AVENTOS HL

Blum, Inc. is a leading manufacturer of functional hardware for the kitchen cabinet and commercial casegoods industries specializing in lift systems, concealed hinges, and drawer runner systems. Virtually all of the hardware needed to assemble and make cabinets functional are available within the wide range of quality Blum products.

Blum's manufacturing and distribution facility in Stanley, North Carolina supplies the North American markets through a network of more than 150 dependable distributors. Wholly owned by the Blum family, the company was formed in 1952 by Julius Blum and is headquartered in Hoechst, Austria.

Global customer benefits

Product development at Blum considers all of the various customers who will come in contact with our products. With this "Global Customer Benefits" philosophy we strive to create advantages for all users from the manufacturer to the end consumer.

Q ISO 9001 CERTIFIED QUALITY SYSTEM

Blum, Inc. is ISO 9001 certified which means that you are assured of consistent quality in every Blum product. What's more they exceed the requirements of ANSI/BHMA standards for cycle life, static load and self-closing performance. Contact your local Blum representative for more details.

Table of contents

Opening action
– easier than everything that has come before

AVENTOS HL is a lift system that provides a comfort of motion that is sure to impress. AVENTOS HL doors open effortlessly, and thanks to BLUMOTION, come to a gentle halt. Its elegant yet simple design makes it easy to integrate the lift hardware into the cabinet and the high-quality cover caps for AVENTOS HL give the cabinet interior a modern look.

Integrated BLUMOTION – silent and effortless closing

BLUMOTION
▶▶ ▶ ◻
inside

Regardless of how heavy the door or whether it's closed with force, it will close silently and effortlessly every time.
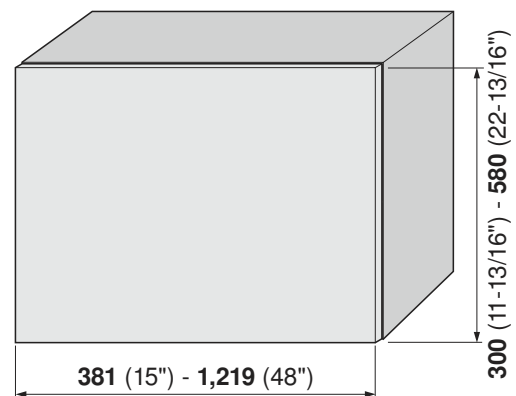
BLUMOTION on AVENTOS HL provides:

▶▶ Doors swing downward ...

▶ ... are brought to a gentle halt and ...

◻ ... close silently and effortlessly.

Few parts – many applications

Although the program only consists of a few parts, AVENTOS HL covers all common door widths and heights. The small product line simplifies planning, ordering, and inventory.

381 (15") - **1,219** (48")

300 (11-13/16") - **580** (22-13/16")

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Fast assembly and removal

An experienced kitchen installer will remove the door when mounting a wall cabinet. This protects surfaces and makes the cabinet lighter. With AVENTOS HL, the door can be removed simply and quickly via the integrated CLIP technology.

In this way, the cabinet can be quickly, easily and securely attached to the wall for the final assembly. Assembly into the cabinet takes just a few steps:

The lift mechanism is attached. When installing the lever arm HL requires no tools.

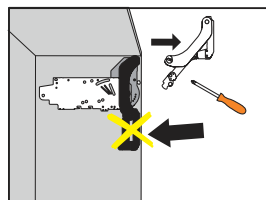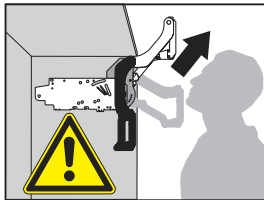The stabilizer is attached to the lift mechanism for optimal side stability.

Attachment of symmetrical mounting plate to the door.

The attachment to the door uses CLIP technology.

⚠ WARNING

Arm assembly can spring up and cause injury without door attached

- Do not push arm assembly down
- Remove mechanism before installing or removing cabinet
- For questions call 1-800-438-6788 or go to www.blum.com

Fast and precise adjustment

The AVENTOS HL door can be adjusted in three dimensions. The result is that a perfect alignment can be achieved on site. The tension adjustment feature is used to fine tune the opening and closing power. Adjustment is easy and enables the power to match the size and weight of the door.

Exact door adjustment using the 3-dimensional adjustment feature.

Variable adjustment on the power setting means that the strength of the mechanism can be matched to each door.

Extremely durable

With AVENTOS HL, your customers can feel the quality of Blum hardware every time they open and close the door. The core of this lift mechanism is a robust spring assembly that is very durable and includes BLUMOTION silent closing.

BLUMOTION – Opening

Tension adjustment

Spring assembly

BLUMOTION – Closing
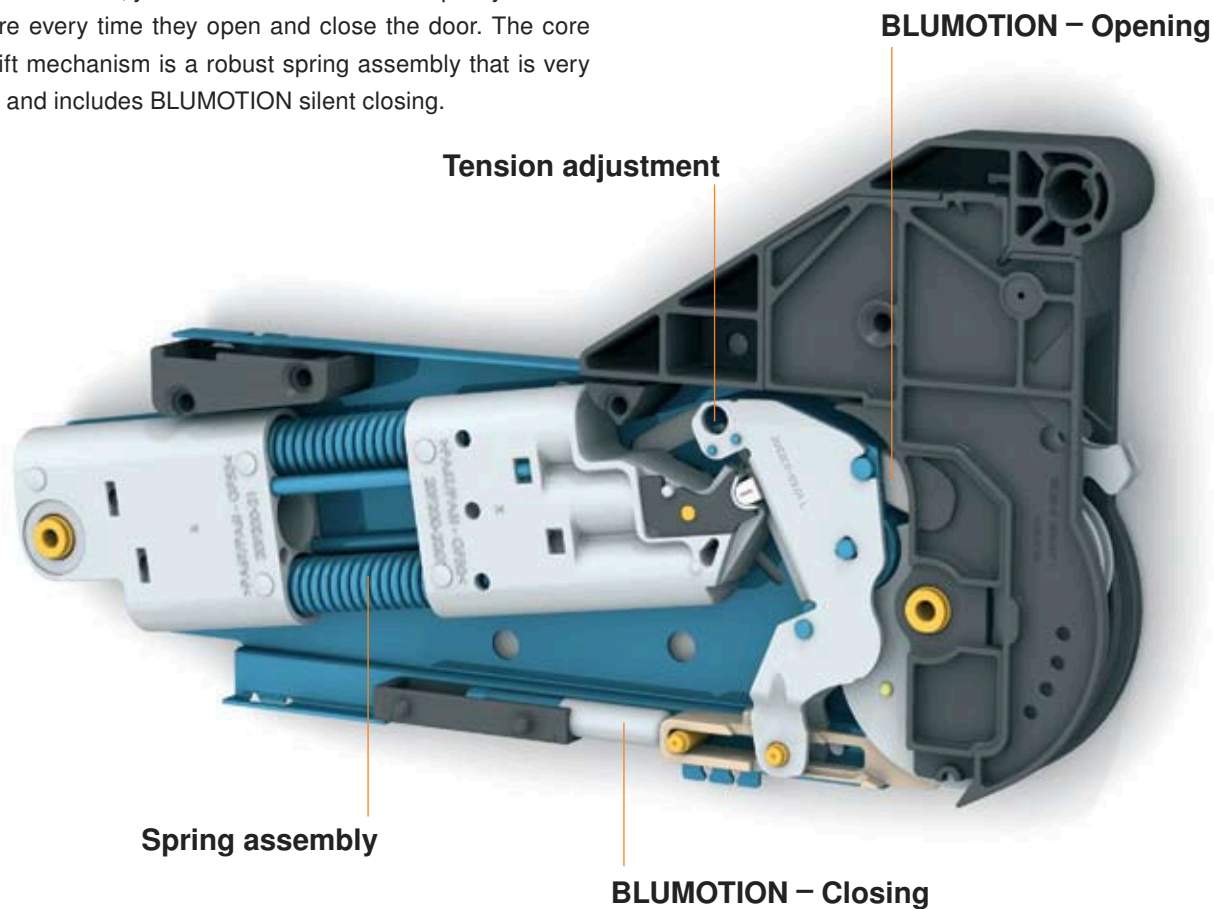
No protruding parts

There are no protruding parts thanks to the removable arm assembly on AVENTOS HL. This provides improved safety for cabinet manufacturing, transport and installation.

Design options

AVENTOS HL is a great solution for upper cabinets, especially ones with another cabinet above. Blum also offers a special arm assembly for use in an appliance garage.

AVENTOS HL offers numerous design options including wooden doors and aluminum frame doors.

