

Installation and Maintenance Instructions

Garage Sectional Door

GB

Last update: 06.2015

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2. Symbol Explanation



Caution! Risk of personal injuries!


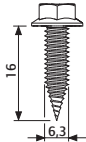
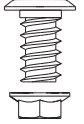
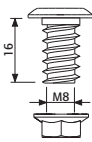
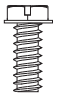
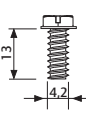
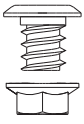
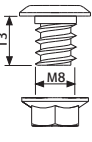
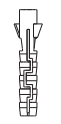
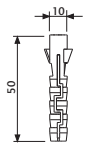

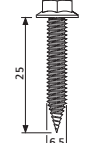
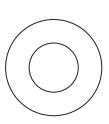
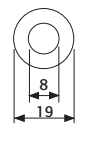

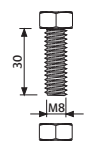

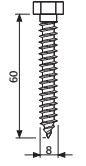
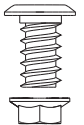
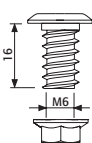


Attention! Risk of material damages!

Note

Function check

Reference

3. List of screws, bolts and plugs

 <p>Typ 1</p>	<p>Type 1: 6.3 mm x 16 mm screw</p>		 <p>Typ 7</p>	<p>Type 7: M8 x 16 mm bolt</p>	
 <p>Typ 2</p>	<p>Type 2: 4.2 mm x 13 mm screw</p>		 <p>Typ 8</p>	<p>Type 8: M8 x 13 mm bolt</p>	
 <p>Typ 3</p>	<p>Type 3: Plug</p>		 <p>Typ 9</p>	<p>Type 9: 6.5 mm x 25 mm screw</p>	
 <p>Typ 4</p>	<p>Type 4: 8 mm x 19 mm washer</p>		 <p>Typ 10</p>	<p>Type 10: M8 x 30 mm bolt</p>	
 <p>Typ 5</p>	<p>Type 5: 8 mm x 60 mm screw</p>		 <p>Typ 11</p>	<p>Type 11: M6 x 16 mm bolt</p>	
 <p>Typ 6</p>	<p>Type 6: 6 mm x 10 mm screw</p>				

4. Warranty

Due to their frequent use wear parts have, a limited service life and are therefore excluded from warranty!

The following are classed as wear parts:

- Springs
- Cables
- Rollers
- Seals
- Cable rollers
- Drive system
- Locks / Locking mechanism
- Bowden cables
- Hinges

Warranty with regard to functioning and safety can only be granted if:

- Installation is carried in compliance with these instructions
- Only original accessories are used
- No additional objects are fixed to the door
- Regular door maintenance is carried out

Warranty shall not apply if these installation and operating instructions are not completely observed.

4. Warranty

Explanation of the colour scheme of CarTeck sectional doors

Possible warping due to sun exposure

Especially in the summer months, heat-insulated sectional doors with foam-core panels consisting of an exterior and interior skin (steel panels) are subjected to especially high levels of stress.

The direct sunlight causes a considerably higher temperature to build up on the outside of the door leaf than on the inside.

The exterior skin of the panel distends considerably more than the inner skin does; this leads to the door leaf temporarily warping.

This effect occurs more often on doors that have very dark colours.

In general, the following rule applies: the lighter the colour, the less it warps.

Exceptions to this are all metallic, pearl and light colours that heat up considerably even if they are painted in lighter tones.

The same is true for film-covered doors in wood decors such as dark oak, mahogany etc.

Furthermore, the wider the door is, the more pronounced the warpage will be.

As such, the surface of door systems in dark colours will never be completely even.

At the plant, the panels are manufactured to counter the effects of such warpage.

Planning

We recommend that you take these points into account whilst planning the door system.

If the door system is exposed to direct sunlight, increased warpage of the panels must be expected!

This may vary depending on the type and design of the door.

Help if thermal warpage has occurred

Reinforcement profiles on the panels generally do not achieve the desired effect and also reduce the clear opening dimension height.

To reduce the warpage that results from direct sunlight, the "Special console for sectional doors" (Item no. 138 144) can be used for the 120 fitting.

Here, the top rollers are to be adjusted in the same way they are adjusted when they are installed in manually-operated doors.

This means that when the door is closed, the top roller is in the vertical run sheet, thus countering the effects of the warpage.

For the 240 fitting, the top rollers are always to be adjusted in the same way they are adjusted when they are installed in manually-operated doors.

Also, there must be sufficient distance between the door leaf and the drive rail; this helps prevent damage to the door leaf occurring.

The stated measurements can have a positive effect on the warpage; however, they cannot completely prevent it from occurring.

Note to the end customer

The end customer must always be made aware of the problems and any measures taken should be explained to them in advance.

Furthermore, the customer must be advised that warpage must be expected for the door colours mentioned above if they are exposed to intense sunlight; it must also be explained that this does not constitute a defect.

5. General safety instructions



Note:

Please keep these instructions for future reference!

Please read and always observe these instructions! They provide you with important information regarding safe installation and operation of the sectional door. The instructions also describe the correct care and maintenance of your door to ensure satisfaction with this product for many years to come.

Caution!

- Installation may only be carried out by a qualified expert in accordance with EN 12635.
- For reasons of safety, only carry out the installation steps in the sequence specified in these instructions.
- Only mount the door onto structurally sound and static surfaces which are capable of supporting the door weight.

Intended use

- This garage door has been designed for private use only (approx. 1000 cycles / year).
- Continuous operation is strictly forbidden.

Target groups

- The Installation, connection, and commissioning:
By qualified, trained specialist personnel. See below
- The Operation, testing, and maintenance:
By the Owner of the door system. See below

Requirements for qualified and trained specialist personnel:

- Knowledge of the general and special safety and accident prevention regulations.
- Knowledge of the applicable electrical engineering regulations.
- Training in the use and upkeep of appropriate safety equipment.
- Adequate instruction and supervision by electricians.
- Capability of recognising dangers which can be caused by electricity.
- Skill in the application of the following standards
 - EN 12635 ('Industrial, commercial and garage doors and gates. Installation and use'),
 - EN 12453 ('Industrial, commercial and garage doors and gates. Safety in use of power operated doors. Requirements'),
 - EN 12445 ('Industrial, commercial and garage doors and gates. Safety in use of power operated doors. Test methods'),

Requirements for the owner of the door system:

- Familiarity with and safekeeping of the operating manual.
- Knowledge of the general safety and accident prevention regulations.

Special requirements apply for the following users:

- Children ages 8 and older.
- Persons with reduced physical, sensory, or mental capabilities.
- Persons lacking in experience and knowledge.

These users may only be involved in the operation of doors.

Special requirements:

- Users are supervised.
- Users have been instructed with regard to the safe use of the equipment.
- Users understand the dangers involved with the equipment.
- Children MUST not play with the equipment.

5. General safety instructions

Site requirements for installation / operation:

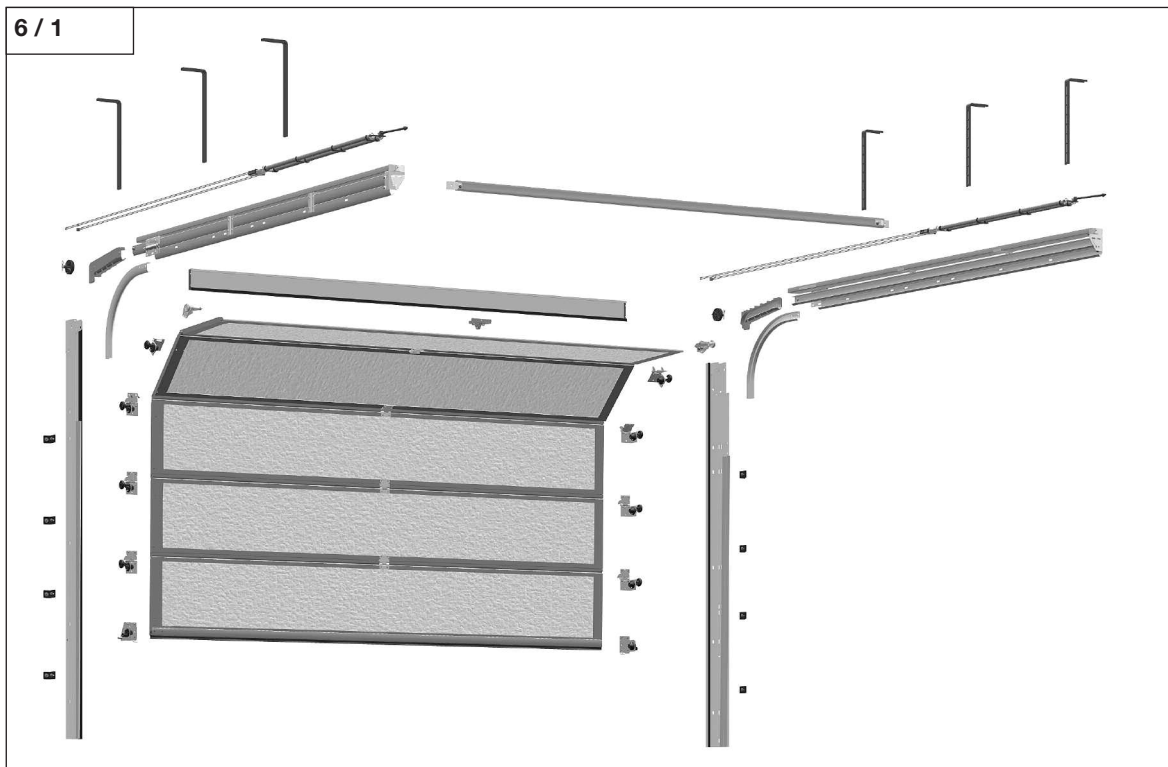
At the construction site please ensure that:

- The floor is at its finished height
- The walls and ceiling have been plastered.

To eliminate the risk of corrosion:

- Provide sufficient drainage outside the garage in front of the floor seal and frame parts!
If necessary, plan a sloping run-off surface!
- Make sure that the building is dry and has sufficient ventilation!
- Protect the door against corrosive and caustic agents, e.g. saltpetre reactions from bricks or mortar, acids, alkalis, road salt, corrosive paints or sealing compounds!
- Always cover the door before plastering or painting, since spots of mortar, cement, plaster or paint can damage the surface.

6. Scope of delivery / Required tools



Scope of delivery

- Door leaf pack
- Frame pack
- Accessory pack

Required tools (not included)

- Two wooden trestles or other supporting equipment
- Electric drill
- Drills
- Torx T-20
- 4 mm Allen key
- 8 mm Allen key
- SW 13 socket spanner
- SW 10 socket spanner
- SW 13 socket spanner
- Suitable plugs for the special installation situation: Autoclaved aerated concrete
- Screwdriver
- Metal saw
- Pliers
- Protective glasses
- Screw clamps
- Ladder or scaffolding
- Spirit level
- Tube level for the metre level
- Tape measure
- Protective gloves

7. Installation of the sectional door

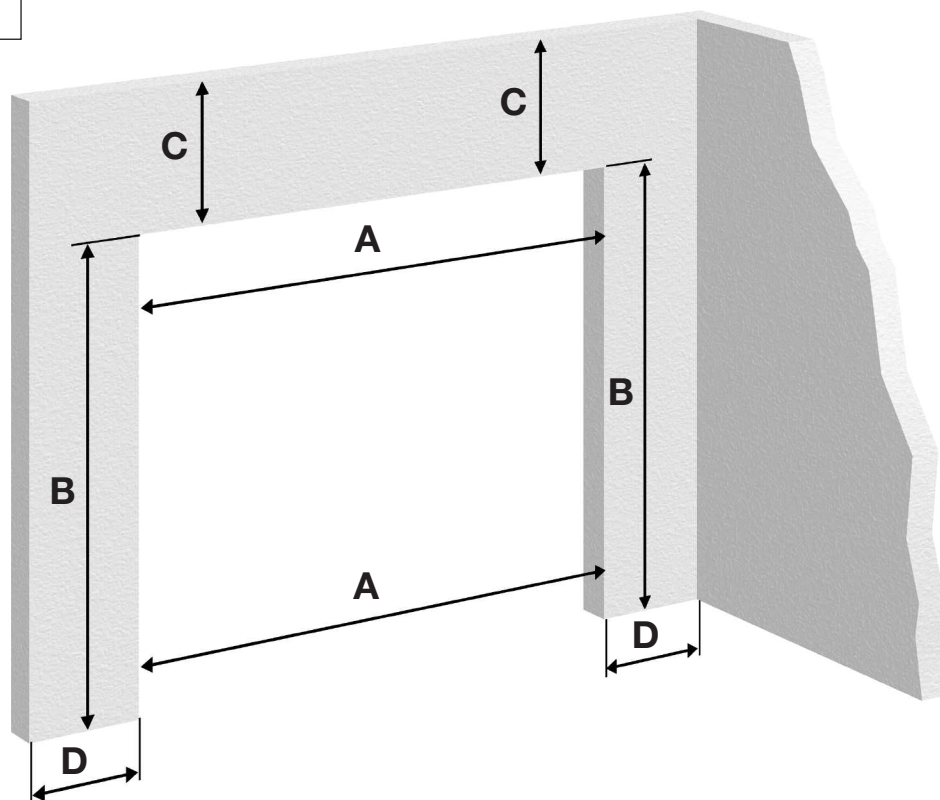
7.1 Checking the dimensions



Attention!

