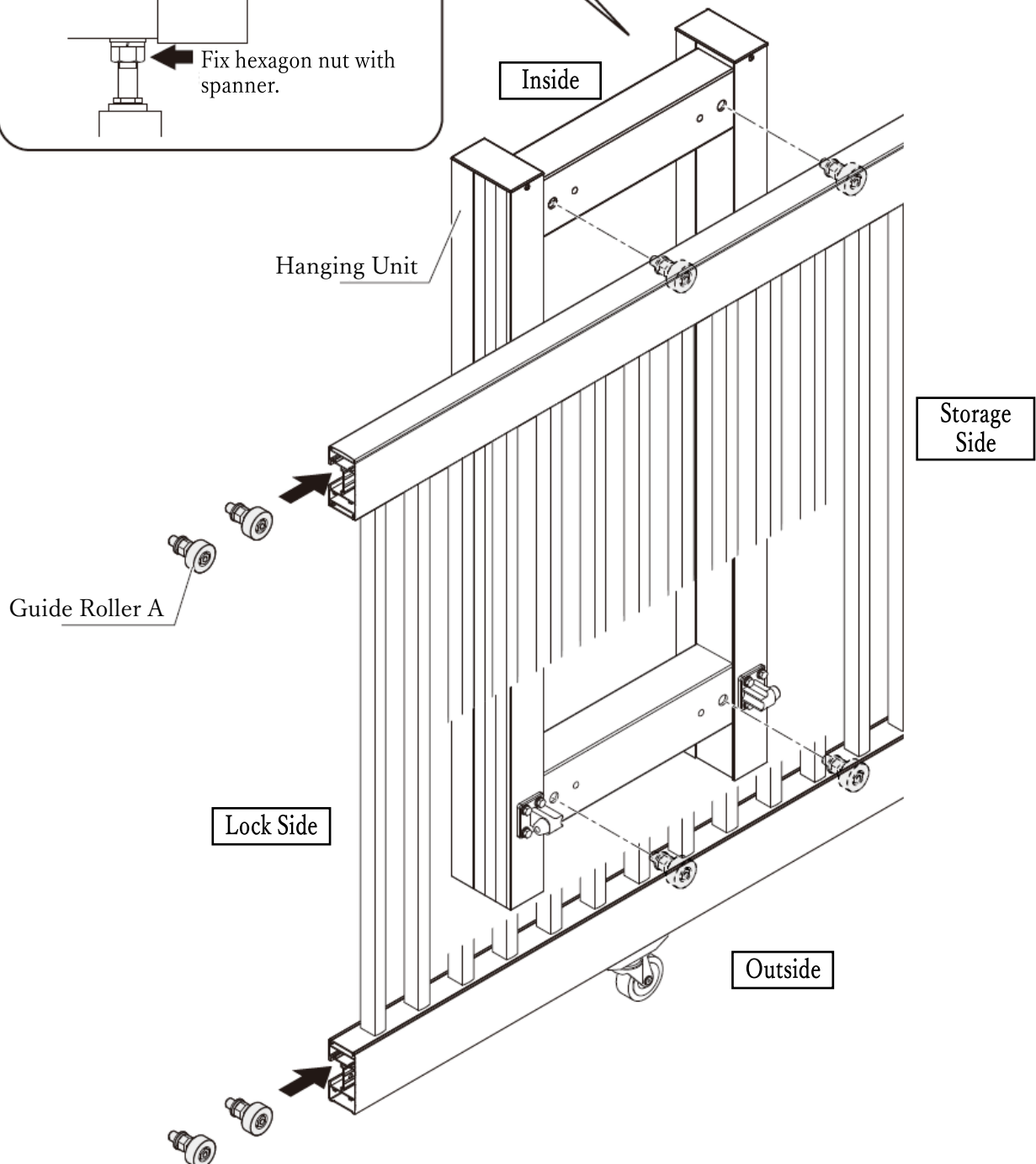
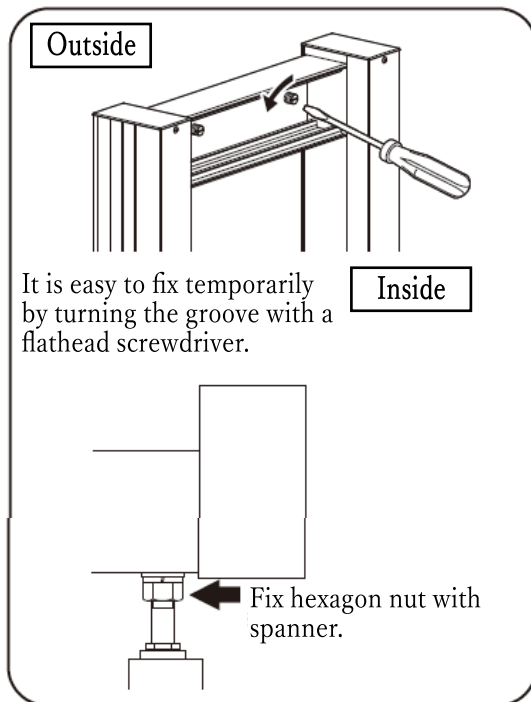
1. Install guide roller A to hanging unit.
2. Install main body to hanging unit.



Main Body

When the storage side space = less than 550mm.

1. Insert guide roller A to main body.
2. Install guide roller A to hanging unit.

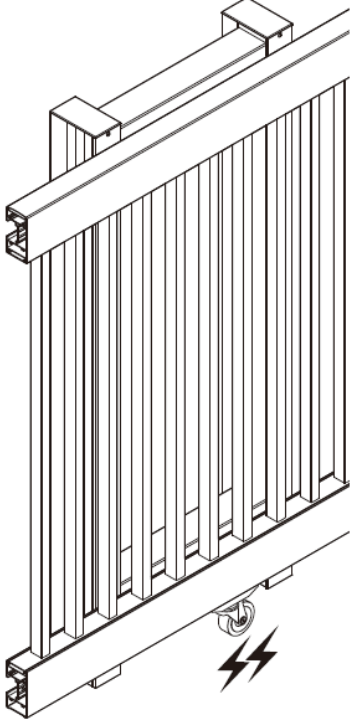


4

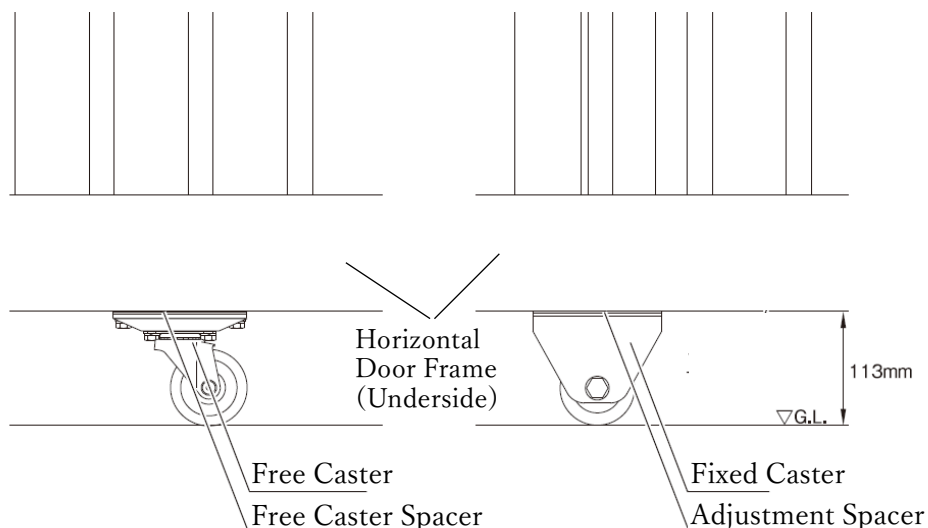
Adjustment of Height of the Main Body

If the main body feels heavy when opening or closing, adjust the height of main body by referring to the procedure below. It is caused by the installation conditions of G.L. and hanging unit.

Examples of Abnormal Condition

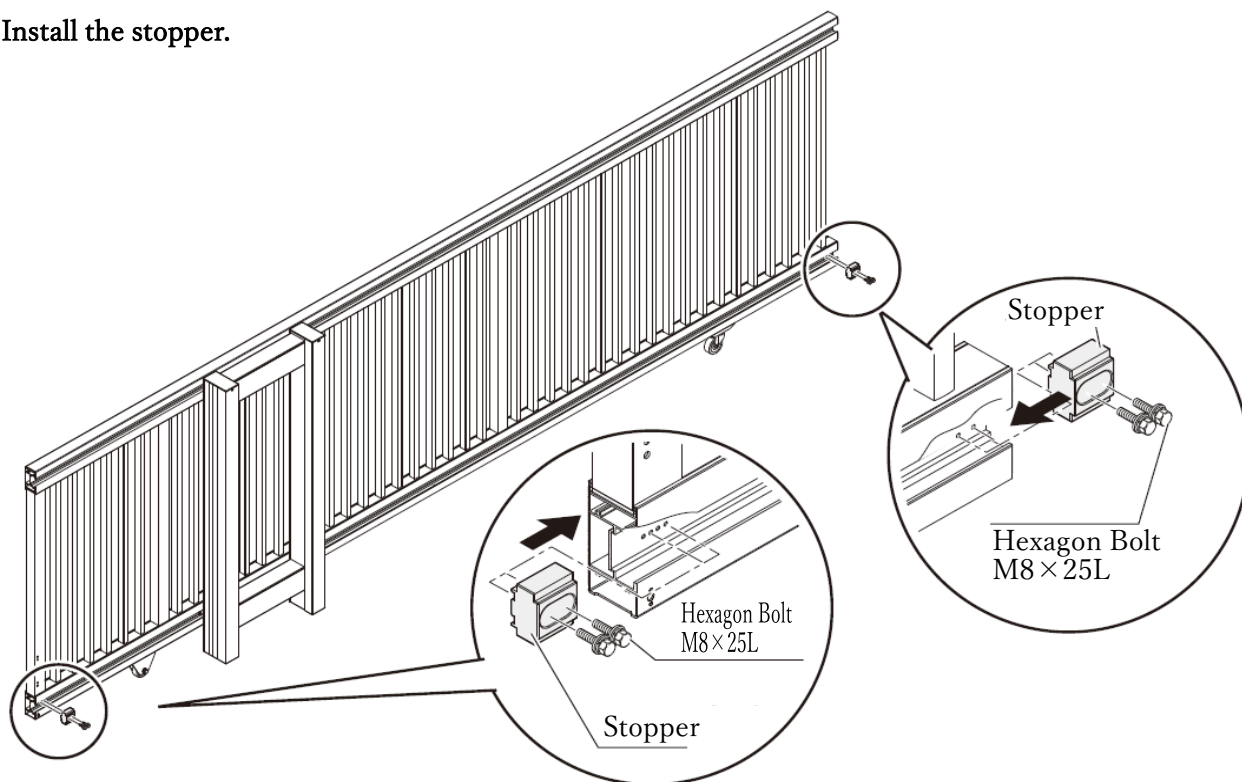
Condition	
	Free caster or fixed caster moves heavily when passing through near the hanging unit.
Cause	Main body is too high to the hanging unit.
Solution	Get rid of adjustment and free caster spacer and adjust the height.

1. Confirm the gap between horizontal door frame (underside) and hanging unit's G.L.
2. Adjust the height of the main body.



