

Using this catalog

Step 1: Determine required hardware

Go to the page for your application: face frame, panel or narrow frame aluminum door. (a) Use cabinet height times combined door weight to get the power factor and find the lift mechanism required. (b) Use the cabinet height to determine the telescopic arm. (c) There is one specific hardware set for each of the three applications.

a Lift mechanism set



a b & c Lift mechanism set

Set includes two lift mechanisms, left and right cover plates, two symmetrical cover caps and ten #7 x 35mm (1-3/8") wood screws

Power factor (PF)	Part no.
85 - 230*	20F2200.US
231 - 470	20F2200.US
471 - 880	20F2500.US
780 - 1400	20F2600.US
1401 - 2300**	20F2800.US

Note: 3 lift mechanisms are required for Power factors of 1401 to 2300

b Telescopic arm set



d Telescopic arm set

Set includes two telescopic arms

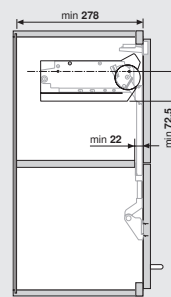
Cabinet height	Part no.
479 - 558 (19" - 22")	20F3200
558 - 686 (22" - 27")	20F3500
686 - 889 (27" - 35")	20F3800
889 - 1067 (35" - 42")	20F3900

Step 2: Determine mounting location for lift mechanism

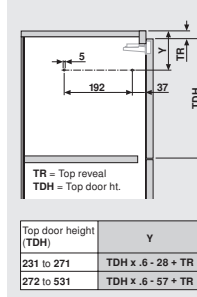
Use the chart and diagram to determine lift mechanism locating hole positions and pre-bore them in the cabinet sides.

For face frame applications, cabinet sides must be blocked out.

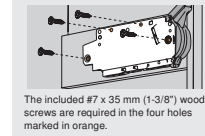
Step 2: Minimum space requirements



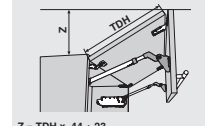
Locating pin positions



Mounting hole locations



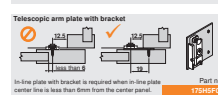
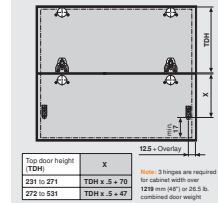
Clearance above cabinet



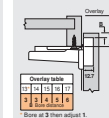
Step 3: Determine mounting locations for hinges, mounting plates and telescopic rod plate

Use the chart and diagrams to determine boring distance. Bore both doors and begin assembly as shown on page 17.

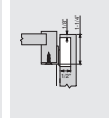
Step 3: Door assembly



Small overlay top door hinge



Large overlay top door hinge



CLIP top hinge



COMPACT hinge



Bottom door hinge



Reveal table

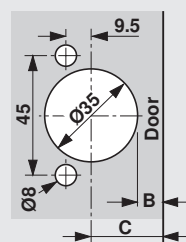


Step 4: Bore doors for hinges

Pre-bore doors according to the specifications found in Step 4. Blum suggests using one of our MINIDRILL or MINIPRESS machines or an ECODRILL for easy, more accurate installation..

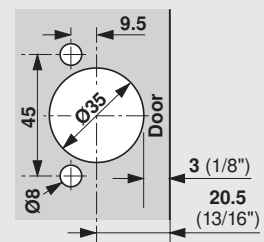
Now move to the Assembly instructions on page 17.

CLIP top

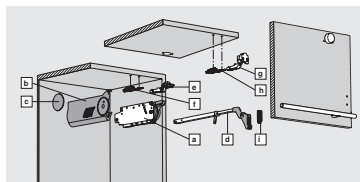


C Cup centerpoint			
20.5	21.5	22.5	23.5
B Bore distance			
3	4	5	6

COMPACT



Wood or wide aluminum door for panel applications



Determine required parts

By determining Power factor the required lift mechanism set for any application can be determined. The power factor depends on the weight of the two doors (including handle) and cabinet height.

Cabinet height also determines the telescopic arm set required (see step 1b).

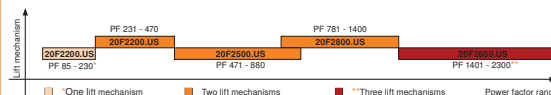
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$$\text{Power factor (PF)} = \text{cabinet height [inch]} \times \text{door weight incl. handle [lb]}$$

Determining lift mechanism



Trial application recommended when the required power factor is in a borderline area of lift mechanisms.

Step 1a

Lift mechanism set

Set includes two lift mechanisms, left and right cover plates, two symmetrical cover caps and ten #7 x 35mm (1-3/8") wood screws

Power factor (PF)	Part no.
85 - 230*	20F2200.US
231 - 470	20F2200.US
471 - 980	20F2500.US
981 - 1400	20F2800.US
1401 - 2300**	20F3900

Note: 3 lift mechanisms are required for Power factors of 1401 to 2300

Step 1b

Telescopic arm set

Set includes two telescopic arms

Cabinet height	Part no.
479 - 558 (19" - 22")	20F3200
559 - 666 (22" - 27")	20F3300
667 - 889 (27" - 35")	20F3800
889 - 1067 (35" - 42")	20F3900

Step 1c: Wood/wide aluminum door hardware set

Set includes:

- 2 each 70T5580 top door hinge
- 2 each 175H6000 top door mounting plate
- 2 each 32.4630 top door hinge
- 2 each 130.1130.02 (1-1/4") top door mounting plate
- 2 each 78Z5530T bottom door hinge
- 2 each 175H6000 bottom door mounting plate
- 2 each 175H5100.05 Telescopic arm plate
- 2 each 175H5F00 Telescopic arm plate with bracket
- 22 each 606P wood screw for 175H6000
- 6 each 629.170 wood screw for 175H5100.05
- 18 each 699.110 aluminum screw for 175H5100.05
- 6 each 606.080 aluminum screw for hinge and plate

Part no.
Hardware set 78Z5530TA4

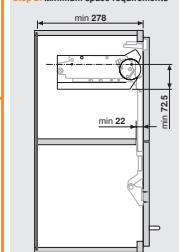


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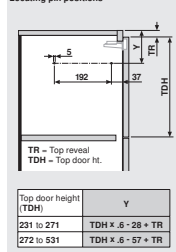
Dimensions in millimeters (inch equivalents as noted).
Subject to technical modifications without notice. © 2006

Installation

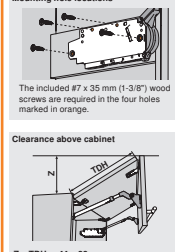
Step 2: Minimum space requirements



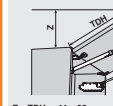
Locating pin positions



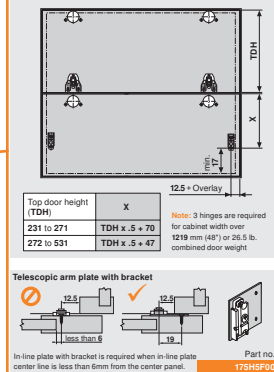
Mounting hole locations



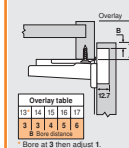
Clearance above cabinet



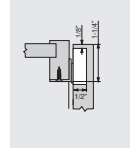
Step 3: Door assembly



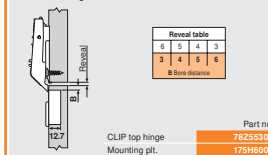
Small overlay top door hinge



Large overlay top door hinge



Bottom door hinge



Dimensions in millimeters (inch equivalents as noted).
Subject to technical modifications without notice. © 2006