Prior to installation, please check whether the supplied door is suitable for the proposed installation site.

7.1 / 1



Carry out the following measurements on the inside of the door opening:

- A** Clearance width at the top and bottom of the door opening.
The supplied opening dimensions have to correspond to the door clearance width.
- B** Clearance height on the right and left-hand side of the door opening.
The supplied opening dimensions have to correspond to the required door clearance height.
- C** Headroom on the right and on the left-hand side above the door opening.
 - The headroom has to be at least 120 mm (for doors with electric drive).
 - The headroom has to be at least 140 mm (for very large doors with electric drive and 4x spring duct).
 - The headroom has to be at least 240 mm (for manually operated doors with exterior handle).
 - The headroom has to be at least 265 mm (for very large manually operated doors with exterior handle).
- D** The sideroom on the right and left-hand side of the door opening has to be at least 82.5 mm.



Function check:

If all 4 requirements have been fulfilled, start installation.
Please see the order form for the opening dimensions.

7. Installation of the sectional door



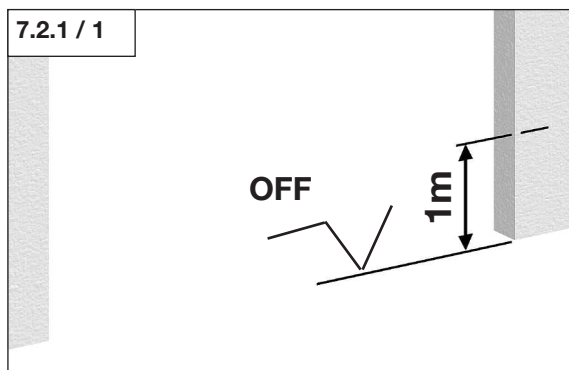
7.2 Mount the frames to the wall

Attention!

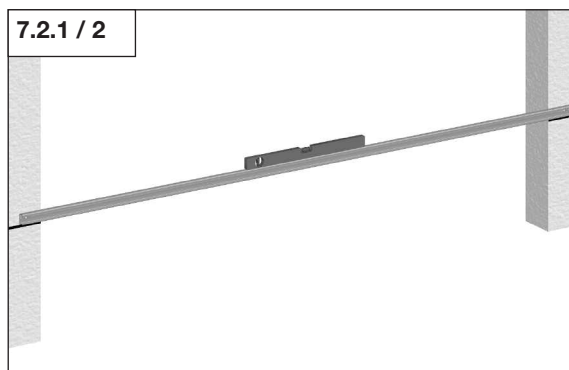
- It is important to install the lateral frames correctly to ensure that the door completely covers the opening and is straight.
- The metre level is only valid for standard heights. For special heights (shortened frame) the height level of the frame has to be transferred to the wall!

7.2.1 Determining the metre level

- Mark one of the opening sides:
One meter above the **upper edge of the finished floor (OFF)**.



- Transfer this measurement to the other opening side using the rear cross strut and a spirit level (a tube level can also be used).
- Now measure the transferred height. It has to be at **least 1 m**.

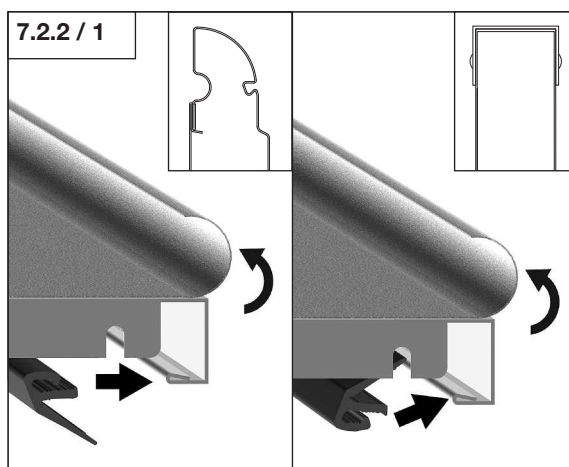


Note:

If the distance to the floor is less than 1 m on the other side, carry out the measurement from this side!

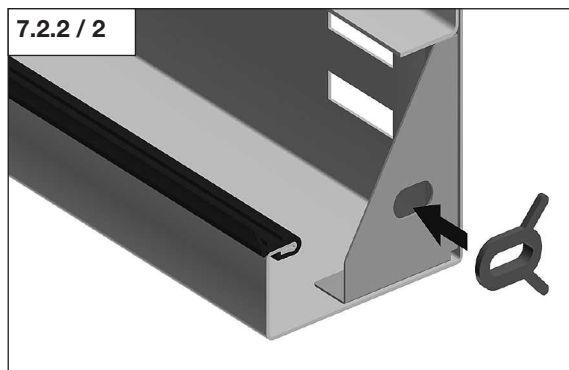
7.2.2 Attaching the header frame

- Please remove the protective film from the header frame.
- Place the header seal on the header frame.

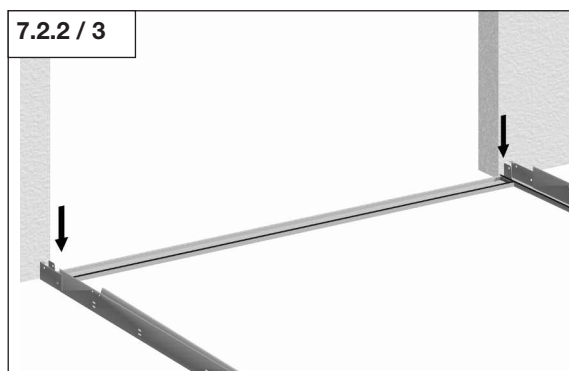


7. Installation of the sectional door

- Place the spacer onto the gusset plate in the frame from below.



- Connect the vertical frames to the header frame.



Attention!

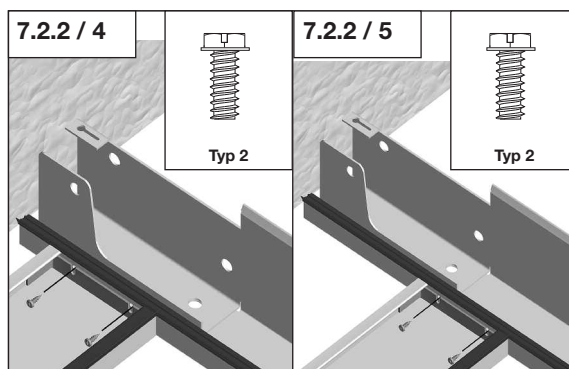
- Ensure that the elements are not damaged.
- Ensure that the surface of the frame is not scratched.
- Screw the elements together, making sure that the outer edges are flush.

- Use 2 sheet metal screws on each side to connect the elements:

Headroom version 120 mm: Fig. 7.2.2 / 4

Headroom version 240 mm: Fig. 7.2.2 / 5

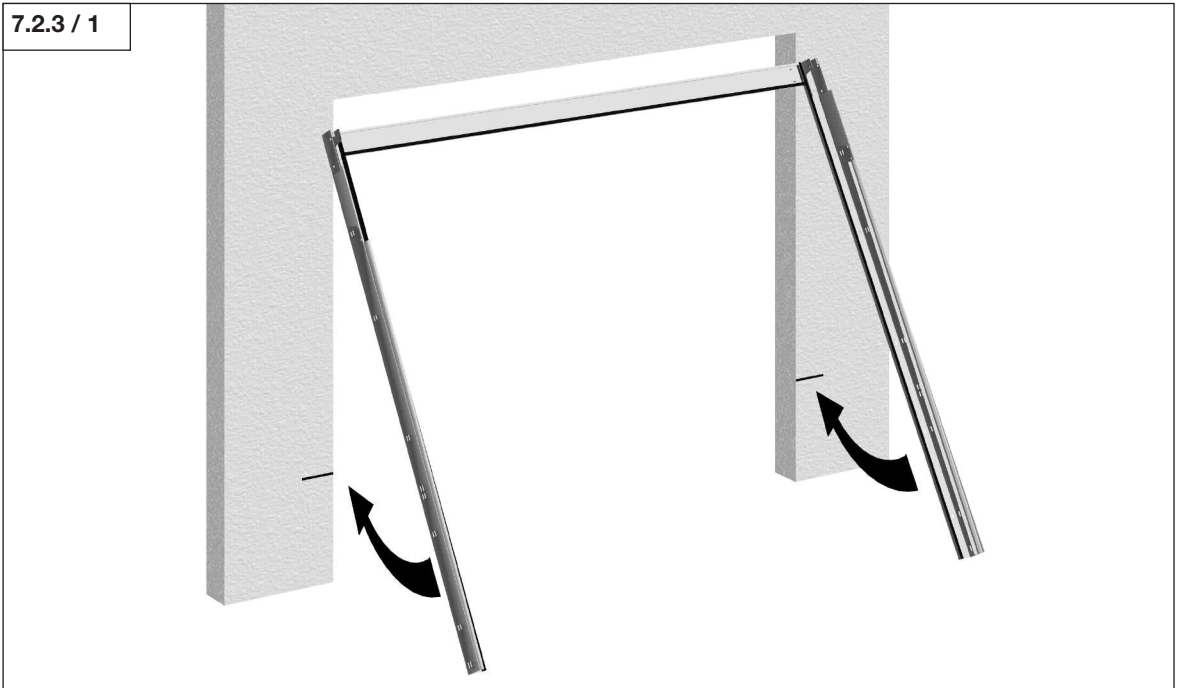
- Fasten the screws.



7. Installation of the sectional door

7.2.3 Erecting the frame

7.2.3 / 1



Caution!

- Two people are required to erect the frame.
- Ensure that the frame is **neither** twisted **nor** tilted during erection.

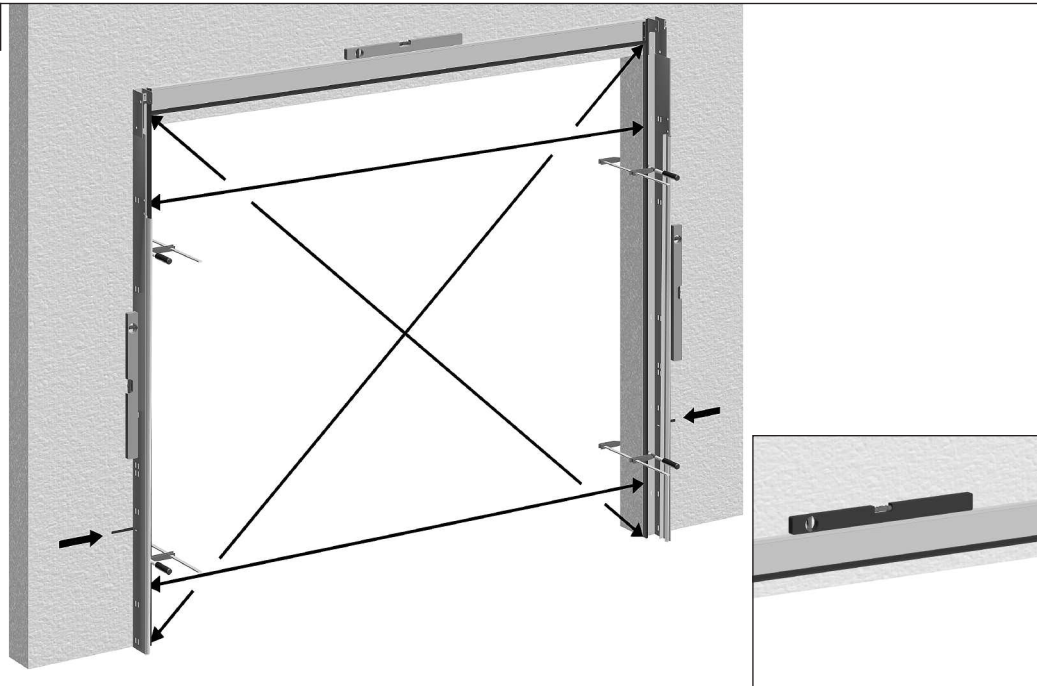
- Position the pre-assembled frame on the inside in front of the door opening.