5 Installation of Stopper

1. Install the stopper.

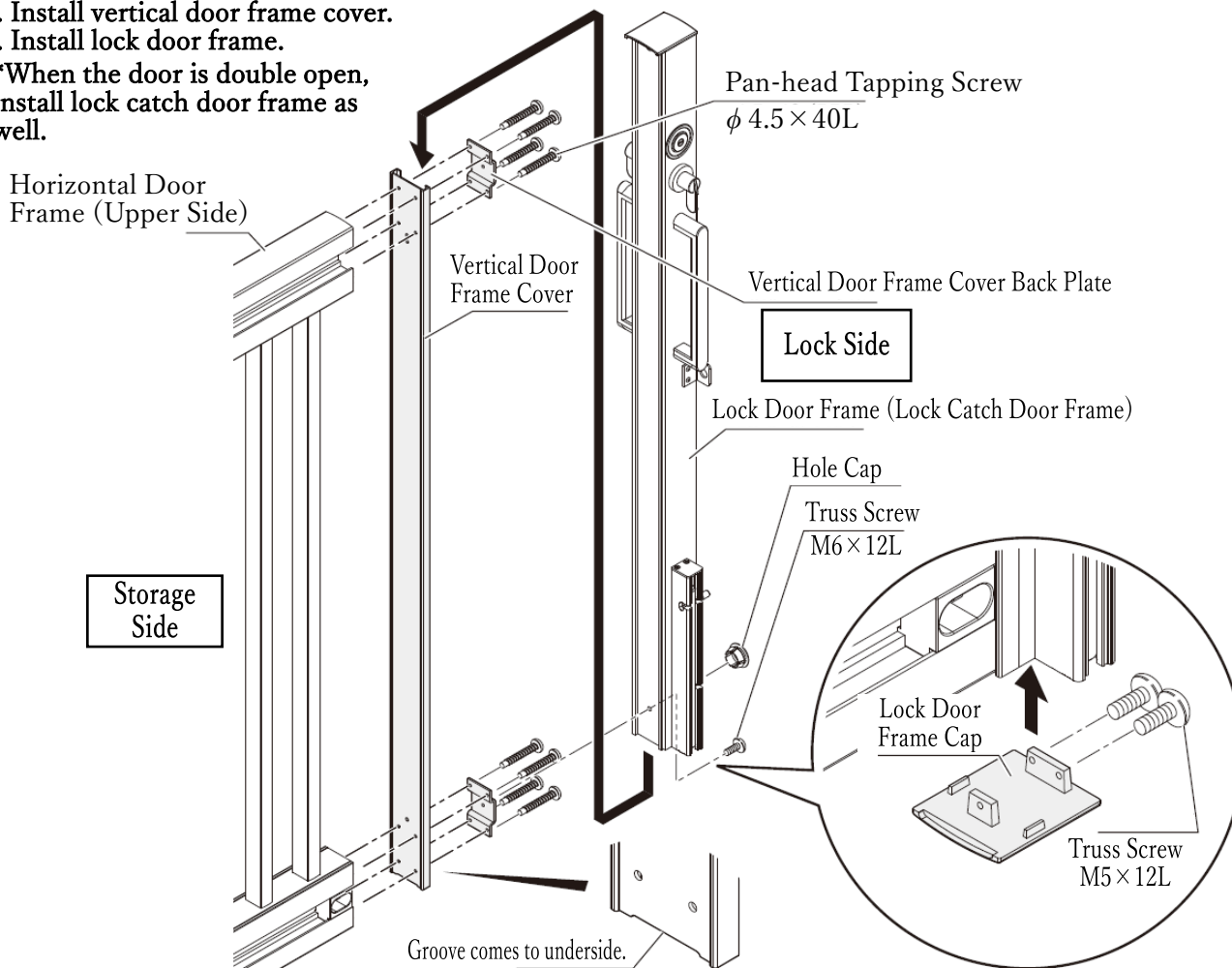


6 Installation of Lock Door Frame & Lock Catch Door Frame

1. Install vertical door frame cover.

2. Install lock door frame.

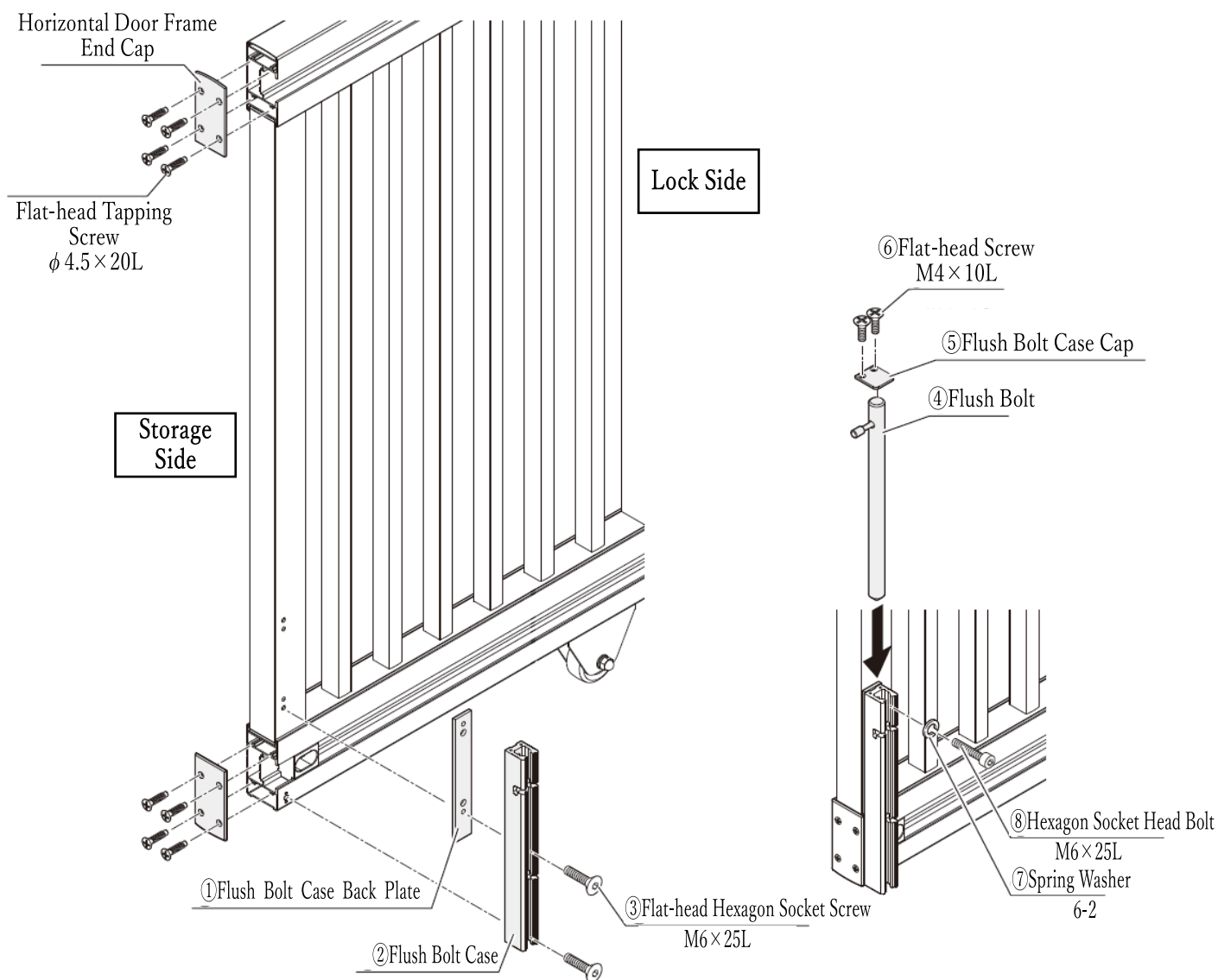
*When the door is double open, install lock catch door frame as well.



7

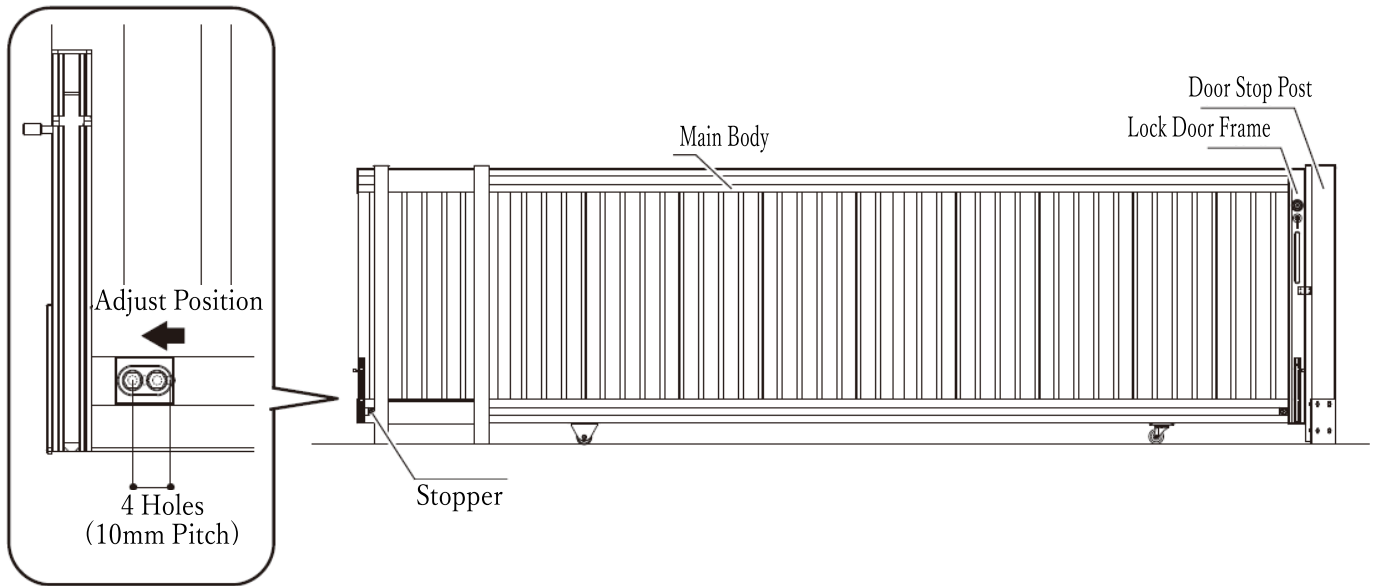
Installation of Horizontal Door Frame End Cap and Flush Bolt

1. Install horizontal door frame end cap.
2. Install flush bolt case and flush bolt in order ①~⑧.



8 Adjustment of Stopper

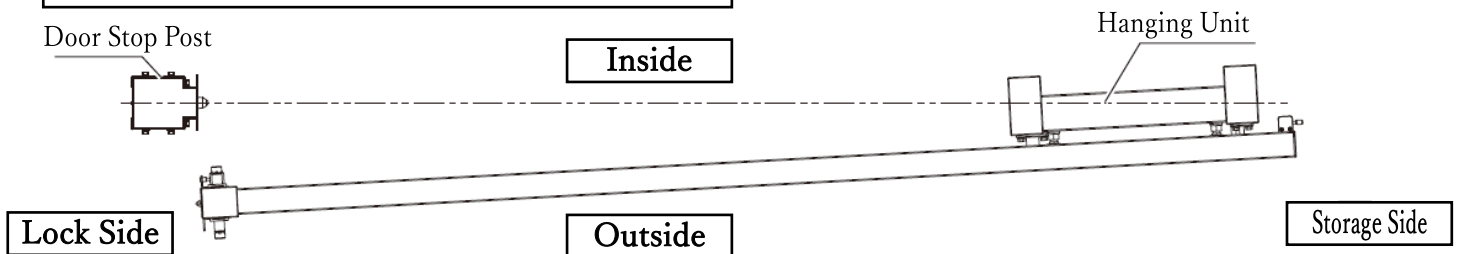
1. Close the door to the door stop post. When stopper on the rear panel (storage side) touches hanging unit before the lock door frame touches door stop post, adjust the position of the stopper.



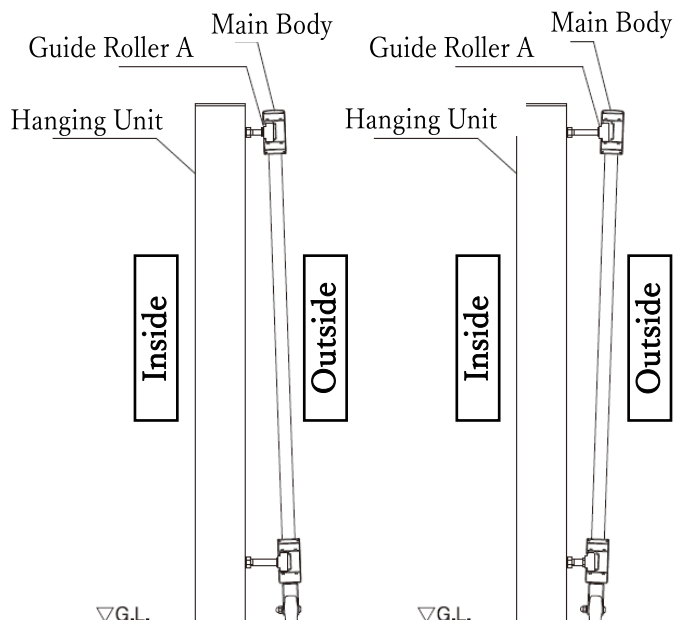
9 Adjustment of Main Body

Perform this procedure if the main body does not pass through the center of the doorstop post and hanging unit and the lock does not operate smoothly.

When lock door frame goes to inside or outside.

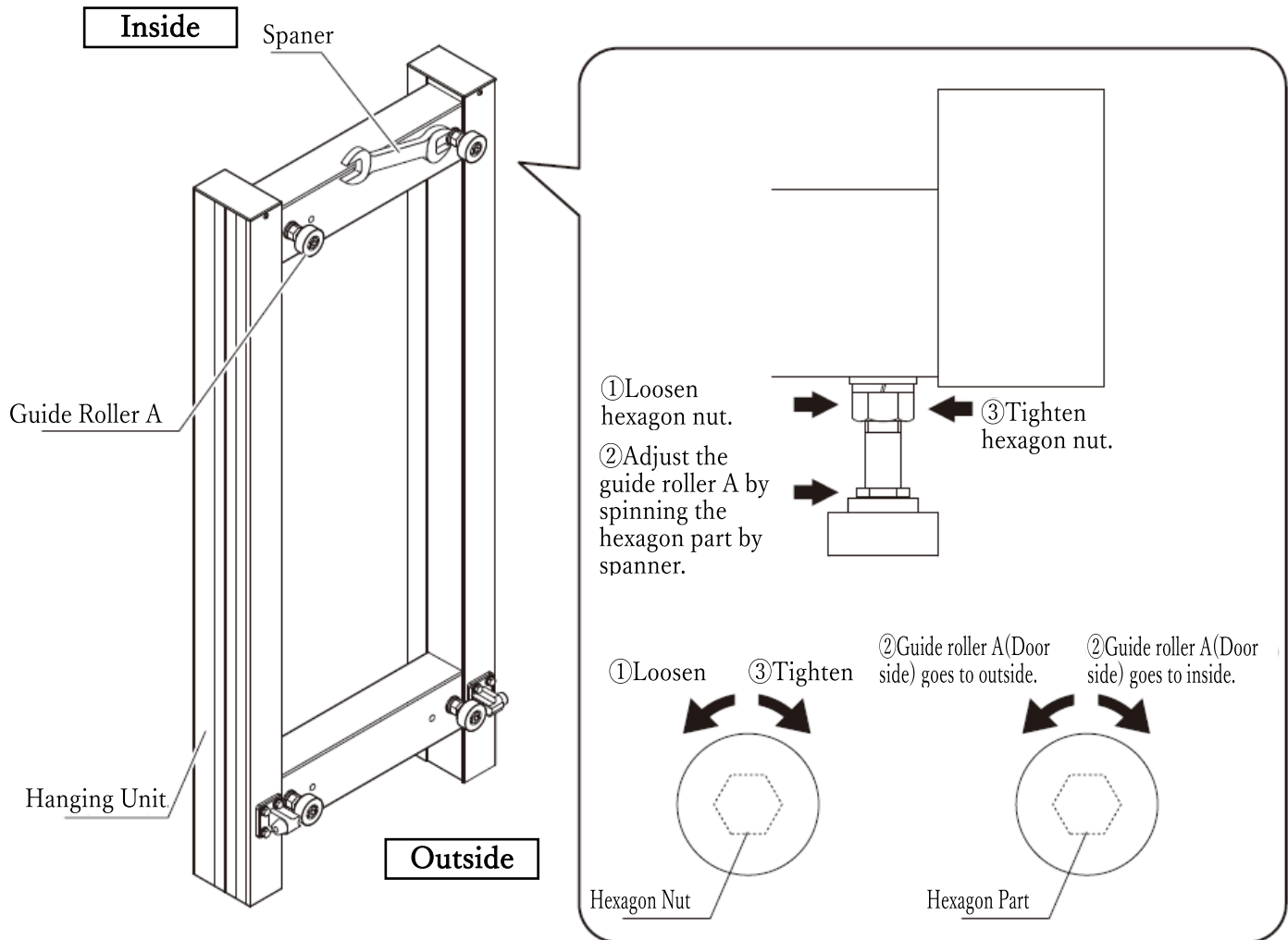


When door is tilted.