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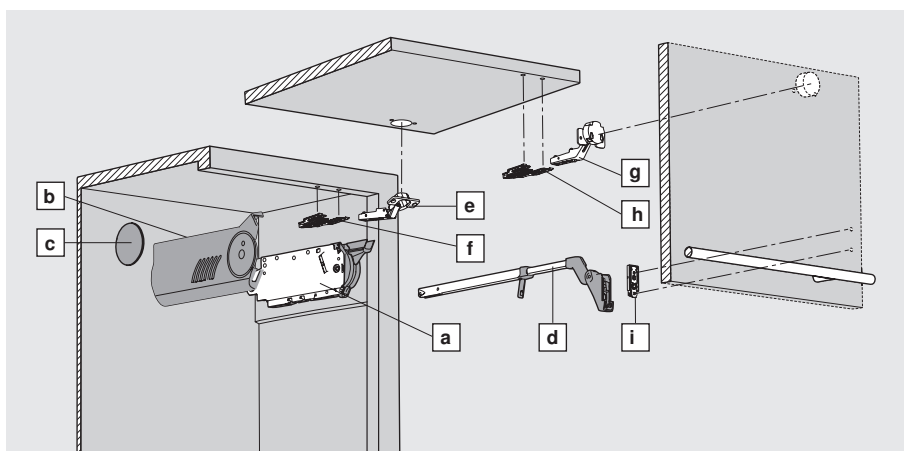
Step 1

Step 2

Step 3

Step 4

Wood or wide aluminum door for face frame applications



Determine required parts

By determining Power factor the required lift mechanism set for any application can be determined. The power factor depends on the weight of the two doors (including handle) and cabinet height.

Cabinet height also determines the telescopic arm set required (see step 1b).

Note: Face frame cabinets must be blocked out on the sides to mount the AVENTOS HF lift mechanisms.

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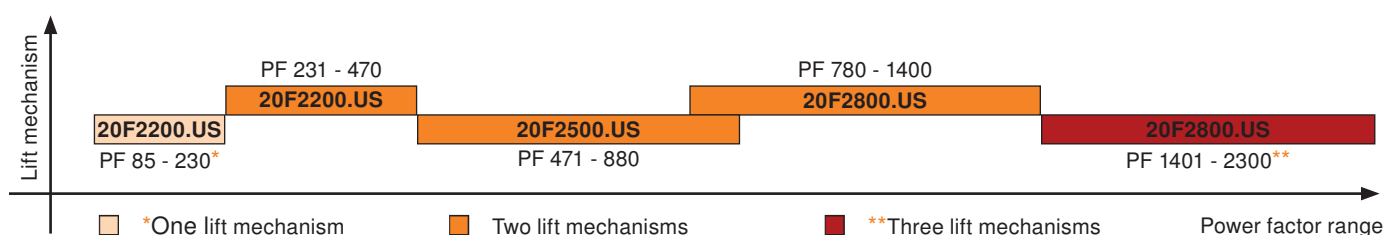
Installation and removal

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$$\text{Power factor (PF)} = \text{cabinet height [inch]} \times \text{combined door weight* [lb]}$$

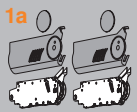
* Door weight in decimal - see page 21 for conversion chart.

Determining lift mechanism



Trial application recommended when the required power factor is in a borderline area of lift mechanisms.

Step 1a



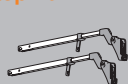
a b & c Lift mechanism set

Set includes two lift mechanisms, left and right cover plates, two symmetrical cover caps and ten #7 x 35mm (1-3/8") wood screws

Power factor (PF)	Part no.
85 - 230*	20F2200.US
231 - 470	20F2200.US
471 - 880	20F2500.US
780 - 1400	20F2800.US
1401 - 2300**	20F2800.US

Note: 3 lift mechanisms are required for Power factors of 1401 to 2300

Step 1b



d Telescopic arm set

Set includes two telescopic arms

Cabinet height	Part no.
479 - 558 (19" - 22")	20F3200
558 - 686 (22" - 27")	20F3500
686 - 889 (27" - 35")	20F3800
889 - 1067 (35" - 42")	20F3900

Step 1c: Wood/wide aluminum door hardware set

Set includes:

- e** 2 x 70T5580 top door hinge - 120° free swing
- f** 2 x 175H6000 top door mounting plate
- e** 2 x 32.4630 top door hinge - 120° free swing
- f** 2 x 130.1130.02 (1-1/4") top door mounting plate
- g** 2 x 78Z5530T bottom door hinge
- h** 2 x 175H6000 bottom door mounting plate
- i** 2 x 175H5100.05 Telescopic arm plate
- i** 2 x 175H5F00 Telescopic arm plate with bracket

22 x 606P wood screw for 175H6000

6 x 629.170 wood screw for 175H5100.05

18 x 699.110 aluminum door screw for hinge and plate

6 x 606.080 aluminum door screw for 175H5100.05

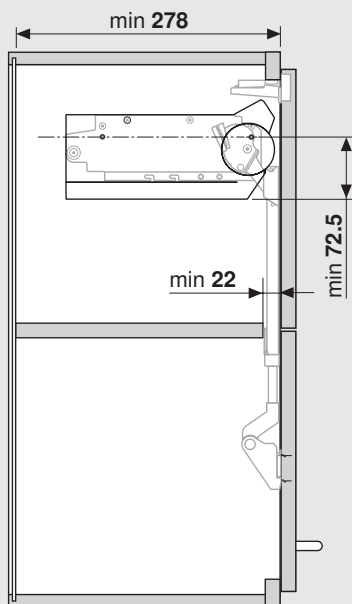
Part no.