7. Installation of the sectional door

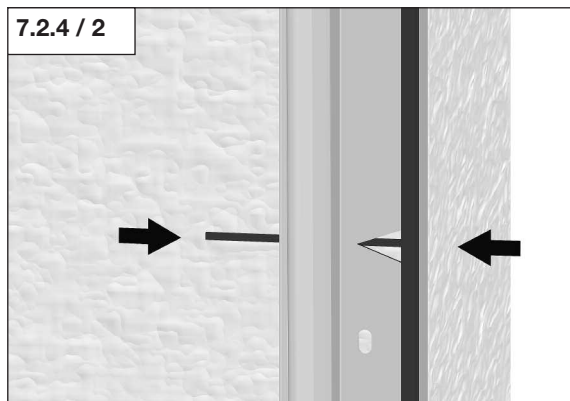
7.2.4 Aligning and attaching the frame

7.2.4 / 1



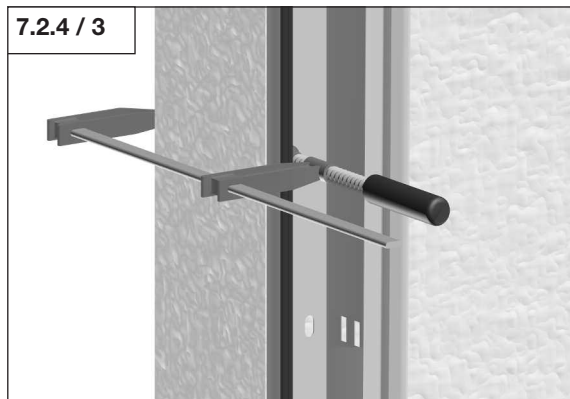
- Align the frame to the centre of the door opening.
- Align the embossed mark on the frame on both sides to the marks on the wall.

7.2.4 / 2



- Use screw clamps to fix this position.
- Measure the distance between the frames at the top and bottom (fig. 7.2.4 / 1). Both distances have to be exactly the same.
- Clear frame dimensions = order dimensions width
- Check the diagonal dimensions (fig. 7.2.4 / 1).
- Check whether the frame is aligned horizontally in the door opening (fig. 7.2.4 / 1).

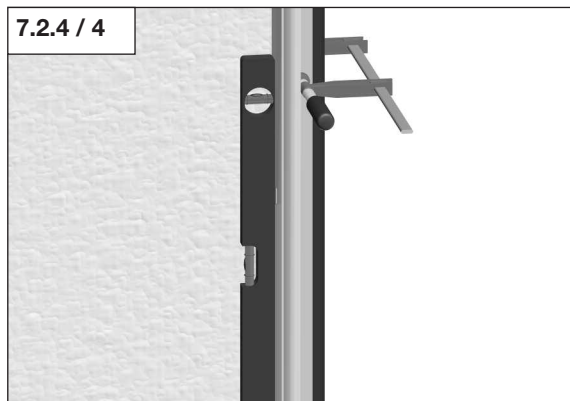
7.2.4 / 3



7. Installation of the sectional door

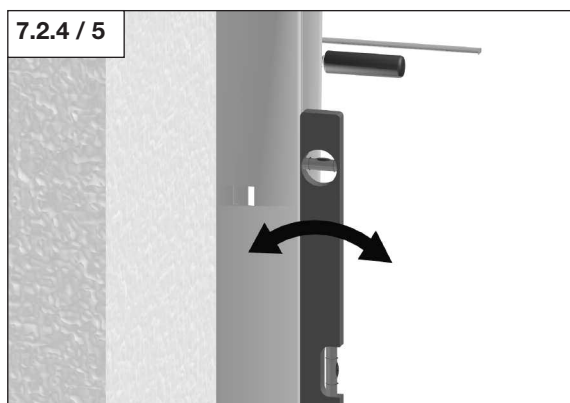
- Check whether the right and left-hand frame are aligned vertically in the door opening.

7.2.4 / 4



- Check whether the right and left-hand frame are aligned vertically to the wall. If the frame is not aligned correctly, use a shim at bottom.

7.2.4 / 5



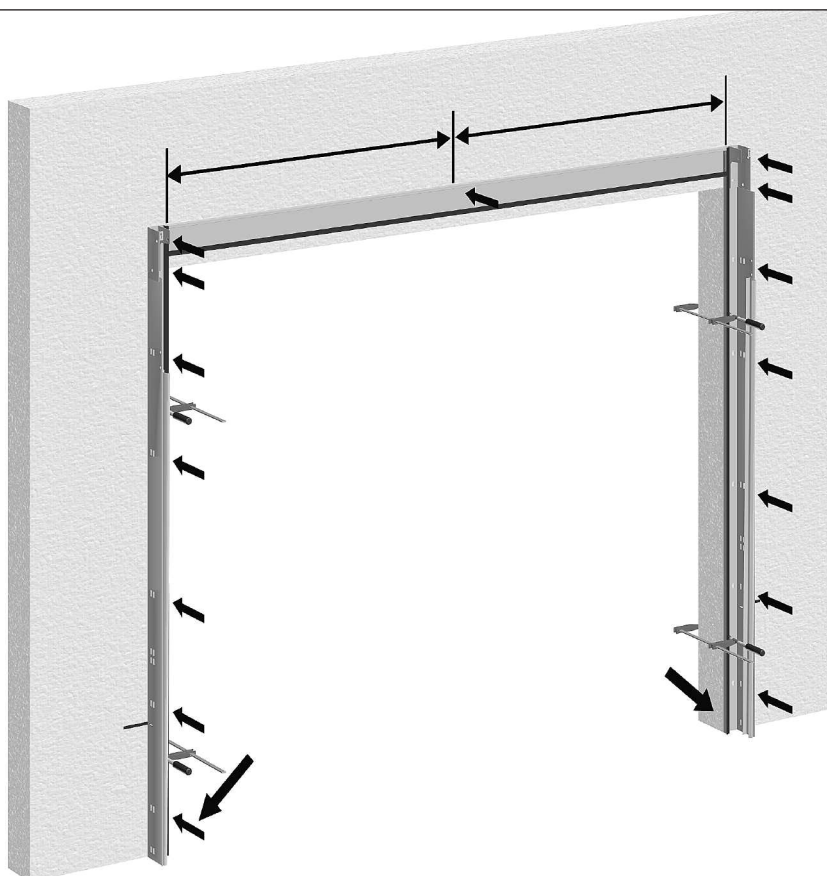
Function check:

All the aforesaid points have to be carried out to ensure perfect door travel.



7.2.5 Attaching the frame

7.2.5 / 1



7. Installation of the sectional door



Note:

There are **two** ways to attach the frame:

Mounting version 1 (inside mounting):

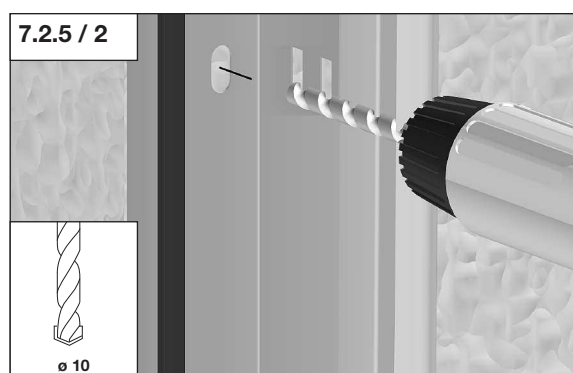
- If there is **sufficient soffit** behind the frame, screw the frame to the wall and floor **via the pre-cut holes** (fig. 7.2.5 / 2 to 7.2.5 / 5).

Mounting version 2 (outside mounting):

- If there is **not sufficient soffit** behind the frame, screw on the frame, **use the installation brackets on the right and left-hand side of the frame to attach it** (fig. 7.2.5 / 6 to 7.2.5 / 12).

Mounting version 1 (inside mounting):

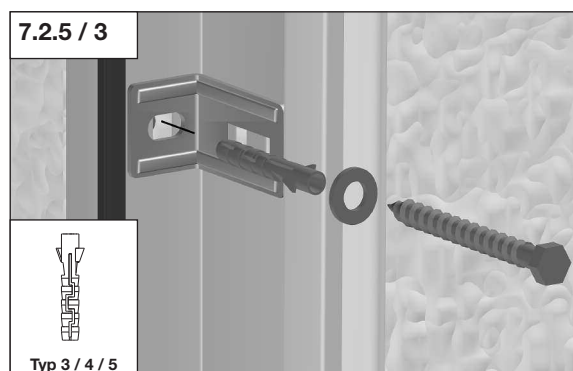
- Drill through the pre-cut holes in the frame (min. drilling depth 60 mm).



Attention!

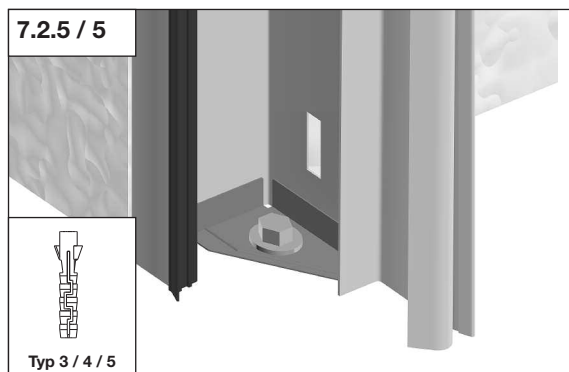
The plug has to expand vertically!

- Insert the plug.
- Place the installation bracket into the frame and screw on the frame via the installation bracket.
- Attach the installation bracket to the side of the frame using one bolt on each side



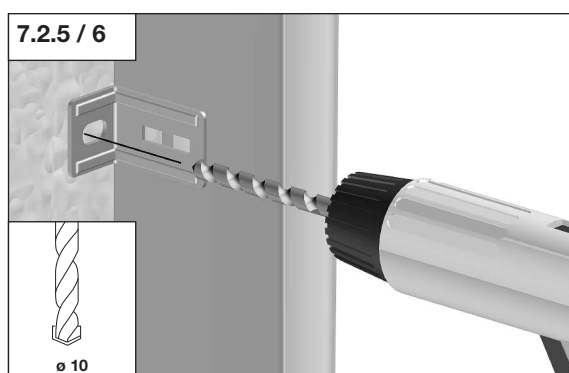
7. Installation of the sectional door

- Screw the frames to the floor.



Mounting version 2 (outside mounting):

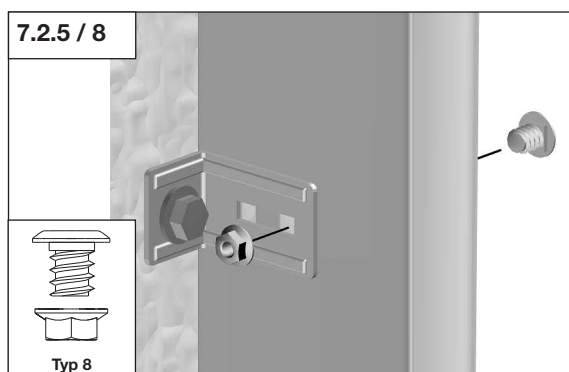
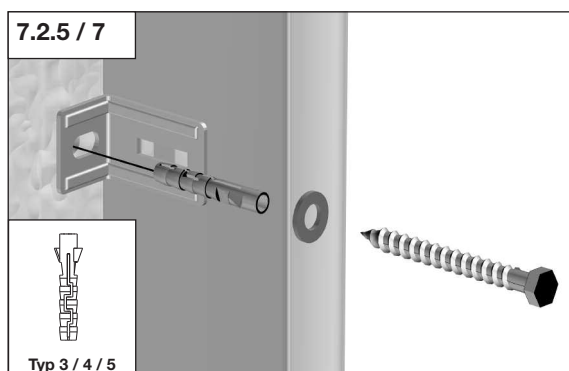
- Hold the installation bracket next to the frame at the height of the pre-cut holes.
Drill next to the frame (min. drilling depth 60 mm) through the installation bracket and into the wall.



Attention!

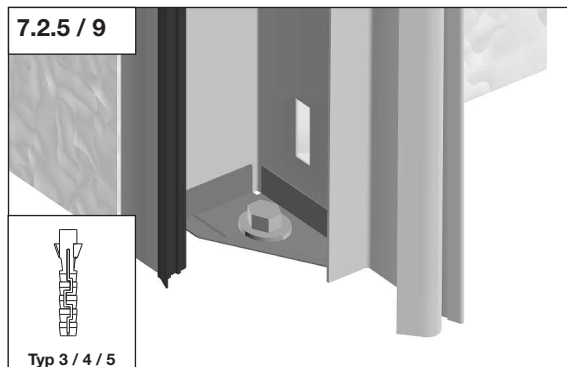
The plug has to expand vertically!

- Insert the plug.
- Place the installation angle onto the frame and screw the installation angle to the wall.
- Attach the installation angle to the side of the frame using one bolt on each side.



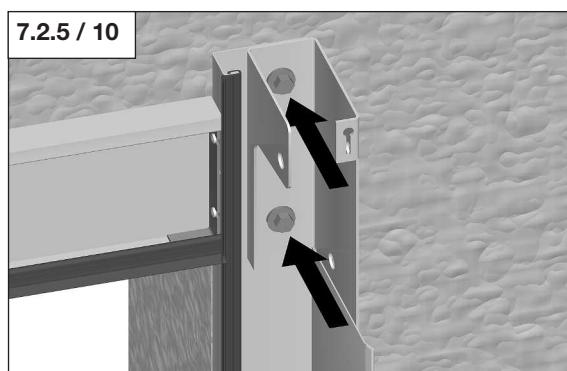
7. Installation of the sectional door

- Screw the frames to the floor.



Attention!

Fix the frame bracket to the wall **twice**! This is necessary regardless of whether the installation bracket has been installed inside or next to the frame.



Note:

There are **two** ways to attach the header frame:

Installation variant 1 (through the header frame)

- If enough soffit is present behind the header frame:
screw directly through the header frame (Fig. 7.2.5 / 11 to 7.2.5 / 12).