Decorative molding clearance

When developing the AVENTOS HL, we also took into account cabinets with decorative mouldings. The design options are limitless.

blum
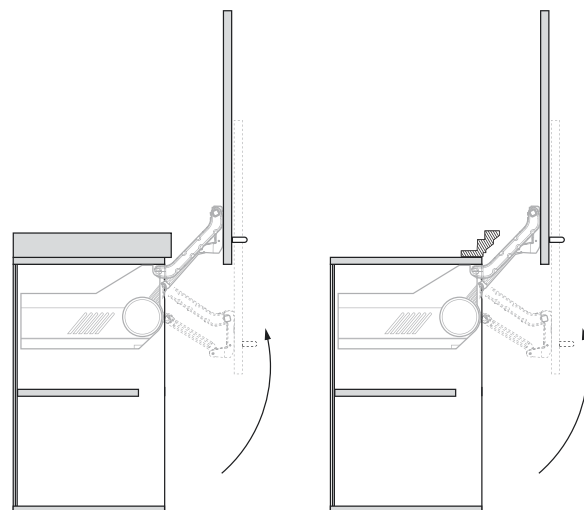
Step 1: Determine your application

Go to the page for your application: face frame page 9, panel page 11, or narrow frame aluminum door page 13. Appliance garage applications start on page 15.

Step 2: Determine the required arm assembly and lift mechanism

Use the chart on the corresponding application page to determine the proper (a.) lift mechanism and (b.) arm assembly based on the height of the cabinet and weight of the door (including handle).

Determining required lift mechanism

Cabinet height	Arm assembly	Lift mechanism (door weight - lb / oz)				
		20L2100.NA	20L2300.NA	20L2500.NA	20L2700.NA	20L2900.NA
300 - 349	20L3200	2 / 12 - 8 / 7	8 / 8 - 13 / 7	13 / 8 - 25 / 4	25 / 5 - 44 / 0	
350 - 399	20L3500	2 / 12 - 4 / 10	4 / 11 - 10 / 2	10 / 3 - 18 / 10	18 / 11 - 28 / 4	28 / 5 - 44 / 0
400 - 550	20L3800		3 / 13 - 6 / 13	6 / 14 - 13 / 11	13 / 12 - 24 / 7	24 / 8 - 44 / 0
450 - 580	20L3900		2 / 3 - 3 / 4	3 / 5 - 10 / 6	10 / 7 - 19 / 3	19 / 4 - 36 / 5

Step 3: Select proper hardware set

Select the proper hardware set based on the intended application.

Wood/wide aluminum door application

	Part no.
Hardware set	20S4200.L1

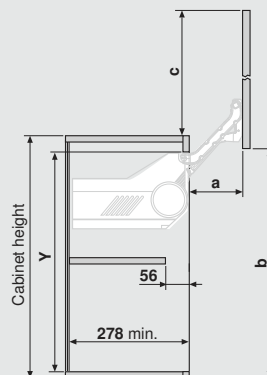### Narrow aluminum door application

	Part no.
Hardware set	20S4200AL1

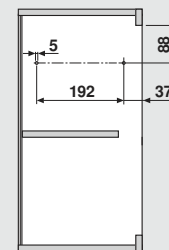## Step 4: Determine mounting location for lift mechanism

Use the diagram for the appropriate application to determine the lift mechanism locating pin positions and pre-bore them in the cabinet sides.

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

Step 4: Space requirement **Locating pin positions**

Arm assembly	Cabinet height	Min. Y	a	b*	c*
20L3200	300 - 349 (11-13/16" - 13-3/4")	262	114	257	241
20L3500	350 - 399 (13-13/16" - 15-13/16")	312	146.5	345.5	331
20L3800	400 - 550 (15-3/4" - 21-5/8")	362	178.5	434	419
20L3900	450 - 580 (17-11/16" - 22-13/16")	412	211	522	507

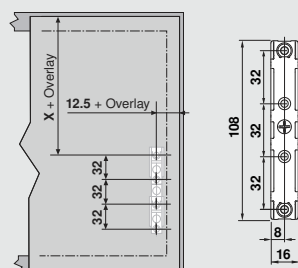* based on 1-1/2" face frame

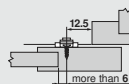## Step 5: Determine location for the mounting plates

Use the diagram to determine the mounting plate position and attach them to the door.

Use a mounting plate with bracket if the mounting plate center line is in less than 6mm from the center panel.
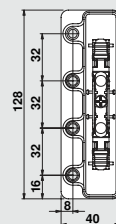
Step 5: Mounting plate position

X + Overlay
12.5 + Overlay
32 32
32 32
108
32 32 32
8
16

Arm assembly	X
20L3200	153
20L3500	203
20L3800	253
20L3900	303

12.5
more than 6

Part no.
Mounting plate **20S4200**

Mounting plate with bracket

Use the standard mounting plate (20S4200) for solid doors or on five piece doors when the mounting plate center line is in more than 6mm from the center panel.

The mounting plate with bracket (20S4F01) is required when the mounting plate center line is in less than 6mm from the center panel.

128 32 32 32 16
8
40

12.5
less than 6

12.5
19
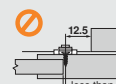
Part no.
Mounting plate with bracket **20S4F01**

Step 6: Cut Stabilizer rod

Cut the stabilizer rod to the proper size for the cabinet using the formula:

Length = Interior cabinet opening minus 122mm

Step 6

g **Oval stabilizer rod**

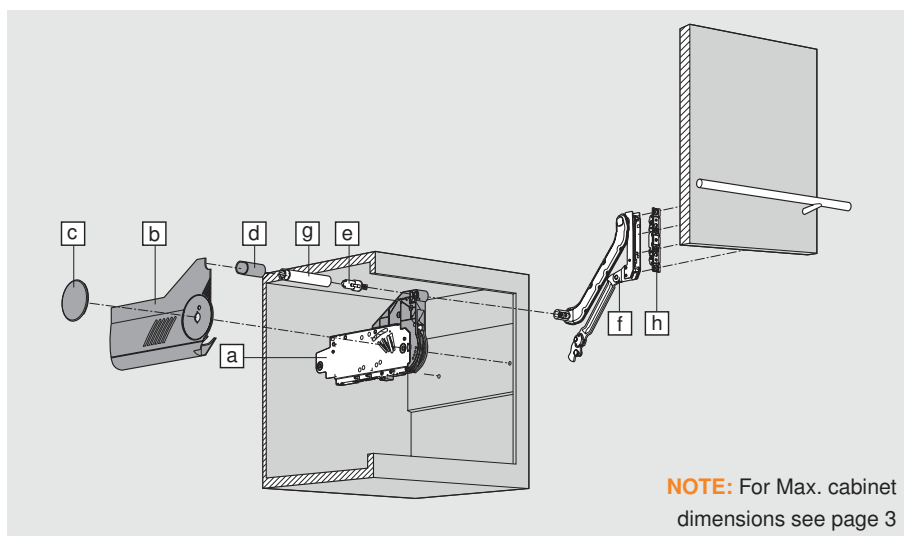Cut to length
Length = Interior cab. opening - 122 mm

	Part no.
Aluminum	
1061 mm (41-7/8")	**20Q1061UA**

Step 7: Begin assembly

Now move to the Assembly instructions on page 23

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Determine required parts

To determine the required lift mechanism and arm assembly for any application, find the weight of the door (including handle) and cabinet height. Use the chart below.

NOTE: Face frame cabinets must be blocked out flush with the frame on the sides to mount the AVENTOS HL lift mechanisms.

NOTE: For Max. cabinet dimensions see page 3

Determining required lift mechanism

Cabinet height	Arm assembly	Lift mechanism (door weight - lb / oz)				
		20L2100.NA	**20L2300.NA**	**20L2500.NA**	**20L2700.NA**	**20L2900.NA**
300 - 349	**20L3200**	**2** / 12 - **8** / 7	**8** / 8 - **13** / 7	**13** / 8 - **25** / 4	**25** / 5 - **44** / 0	
350 - 399	**20L3500**	**2** / 12 - **4** / 10	**4** / 11 - **10** / 2	**10** / 3 - **18** / 10	**18** / 11 - **28** / 4	**28** / 5 - **44** / 0
400 - 550	**20L3800**		**3** / 13 - **6** / 13	**6** / 14 - **13** / 11	**13** / 12 - **24** / 7	**24** / 8 - **44** / 0
450 - 580	**20L3900**		**2** / 3 - **3** / 4	**3** / 5 - **10** / 6	**10** / 7 - **19** / 3	**19** / 4 - **36** / 5

Required parts

Step 2a
a thru **e** Lift mechanism set

Set includes:

a 2 x Lift mechanisms
b 2 x Cover plates (right and left)
c 2 x Cover caps
d 2 x Stabilizer rod cover caps
e 2 x Stabilizer rod adapters
18 x #7x35mm (1-3/8") wood screws*
* only 10 screws required

	Part No.
	20L2100.NA
	20L2300.NA
	20L2500.NA
	20L2700.NA
	20L2900.NA

Step 2b
f Arm assembly set

f 2 x Arm assemblies (right and left)

Cabinet height	Part No.
300 - 349 (11-13/16" - 13-3/4")	**20L3200**
350 - 399 (13-13/16" - 15-3/4")	**20L3500**
400 - 550 (15-13/16" - 21-5/8")	**20L3800**
450 - 580 (17-11/16" - 22-13/16")	**20L3900**