Hardware set

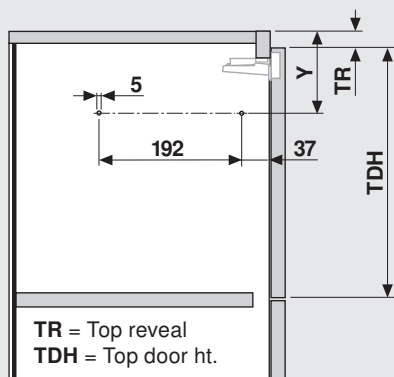
78Z5530TA4

Installation

Step 2: Minimum space requirements

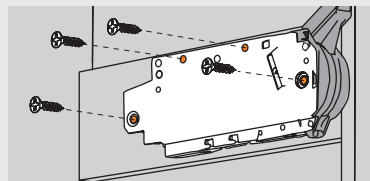


Locating pin positions



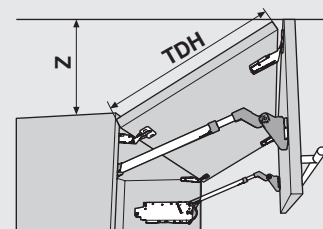
Top door height (TDH)	Y
231 to 271	$TDH \times .6 - 28 + TR$
272 to 531	$TDH \times .6 - 57 + TR$

Mounting hole locations



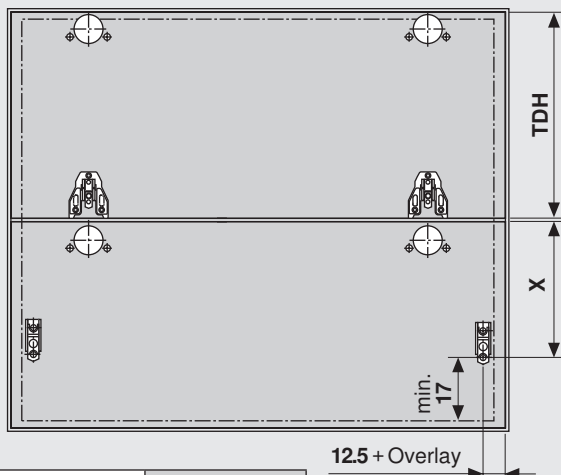
The included #7 x 35 mm (1-3/8") wood screws are required in the four holes marked in orange.

Clearance above cabinet



$$Z = TDH \times .44 + 23$$

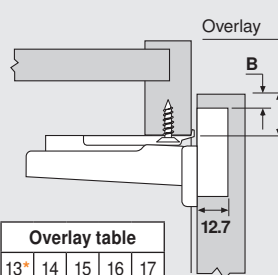
Step 3: Door assembly



Top door height (TDH)	X
231 to 271	$TDH \times .5 + 70$
272 to 531	$TDH \times .5 + 47$

Note: 3 hinges are required for cabinet width over 1219 mm (48") or 26.5 lb. combined door weight

Small overlay top door hinge

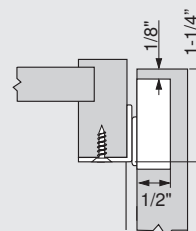


Overlay table				
13"	14	15	16	17
3	3	4	5	6
B Bore distance				

* Bore at 3 then adjust 1.

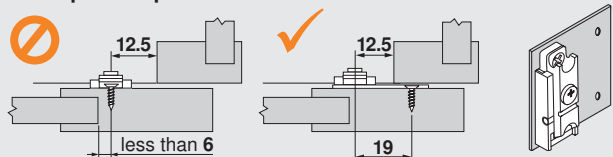
Part no.
CLIP top hinge 70T5580
Mounting plate 175H6000

Large overlay top door hinge



Part no.
COMPACT hinge 32.4630
Mounting plate 130.1130.02

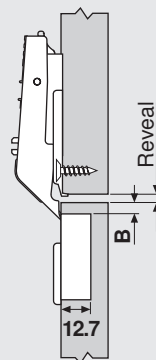
Telescopic arm plate with bracket



In-line plate with bracket is required when in-line plate center line is less than 6mm from the center panel.

Part no.
175H5F00

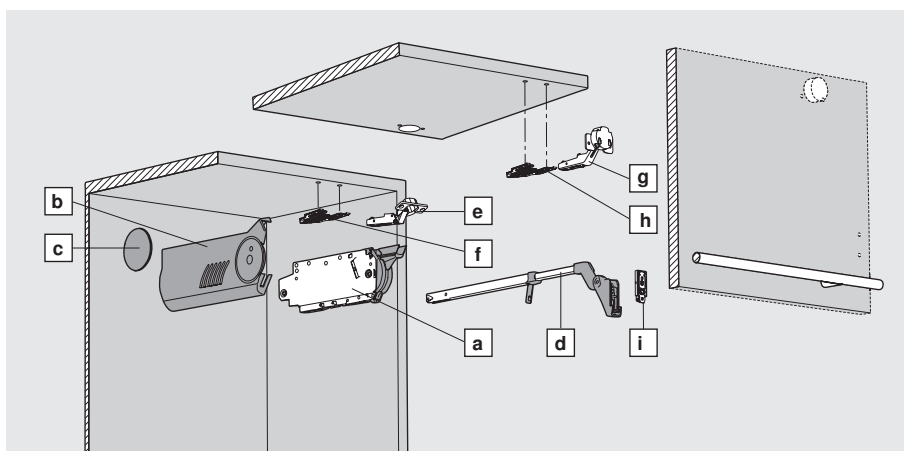
Bottom door hinge



Reveal table			
6	5	4	3
3	4	5	6
B Bore distance			

Part no.
CLIP top hinge 78Z5530T
Mounting plate 175H6000

Wood or wide aluminum door for panel applications



Determine required parts

By determining Power factor the required lift mechanism set for any application can be determined. The power factor depends on the weight of the two doors (including handle) and cabinet height.

Cabinet height also determines the telescopic arm set required (see step 1b).

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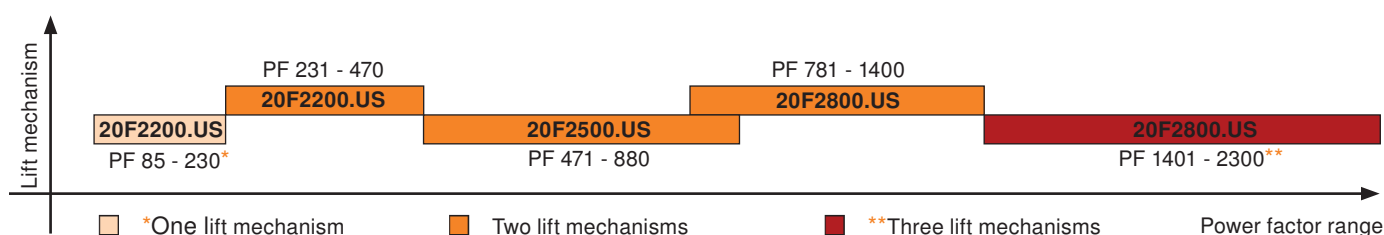
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$$\text{Power factor (PF)} = \text{cabinet height [inch]} \times \text{combined door weight* [lb]}$$

* Door weight in decimal - see page 21

Determining lift mechanism



Trial application recommended when the required power factor is in a borderline area of lift mechanisms.