Installation variant 2 (with header frame bracket)

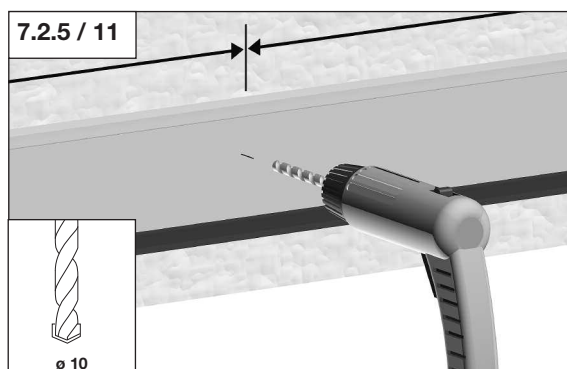
- If there is not enough soffit present behind the header frame:
screw the header frame to the header frame bracket (Fig. 7.2.5 / 12 to 7.2.5 / 14).

Installation variant 1 (through the header frame)

Note:

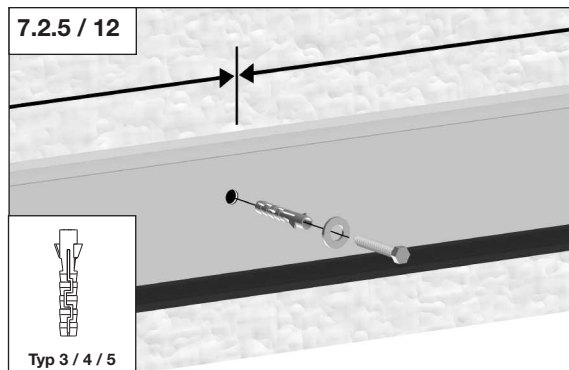
One screw fitting at the header frame is sufficient for door widths of up to 3 m.
Two screw fittings are necessary for door widths above 3 m.
The distance between these two screw fittings depends on the length of the header frame.

- Drill into the wall through the centre of the header frame (min. drilling depth 60 mm).



7. Installation of the sectional door

- Screw the header frame to the wall.



Installation variant 2 (with header frame bracket):

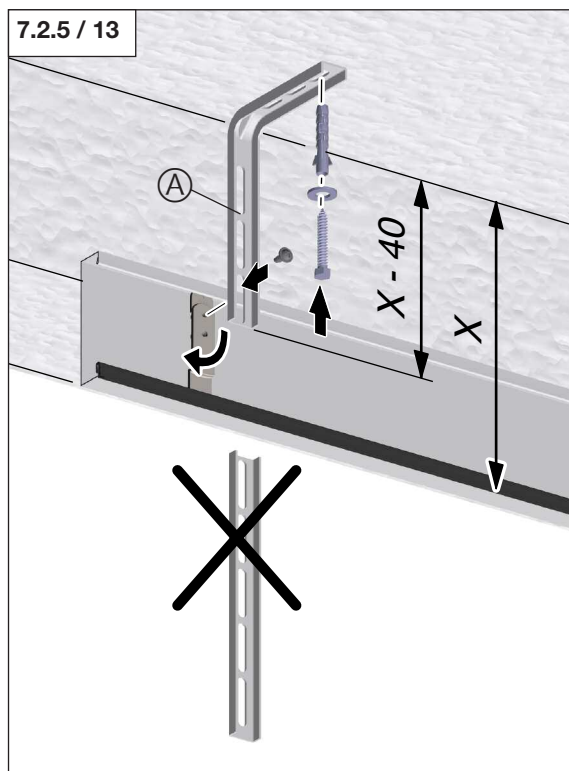
Note:

A door width of up to 3 m is sufficient for a screw connection to the header frame.

Two screw fittings are necessary for door widths above 3 m.

The distance between these two screw fittings depends on the length of the header frame.

- Mount the header frame to the header frame bracket (A).



7. Installation of the sectional door

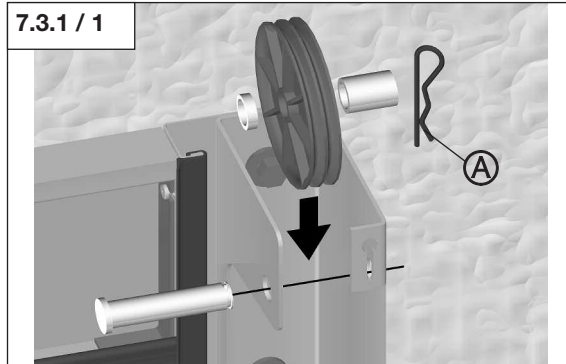
7.3 Mounting the rails to the frame

7.3.1 Preparing the upper rails

Note:

The following figure shows installation on the inside on the right.
Installation on the inside on the left has to be carried out laterally reversed.

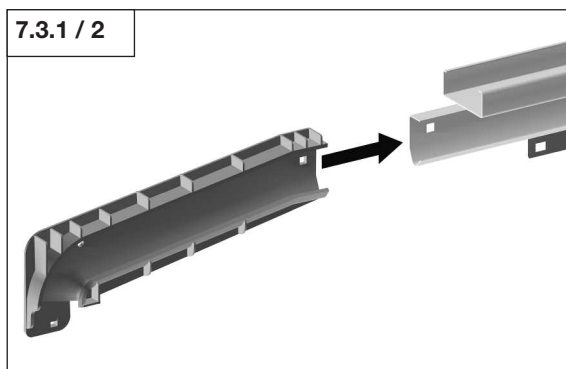
- Insert the rollers and the spacers into the frame brackets on the right and left-hand side.
- Secure the bolt with spring pin (A).



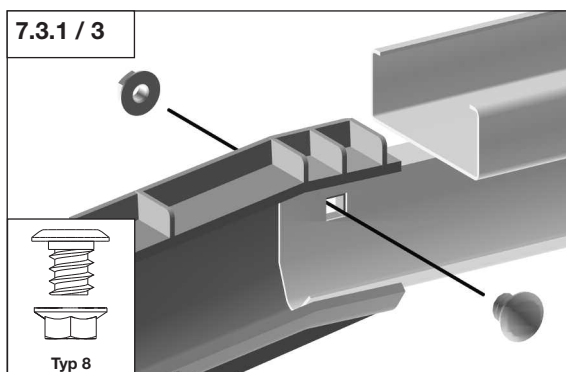
- Place a black plastic curved rail on the right and left-hand rail.

Attention!

When fixing, the bolt has to be inserted from the inside into the curved rail.
The respective nut is screwed on from the outside of the curved rail.
Otherwise the screw fitting could block door travel later on.



- Tighten the nuts and bolts of the curved rail.



7. Installation of the sectional door



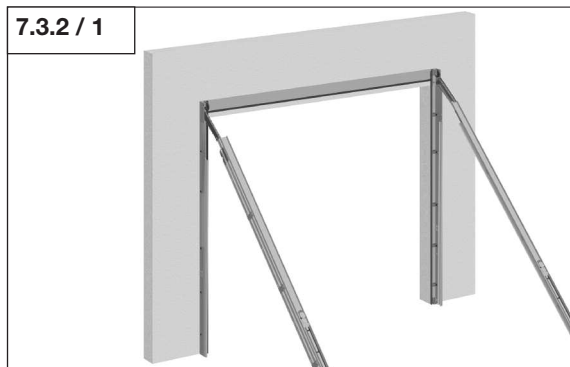
7.3.2 Attaching the upper rail

Attention!

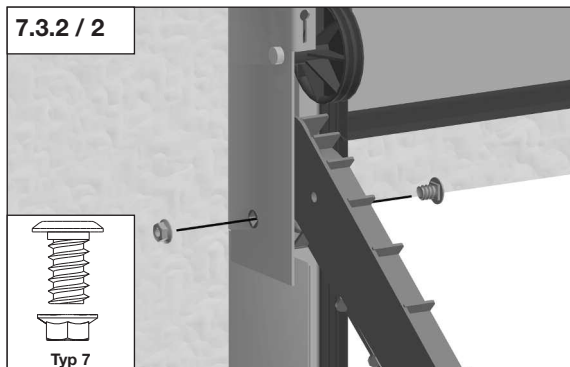
When fixing, the bolt has to be inserted from the inside into the curved rail. The respective nut is screwed on from the outside of the curved rail. Otherwise the screw fitting could block door travel later on.

- Fix the pre-assembled curves with just one bolt to the side of the frame brackets.
- Tighten the screws.

7.3.2 / 1



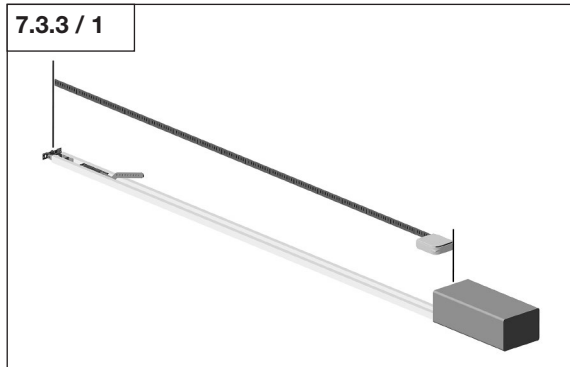
7.3.2 / 2



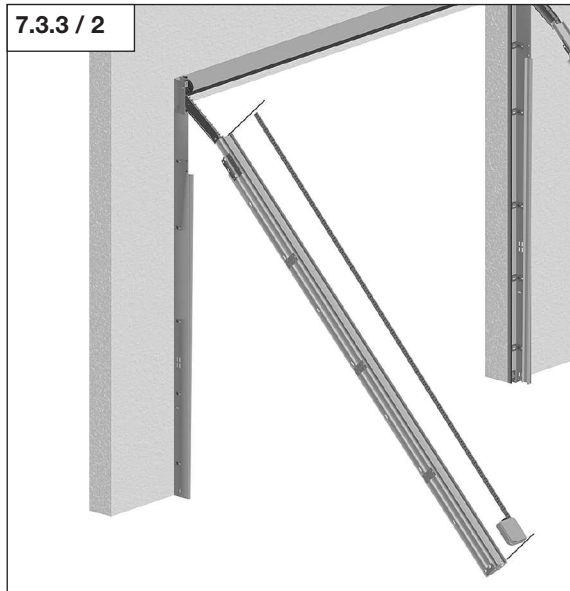
7.3.3 Attaching the upper cross strut

- Measure the drive rail from the header connector to the drive head.

7.3.3 / 1



7.3.3 / 2



- Measure the spring channel.

7. Installation of the sectional door

Dimension of drive rail

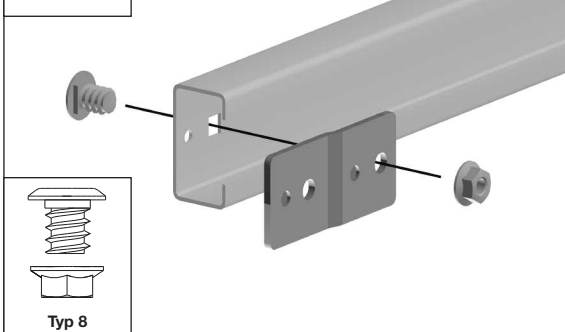
\geq Dimension of spring channel + 390 =

Screw connection of the crossbar at the rear.

- Screw the cross strut connectors to the ends of the strut on both sides.

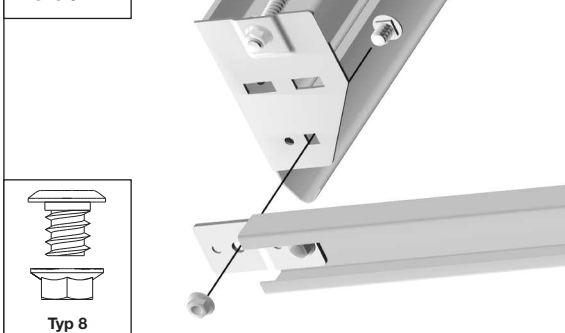
For this, insert the pin of the connector into the small bore hole in the strut.

7.3.3 / 3



- Screw the cross strut to the end of the hanging rails.

7.3.3 / 4



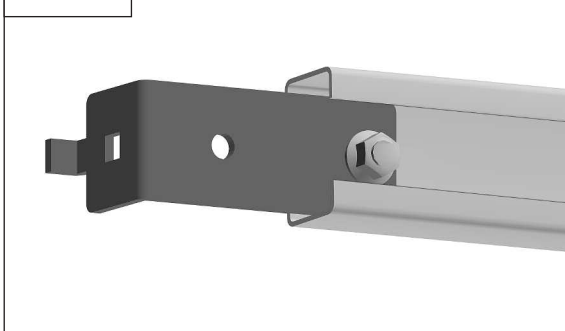
Dimension of drive rail

$<$ Dimension of spring channel + 390 =

Screw connection of the crossbar at the next single rectangular hole in the lower rail at which point the distance to the door is shorter than the dimension of the drive rail.