Step 6
g Oval stabilizer rod

Cut to length
Length = Interior cab. opening - 122 mm

	Aluminum	Part no.
	1061 mm (41-7/8")	**20Q1061UA**

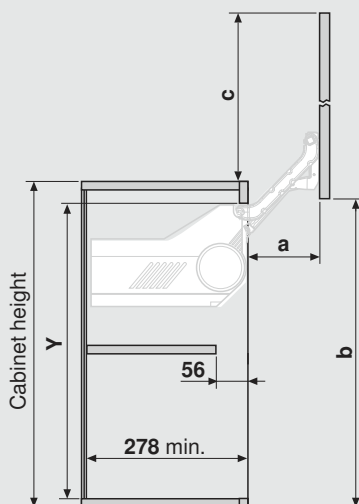### Step 3: **h** Wood/wide aluminum door hardware set

Set includes:

h 2 x 20S4200 Wood/wide aluminum mounting plate
h 2 x 20S4F01 Wood/wide aluminum mounting plate
    with bracket
22 x 606P Wood door screws for 20S4200*
18 x 7072A Aluminum door screws for
    mounting plates*
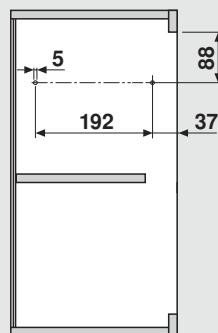POZI #2x2 driver bit for adjusting tension
* only 8 screws required

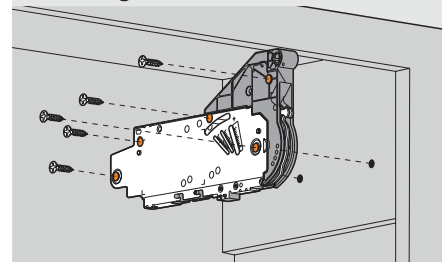|	Part no.
Hardware set	**20S4200.L1**

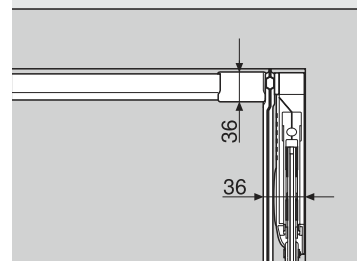## Step 4: Space requirement

Locating pin positions

Mounting hole locations

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

NOTE: Face frame cabinets must be blocked out flush with the frame on the sides to mount the AVENTOS HL lift mechanisms.
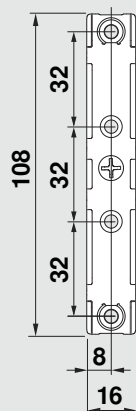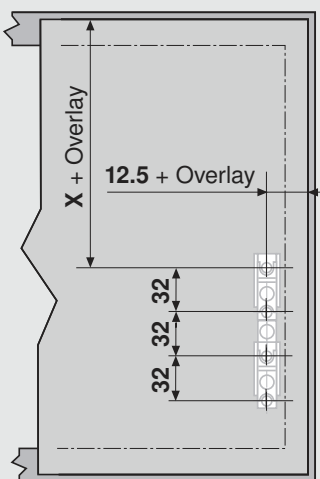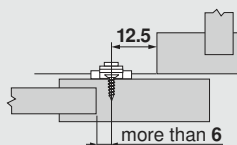
Mechanism protrusion

Arm assembly	Cabinet height	Min. Y	a	b*	c*
20L3200	**300 - 349** (11-13/16" - 13-3/4")	**262**	**114**	**257**	**241**
20L3500	**350 - 399** (13-13/16" - 15-13/16")	**312**	**146.5**	**345.5**	**331**
20L3800	**400 - 550** (15-3/4" - 21-5/8")	**362**	**178.5**	**434**	**419**
20L3900	**450 - 580** (17-11/16" - 22-13/16")	**412**	**211**	**522**	**507**

* based on 1-1/2" face frame

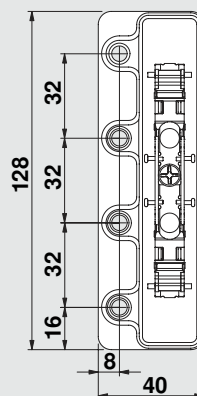## Step 5: Mounting plate position

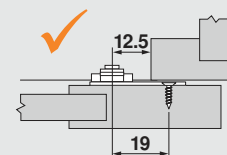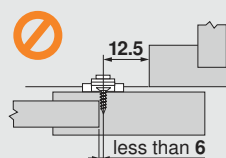## Mounting plate with bracket

Use the standard mounting plate (20S4200) for solid doors or on five piece doors when the mounting plate center line is in more than 6mm from the center panel.

The mounting plate with bracket (20S4F01) is required when the mounting plate center line is in less than 6mm from the center panel.
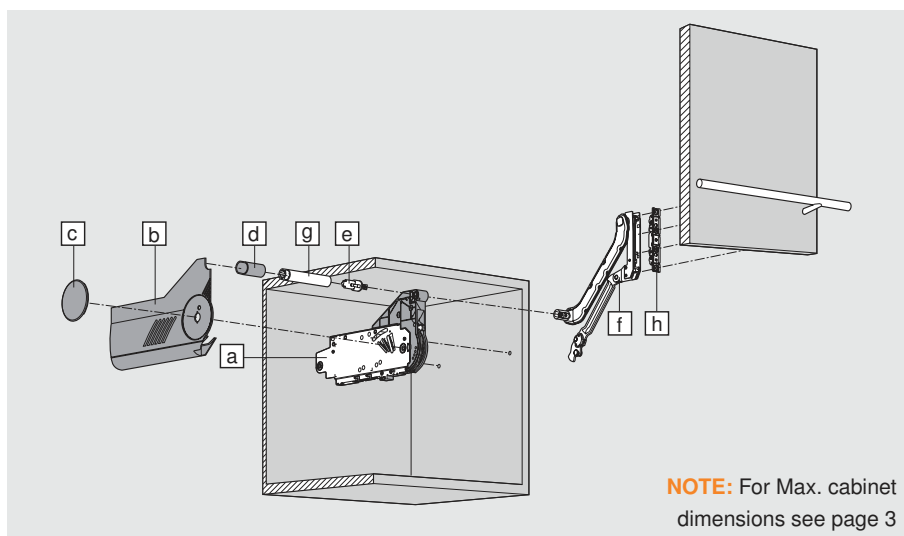
Arm assembly	X
20L3200	**153**
20L3500	**203**
20L3800	**253**
20L3900	**303**

	Part no.
Mounting plate	**20S4200**

	Part no.
Mounting plate with bracket	**20S4F01**

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Determine required parts

To determine the required lift mechanism and arm assembly for any application, find the weight of the door (including handle) and cabinet height. Use the chart below.

NOTE: For Max. cabinet dimensions see page 3

Determining required lift mechanism

Cabinet height	Arm assembly	Lift mechanism (door weight - lb / oz)				
		20L2100.NA	**20L2300.NA**	**20L2500.NA**	**20L2700.NA**	**20L2900.NA**
300 - 349	**20L3200**	**2** / 12 - **8** / 7	**8** / 8 - **13** / 7	**13** / 8 - **25** / 4	**25** / 5 - **44** / 0	
350 - 399	**20L3500**	**2** / 12 - **4** / 10	**4** / 11 - **10** / 2	**10** / 3 - **18** / 10	**18** / 11 - **28** / 4	**28** / 5 - **44** / 0
400 - 550	**20L3800**		**3** / 13 - **6** / 13	**6** / 14 - **13** / 11	**13** / 12 - **24** / 7	**24** / 8 - **44** / 0
450 - 580	**20L3900**		**2** / 3 - **3** / 4	**3** / 5 - **10** / 6	**10** / 7 - **19** / 3	**19** / 4 - **36** / 5

Required parts

Step 2a — [a] thru [e] Lift mechanism set

Set includes:

[a] 2 x Lift mechanisms
[b] 2 x Cover plates (right and left)
[c] 2 x Cover caps
[d] 2 x Stabilizer rod cover caps
[e] 2 x Stabilizer rod adapters
18 x #7x35mm (1-3/8") wood screws*
* only 10 screws required

Part No.
20L2100.NA
20L2300.NA
20L2500.NA
20L2700.NA
20L2900.NA

Step 2b — [f] Arm assembly set

[f] 2 x Arm assemblies (right and left)

Cabinet height	Part No.
300 - 349 (11-13/16" - 13-3/4")	**20L3200**
350 - 399 (13-13/16" - 15-3/4")	**20L3500**
400 - 550 (15-13/16" - 21-5/8")	**20L3800**
450 - 580 (17-11/16" - 22-13/16")	**20L3900**

Step 6 — [g] Oval stabilizer rod

Cut to length
Length = Interior cab. opening - 122 mm

	Part no.
Aluminum	
1061 mm (41-7/8")	**20Q1061UA**

Step 3: [h] Wood/wide aluminum door hardware set

Set includes:

[h] 2 x 20S4200 Wood/wide aluminum mounting plate
[h] 2 x 20S4F01 Wood/wide aluminum mounting plate
     with bracket
22 x 606P Wood door screws for 20S4200*
18 x 7072A Aluminum door screws for
     mounting plates*
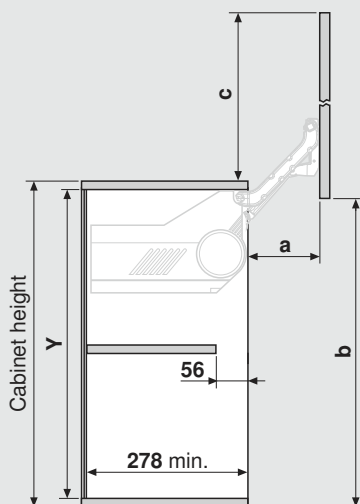POZI #2x2 driver bit for adjusting tension
* only 8 screws required

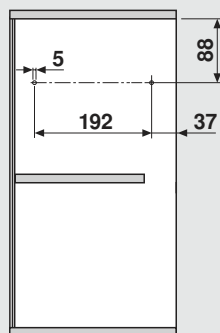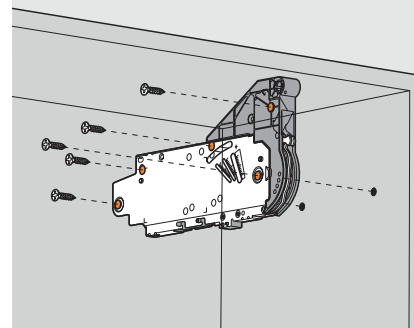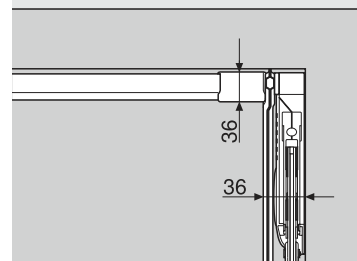|	Part no.
Hardware set	**20S4200.L1**

Step 4: Space requirement

Locating pin positions

Mounting hole locations

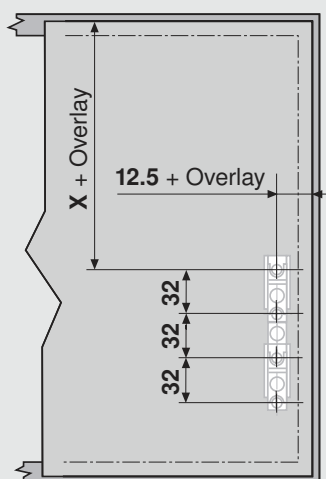The included #7 x 35 mm (1-3/8") wood screws are required in the five holes marked in orange.

Arm assembly	Cabinet height	Min. Y	a	b*	c*
20L3200	**300 - 349** (11-13/16" - 13-3/4")	**262**	**114**	**276**	**260**
20L3500	**350 - 399** (13-13/16" - 15-13/16")	**312**	**146.5**	**364.5**	**350**
20L3800	**400 - 550** (15-3/4" - 21-5/8")	**362**	**178.5**	**453**	**438**
20L3900	**450 - 580** (17-11/16" - 22-13/16")	**412**	**211**	**541**	**526**

* based on **19**mm top panel

Mechanism protrusion

Step 5: Mounting plate position

Arm assembly	X
20L3200	**153**
20L3500	**203**
20L3800	**253**
20L3900	**303**

Mounting plate

Part no.

Mounting plate **20S4200**

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Narrow aluminum door for panel applications

Determine required parts

To determine the required lift mechanism and arm assembly for any application, find the weight of the door (including handle) and cabinet height. Use the chart below.

NOTE: For Max. cabinet dimensions see page 3

Determining required lift mechanism

Cabinet height	Arm assembly	Lift mechanism (door weight - lb / oz)				
		20L2100.NA	**20L2300.NA**	**20L2500.NA**	**20L2700.NA**	**20L2900.NA**
300 - 349	**20L3200**	**2** / 12 - **8** / 7	**8** / 8 - **13** / 7	**13** / 8 - **25** / 4	**25** / 5 - **44** / 0	
350 - 399	**20L3500**	**2** / 12 - **4** / 10	**4** / 11 - **10** / 2	**10** / 3 - **18** / 10	**18** / 11 - **28** / 4	**28** / 5 - **44** / 0
400 - 550	**20L3800**		**3** / 13 - **6** / 13	**6** / 14 - **13** / 11	**13** / 12 - **24** / 7	**24** / 8 - **44** / 0
450 - 580	**20L3900**		**2** / 3 - **3** / 4	**3** / 5 - **10** / 6	**10** / 7 - **19** / 3	**19** / 4 - **36** / 5

Required parts

Step 2a — a thru e Lift mechanism set

Set includes:

a 2 x Lift mechanisms
b 2 x Cover plates (right and left)
c 2 x Cover caps
d 2 x Stabilizer rod cover caps
e 2 x Stabilizer rod adapters
   18 x #7x35mm (1-3/8") wood screws*
   * only 10 screws required

Part No.
20L2100.NA
20L2300.NA
20L2500.NA
20L2700.NA
20L2900.NA

Step 2b — f Arm assembly set

f 2 x Arm assemblies (right and left)

Cabinet height	Part No.
300 - 349 (11-13/16" - 13-3/4")	**20L3200**
350 - 399 (13-13/16" - 15-3/4")	**20L3500**
400 - 550 (15-13/16" - 21-5/8")	**20L3800**
450 - 580 (17-11/16" - 22-13/16")	**20L3900**

Step 6 — g Oval stabilizer rod

Cut to length
Length = Interior cab. opening - 122 mm

	Aluminum	Part no.
	1061 mm (41-7/8")	**20Q1061UA**

Step 3: h Narrow aluminum door hardware set

Set includes:

h 2 x 20S4200A Narrow aluminum mounting plate
   18 x 699.110 Aluminum door screws for
   narrow frame aluminum doors*
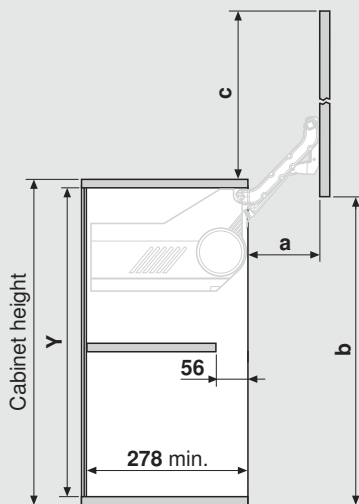   POZI #2x2 driver bit for adjusting tension

   * only 8 screws required

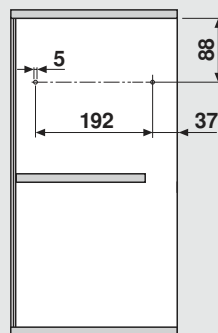|	Part no.
Hardware set	**20S4200AL1**

Step 4: Space requirement

c, a, b, Y, Cabinet height, 56, 278 min.

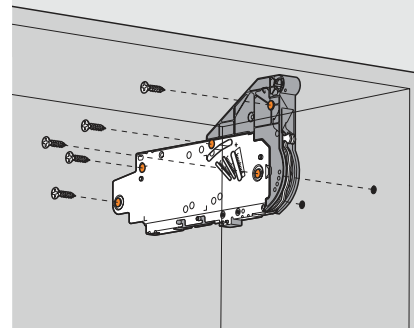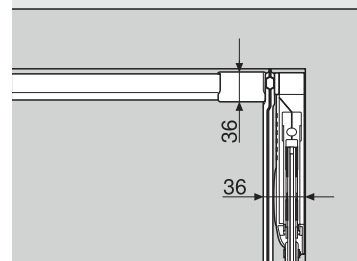## Locating pin positions

5, 88, 192, 37

Mounting hole locations

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

Mechanism protrusion

36, 36

Arm assembly	Cabinet height	Min. Y	a	b*	c*
20L3200	300 - 349 (11-13/16" - 13-3/4")	262	114	276	260
20L3500	350 - 399 (13-13/16" - 15-13/16")	312	146.5	364.5	350
20L3800	400 - 550 (15-3/4" - 21-5/8")	362	178.5	453	438
20L3900	450 - 580 (17-11/16" - 22-13/16")	412	211	541	526

* based on 19mm top panel

Step 5: Mounting plate position

X + Overlay, 15.5, 64
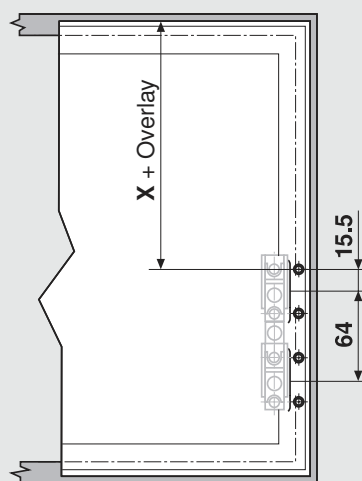
Arm assembly	X
20L3200	153.5
20L3500	203.5
20L3800	253.5
20L3900	303.5

Planning narrow aluminum frames

Overlay - 4.5, 4.6, 31, 33, 31, 64, 38, 7.5, R4, R4, min 1.4, max 7.5, Ø7, 90°, 1.1

NOTE: When changing material thickness, adjust assembly dimensions.

15-19, 12.5, 11.4, 19-22, Reveal (1-4), Overlay

Narrow aluminum mounting plate

Part no. 20S4200A

Determine required parts

To determine the required lift mechanism and arm assembly for any application, find the weight of the door (including handle) and cabinet height. Use the chart below.