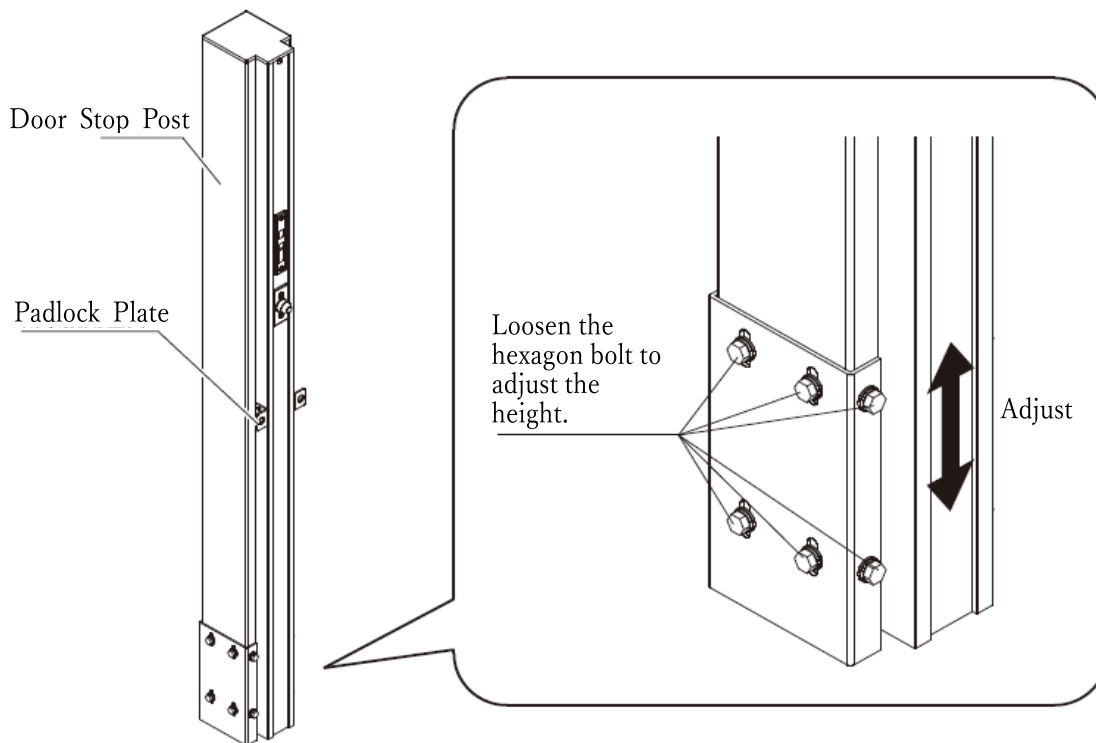
How to adjust

1. Adjust the guide roller A on the hanging unit.
2. Confirm the door goes vertically to the door stop post by opening and closing it.



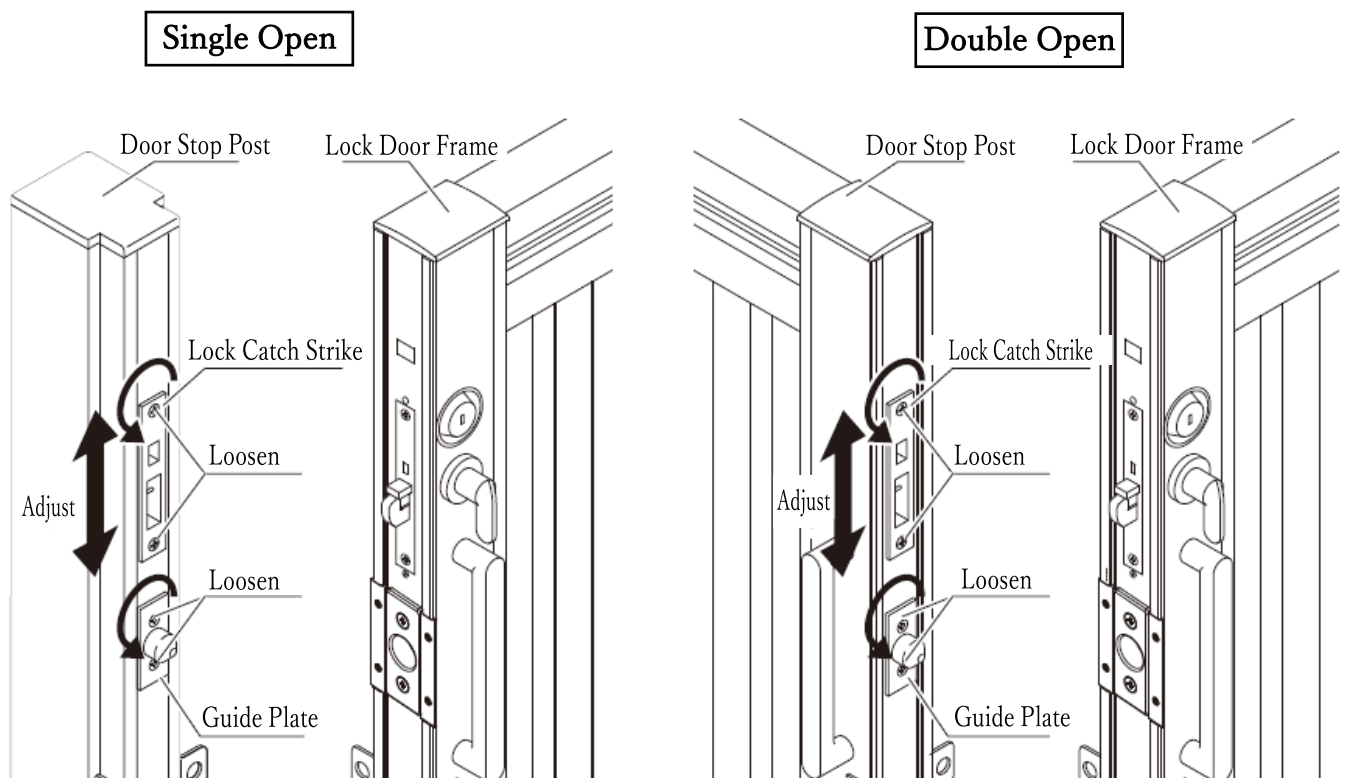
10 Adjustment of the Height of the Door Stop Post

1. Adjust the height of the door stop post to meet the lock door frame's padlock plate and door stop post.



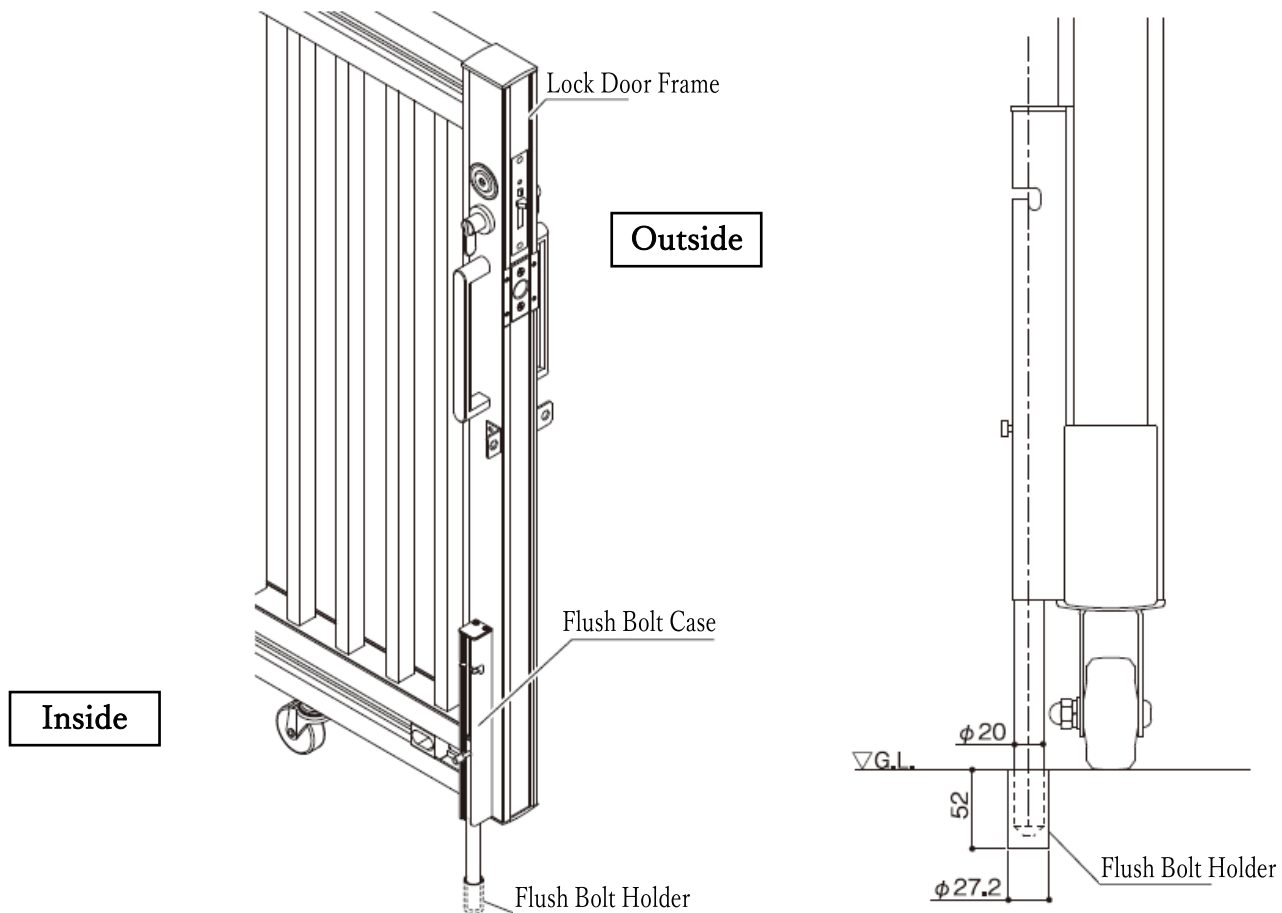
11 Adjustment of Lock Catch and Guide Plate

1. Adjust the height of the lock catch strike and guide plate by referring to the drawing below.



12 Burying of Flush Bolt Holder

1. Bury flush bolt holder after confirmation of the flush bolt's position when fully closed and opened.



13 Check Items After Compilation of Installation

Check Item	Solution
Can I use the key to open or close the lock?	If the key is difficult to turn or the hook is stuck and difficult to remove, adjust the height of the Lock Catch Strike and Guide Plate. (See 11) Also, please record the key number as it will be necessary to reorder if you lose it.
The movement of the door becomes heavy when the door passes through near the hanging unit.	Adjust the height of the door. (See 4)
The stopper touches the hanging unit before the door touches the door stop post when opening and closing the door.	Adjust the Stopper. (See 8)
Is the door going to the center of the door stop post?	Adjust the door by guide roller A. (See 9)
Is the door closed vertically to the door stop post?	Adjust the door by guide roller A. (See 9)
Are any screws and bolts loose or forgotten to be installed?	After completing all installation, check that all screws and bolts are securely fastened.

KB (Main Body)

Instruction Manual

●Caution

Thank you very much for purchasing our product.

Please read this instruction manual carefully before installation to use the product for a long time.

Improper handling of aluminum products during installation may cause abnormal corrosion, resulting in unexpected troubles, please pay attention to the following points.

24. Please confirm that the product is suit for the construction place's weather conditions (wind, snow, etc.).
25. To prevent damage, please do not construct this product where the snow slide directly on the product.
26. Avoid installation of the product in areas where strong winds blow, especially on cliff tops, on the roof top, or on the pathway of the wind.
27. Avoid installation of the product at places with large vertical difference such as edge. In windy areas, install the product not to be fluttered by wind. This product should be installed only on the ground.
28. The foundation drawing indicates the depth of embedding of the product. Pay sufficient attention to the amount (volume) of the foundation concrete when embedding the product in a weak ground. When the product is to be used in cold districts where frost heave is likely to occur, place foundation to the frost heave line or lower.
29. Using sea sand for making mortar may cause corrosion due to its high salt content. Please avoid use of sea sand or wash it thoroughly before using it for mortal.
30. Adhesive bonds for mortar and concrete may cause corrosion, therefore, avoid using them or choose the adhesive bonds which do not have calcium chlorides, chlorine compounds, or sodium silicate.
31. Make it sure not to attach mortal or concrete extract on the surface and inside of the aluminum products during construction. Those extract are strong alkaline and may cause uneven color or corrosion.
32. When using bonds or chemicals which may occur the corrosion during the construction work, avoid contact to the aluminum products.

Packing List

● Packing List

	Packing Name	Code	Type KB Single Open			
			3S	4S	5S	6S
H12	Stacking Type Front Panel H12-3S R	SKNA-K48	1			
	Stacking Type Front Panel H12-4S R	SKNA-K51		1		
	Stacking Type Front Panel H12-5S R	SKANA-K54			1	
	Stacking Type Front Panel H12-6S R	SKNA-K57				1
	Stacking Type FLont Panel H12-3S L	SKNA-K60	1			
	Stacking Type FLont Panel H12-4S L	SKNA-K63		1		
	Stacking Type FLont Panel H12-5S L	SKNA-K66			1	
	Stacking Type FLont Panel H12-6S L	SKNA-K69				1
	Stacking Type Rear Panel H12-3S R	SKNA-K72	1			
	Stacking Type Rear Panel H12-4S R	SKNA-K75		1		
	Stacking Type Rear Panel H12-5S R	SKANA-K78			1	
	Stacking Type Rear Panel H12-6S R	SKNA-K81				1
	Stacking Type FLont Panel H12-3S L	SKNA-K84	1			
	Stacking Type FLont Panel H12-4S L	SKNA-K87		1		
	Stacking Type FLont Panel H12-5S L	SKNA-K90			1	
	Stacking Type FLont Panel H12-6S L	SKNA-K93				1
	Lock Door Frame H12 R	SKNA-K96	1	1	1	1
	Lock Door Frame H12 L	SKNA-K99	1	1	1	1
	★ Hanging Unit H12	SKNA-K105	1	1	1	1
	★ Door Stop Post H12	SKNA-K108	1	1	1	1

* ★ in the table shows the parts burying parts.

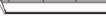
	Packing Name	Code	Type KB Single Open			
			3S	4S	5S	6S
H14	Stacking Type Front Panel H14-3S R	SKNA-K49	1			
	Stacking Type Front Panel H14-4S R	SKNA-K52		1		
	Stacking Type Front Panel H14-5S R	SKANA-K55			1	
	Stacking Type Front Panel H14-6S R	SKNA-K58				1
	Stacking Type FLont Panel H14-3S L	SKNA-K61	1			
	Stacking Type FLont Panel H14-4S L	SKNA-K64		1		
	Stacking Type FLont Panel H14-5S L	SKNA-K67			1	
	Stacking Type FLont Panel H14-6S L	SKNA-K70				1
	Stacking Type Rear Panel H14-3S R	SKNA-K73	1			
	Stacking Type Rear Panel H14-4S R	SKNA-K76		1		
	Stacking Type Rear Panel H14-5S R	SKANA-K79			1	
	Stacking Type Rear Panel H14-6S R	SKNA-K82				1
	Stacking Type FLont Panel H14-3S L	SKNA-K85	1			
	Stacking Type FLont Panel H14-4S L	SKNA-K88		1		
	Stacking Type FLont Panel H14-5S L	SKNA-K91			1	
	Stacking Type FLont Panel H14-6S L	SKNA-K94				1
	Lock Door Frame H14 R	SKNA-K97	1	1	1	1
	Lock Door Frame H14 L	SKNA-K100	1	1	1	1
	★ Hanging Unit H14	SKNA-K106	1	1	1	1
	★ Door Stop Post H14	SKNA-K109	1	1	1	1

* ★ in the table shows the parts burying parts.