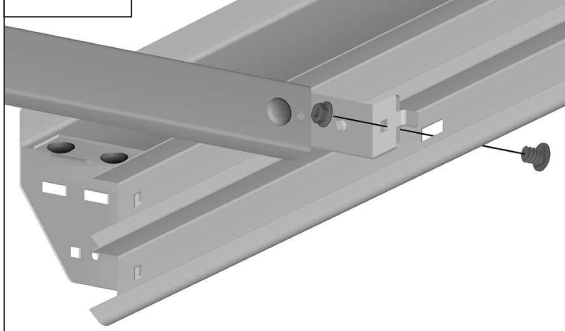
- Mount the connecting angles to both sides of the cross strut.

7.3.3 / 5



- Fix the cross strut to the very last connection in the lower runner rail.

7.3.3 / 6



Attention!

Do not mount the cross strut further towards the front, since it would block the travel of the door.



7. Installation of the sectional door

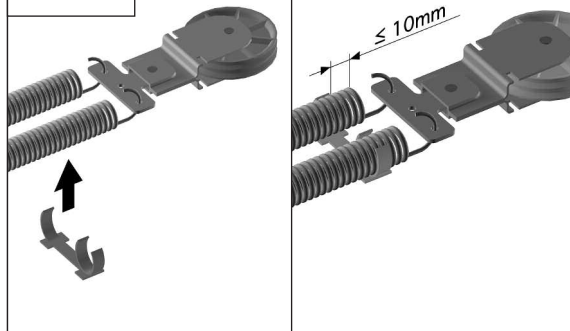
7.4 Installation of the spring package into the rail

- Attach one spring support from below to the springs.

Attention!

The spring support has to be attached as near to the end as possible.

7.4 / 1

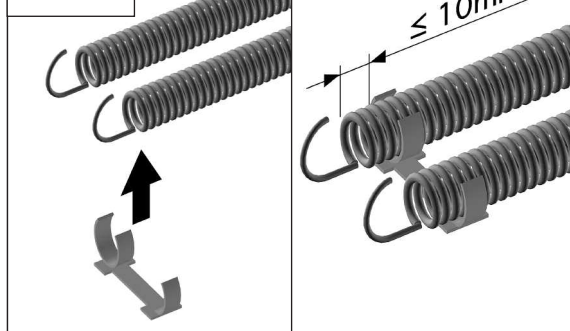


- Attach a second spring support from below to the other end of the springs.

Attention!

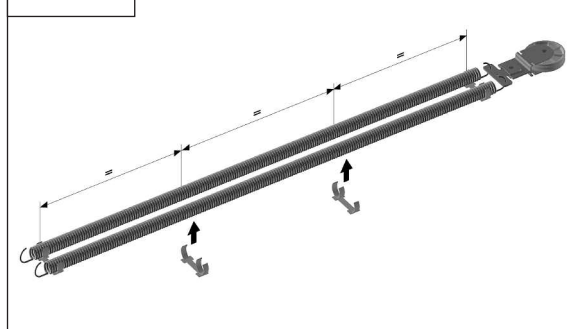
The spring support has to be attached as near to the end as possible.

7.4 / 2



- Attach the other spring supports from below to the springs; ensure that they are equally spaced.

7.4 / 3



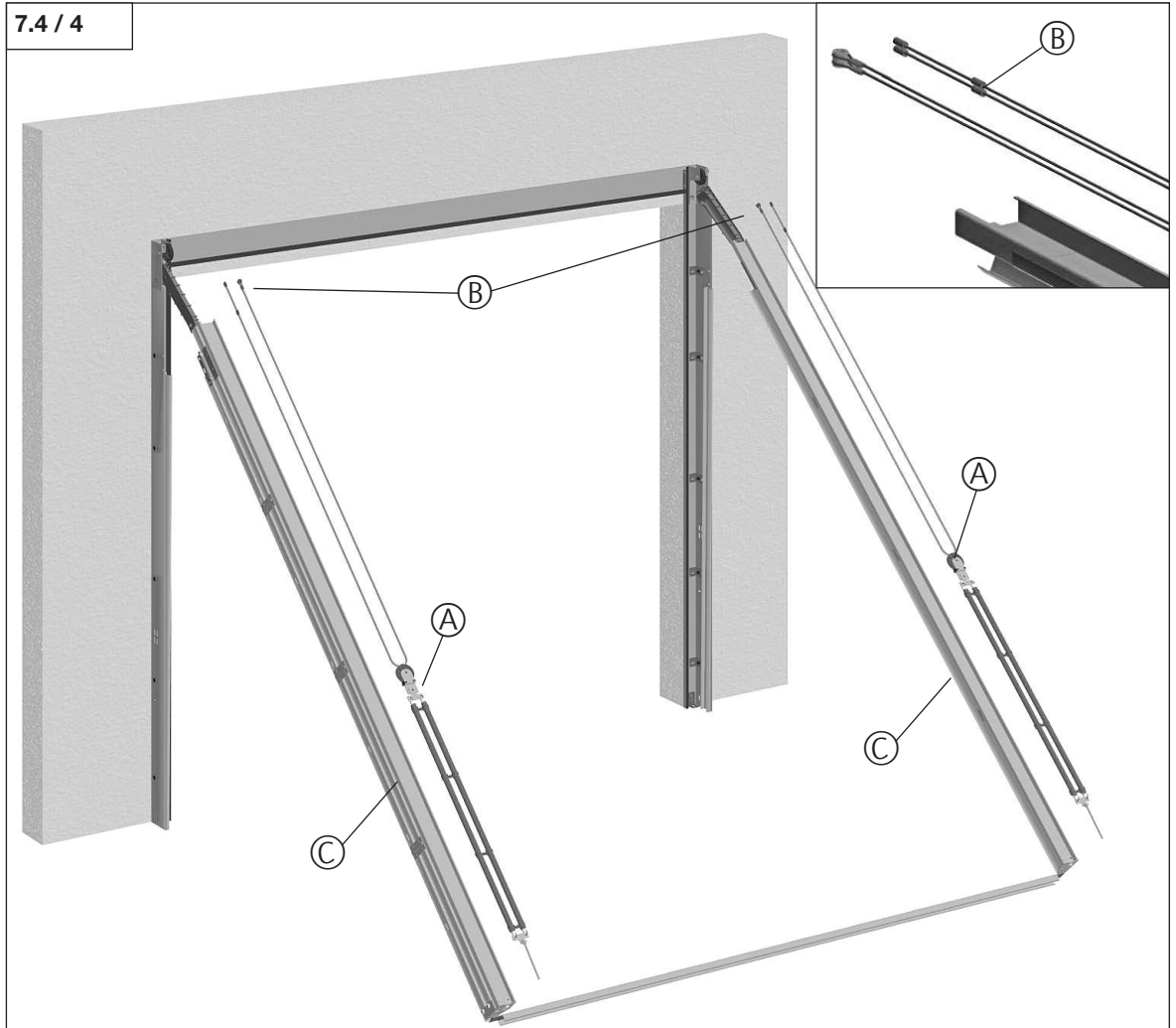
7. Installation of the sectional door



Note:

The spring packages (A) are not the same. The spring packages (A) must be assigned to the corresponding door side in such a way that the cable press sleeves (B) are facing the outside of the door.

7.4 / 4



- Insert the corresponding spring package (A) into the right and left rail (C).

7. Installation of the sectional door

7.5 Mounting the cables

7.5.1 Laying the cables

Attention!

Lay the cables straight and ensure that they are not twisted.

The door will not open and close correctly if it has been installed incorrectly. The cable may break.

- Make sure the cables have been laid correctly.

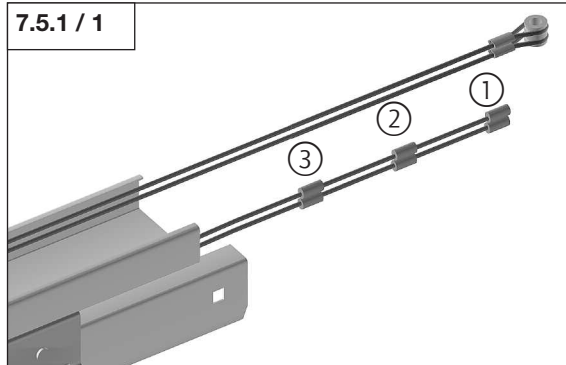
Note:

The cables used can have up to 3 cable sleeve pairs.

The example displays the situation when cable sleeve 1 has to be used

- See the tables below to discover which sleeves should be used.

7.5.1 / 1



Cable sleeves to be used for 120 mm headroom version (H = Height / B = Width)

Cable press sleeves to be used for GSW40																	
H/B	2000	2250	2375	2500	2625	2750	3000	3250	3500	3750	4000	4250	4500	4750	5000	5250	5500
1875	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2000	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2125	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
2250	1	1	2	2	2	2	2	2	1	1	2	2	2	2	2	2	2
2375	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2500	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2625	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	/	/
2750	2	2	2	2	2	2	2	2	2	2	2	2	2	2	/	/	/
2875	1	1	1	1	1	2	1	1	1	1	2	1	1	/	/	/	/
3000	2	2	2	2	2	3	2	2	2	2	3	2	2	/	/	/	/

Cable press sleeves to be used for GSW40 with wicket door													
H/B	2000	2250	2375	2500	2625	2750	3000	3250	3500	3750	4000	4250	4500
1875	1	1	1	1	1	1	1	1	1	1	1	1	1
2000	1	1	1	1	1	1	1	1	1	1	1	1	1
2125	2	2	2	2	2	2	2	2	2	2	2	2	2
2250	2	2	2	2	1	1	2	2	2	2	2	2	2
2375	1	1	1	1	1	1	1	1	1	1	1	1	1
2500	1	1	1	1	1	1	1	1	1	1	1	1	/
2625	2	2	2	2	2	2	2	2	2	2	2	2	/
2750	2	2	2	2	2	2	2	2	2	2	2	/	/
2875	2	2	1	1	1	1	1	2	1	1	/	/	/
3000	3	3	2	2	2	2	2	3	2	/	/	/	/

7. Installation of the sectional door

Cable sleeves to be used for 240 mm headroom version (H = Height / B = Width)

Cable press sleeves to be used for GSW40

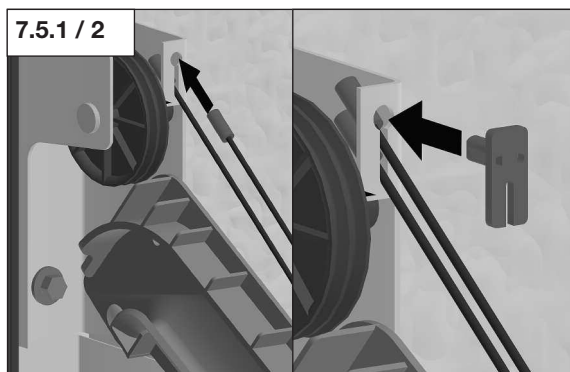
H/B	2000	2250	2375	2500	2625	2750	3000	3250	3500	3750	4000	4250	4500	4750	5000	5250	5500
1875	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2000	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
2125	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
2250	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2375	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2500	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
2625	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	/	/
2750	1	1	1	1	1	1	1	1	1	1	1	1	1	1	/	/	/
2875	1	1	1	1	1	1	1	1	1	1	1	1	1	/	/	/	/
3000	2	2	2	2	2	2	2	2	2	2	2	2	2	/	/	/	/

Cable press sleeves to be used for GSW40 with wicket door

H/B	2000	2250	2375	2500	2625	2750	3000	3250	3500	3750	4000	4250	4500
1875	1	1	1	1	1	1	1	1	1	1	1	1	1
2000	2	2	2	2	2	2	2	2	2	2	2	2	2
2125	2	2	2	2	2	2	2	2	2	2	2	2	2
2250	1	1	1	1	1	1	1	1	1	1	1	1	1
2375	1	1	1	1	1	1	1	1	1	1	1	1	1
2500	2	2	2	2	2	2	2	2	2	2	2	2	/
2625	2	2	2	2	2	2	2	2	2	2	2	2	/
2750	1	1	1	1	1	1	1	1	1	1	1	/	/
2875	1	1	1	1	1	1	1	1	1	1	/	/	/
3000	2	2	2	2	2	2	2	2	2	/	/	/	/

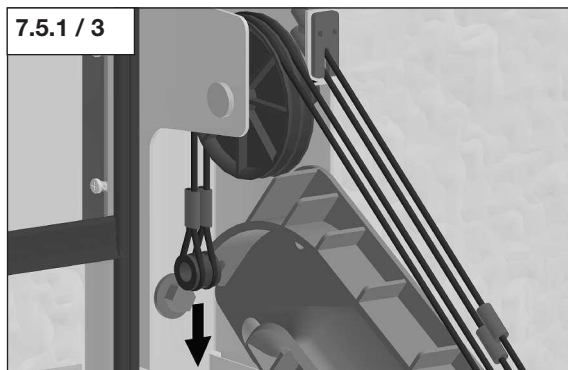
- Insert the determined sleeves into the cable support at the frame.
- Use the black plastic stop to secure the cables in the frame.