NOTE: Face frame cabinets must be blocked out flush with the frame on the sides to mount the AVENTOS HL lift mechanisms.

NOTE: For Max. cabinet dimensions see page 3

Determining required lift mechanism

Cabinet height	Arm assembly	Lift mechanism (door weight - lb / oz)			
		20L2300.NA	**20L2500.NA**	**20L2700.NA**	**20L2900.NA**
450 - 580	**20L3900**	**2** / 3 - **3** / 4	**3** / 5 - **10** / 6	**10** / 7 - **19** / 3	**19** / 4 - **36** / 5

Required parts

Step 2a — a thru e Lift mechanism set

Set includes:

- a 2 x Lift mechanisms
- b 2 x Cover plates (right and left)
- c 2 x Cover caps
- d 2 x Stabilizer rod cover caps
- e 2 x Stabilizer rod adapters
- 18 x #7x35mm (1-3/8") wood screws*
- *** only 10 screws required**

Part No.
20L2300.NA
20L2500.NA
20L2700.NA
20L2900.NA

Step 2b — f Arm assembly set

f 2 x Arm assemblies (right and left)

Cabinet height	Part No.
450 - 580 (17-11/16" - 22-13/16")	**20L3900**

Step 6 — g Oval stabilizer rod

Cut to length

Length = Interior cab. opening - 122 mm

Aluminum	Part no.
1061 mm (41-7/8")	**20Q1061UA**

Step 3: h Wood/wide aluminum door hardware set

Set includes:

- h 2 x 20S4200 Wood/wide aluminum mounting plate
- h 2 x 20S4F01 Wood/wide aluminum mounting plate with bracket
- 22 x 606P Wood door screws for 20S4200*
- 18 x 7072A Aluminum door screws for mounting plates*
- POZI #2x2 driver bit for adjusting tension
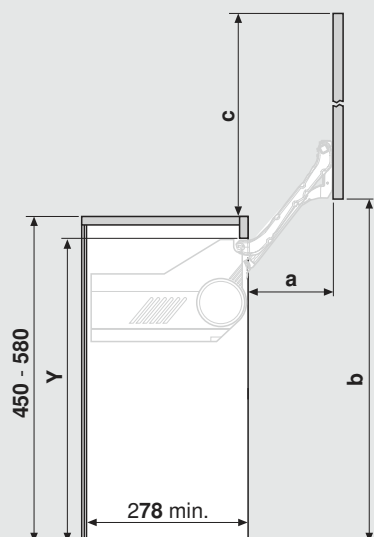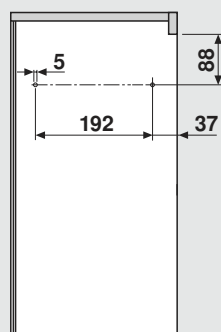- *** only 8 screws required**

	Part no.
Hardware set	**20S4200.L1**

Installation

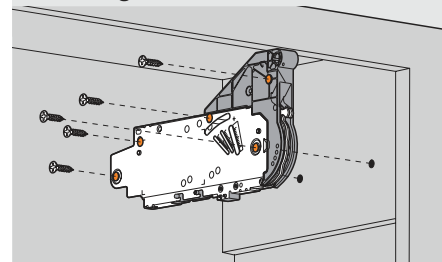## Step 4: Space requirement

c

450 - 580

Y

a

b

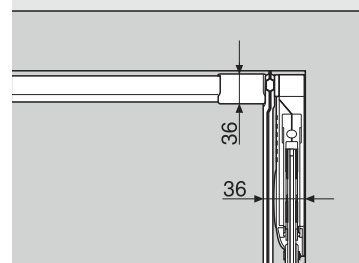**278** min.

Locating pin positions

5

88

192

37

Mounting hole locations

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

NOTE: Face frame cabinets must be blocked out flush with the frame on the sides to mount the AVENTOS HL lift mechanisms.
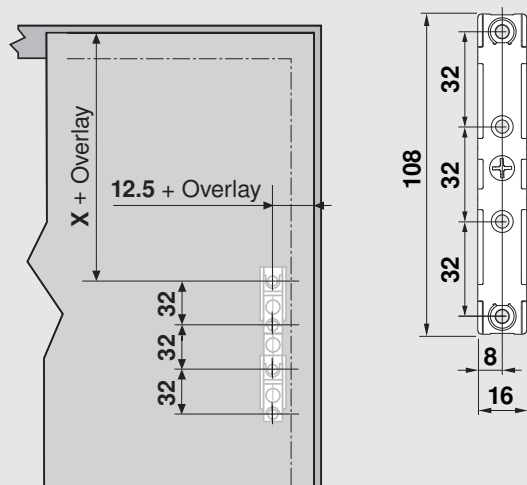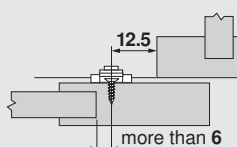
Mechanism protrusion

36

36

Arm assembly	Cabinet height	Min. Y	a	b*	c*
20L3900	**450 - 580** (17-11/16" - 22-13/16")	**412**	**211**	**522**	**507**

* based on 1-1/2" face frame

Step 5: Mounting plate position

X + Overlay

12.5 + Overlay

32 32

32 32

32

108

32

32

32

8

16

Arm assembly	X
20L3900	**303**

12.5

more than **6**

Mounting plate

Part no.

20S4200

Mounting plate with bracket

32

32

128

32

16

8

40

Use the standard mounting plate (20S4200) for solid doors or on five piece doors when the mounting plate center line is in more than 6mm from the center panel.
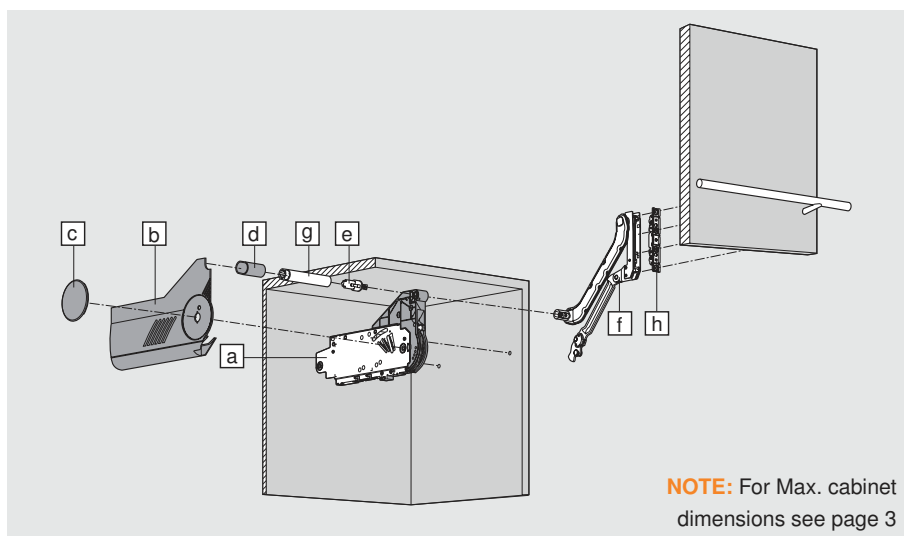
The mounting plate with bracket (20S4F01) is required when the mounting plate center line is in less than 6mm from the center panel.

⦸ 12.5

less than **6**

✓ 12.5

19

Mounting plate with bracket

Part no.

20S4F01

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Determine required parts

To determine the required lift mechanism and arm assembly for any application, find the weight of the door (including handle) and cabinet height. Use the chart below.

NOTE: For Max. cabinet dimensions see page 3

Determining required lift mechanism

Cabinet height	Arm assembly	Lift mechanism (door weight - lb / oz)			
		20L2300.NA	**20L2500.NA**	**20L2700.NA**	**20L2900.NA**
450 - 580	**20L3900**	**2** / 3 - **3** / 4	**3** / 5 - **10** / 6	**10** / 7 - **19** / 3	**19** / 4 - **36** / 5

Required parts

Step 2a — a thru e Lift mechanism set

Set includes:

- **a** 2 x Lift mechanisms
- **b** 2 x Cover plates (right and left)
- **c** 2 x Cover caps
- **d** 2 x Stabilizer rod cover caps
- **e** 2 x Stabilizer rod adapters
- 18 x #7x35mm (1-3/8") wood screws*
- *** only 10 screws required**

Part No.
20L2300.NA
20L2500.NA
20L2700.NA
20L2900.NA

Step 2b — f Arm assembly set

- **f** 2 x Arm assemblies (right and left)

Cabinet height	Part No.
450 - 580 (17-11/16" - 22-13/16")	**20L3900**

Step 6 — g Oval stabilizer rod

Cut to length

Length = Interior cab. opening - 122 mm

	Aluminum	Part no.
	1061 mm (41-7/8")	**20Q1061UA**

Step 3: h Wood/wide aluminum door hardware set

Set includes:

- **h** 2 x 20S4200 Wood/wide aluminum mounting plate
- **h** 2 x 20S4F01 Wood/wide aluminum mounting plate with bracket
- 22 x 606P Wood door screws for 20S4200*
- 18 x 7072A Aluminum door screws for mounting plates*
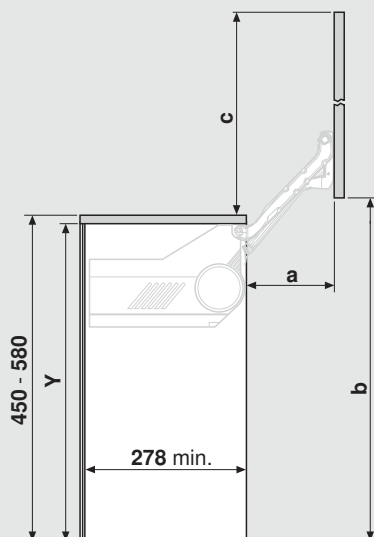- POZI #2x2 driver bit for adjusting tension
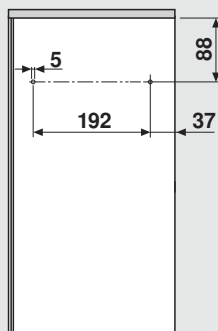- *** only 8 screws required**

	Part no.
Hardware set	**20S4200.L1**

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Step 4: Space requirement

Arm assembly	Cabinet height	Min. Y	a	b*	c*
20L3900	**450 - 580** (17-11/16" - 22-13/16")	**412**	**211**	**541**	**526**

* based on **19**mm top panel
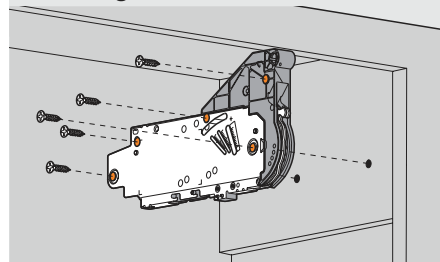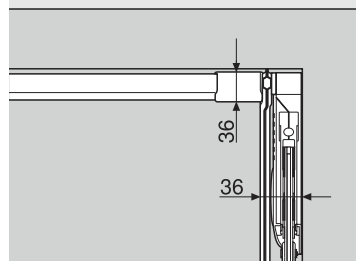
Locating pin positions

Mounting hole locations

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

NOTE: Face frame cabinets must be blocked out flush with the frame on the sides to mount the AVENTOS HL lift mechanisms.

Mechanism protrusion

Step 5: Mounting plate position

Arm assembly	X
20L3900	**303**

Mounting plate

Part no.

Mounting plate	**20S4200**

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Determine required parts

To determine the required lift mechanism and arm assembly for any application, find the weight of the door (including handle) and cabinet height. Use the chart below.

NOTE: For Max. cabinet dimensions see page 3

Determining required lift mechanism

Cabinet height	Arm assembly	Lift mechanism (door weight - lb / oz)			
			20L2300.NA	20L2500.NA	20L2700.NA	20L2900.NA
450 - 580	20L3900		2 / 3 - 3 / 4	3 / 5 - 10 / 6	10 / 7 - 19 / 3	19 / 4 - 36 / 5

Required parts

Step 2a — a thru e Lift mechanism set

Set includes:

- a 2 x Lift mechanisms
- b 2 x Cover plates (right and left)
- c 2 x Cover caps
- d 2 x Stabilizer rod cover caps
- e 2 x Stabilizer rod adapters
- 18 x #7x35mm (1-3/8") wood screws*
- *** only 10 screws required**

Part No.
20L2300.NA
20L2500.NA
20L2700.NA
20L2900.NA

Step 2b — f Arm assembly set

f 2 x Arm assemblies (right and left)

Cabinet height	Part No.
450 - 580 (17-11/16" - 22-13/16")	20L3900

Step 6 — g Oval stabilizer rod

Cut to length

Length = Interior cab. opening - 122 mm

Aluminum	Part no.
1061 mm (41-7/8")	20Q1061UA

Step 3: h Narrow aluminum door hardware set

Set includes:

h 2 x 20S4200A Narrow aluminum mounting plate
18 x 699.110 Aluminum door screws for
narrow frame aluminum doors*
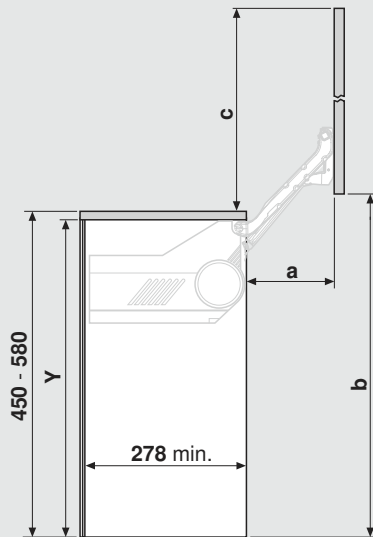POZI #2x2 driver bit for adjusting tension
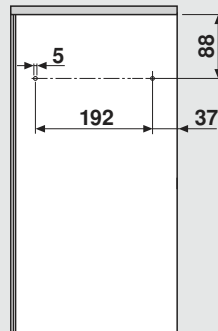
* only 8 screws required

	Part no.
Hardware set	20S4200AL1

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Subject to technical modifications without notice. © 2008

Step 4: Space requirement

450 - 580

c

a

b

Y

278 min.

Locating pin positions

5

88

192

37

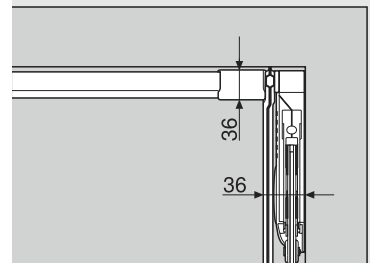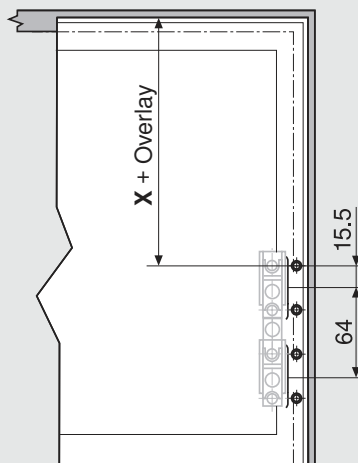| Arm assembly	Cabinet height	Min. Y	a	b*	c*
20L3900	**450 - 580** (17-11/16" - 22-13/16")	**412**	**211**	**541**	**526**

* based on **19**mm top panel

Mounting hole locations

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

NOTE: Face frame cabinets must be blocked out flush with the frame on the sides to mount the AVENTOS HL lift mechanisms.

Mechanism protrusion

36

36

Step 5: Mounting plate position

X + Overlay

15.5

64

Arm assembly	X
20L3900	**303.5**

Planning narrow aluminum frames

Overlay - **4.5**

4.6

31

64

33

38

31

7.5

R4

R4

min **1.4**

max **7.5**

Ø7

90°

1.1

NOTE: When changing material thickness, adjust assembly dimensions.

15-19

12.5

11.4

Reveal (**1-4**)

Overlay

19-22

Part no.

Narrow aluminum mounting plate

20S4200A

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Universal individual template

- Use to pre-bore for AVENTOS locating pins
- Also can be used for marking and preboring of mounting plates

Set includes:
- Template
- Ø2.5 mm stop collar
- Ø5 mm stop collar

	Part no.
Template	**65.1051**
Ø5mm drill bit	**DB-5mm**

Screws

Aluminum door screws
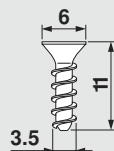
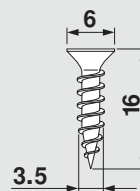Use to attach mounting plates to doors (aluminum door applications)

	Part No.
For narrow aluminum door mounting plates	**699.110**
For wide aluminum door mounting plates	**7072A**

Deep thread wood screws

	Part No.
For wood door mounting plates	**606P**

Bumpers
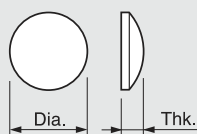
Cushions door closing
Self-adhesive back; clear

	Part no.
Ø6(1/4") x **1.5**(1/16")	**FX4041**
Ø10(3/8") x **3**(1/8")	**SJ5312**

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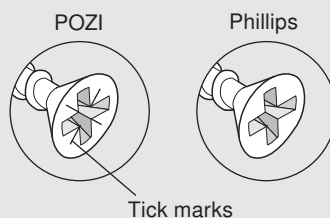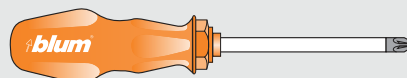
A POZI screwdriver (different from Phillips) is the most crucial tool you can use to assure that full torque is applied to all Blum mounting screws. POZI screws can be identified by the distinctive "tick" marks located in the center of the screw head recess.

	Part no.
#2 POZI DRIVER	**POZI DRIVER**
1/4" bit holder	**BIT HOLDER**
#2 x 1" POZI bit insert	**POZI BIT #2x1**
#2 x 2" POZI bit insert	**POZI BIT #2x2**

AVENTOS HF bi-fold lift system

The doors fold in the middle when opening. This ensures easy access to the handle in any position for high wall cabinets.