Step 1a



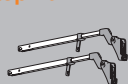
a b & c Lift mechanism set

Set includes two lift mechanisms, left and right cover plates, two symmetrical cover caps and ten #7 x 35mm (1-3/8") wood screws

Note: 3 lift mechanisms are required for Power factors of 1401 to 2300

Power factor (PF)	Part no.
85 - 230*	20F2200.US
231 - 470	20F2200.US
471 - 880	20F2500.US
780 - 1400	20F2800.US
1401 - 2300**	20F2800.US

Step 1b



d Telescopic arm set

Set includes two telescopic arms

Cabinet height	Part no.
479 - 558 (19" - 22")	20F3200
558 - 686 (22" - 27")	20F3500
686 - 889 (27" - 35")	20F3800
889 - 1067 (35" - 42")	20F3900

Step 1c: Wood/wide aluminum door hardware set

Set includes:

- e 2 x 70T5580 top door hinge
- f 2 x 175H6000 top door mounting plate
- 2 x 32.4630 top door hinge
- 2 x 130.1130.02 (1-1/4") top door mounting plate

- g 2 x 78Z5530T bottom door hinge
- h 2 x 175H6000 bottom door mounting plate

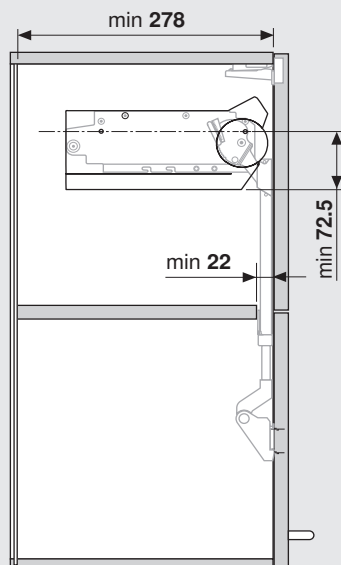
- i 2 x 175H5100.05 Telescopic arm plate
- 2 x 175H5F00 Telescopic arm plate with bracket

- 22 x 606P wood screw for 175H6000
- 6 x 629.170 wood screw for 175H5100.05
- 18 x 699.110 aluminum door screw for hinge and plate
- 6 x 606.080 aluminum door screw for 175H5100.05

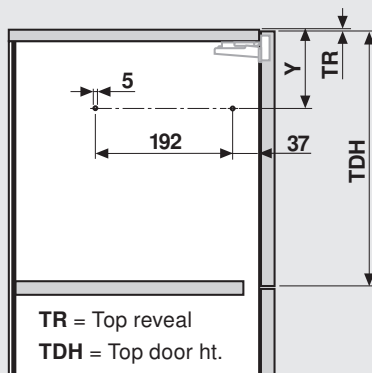
Part no.
Hardware set **78Z5530TA4**

Installation

Step 2: Minimum space requirements

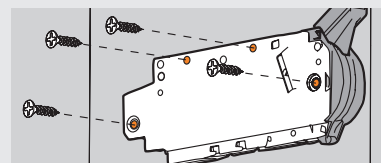


Locating pin positions



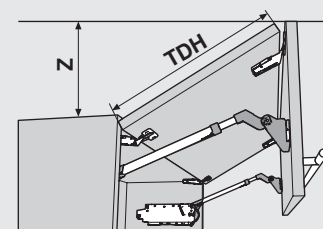
Top door height (TDH)	Y
231 to 271	$TDH \times .6 - 28 + TR$
272 to 531	$TDH \times .6 - 57 + TR$

Mounting hole locations



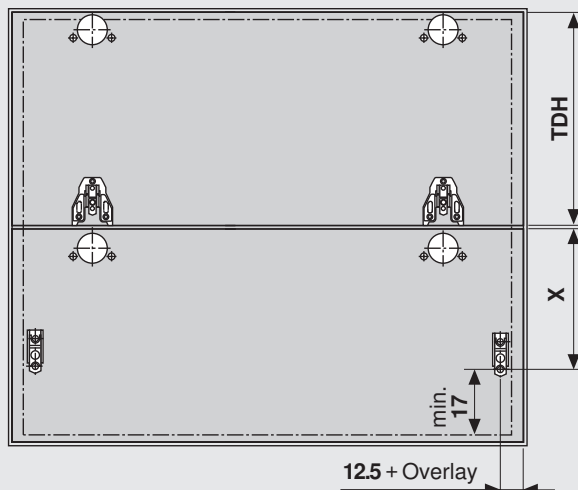
The included #7 x 35 mm (1-3/8") wood screws are required in the four holes marked in orange.

Clearance above cabinet



$$Z = TDH \times .44 + 23$$

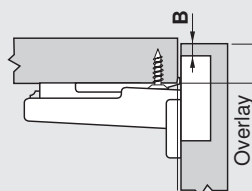
Step 3: Door assembly



Top door height (TDH)	X
231 to 271	$TDH \times .5 + 70$
272 to 531	$TDH \times .5 + 47$

Note: 3 hinges are required for cabinet width over 1219 mm (48") or 26.5 lb. combined door weight

Top door hinge

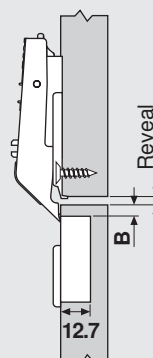


Overlay table				
13*	14	15	16	17
3	3	4	5	6
B Bore distance				

* Bore at 3 then adjust 1.

Part no.	
CLIP top hinge	70T5580
Mounting plate	175H6000

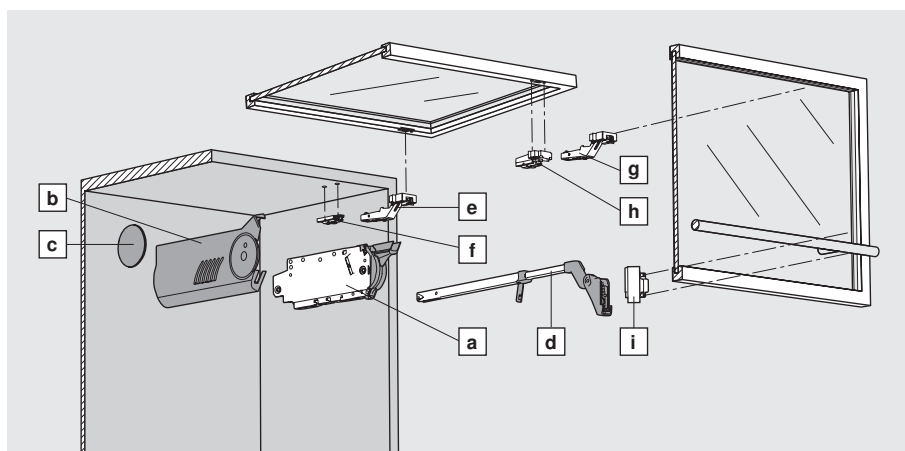
Bottom door hinge



Reveal table			
6	5	4	3
3	4	5	6
B Bore distance			

Part no.	
CLIP top hinge	78Z5530T
Mounting plate	175H6000

Narrow aluminum frame door application



Determine required parts

By determining Power factor the required lift mechanism set for any application can be determined. The power factor depends on the weight of the two doors (including handle) and cabinet height.

Cabinet height also determines the telescopic arm set required (see step 1b).