7.5.1 / 2

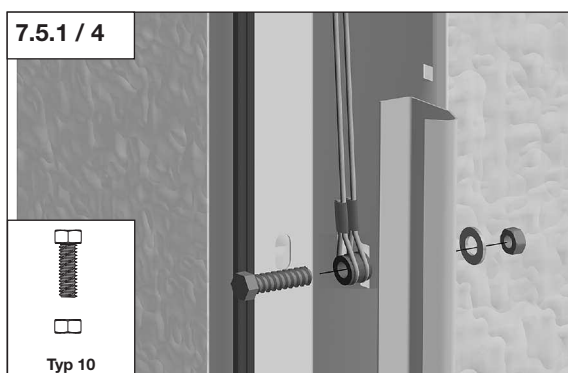


7. Installation of the sectional door

- Feed the other end of the cable over the pulley block.



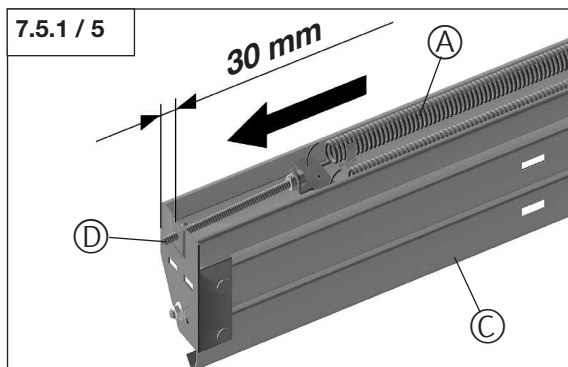
- Pull the cable up to the first elongated hole.
- Insert the bolt through the loop and the bore hole in the installation bracket / frame.
- Fix the bolt with the nut.
- Install the opposite side as described above (fig. 7.5.1 / 1 to 7.5.1 / 4).



Caution!

The spring package is put under tension. To avoid injuries, protective gloves must be used when tensioning.

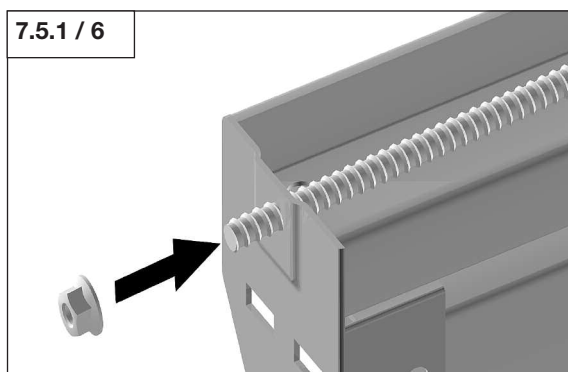
- Push the spring package (A) down until the screw (D) protrudes approx. 30 mm from the bore at the end of the rail.



- Screw the nut onto the bolt protruding from the rail.
- Screw the nuts on until the thread protrudes approx. 20 mm.

Note:

This nut is later used to set the spring tension at the door.



7. Installation of the sectional door



7.5.2 Mounting the spring duct cover (2 and 3-spring assembly)

Attention!

Before covering the spring duct please ensure that

- the cables are not twisted,
- the cables run smoothly,
- the cable ends are fixed,
- the spring duct is free from dust and dirt.

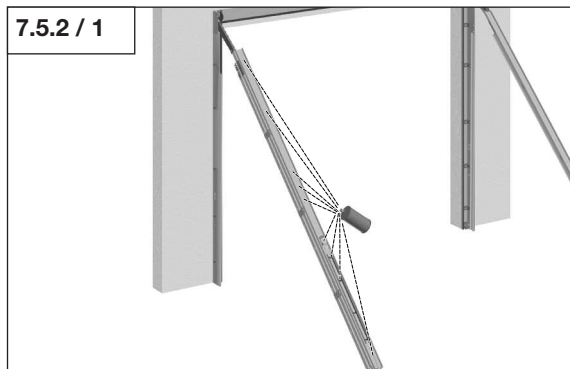
- Spray the spring channel with spray grease.

The cover must protrude approx. 50 mm on the door side.

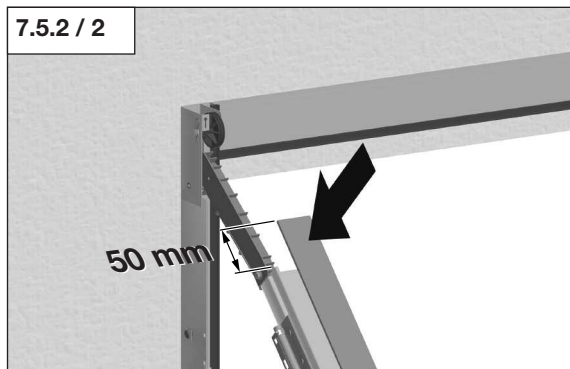
- Place the cover on the spring channel.
- Push the cover onto the spring duct until it engages.
The profile of the cover has to fit into the profile of the spring duct.

- Close the spring channel with the cover.

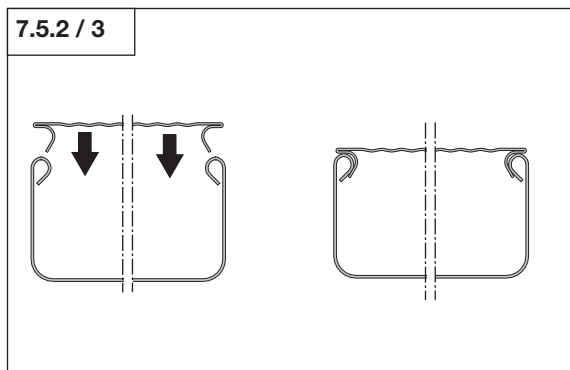
7.5.2 / 1



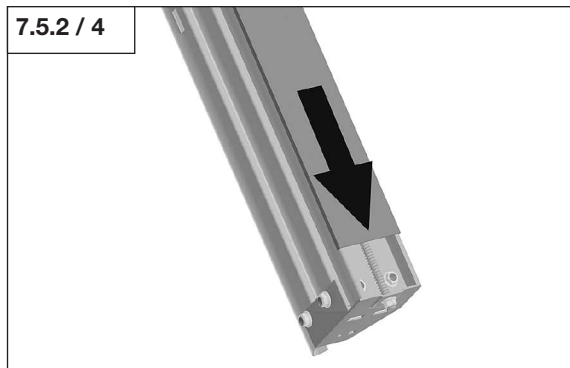
7.5.2 / 2



7.5.2 / 3



7.5.2 / 4



7. Installation of the sectional door



7.5.3 Mounting the spring duct cover (4-spring assembly)

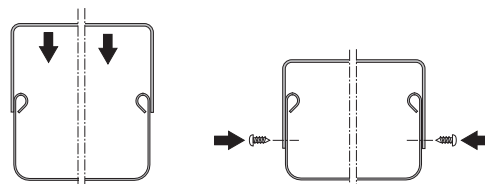
Attention!

Before covering the spring duct please ensure that

- the cables are not twisted,
- the cables run smoothly,
- the cable ends are fixed,
- the spring duct is free from dust and dirt.

- Screw the cover onto the spring duct using the holes provided.

7.5.3 / 1



7.6 Mounting the rails to the ceiling

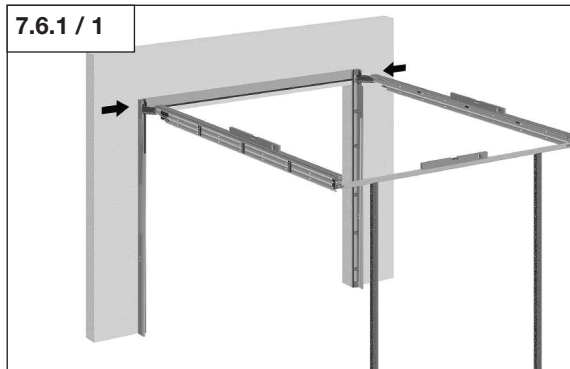
7.6.1 Attaching and aligning the upper rails

Attention!

- Make sure that the frame assemblies are not tilted while being raised.
- The lateral rails and the cross strut have to be aligned exactly horizontally.

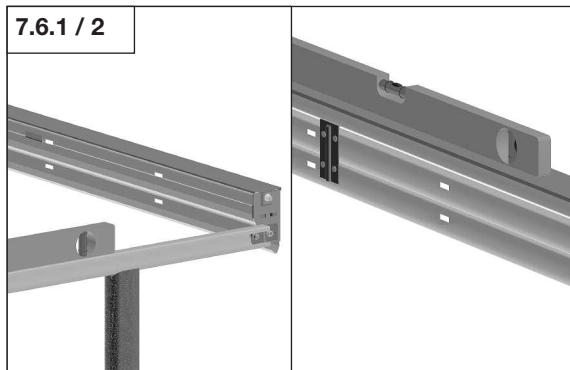
- Raise the screwed frame assemblies at the same time and support them.

7.6.1 / 1



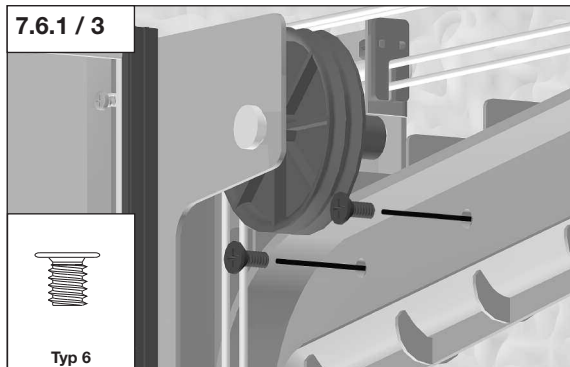
- Align the cross strut horizontally.
- Align the runner rails horizontally.

7.6.1 / 2



- Screw the left and right-hand plastic curved rail (torx T20) to the frame using two screws for each rail.

7.6.1 / 3



Typ 6

7. Installation of the sectional door

7.6.2 Mounting the lower curved rail

- Insert the curved rail on right and left-hand side between the vertical and horizontal rails.

Attention!

When fixing, the bolt has to be inserted from the inside into the curved rail. The respective nut is screwed on from the outside of the curved rail. Otherwise the screw fitting could block door travel later on.

- Tighten the nuts and bolts of the curved rail.
- Align the runner rail joint until it is flush.

Note:

Use pliers to smooth out any joints which might obstruct door travel.

Attention!

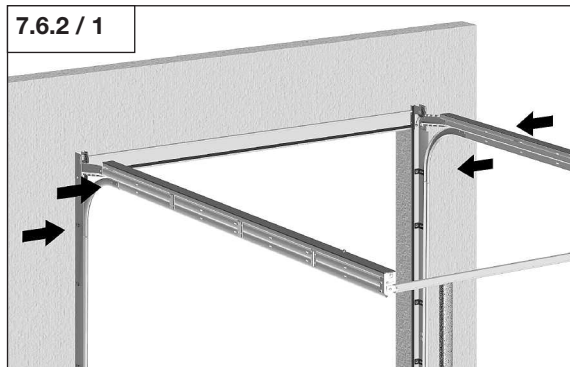
The runner rails have to be aligned in parallel with each other to guarantee correct door travel.

Note:

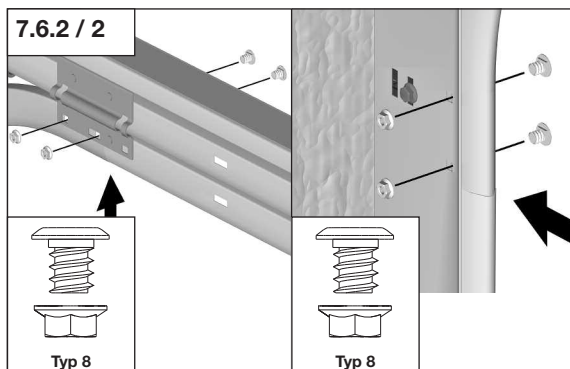
The runner rails are aligned correctly if both diagonal measurements have the same length. To achieve an exact measurement, use the same measuring points for each diagonal measurement.

- Measure the diagonal lengths and align the runner rails parallel with each other.