AVENTOS HS up and over lift system

The door swings gently over the cabinet and makes storage space easily accessible. The space requirement over the cabinet is also kept to a minimum.

AVENTOS HK stay lift system

The door swings straight up. Applications include above refrigerator, accent cabinets or wall cabinets.

AVENTOS HL lift up system

The door opens vertically. This is ideal for an appliance garage or wall cabinets.

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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.com). This will help you determine required hardware and necessary cabinet preparation.

Step 2: Install the lift mechanism

a. Use the AVENTOS template to pre-bore the locating pin holes for the AVENTOS HL lift mechanism.

b. After aligning the lift mechanism with the cabinet using the locator pins, attach the mechanism with the five mounting screws provided.

a

b
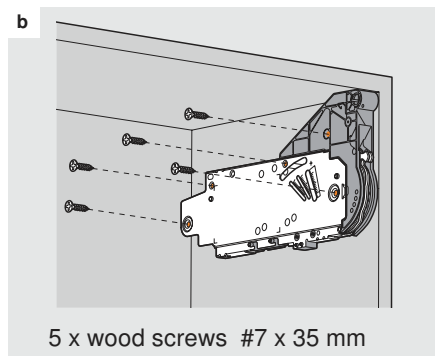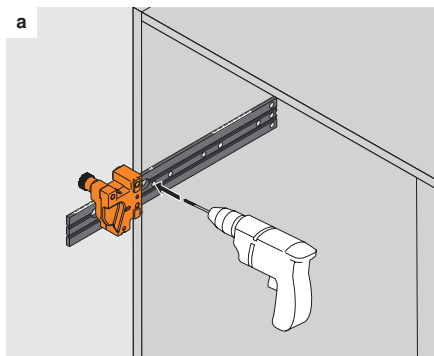
5 x wood screws #7 x 35 mm

Step 3 Attach the Arm assemblies

a. Attach the arm assembly to the lift mechanism as shown.

b1.Insert lower part of arm into lift mechanism (see close-ups)

b2.Lift up on the arm assembly to lock into place.

a

b
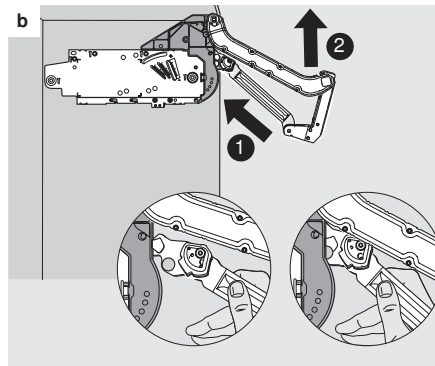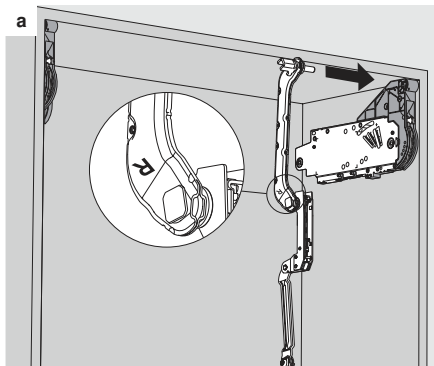
Step 5: Be aware

⚠️ **WARNING**

Risk of injury by spring-loaded arm
■ Do not push arm assembly down or leave in the down position
■ Remove arm assembly from mechanism before installing or removing cabinet
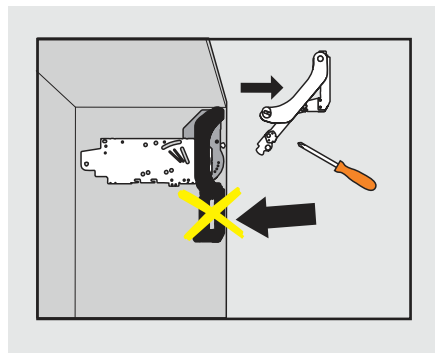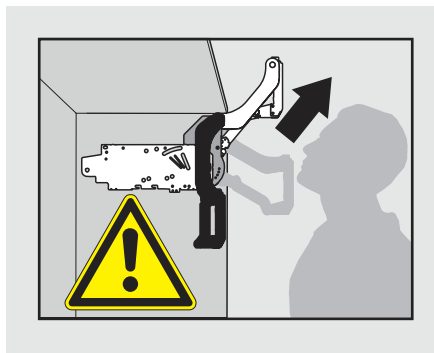
Step 4: Prepare and attach stabilizer rod

After cutting to size, slide the stabilizer arm cover caps onto the rod. Insert the stabilizer rod adapters into the rod (1). Then slide the stabilizer rod into the assembly arms (2&3) and tighten the locking screw (4). Finally, slide the cover cap over the each end of the rod (5).
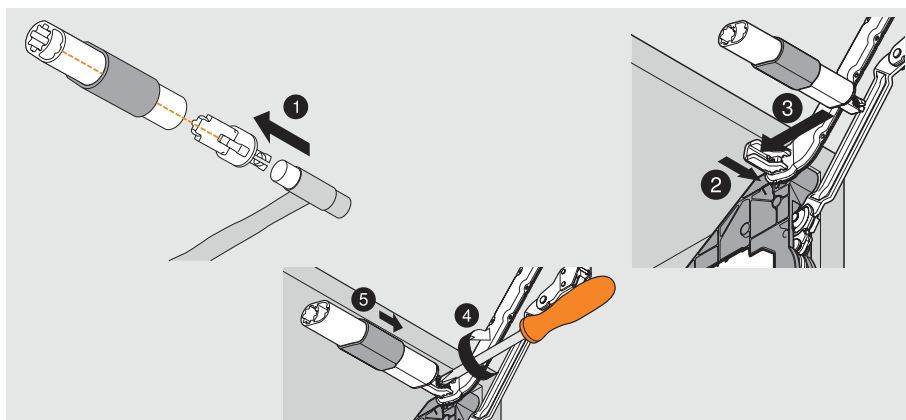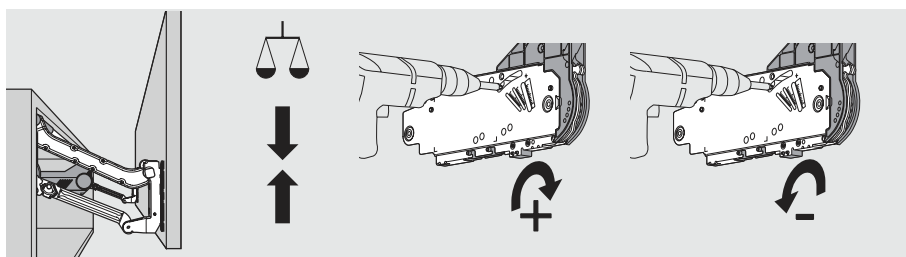
Step 6: Attach the door

Attach the door using the CLIP mechanism in the mounting plate.

Step 7: Adjust the door tension

Use a screw gun and the supplied #2x2 POZI driver bit to adjust the lift mechanism to the desired tension.

Tension should be the same on both lift mechanisms.

Step 8: Finalize the door adjustments and attach covers and cover caps

a. Use a POZI screwdriver to adjust cam adjustments for each of the 3-dimensional adjustments.

b. Snap the symmetrical cover caps on each cover plate. Place the left and right cover plates over the appropriate lift mechanisms and snap them in place.
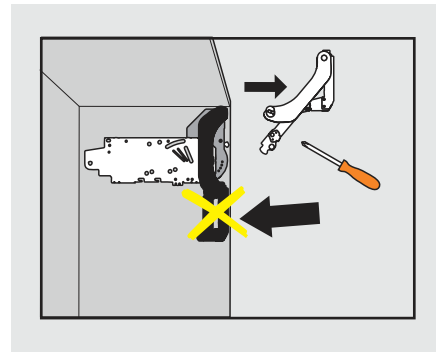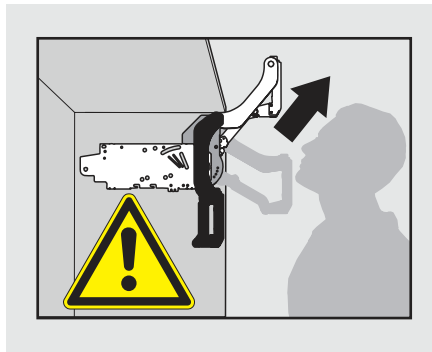
±2 mm   ±2 mm   ±2 mm

blum
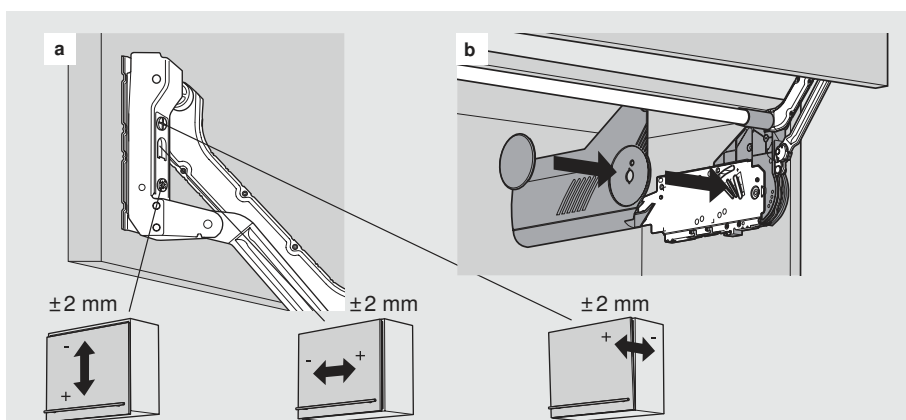
Step 1: Be aware

⚠ WARNING

Risk of injury by spring-loaded arm
- Do not push arm assembly down or leave in the down position
- Remove arm assembly from mechanism before installing or removing cabinet

Step 2: Remove the door and covers

a. Open the door. 1. Support the door with one hand and push down tab to disengage the CLIP mechanisms of the Arm assemblies from the mounting plates. 2. Lift the door off the mounting plates.