	Packing Name	Code	Type KB Single Open			
			3S	4S	5S	6S
H16	Stacking Type Front Panel H16-3S R	SKNA-K50	1			
	Stacking Type Front Panel H16-4S R	SKNA-K53		1		
	Stacking Type Front Panel H16-5S R	SKANA-K56			1	
	Stacking Type Front Panel H16-6S R	SKNA-K59				1
	Stacking Type FLont Panel H16-3S L	SKNA-K62	1			
	Stacking Type FLont Panel H16-4S L	SKNA-K65		1		
	Stacking Type FLont Panel H16-5S L	SKNA-K68			1	
	Stacking Type FLont Panel H16-6S L	SKNA-K71				1
	Stacking Type Rear Panel H16-3S R	SKNA-K74	1			
	Stacking Type Rear Panel H16-4S R	SKNA-K77		1		
	Stacking Type Rear Panel H16-5S R	SKANA-K80			1	
	Stacking Type Rear Panel H16-6S R	SKNA-K83				1
	Stacking Type FLont Panel H16-3S L	SKNA-K86	1			
	Stacking Type FLont Panel H16-4S L	SKNA-K89		1		
	Stacking Type FLont Panel H16-5S L	SKNA-K92			1	
	Stacking Type FLont Panel H16-6S L	SKNA-K95				1
	Lock Door Frame H16 R	SKNA-K98	1	1	1	1
	Lock Door Frame H16 L	SKNA-K101	1	1	1	1
	★ Hanging Unit H16	SKNA-K107	1	1	1	1
	★ Door Stop Post H16	SKNA-K115	1	1	1	1

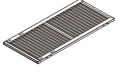
*★ in the table shows the parts burying parts.

Parts List

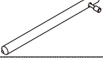
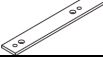
Stacking Type Front Panel R		Quantity											
Parts Name	Shape	SKNA-K48	SKNA-K49	SKNA-K50	SKNA-K51	SKNA-K52	SKNA-K53	SKNA-K54	SKNA-K55	SKNA-K56	SKNA-K57	SKNA-K58	SKNA-K59
Front Panel H12-3S (R)		1											
Front Panel H14-3S (R)			1										
Front Panel H16-3S (R)				1									
Front Panel H12-4S (R)					1								
Front Panel H14-4S (R)						1							
Front Panel H16-4S (R)							1						
Front Panel H12-5S (R)								1					
Front Panel H14-5S (R)									1				
Front Panel H16-5S (R)										1			
Front Panel H12-6S (R)											1		
Front Panel H14-6S (R)												1	
Front Panel H16-6S (R)													1
Space Guard H12		1			1			1			1		
Space Guard H14			1			1			1			1	
Space Guard H16				1			1			1			1

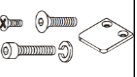
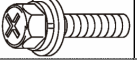
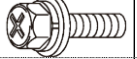
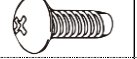
Stacking Type Front Panel L		Quantity											
Parts Name	Shape	SKNA-K60	SKNA-K61	SKNA-K62	SKNA-K63	SKNA-K64	SKNA-K65	SKNA-K66	SKNA-K67	SKNA-K68	SKNA-K69	SKNA-K70	SKNA-K71
Front Panel H12-3S (L)		1											
Front Panel H14-3S (L)			1										
Front Panel H16-3S (L)				1									
Front Panel H12-4S (L)					1								
Front Panel H14-4S (L)						1							
Front Panel H16-4S (L)							1						
Front Panel H12-5S (L)								1					
Front Panel H14-5S (L)									1				
Front Panel H16-5S (L)										1			
Front Panel H12-6S (L)											1		
Front Panel H14-6S (L)												1	
Front Panel H16-6S (L)													1
Space Guard H12		1			1			1			1		
Space Guard H14			1			1			1			1	
Space Guard H16				1			1			1			1

Stacking Type Rear Panel R		Quantity											
Parts Name	Shape	SKNA-K72	SKNA-K73	SKNA-K74	SKNA-K75	SKNA-K76	SKNA-K77	SKNA-K78	SKNA-K79	SKNA-K80	SKNA-K81	SKNA-K82	SKNA-K83
Rear Panel H12-3S (R)		1											
Rear Panel H14-3S (R)			1										
Rear Panel H16-3S (R)				1									
Rear Panel H12-4S (R)					1								
Rear Panel H14-4S (R)						1							
Rear Panel H16-4S (R)							1						
Rear Panel H12-5S (R)								1					
Rear Panel H14-5S (R)									1				
Rear Panel H16-5S (R)										1			
Rear Panel H12-6S (R)											1		
Rear Panel H14-6S (R)												1	
Rear Panel H16-6S (R)													1

Stacking Type Rear Panel L		Quantity											
Parts Name	Shape	SKNA-K84	SKNA-K85	SKNA-K86	SKNA-K87	SKNA-K88	SKNA-K89	SKNA-K90	SKNA-K91	SKNA-K92	SKNA-K93	SKNA-K94	SKNA-K95
Rear Panel H12-3S (L)		1											
Rear Panel H14-3S (L)			1										
Rear Panel H16-3S (L)				1									
Rear Panel H12-4S (L)					1								
Rear Panel H14-4S (L)						1							
Rear Panel H16-4S (L)							1						
Rear Panel H12-5S (L)								1					
Rear Panel H14-5S (L)									1				
Rear Panel H16-5S (L)										1			
Rear Panel H12-6S (L)											1		
Rear Panel H14-6S (L)												1	
Rear Panel H16-6S (L)													1

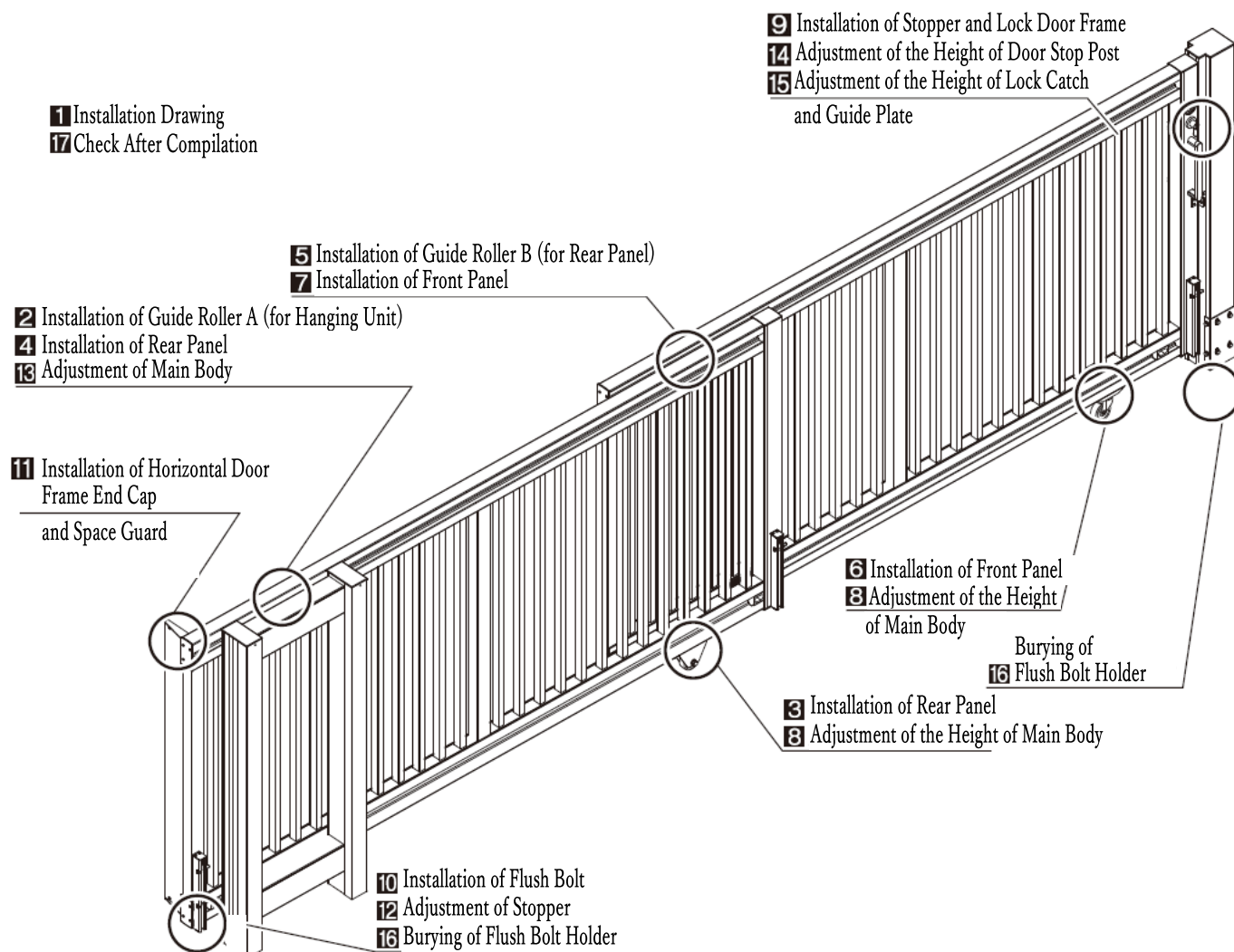
Lock Door Frame		Quantity					
Parts Name	Shape	SKNA-K96	SKNA-K97	SKNA-K98	SKNA-K99	SKNA-K100	SKNA-K101
Lock Door Frame H12 (R)	 *with vertical door frame cover	1					
Lock Door Frame H14 (R)			1				
Lock Door Frame H16 (R)				1			
Lock Door Frame H12 (L)	 *with vertical door frame cover				1		
Lock Door Frame H14 (L)						1	
Lock Door Frame H16 (L)							1

Parts Box		Quantity
Parts Name	Shape	SKNA-K115
Free Caster		1
Fixed Caster		3
Guide Roller Set A 4PCS		1
Guide Roller Set B 4PCS		1
Vertical Door Frame Cover Back Plate		2
Hole Cap		1
Lock Door Frame Cap		1
Horizontal Door Frame End Cap		4
Support Roller Set Support Roller 2PCS Hexagon Bolt M5 × 12 L × 4PCS		1
Stopper		4
Stopper Catch (For Hanging Panel)		2
Flush Bolt		2
Flush Bolt Case		2
Flush Bolt Case Spacer		1

Parts Box		Quantity
Parts Name	Shape	SKNA-K115
Flush Bolt Holder		4
Free Caster Spacer		2
Adjustment Spacer		6
Vertical Door Frame Cover Screw Set Pan-head Tapping Screw φ 4.5 × 40L × 10PCS		1
Horizontal Door Frame End Cap Screw Set Flat Head Tapping Screw φ 4.5 × 20L × 8PCS		2
Lock Door Frame Screw Set Truss Screw M6 × 12L × 1PCS M5 × 12L × 2PCS		1
Flash Bolt Screw Set Flat-head Screw M4 × 10L × 2PCS Hexagon Socket Head Bolt M6 × 25L × 2PCS Hexagon Socket Bolt M6 × 25L × 1PC Spring Washer6-2 × 1PC Flush Bolt Case Cap 1PC		2
Stopper Bolt Set Hexagon Bolt M8 × 25L × 4PCS		2
Stopper Catch Bolt Set M8 × 25L × 6PCS		1
Caster Bolt Set M8 × 20L × 6PCS Colour SC × 2PCS		1
Space Guard Screw Set Truss Tapping Screw φ 5 × 16L × 4PCS		1
Spanner		1
Instruction Manual		1
Operation Instruction		1
For Customer		1

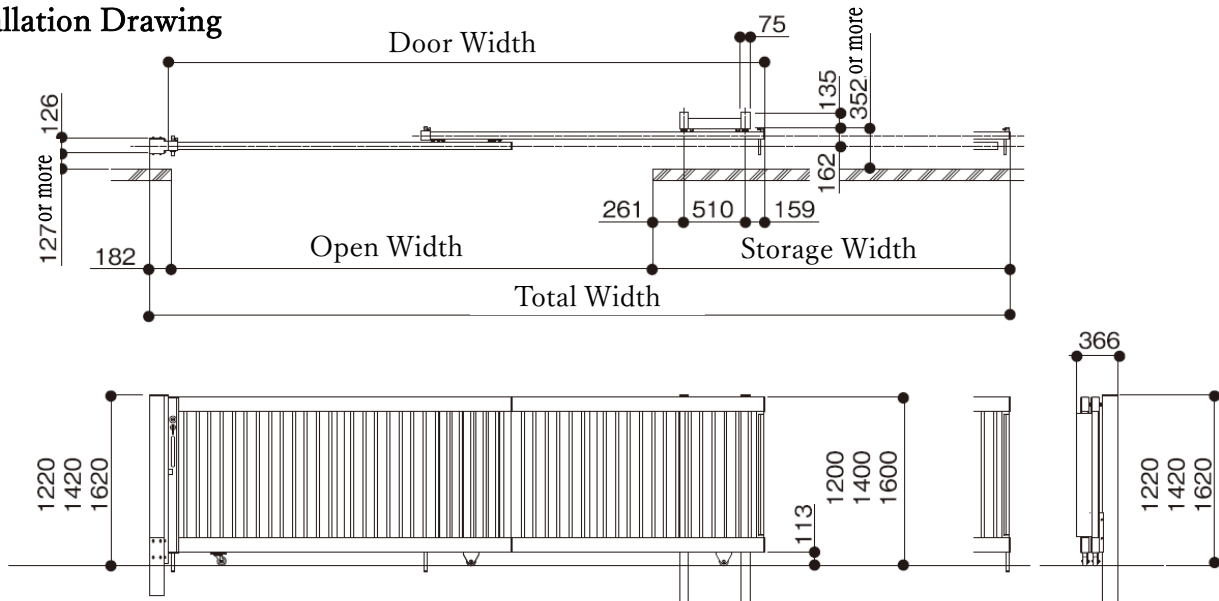
Construction Flow

1. Install this product 1 to 17 by referring to dimension table and installation drawing.



1 Installation Drawing

■ Installation Drawing



■ Standard Dimension Table

(mm)