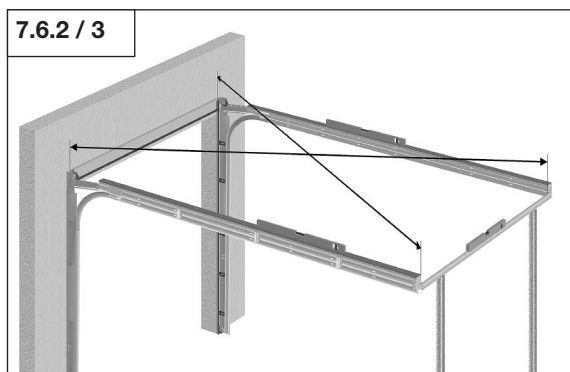
7.6.2 / 1



7.6.2 / 2



7.6.2 / 3



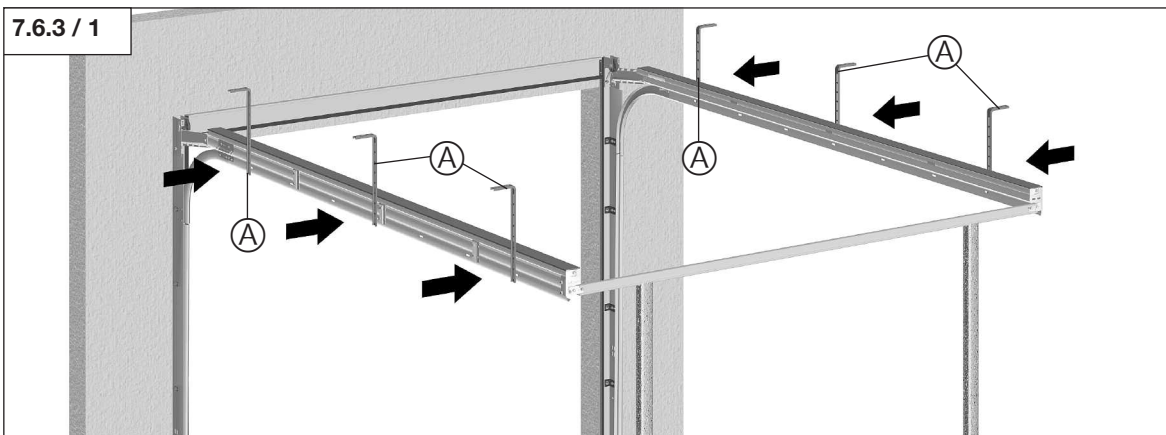
7. Installation of the sectional door

7.6.3 Mounting the suspensions to the runner rails

Attention!

Prior to mounting the suspension, the door has to be aligned as described above (see fig. 7.6.2 / 3).

7.6.3 / 1



Legend:

A Suspension

Attention!

- It is absolutely essential that the suspensions (A) are mounted.
- Three suspensions have to be attached to each side.

- Hold the suspension in place to determine the required length. Mark any extra length of the suspension projecting from the frame.

Note:

To ensure maximum runner rail stability, the suspension should project slightly, or be at least flush with the lower edge of the horizontal frame. If the suspension has to be folded inwards due to insufficient sideroom, it must be additionally screwed to the wall below the runner rail.

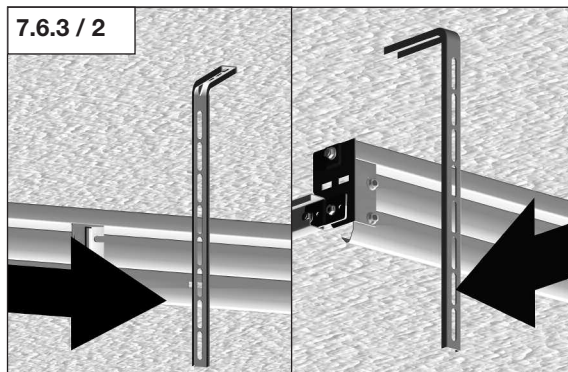
- Saw off any projecting length at the marked position.

Attention!

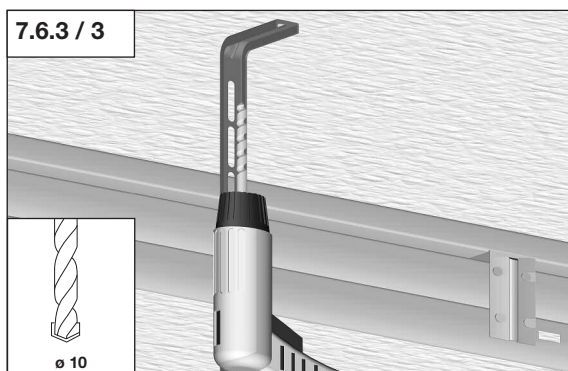
Please ensure that the spring duct is covered prior to drilling.

- Hold the suspension to the runner rail and mark the drilling spot. Drill at least 60 mm into the ceiling.

7.6.3 / 2



7.6.3 / 3



7. Installation of the sectional door

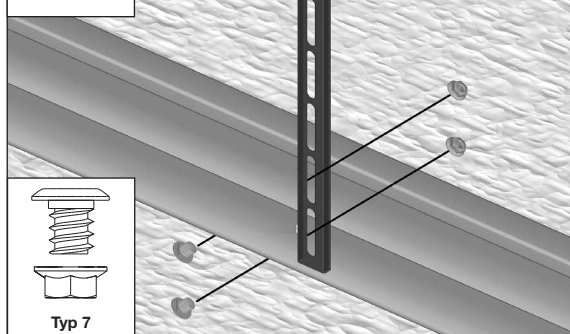


Attention!

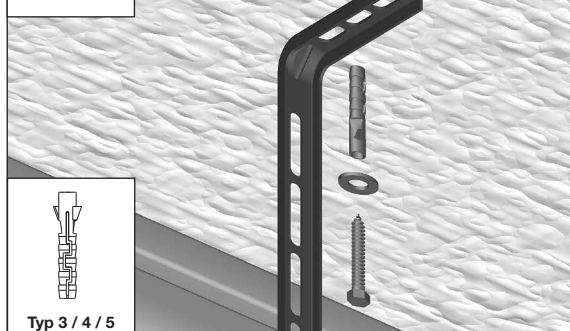
When fixing, the bolts have to be inserted from the inside into the curved rail. The respective nuts are screwed on from the outside of the curved rail. Otherwise the screw fitting could block door travel later on.

- Use two bolts to laterally screw the suspension to the runner rails.
- Insert the plug into the drilled hole and screw the suspension to the ceiling.
- Mount all further suspensions as described above (fig. 7.6.3 / 1 to 7.6.3 / 5).

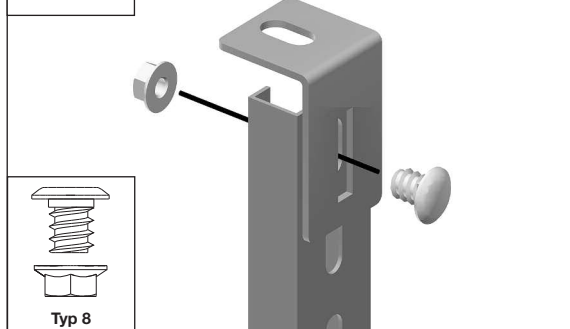
7.6.3 / 4



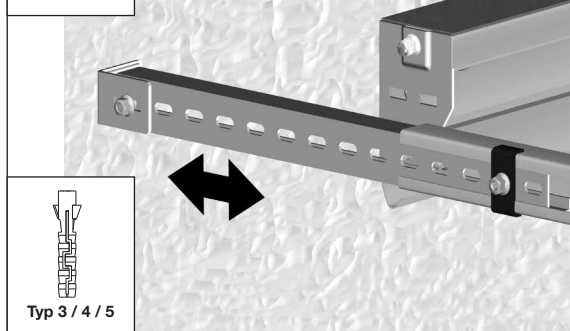
7.6.3 / 5



7.6.3 / 6



7.6.3 / 7



Note:

- In order to stabilise the door laterally, it is necessary to mount a wall strut.
- The distance between the holes must be as great as possible.

- Screw the mounting bracket to the telescopic strut.
- Adjust the distance to the wall using the telescopic function.
- Screw the bracket to the wall.

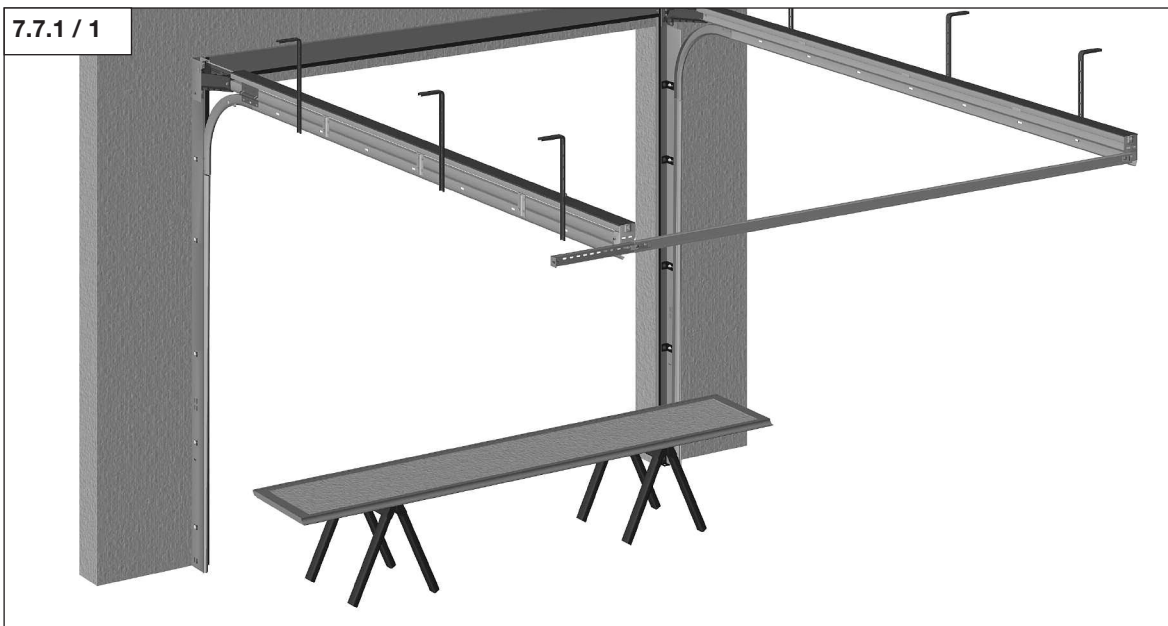


7. Installation of the sectional door

7.7 Mounting the door sections

7.7.1 Preparing the bottom door section

7.7.1 / 1



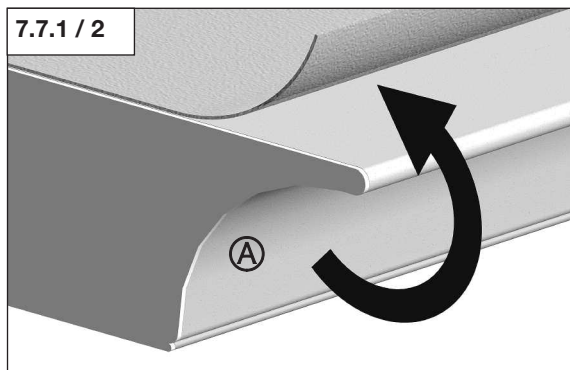
All the sectional door panels are covered with a protective film. Depending on the height of the panel, this film may also be in the area around the rounded edge (A).

- Remove the protective film from around the rounded edge prior to assembling the panels.

Note:

Please leave the protective film on the outside surface of the panel until the door is fully mounted.

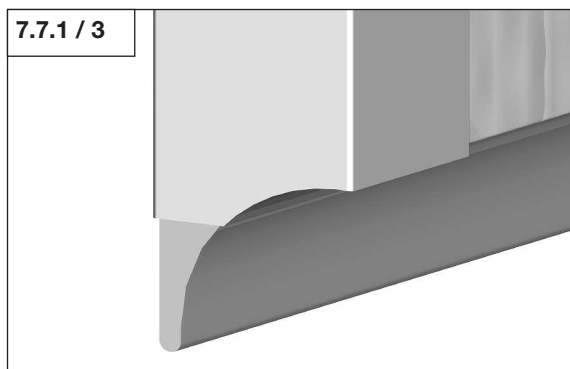
7.7.1 / 2



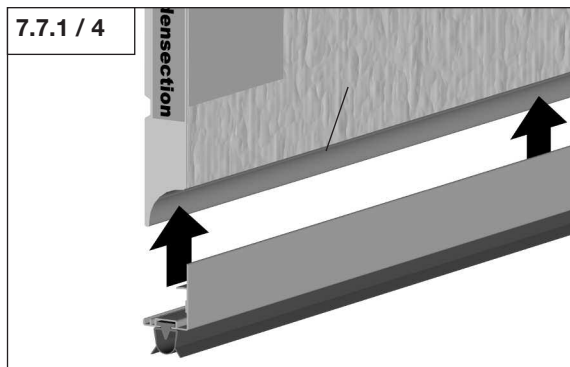
Note:

The side sticker "Bodensection" (bottom section) and the shortened end caps help you to recognise the bottom door section.

7.7.1 / 3



7.7.1 / 4



- Place the bottom door section ready for installation, if possible, on the trestles.
- Insert the bottom door section profile onto the bottom door section.

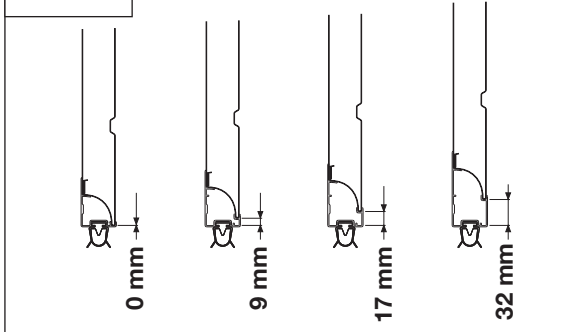


7. Installation of the sectional door

4 versions of the bottom door section profile are available:

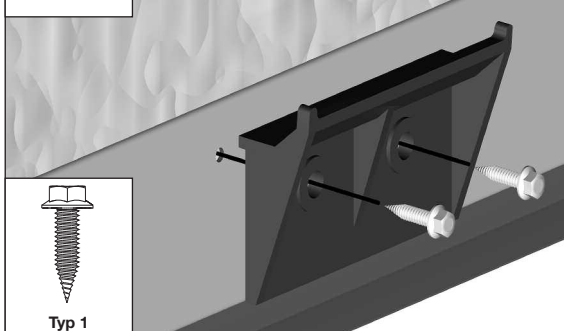
0 mm, 9 mm, 17 mm, 32 mm

7.7.1 / 5



- Screw the bottom door section profile in the middle to the bottom door section.
- In case of manually operated doors, please attach the optional handle.