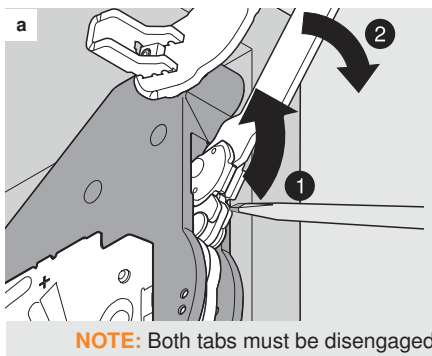b. Remove the cover caps and cover plate.
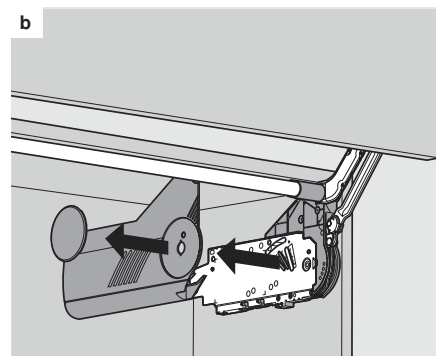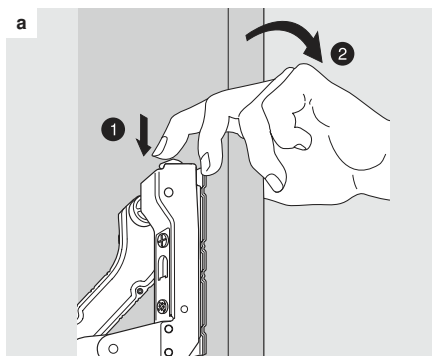
Step 3: Remove the stabilizer rod

a. Pull back the stabilizer rod cover caps and loosen the locking screws on each end of the stabilizer rod.
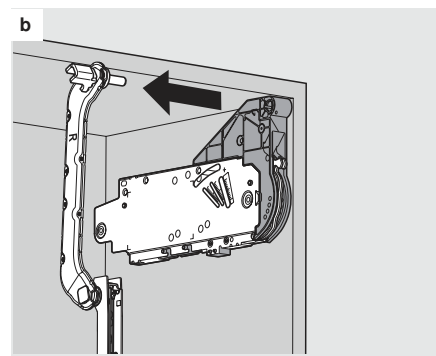
b. Remove the Stabilizer rod from the cabinet.
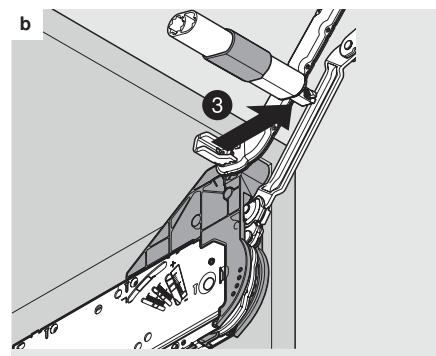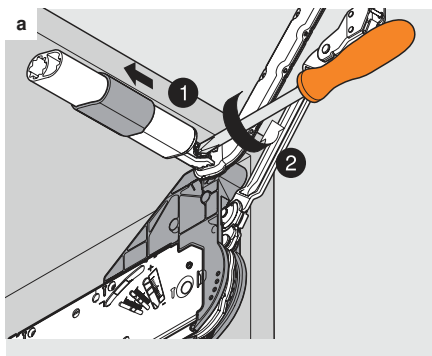
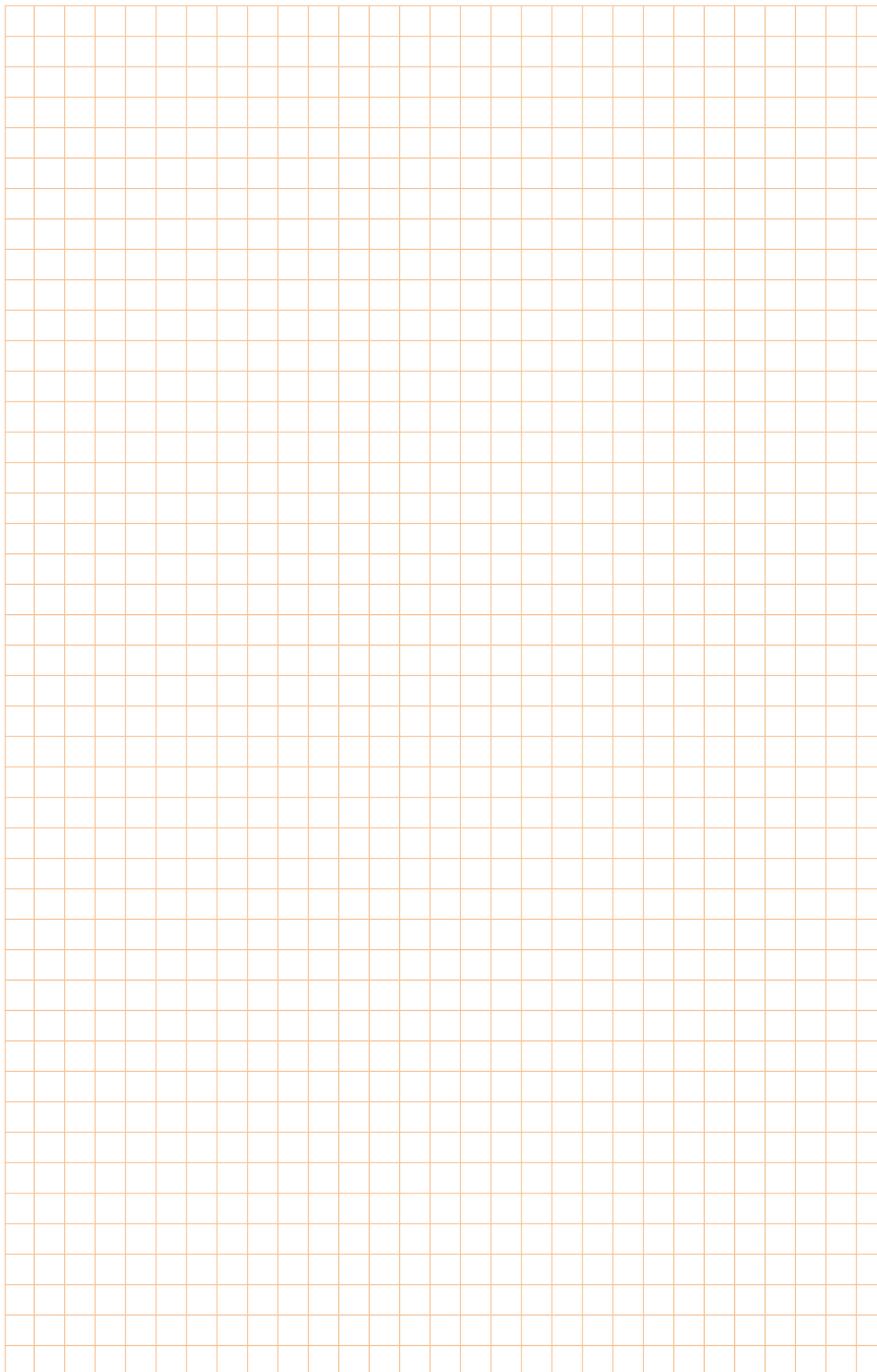## Step 4: Remove the arm assembly

a. Use a screwdriver to disengage both arm assemblies as shown.

b. Remove arm assembly from mechanism.

Cabinet is now ready for transport.

NOTE: Both tabs must be disengaged

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Conversion Chart		
Inch		**mm**
1/32	.031	1
1/16	.063	1.5
3/32	.094	2
1/8	.125	3
5/32	.156	4
3/16	.188	5
7/32	.219	5.5
1/4	.25	6
9/32	.281	7
5/16	.313	8
11/32	.344	9
3/8	.375	9.5
13/32	.406	10
7/16	.438	11
15/32	.469	12
1/2	.5	13
17/32	.531	13.5
9/16	.563	14
19/32	.594	15
5/8	.625	16
21/32	.656	17
11/16	.688	17.5
23/32	.719	18
3/4	.75	19
25/32	.781	20
13/16	.813	20.5
27/32	.844	21
7/8	.875	22
29/32	.906	23
15/16	.938	24
31/32	.969	24.5
1	1	25.4

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