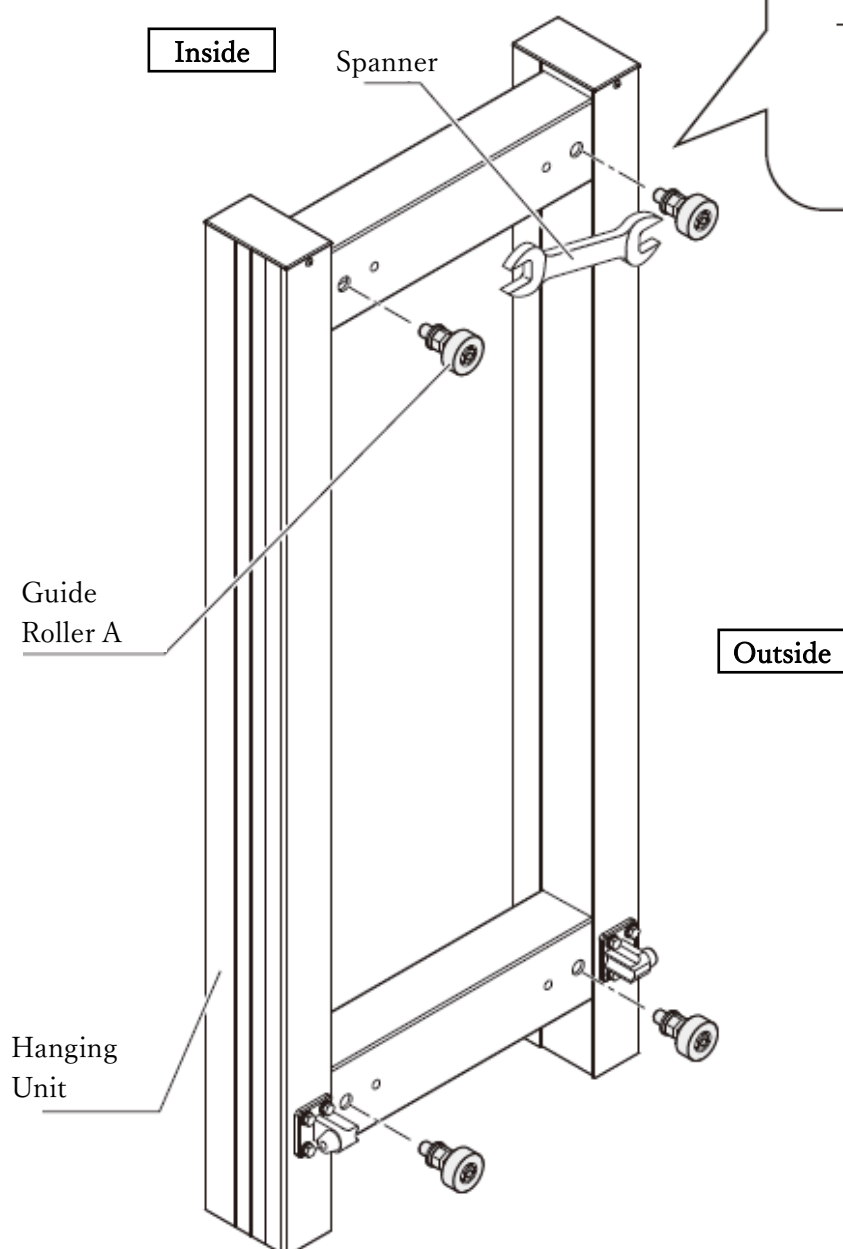
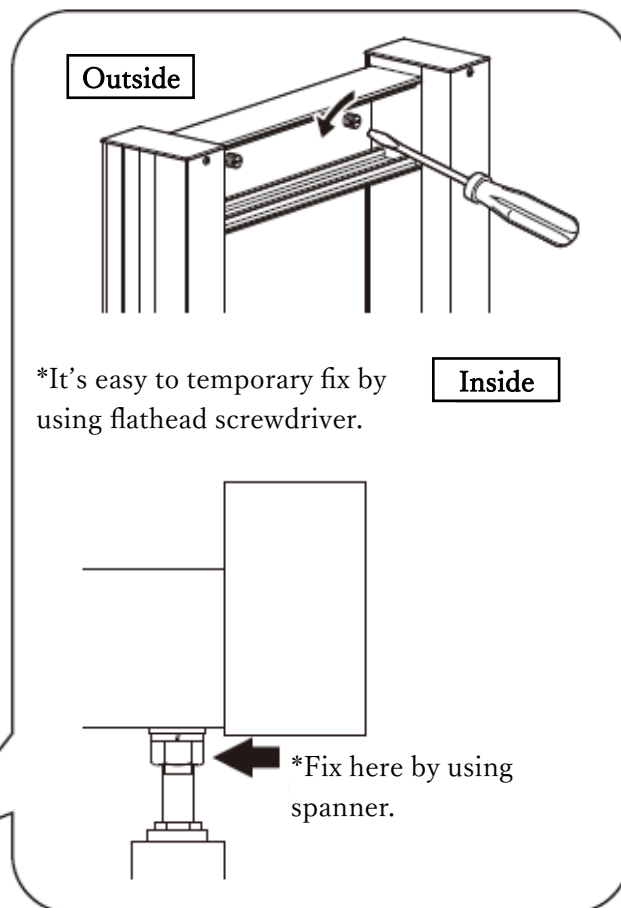
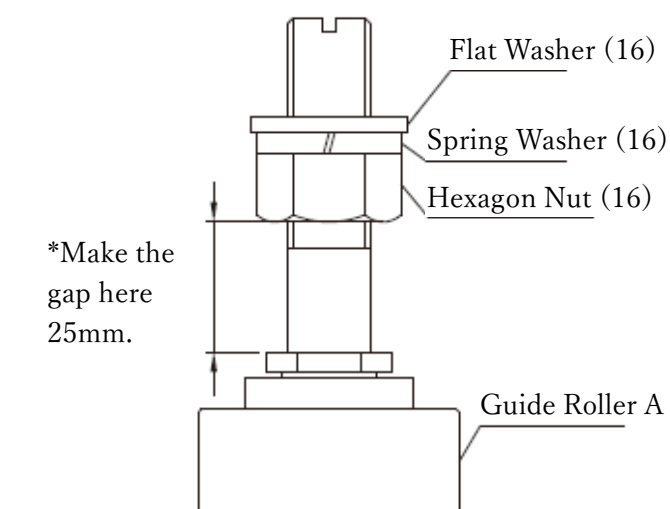
Code	Total Width	Door Width	Open Width	Storage Width
SKNA1B-○○(R·L)-3S	5,650	3,956	3,000	2,468
○○(R·L)-4S	7,150	4,956	4,000	2,968
○○(R·L)-5S	8,650	5,956	5,000	3,468
○○(R·L)-6S	10,150	6,956	6,000	3,968

* ○○ in the code shows H12,14, and 16.

* R · L in the table shows right side close (R) or left side close (L).

2 Installation of Guide Roller A to Hanging Unit

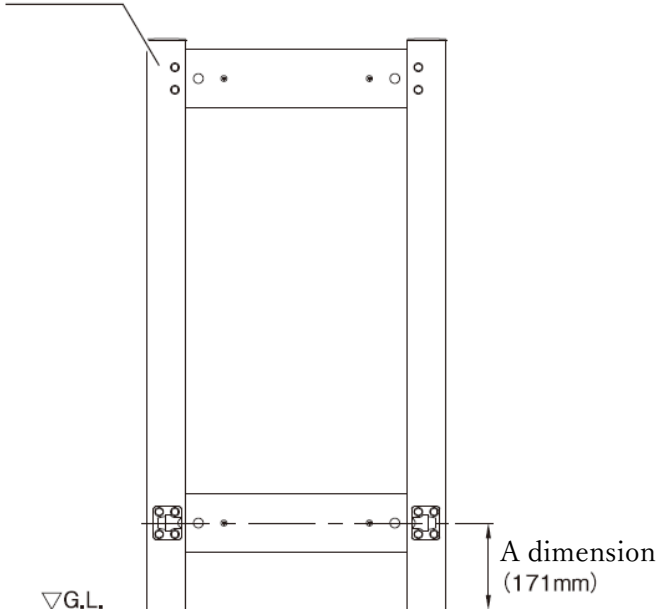
1. Install Guide Roller A to Hanging Unit.



3 Installation of Rear Panel

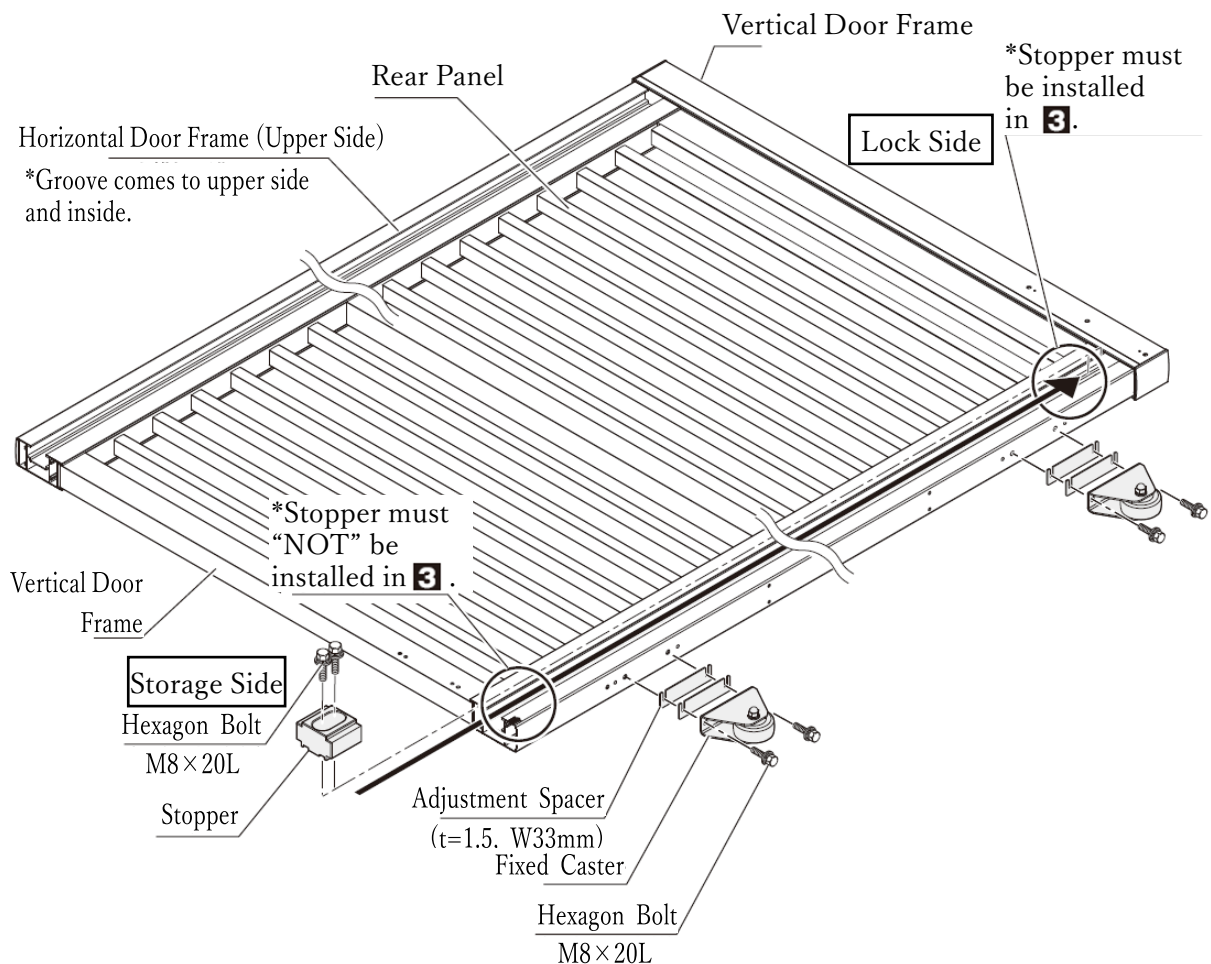
1. Install stopper to lock side of hanging unit.
2. Measure the A dimension of hanging unit.
- *Change the amount of adjustment spacer and free caster spacer by A dimension.
3. Install fixed caster.

Hanging Unit



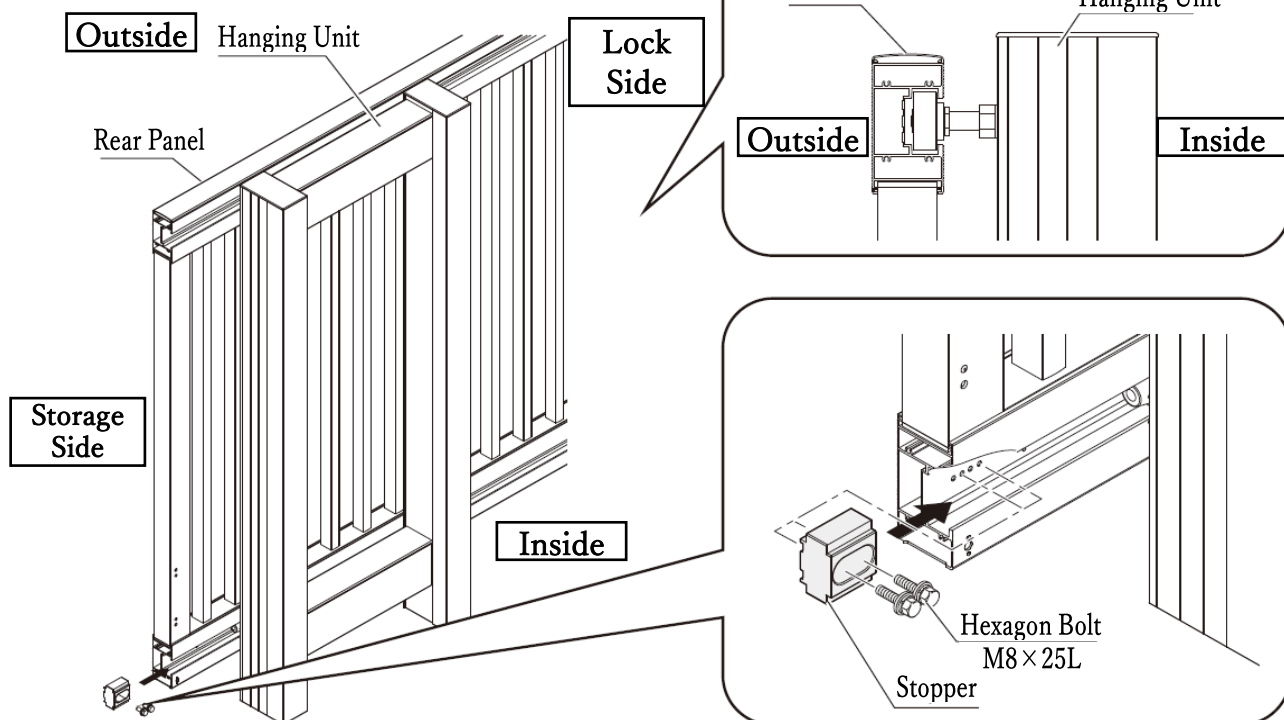
(mm)