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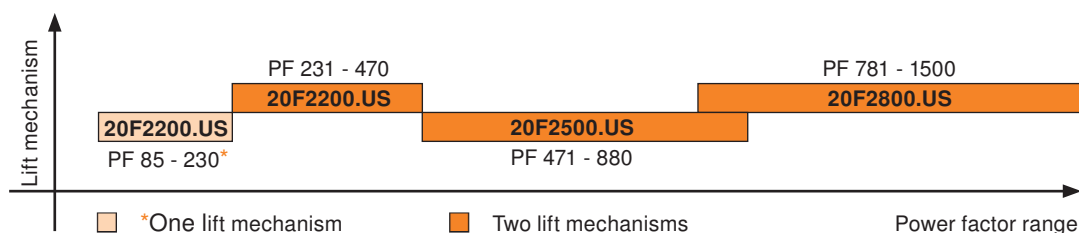
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$$\text{Power factor (PF)} = \text{cabinet height [inch]} \times \text{combined door weight* [lb]}$$

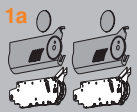
* Door weight in decimal - see page 21

Determining lift mechanism



Trial application recommended when the required power factor is in a borderline area of lift mechanisms.

Step 1a

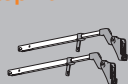


a b & c Lift mechanism set

Set includes two lift mechanisms, left and right cover plates, two symmetrical cover caps and ten #7 x 35mm (1-3/8") wood screws

Power factor (PF)	Part no.
85 - 230*	20F2200.US
231 - 470	20F2200.US
471 - 880	20F2500.US
780 - 1500	20F2800.US

Step 1b



d Telescopic arm set

Set includes two telescopic arms

Cabinet height	Part no.
479 - 558 (19" - 22")	20F3200
558 - 686 (22" - 27")	20F3500
686 - 889 (27" - 35")	20F3800
889 - 1067 (35" - 42")	20F3900

Step 1c: Narrow aluminum door hardware set

Set includes:

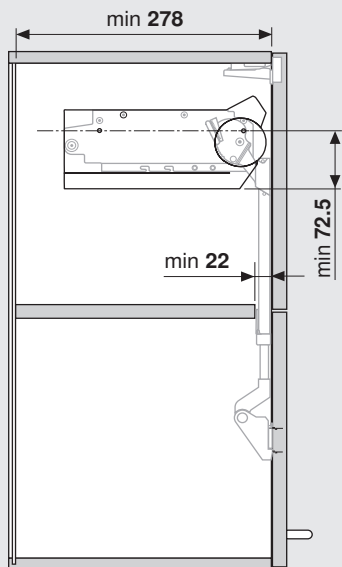
- e 2 x 72T550A top door hinge
- f 2 x 175H5100.05 top door mounting plate
- g 2 x 78Z550AT bottom door hinge
- h 2 x 175H5A00 bottom door mounting plate
- i 2 x 175H5B00 Telescopic arm plate

4 x 629.170 wood screw for 175H5100.05
16 x 699.110 aluminum door screw for 175H5A/B00

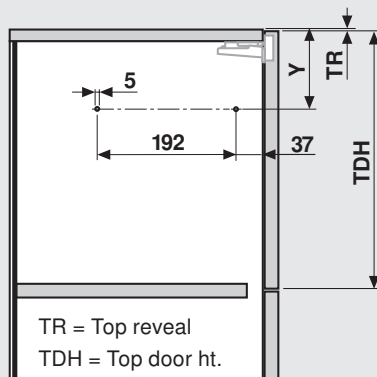
Part no.
Hardware set **78Z550ATA3**

Planning

Step 2: Minimum space requirements

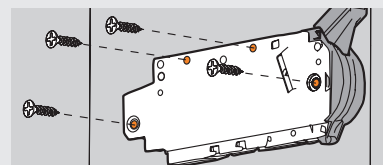


Locating pin positions



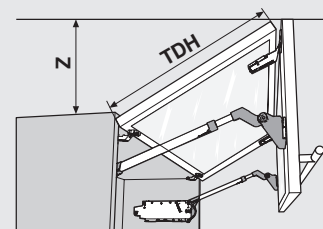
Top door height (TDH)	Y
231 to 271	$TDH \times .6 - 28 + TR$
272 to 531	$TDH \times .6 - 57 + TR$

Mounting hole locations



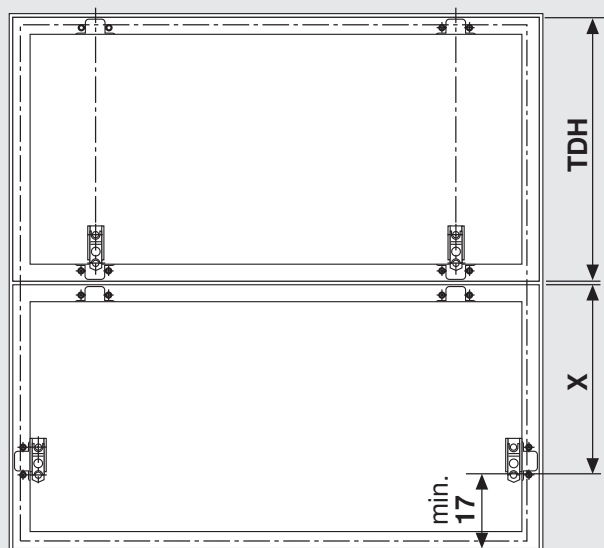
The included #7 x 35 mm (1-3/8") wood screws are required in the four holes marked in orange.

Clearance above cabinet



$$Z = TDH \times .44 + 23$$

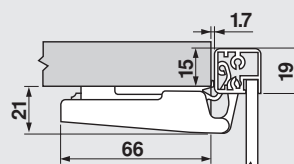
Step 3: Door assembly



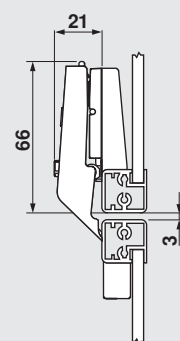
Top door height (TDH)	X
231 to 271	$TDH \times .5 + 70$
272 to 531	$TDH \times .5 + 47$

Note: 3 hinges are required for cabinet width over 1219 mm (48") or 26.5 lb. combined door weight

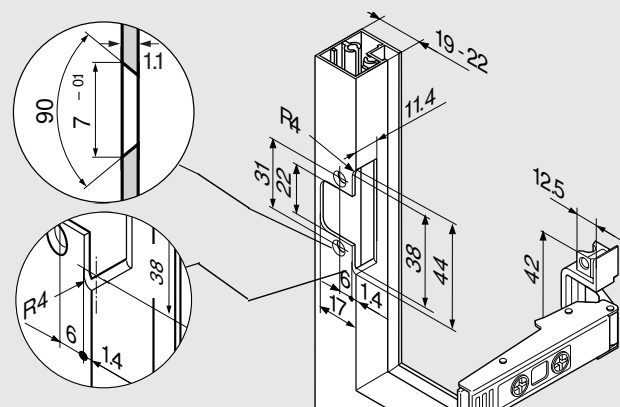
Top door hinge



Bottom door hinge



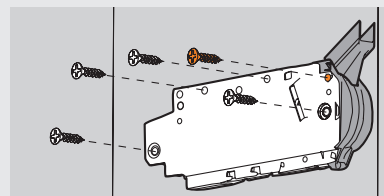
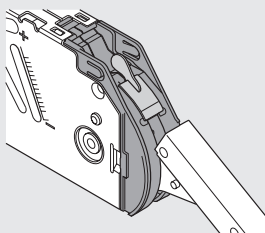
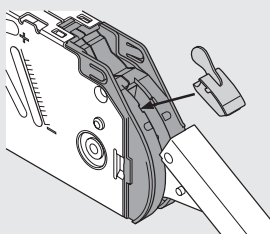
Hinge attachment



Angle restriction clip



This clip restricts the opening angle of the top hinges of an AVENTOS lift system to 104 degrees. This may be useful for cabinets with large crown moldings or installations with little clearance above the cabinet.