A dimension	Fixed Caster Adjustment Spacer	Free Caster Spacer
$171 < A$	2	2
$169.5 < A \leq 171$	1	1
$A \leq 169.5$	0	0



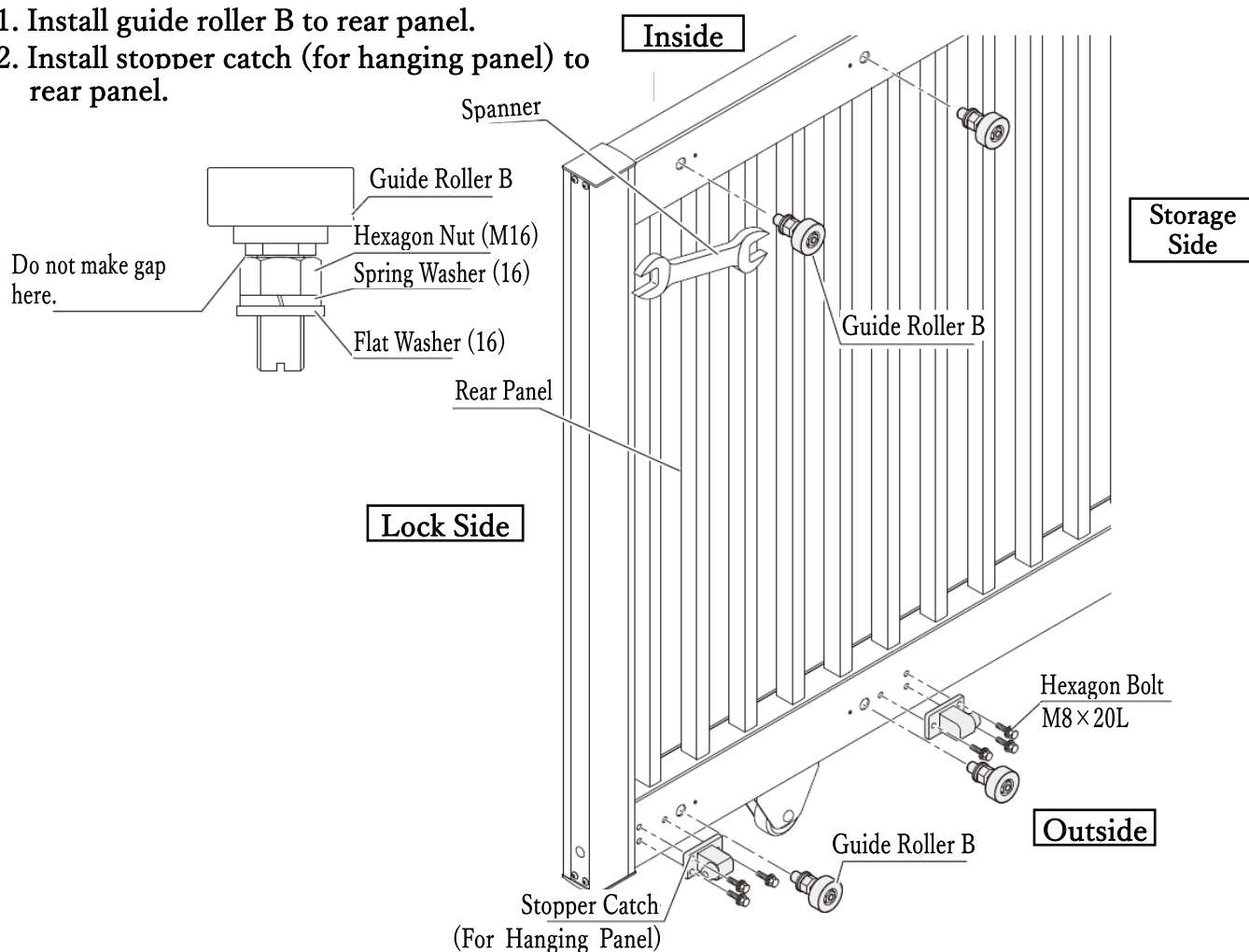
4 Installation of Rear Panel

1. Insert rear panel to hanging unit.
2. Install stopper.



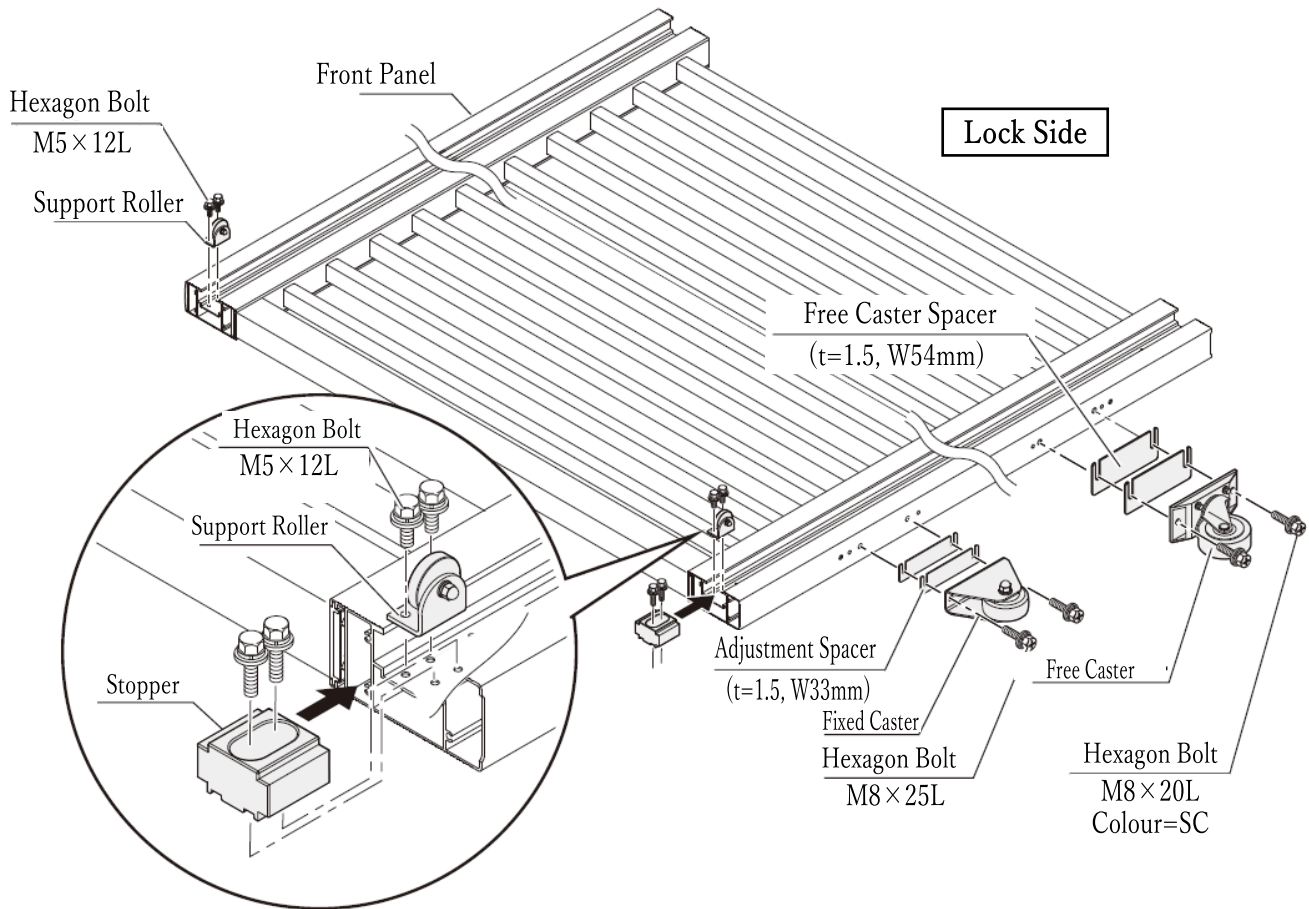
5 Installation of Guide Roller B (For Rear Panel)

1. Install guide roller B to rear panel.
2. Install stopper catch (for hanging panel) to rear panel.



6 Installation of Front Panel

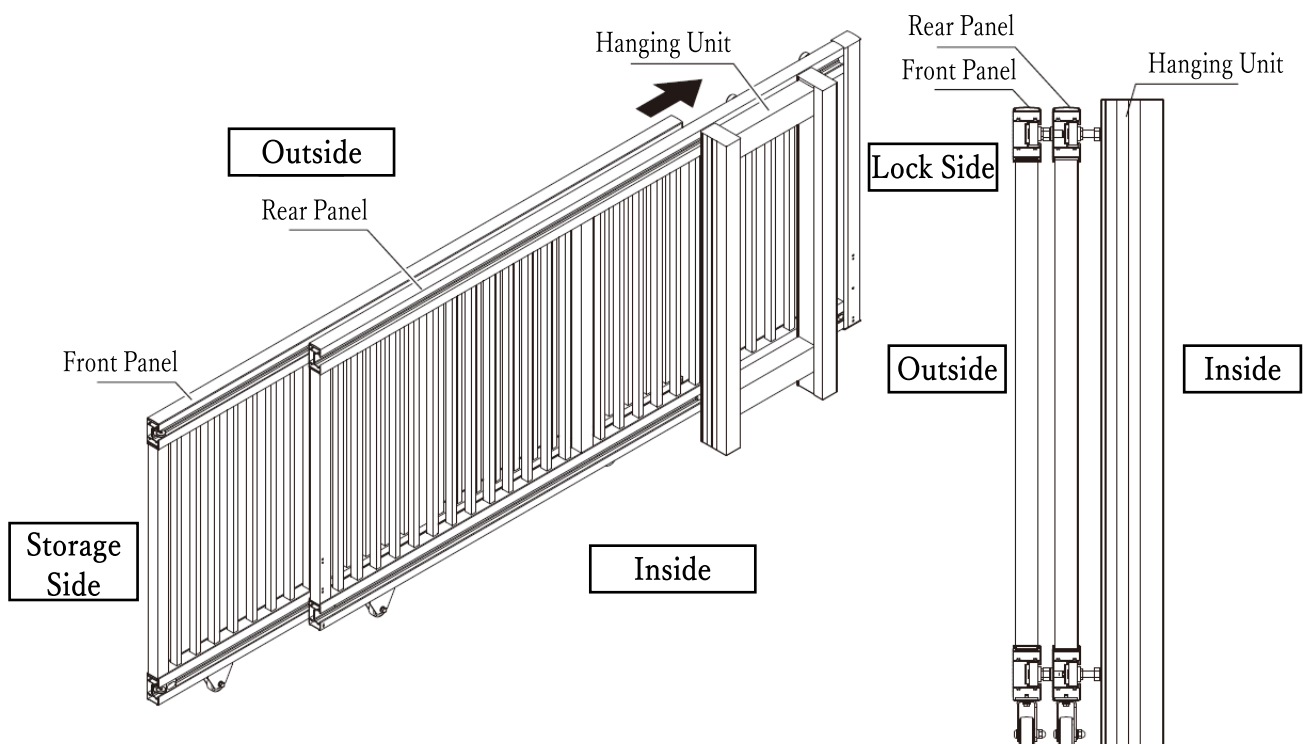
1. Install fixed caster and free caster. *Adjust the amount of adjustment spacer and free caster spacer.
2. Install stopper.
3. Install support roller.



7 Installation of Front Panel

1. Install front panel to rear panel.

*View from storage side.

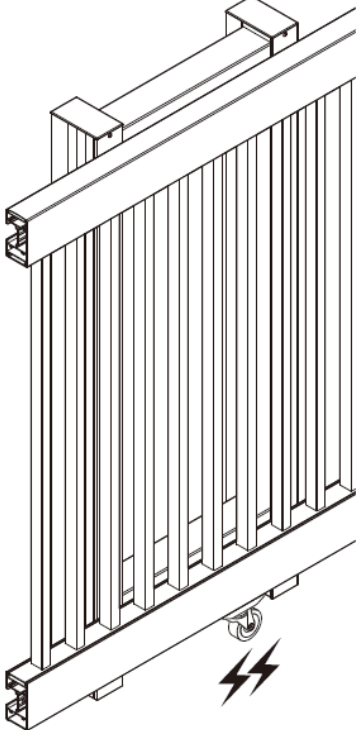


8

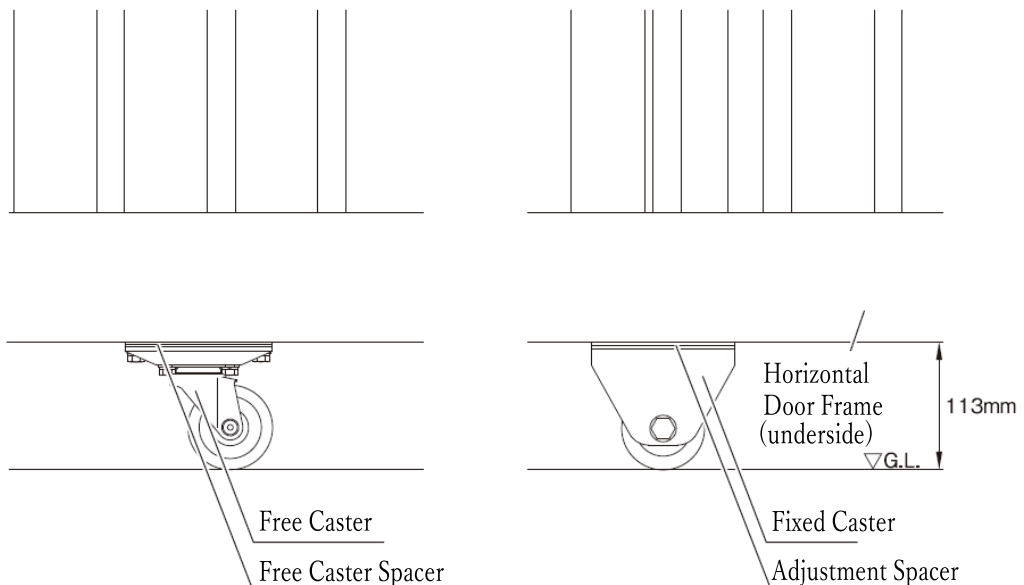
Adjustment of the Height of Main Body

The weight of the Main Body when pulling may be affected by the installation condition of the G.L. surface and Hanging Unit.

Adjust the height of main body with this procedure when you feel the movement of the main body is heavy.