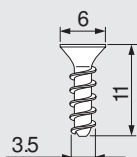
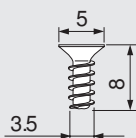


Using the AVENTOS angle restriction clip requires the installation of an extra #7 x 35 mm (1-3/8") mounting screw on each of the lift mechanisms.

Angle restriction clip **Part no. 20F7051**

Screws

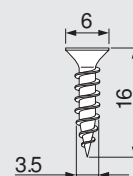
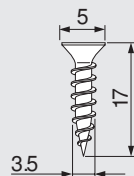
Aluminum door screws



Use to attach hinges to doors (aluminum door applications)

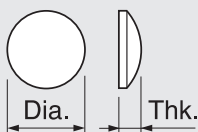
	Part no.
For aluminum door hinge attachment	606.080
For 175H5100.05 plate attachment	699.110

Deep thread wood screws



	Part no.
For in-line plate attachment	629.170
For wood door hinge and plate attachment	606P

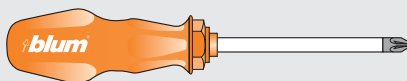
Bumpers



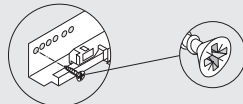
Cushions door closing
Self-adhesive back; clear

	Part no.
6(1/4") dia. x 1.5(1/16")	FX4041
10(3/8") dia. x 3(1/8")	SJ5312

POZI DRIVER and bits

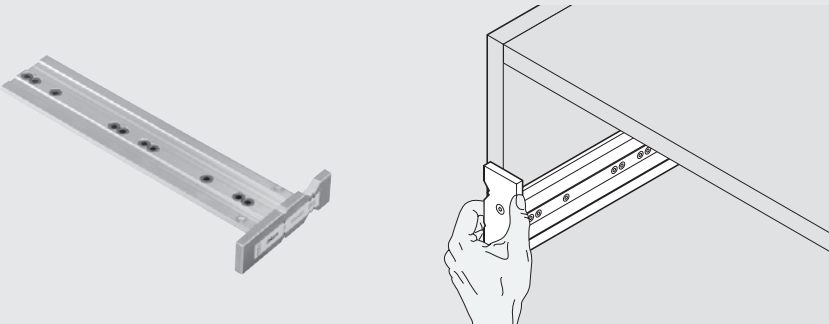


A POZI screwdriver (different from Phillips) is the most crucial tool you can use to assure that full torque is applied to all Blum mounting screws. POZI screws can be identified by the distinctive "tick" marks located in the center of the screw head recess.



	Part no.
#2x1" POZI bit insert	POZI BIT #2x1
#2 POZI DRIVER	POZI DRIVER
1/4" bit holder	BIT HOLDER

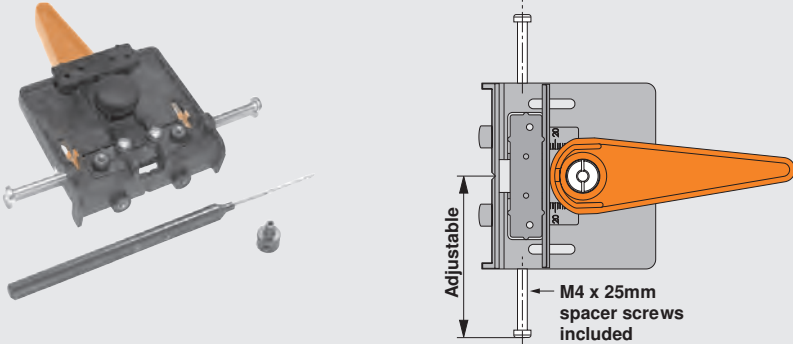
AVENTOS template



- Use to pre-bore for AVENTOS locating pins

AVENTOS template	Part no.
Ø5mm drill bit	65.5020
	DB-5mm

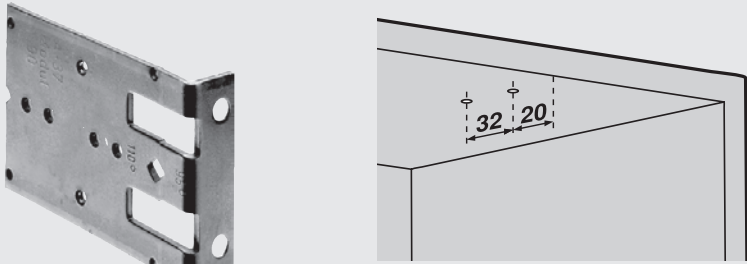
PlateMate



- For face frame adapter plates
- Frame thicknesses of 5/8" to 1"
- 9.5mm or 12.5mm setback

PlateMate	Part no.
Ø2.5mm drill bit	65.5030.01
	DB-2.5mm

Mounting plate template



- Pre-bores for top hinge mounting plates in narrow aluminum door applications
- Transfers position from door to cabinet
- Pilot bore Ø2.5mm holes for wood screws

Mounting plate template	Part no.
Ø2.5mm drill bit	65.5300
	DB-2.5mm

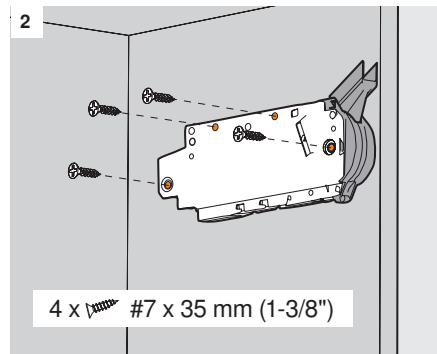
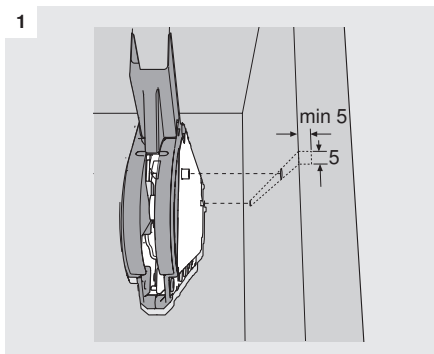
Assembly

Step 1: Complete an AVENTOS planning worksheet

Go through the "Using this catalog" steps on pages 7 - 8 or complete an AVENTOS planning worksheet (available on www.blum.us). This will help you determine required hardware and necessary cabinet preparation.