Condition	
	Feeling heaviness when free caster or fixed caster goes through near the hanging unit.
Cause	The main body is too high for the hanging unit.
Solution	Get rid of free caster spacer and adjustment spacer to adjust the height.

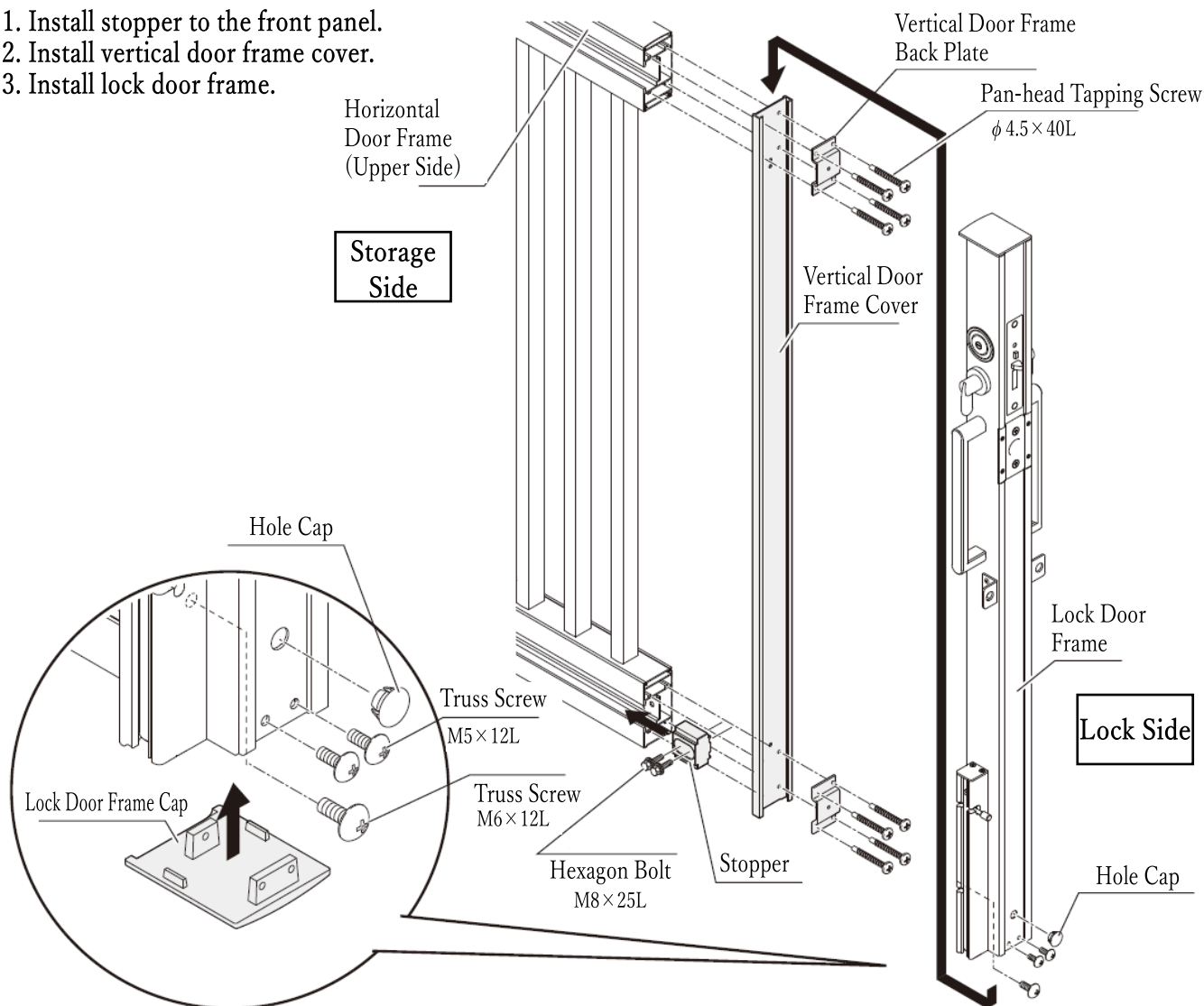
1. Confirm the dimension between G.L. and main body's horizontal door frame (underside) of the hanging unit.
2. Adjust the height of the main body with spacers.



9

Installation of Stopper and Lock Door Frame

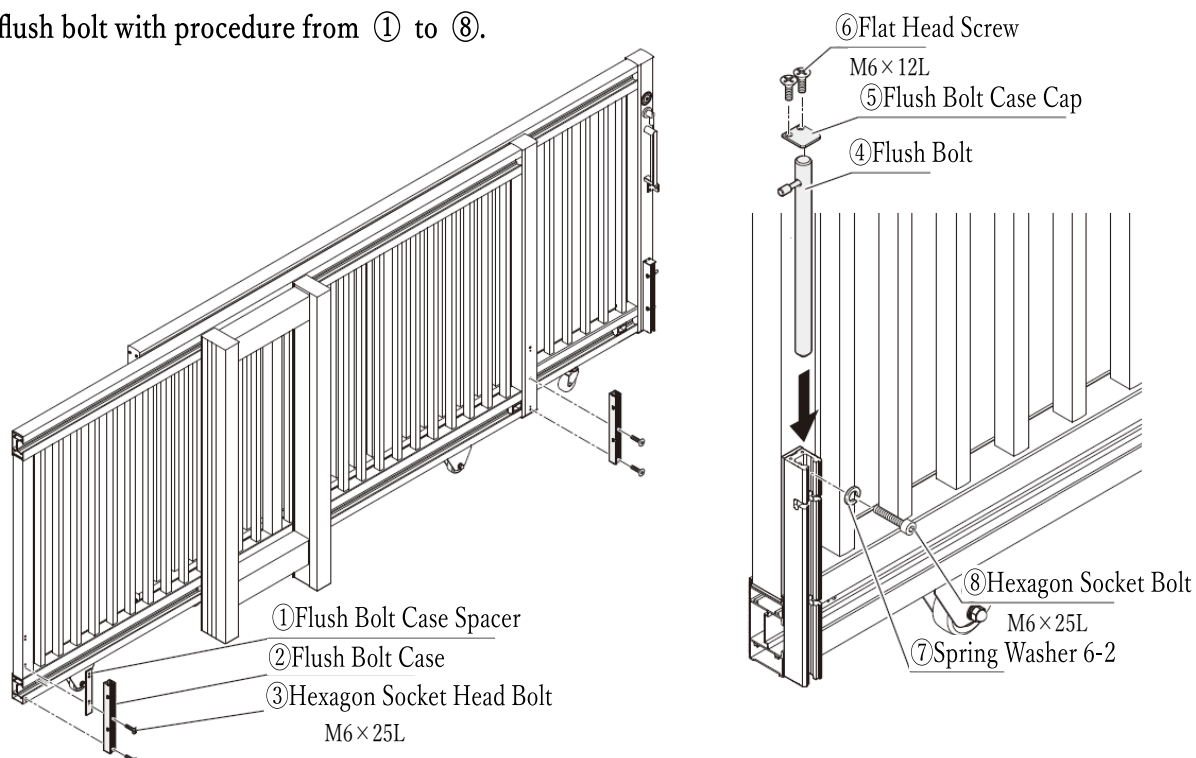
1. Install stopper to the front panel.
2. Install vertical door frame cover.
3. Install lock door frame.



10

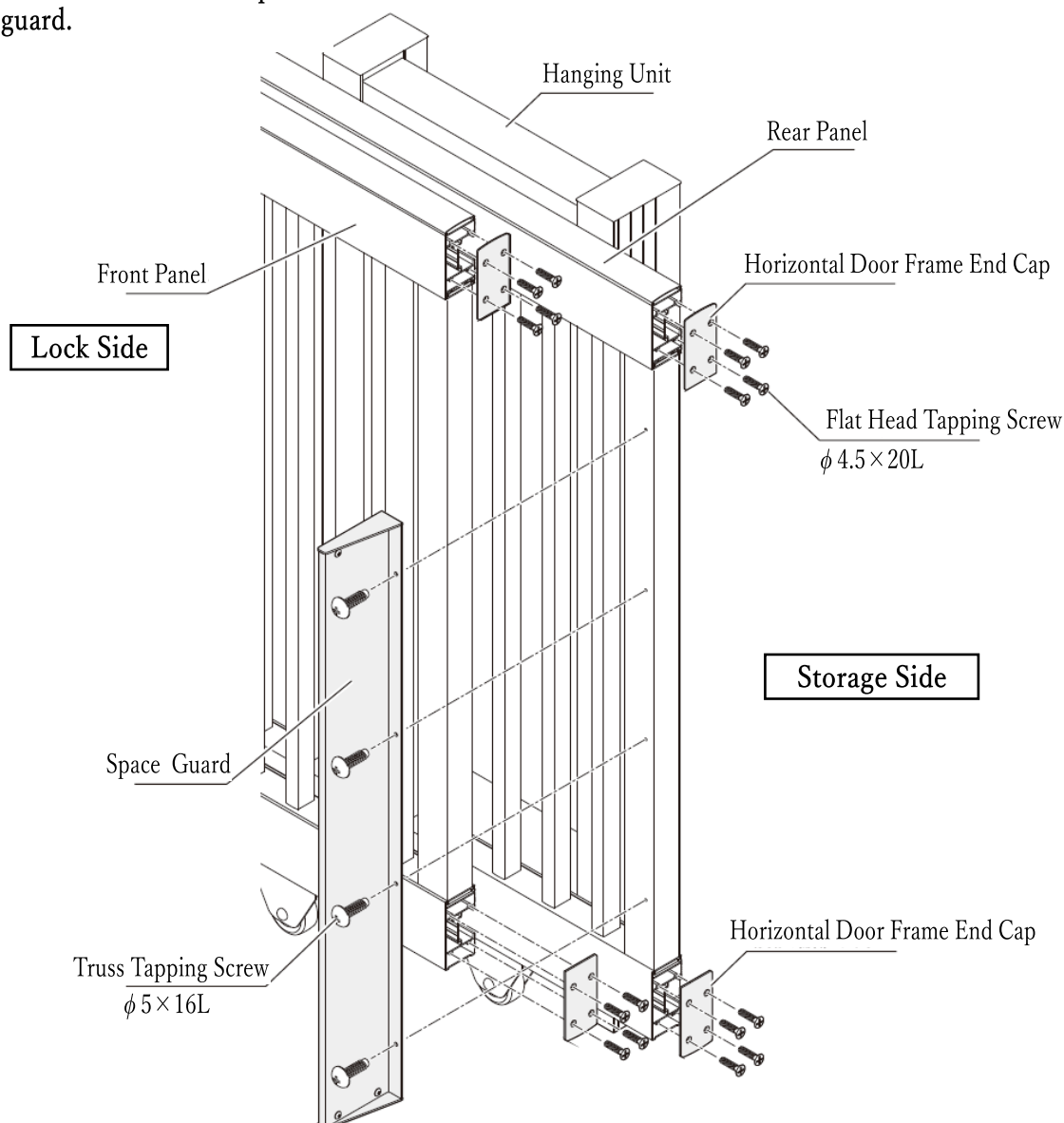
Installation of Flush Bolt

1. Install flush bolt with procedure from ① to ⑧.



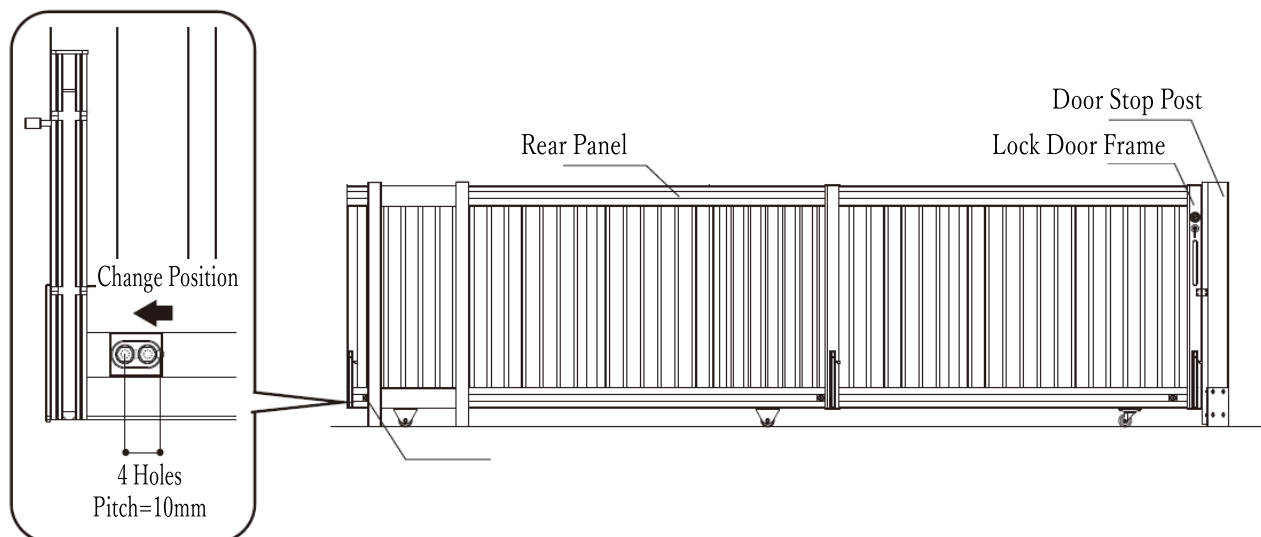
11 Installation of Horizontal Door Frame End Cap & Space Guard

1. Install horizontal door frame end cap.
2. Install space guard.



12 Adjustment of Stopper

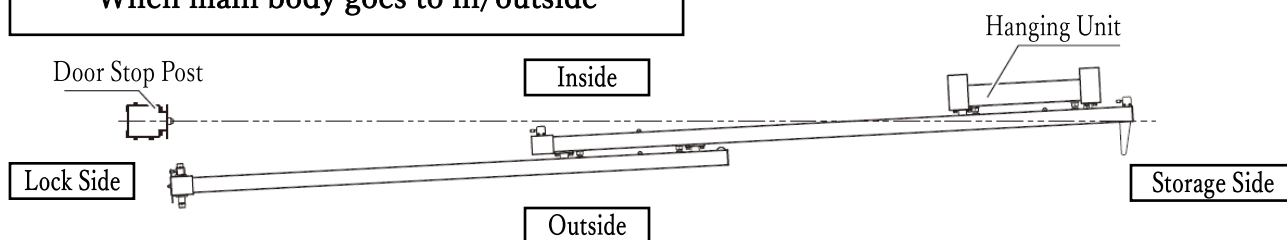
1. Close the door to the door stop post. When the rear panel's storage side stopper hits before the lock door frame touches door stop post, adjust the position of the stopper.