Step 2: Install the lift mechanism

1. Pre-bore locating pin holes in the cabinet sides (use 65.5020 template). Attach lift mechanism to cabinet by placing it in position using the locating holes.
2. Attach four #7 x 35mm (1-3/8") wood screws in the holes marked in orange.



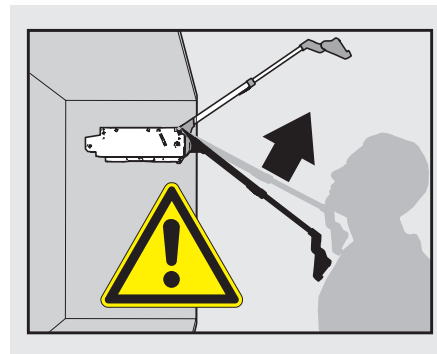
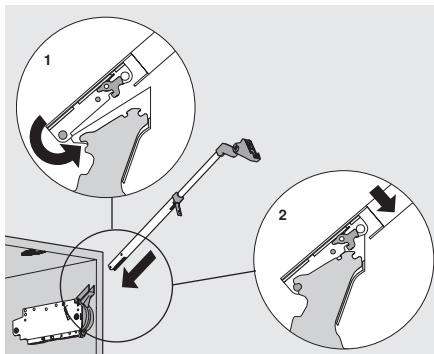
Step 3: Attach the telescopic arms

Attach telescopic arms by clipping them on in the fully upright position.



Warning: Risk of injury by spring-loaded telescopic arm!

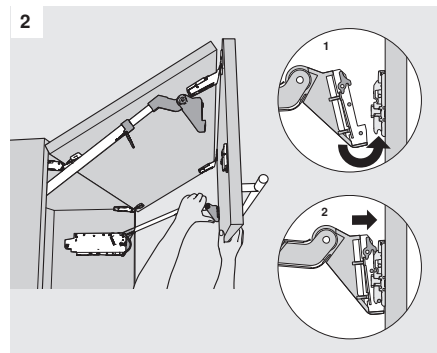
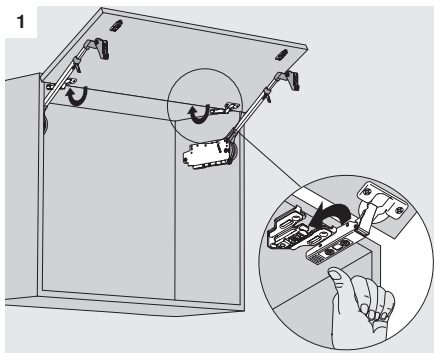
- Do not push telescopic arm down.
- Remove telescopic arm from mechanism before installing cabinet.



Step 4: Prepare and attach the doors

Determine the locations of mounting plates and hinges per instructions on page 9 and attach hardware to cabinet doors.

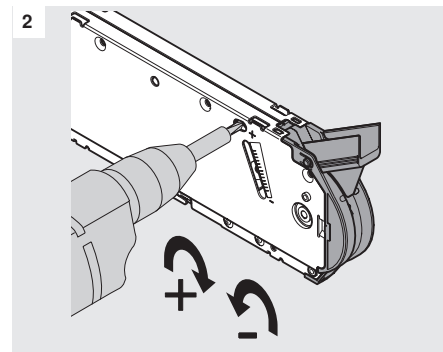
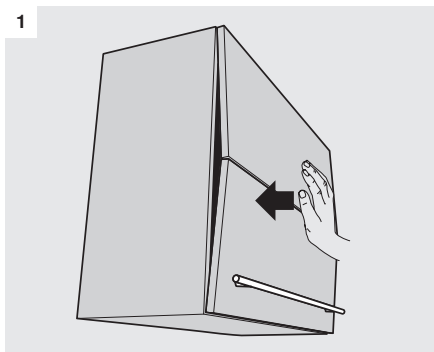
1. Attach top door to the cabinet.
2. Attach bottom door to the top door and the telescopic arms.





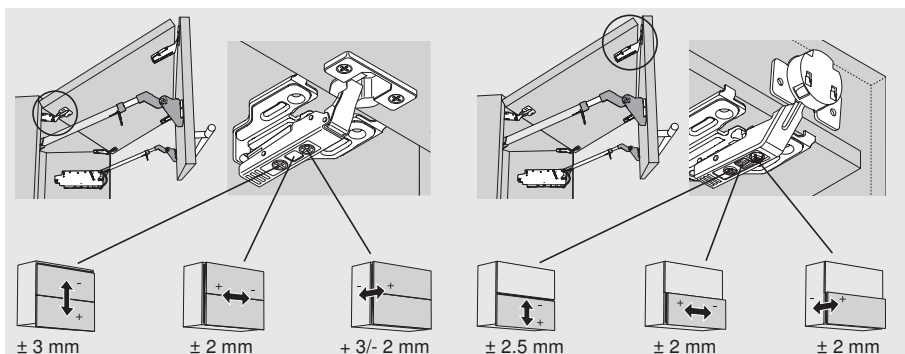
Step 5: Adjust tension of the lift mechanism

Close and flush doors to cabinet. Open and close door to test closing force. Open door and adjust tension screws on both lift mechanisms with a power drill. Test door again and repeat until desired function is achieved.



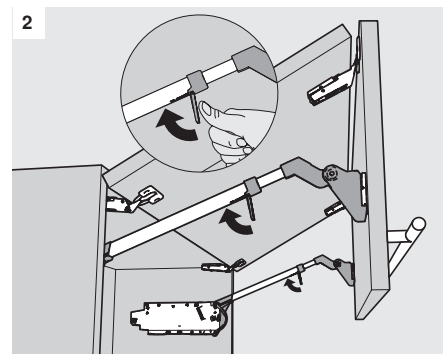
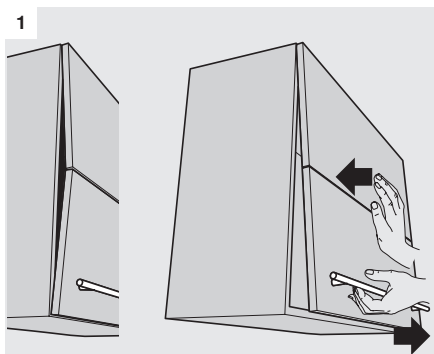
Step 6: Adjust the doors

Adjust each hinge and mounting plate to properly align doors to the cabinet and to each other.



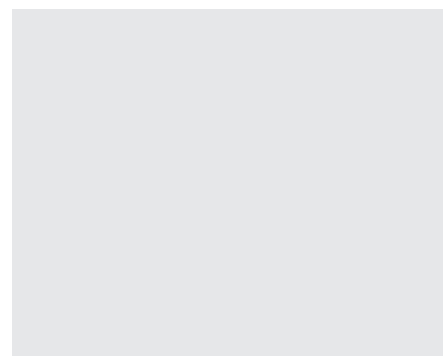
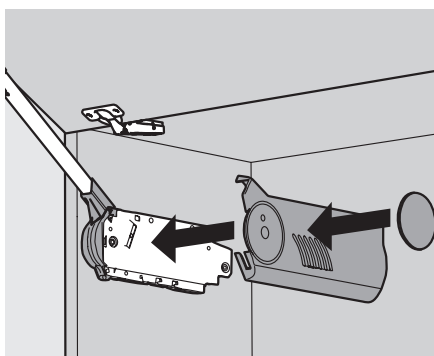
Step 7: Finalize the door and telescopic arm adjustments

1. Close and flush doors to cabinet. While pressing on the bottom of the top door, pull the bottom door open one inch.
2. Lock the telescopic arms into position using the levers as shown.