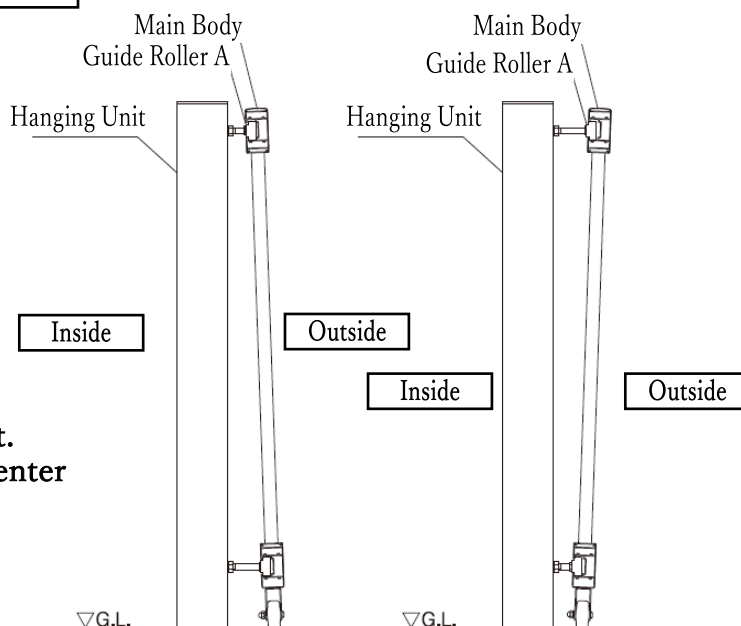
13 Adjustment of Main Body

When the main body doesn't go straight to the door stop post and lock doesn't work properly, adjust the main body.

When main body goes to in/outside

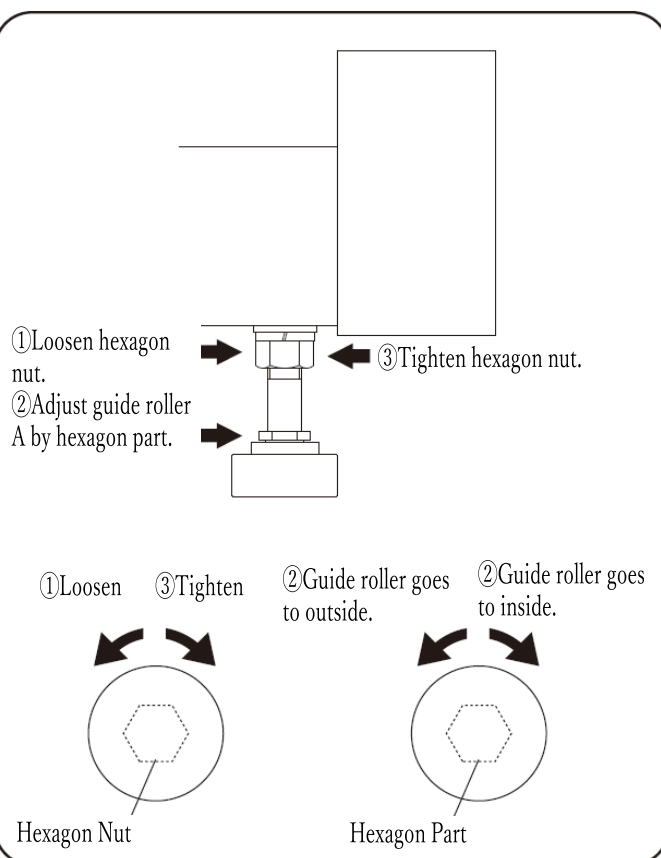
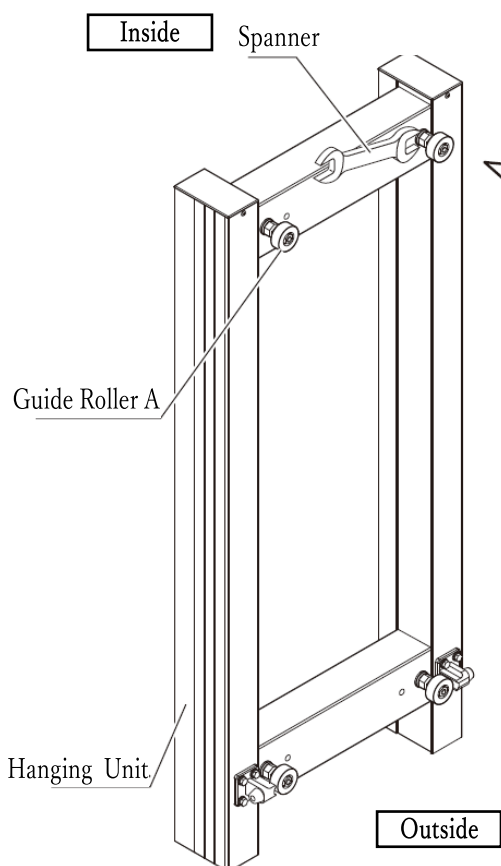


When the main body is tilted



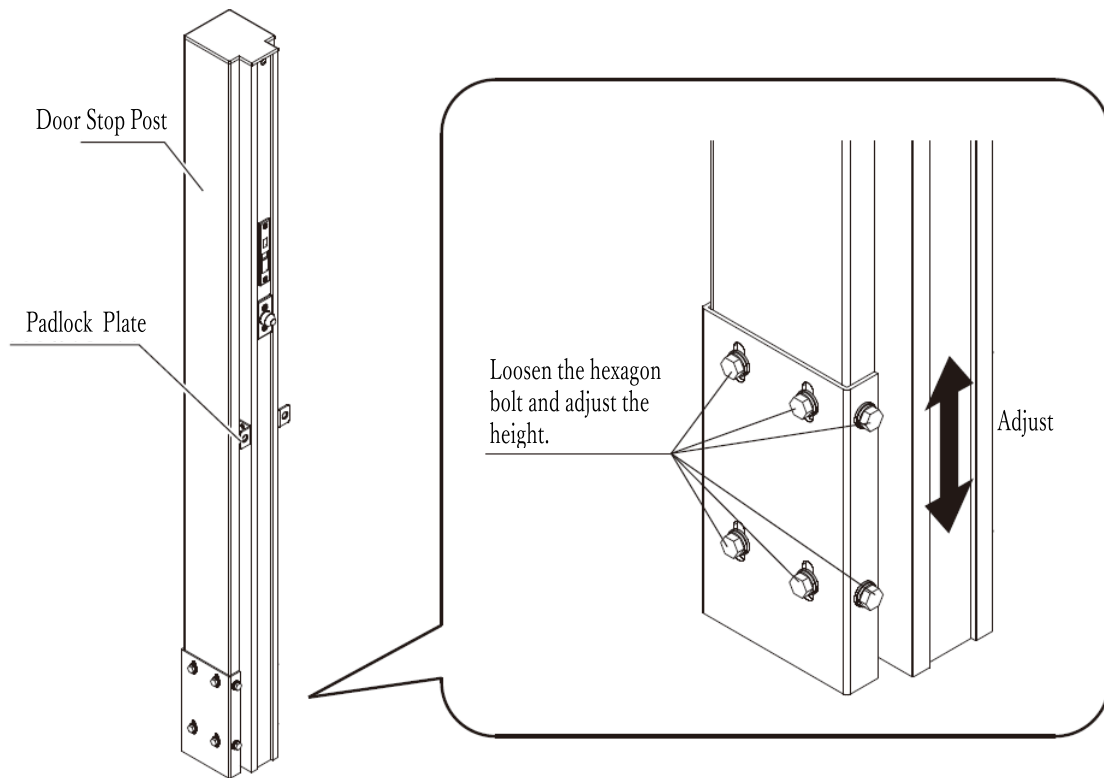
How To Adjust

1. Adjust guide roller A on hanging unit.
2. Confirm the main body goes to the center and vertically to the door stop post by opening and closing.



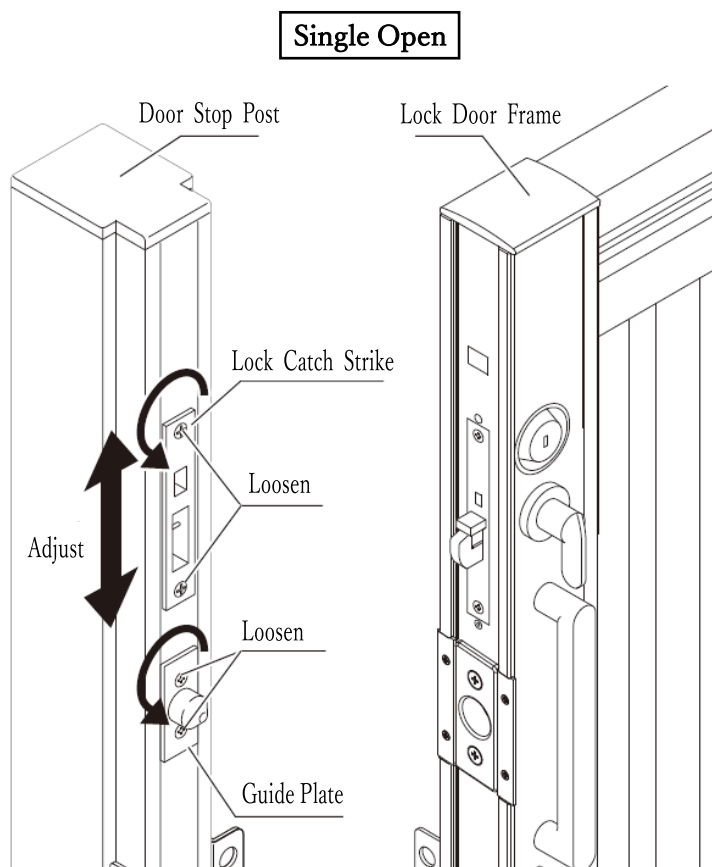
14 Adjustment of the Height of Door Stop Post

1. Adjust the height of the door stop post to meet the lock door frame's padlock plate and door stop post.



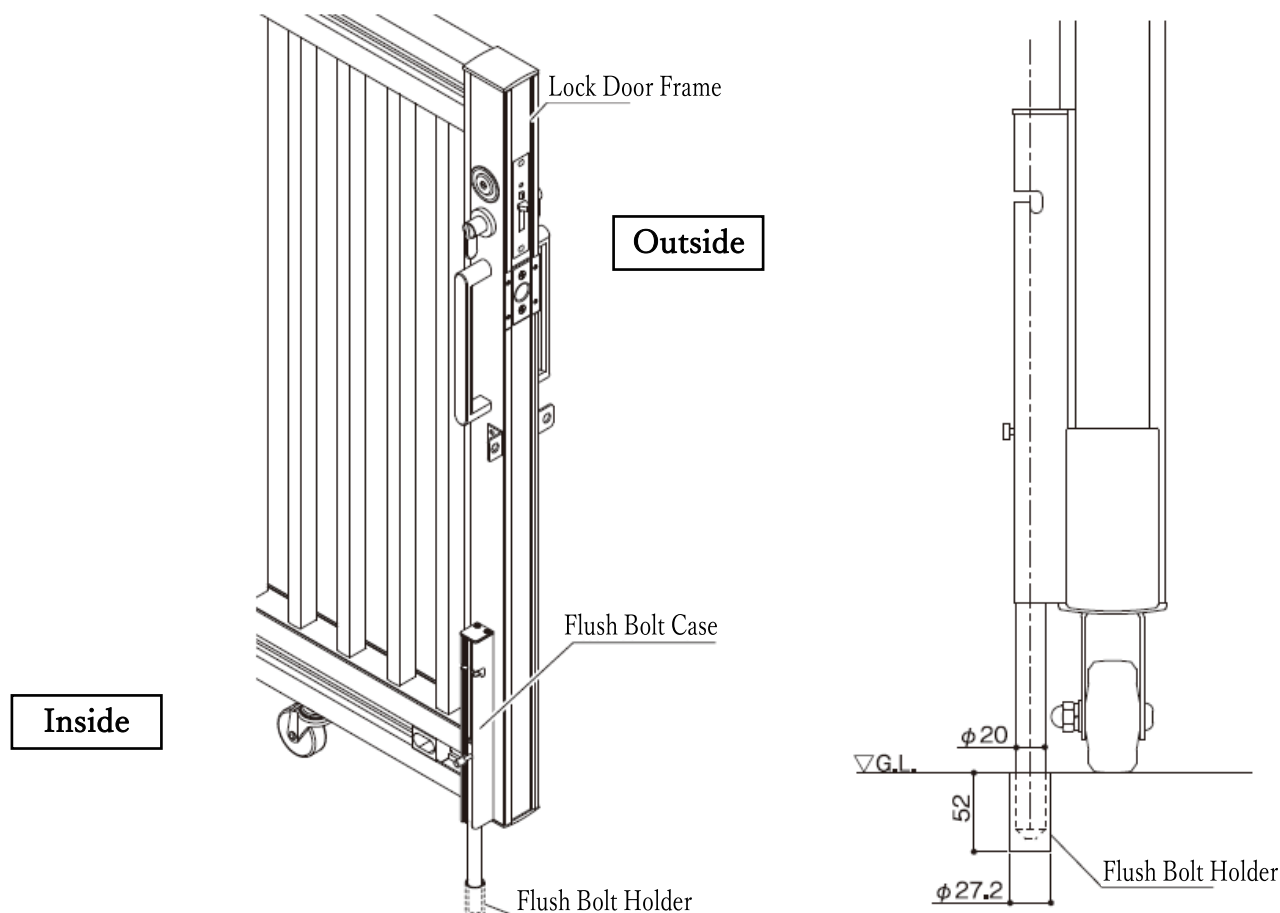
15 Adjustment of the Height of Lock Catch & Guide Plate

1. Adjust the height of the lock catch strike and guide plate by referring to the drawing below.



16 Buring Flush Bolt

1. Bury flush bolt holder after confirmation of the flush bolt's position when fully closed and opened.



13 Check Items After Compilation of Installation

Check Item	Solution
Can I use the key to open or close the lock?	If the key is difficult to turn or the hook is stuck and difficult to remove, adjust the height of the Lock Catch Strike and Guide Plate. (See 15) Also, please record the key number as it will be necessary to reorder if you lose it.
The movement of the door becomes heavy when the door passes through near the hanging unit.	Adjust the height of the door. (See 8)
The stopper touches the hanging unit before the door touches the door stop post when opening and closing the door.	Adjust the Stopper. (See 12)
Is the door going to the center of the door stop post?	Adjust the door by guide roller A. (See 13)
Is the door closing vertically to the door stop post?	Adjust the door by guide roller A. (See 13)
Are any screws and bolts loose or forgotten to be installed?	After completing all installation, check that all screws and bolts are securely fastened.