Step 8: Attach cover caps

Attach the left and right cover plates to each lift mechanism then attach the symmetrical cover caps.

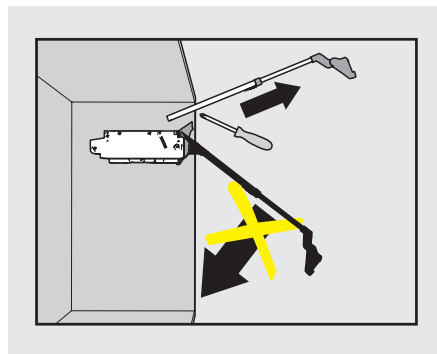
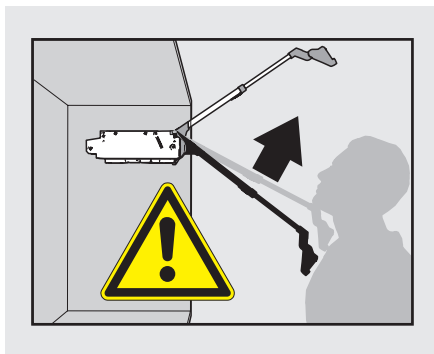


Removal

Step 1: Be aware

Warning: Risk of injury by spring-loaded telescopic arm!

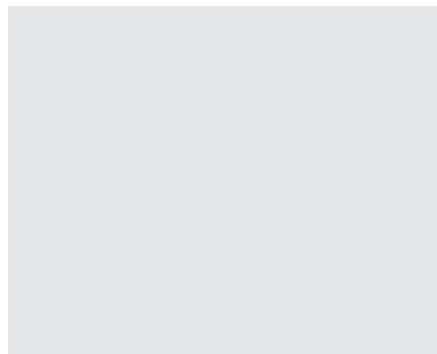
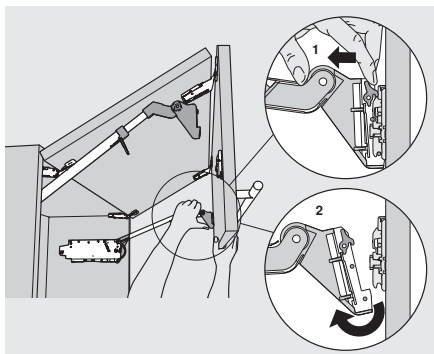
- Do not push telescopic arm down.
- Remove telescopic arm from mechanism before installing the cabinet.



Step 2: Release telescopic arms

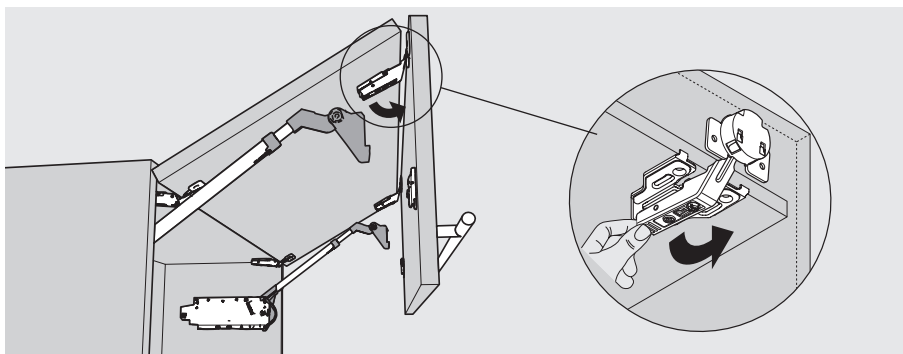
Warning: Maintain control of the telescopic arm while releasing the CLIP mechanism.

Release both arms and gently rest the top door on the loose arms. The tension will hold the doors up for the next step.



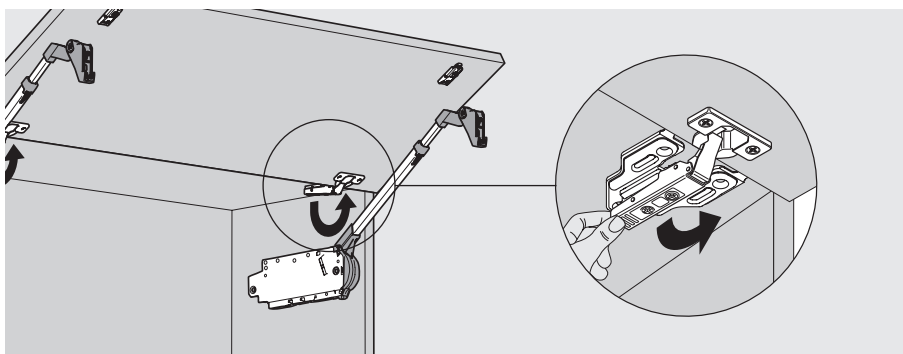
Step 3: Remove the bottom door

Hold the bottom door while unclipping the bottom hinge.



Step 4: Remove the top door

Hold the top door while detaching the top hinges. Simply unclip them if using the CLIP top hinges or unscrew them if using COMPACT.

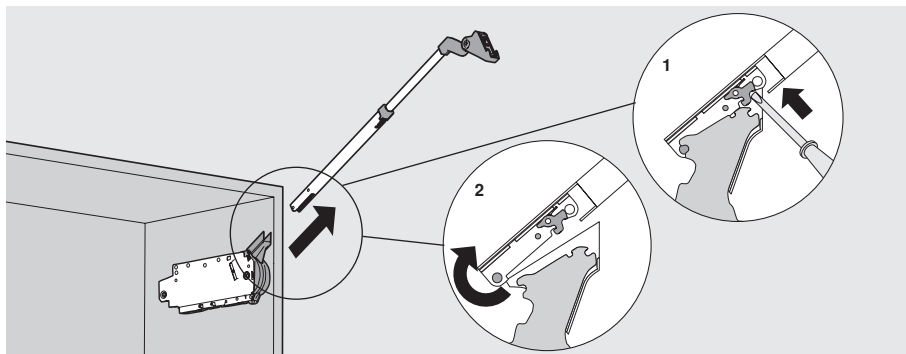




Step 5: Remove the telescopic arms

Using a screwdriver, depress the release tabs to remove telescopic arms.

If transporting the cabinet to the jobsite, stop here. Lift mechanisms stay inside the cabinet for easy transport.



Step 6: Remove the lift mechanisms

1. Remove the symmetrical cover caps from right and left covers.
2. Remove the four mounting screws.