7.7.1 / 6



- Place the bottom section in the centre of the door opening.
- Insert the roller into the bottom bracket (only 2 and 3 spring system).
- Slide the roller together with the bottom bracket into the runner rail (only 2 and 3 spring system).

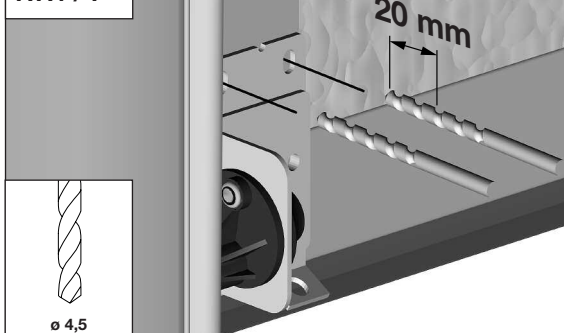
2 and 3 spring system

Attention!

Do not drill through the door leaf (max. depth 20 mm)!

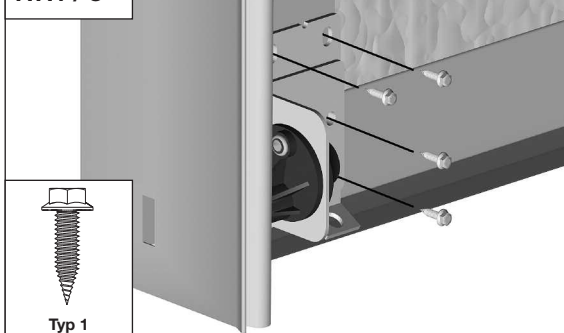
- Drill the holes.

7.7.1 / 7



- Screw the bottom bracket to the bottom door section.

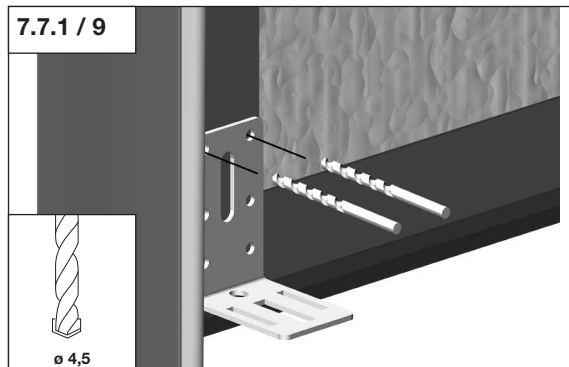
7.7.1 / 8



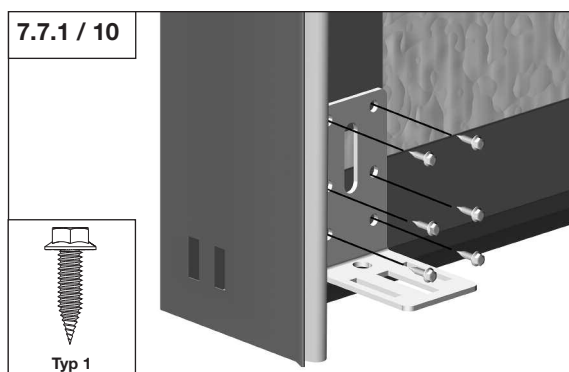
7. Installation of the sectional door

4 spring system

- Drill the holes.



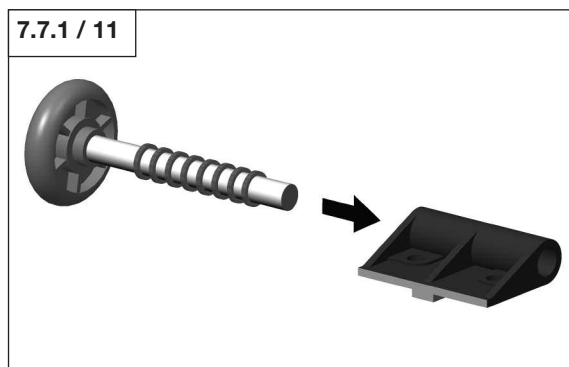
- Screw the bottom bracket to the bottom door section.



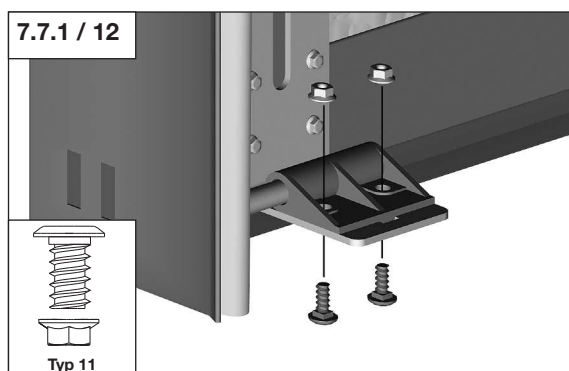
Note for 4 spring duct:

When using the 4 spring duct, the door has to be aligned in the middle between the runner rails with spacer rings.

- Insert the roller into the roller holder.



- Slide the roller into the runner rail.
- Choose the number of spacer rings so that there is a 2 – 3 mm distance between the roller and the roller retainer on both sides of the door.
- Screw the roller retainer to the bottom bracket.
- Follow these steps to mount the bottom bracket to the bottom section on both sides.



7. Installation of the sectional door



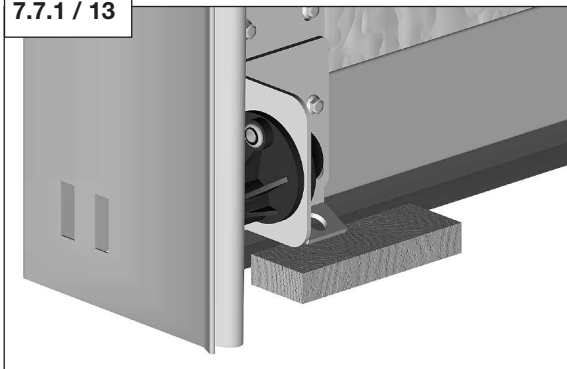
All spring systems

Attention!

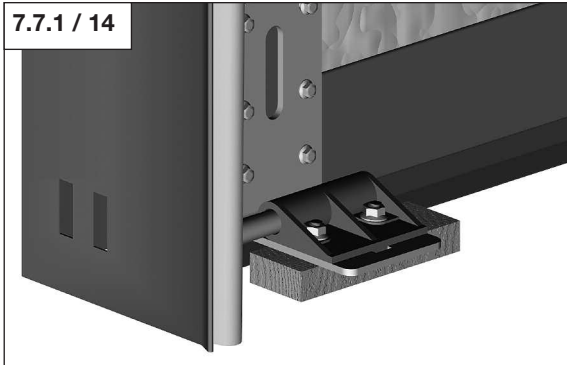
To lighten the bottom door profile, use shims to support the bottom section.

- Place blocks of wood underneath both sides of the bottom bracket:
 - 2 and 3 spring system (fig. 7.7.1 / 14)
 - 4 spring system (fig. 7.7.1 / 15)
 - The blocks of wood should be high enough to ensure that the bottom door profile is not crushed.
 - After shimming, the door leaf has to be horizontally level and level with the upper edge of the finished floor OFF.
- Adjust the rollers.

7.7.1 / 13

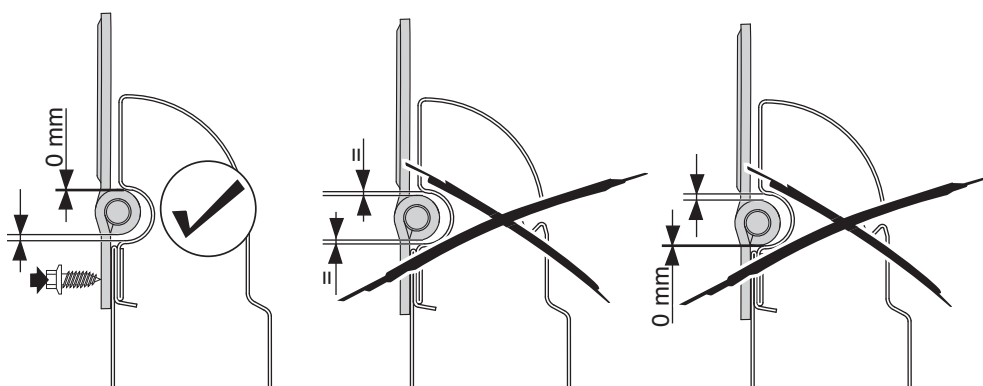
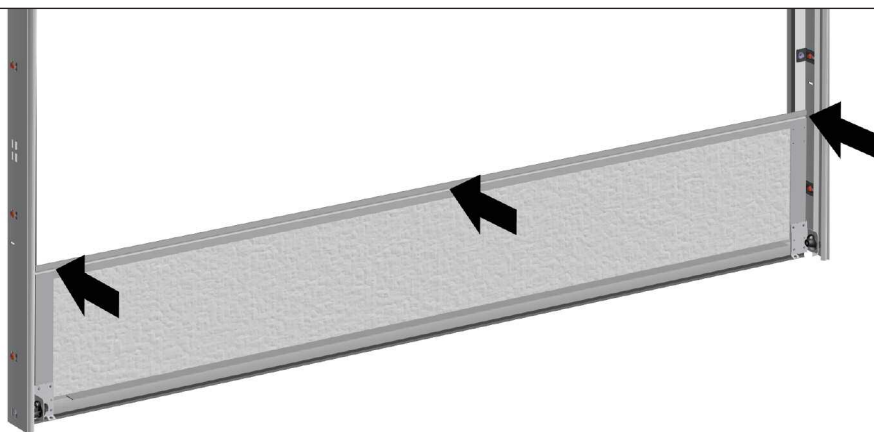


7.7.1 / 14



7.7.2 Mounting further door sections

7.7.2 / 1



Note:

The roller retainers must be screwed on in such a way that the hinge is touching the upper ribbed edge.



7. Installation of the sectional door



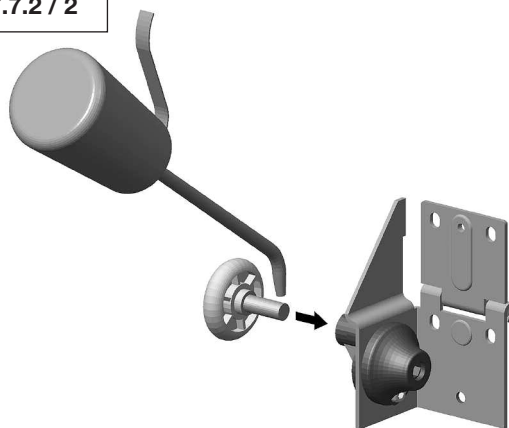
2 and 3 spring system

Attention!

Do not drill through the door leaf (max. depth 25 mm)!

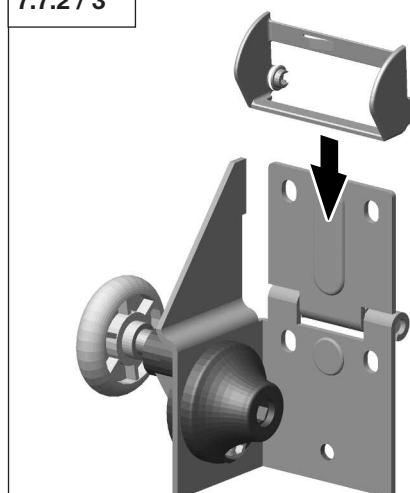
- Oil the roller and roller retainers.
- Insert the rollers into the roller holders.

7.7.2 / 2



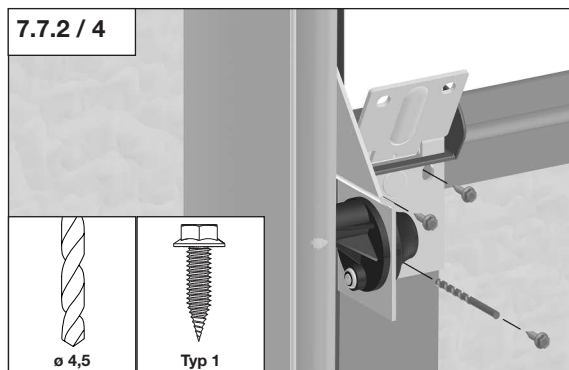
- Attach finger pinch protector.

7.7.2 / 3



- Insert the roller with the roller holder into the runner rail.
- Screw the runner rail holders to the lower section using the predrilled holes.
- Drill the hole for the bottom screw fitting.
- Screw the roller holder to the bottom screw fittings.
- Adjust the rollers.

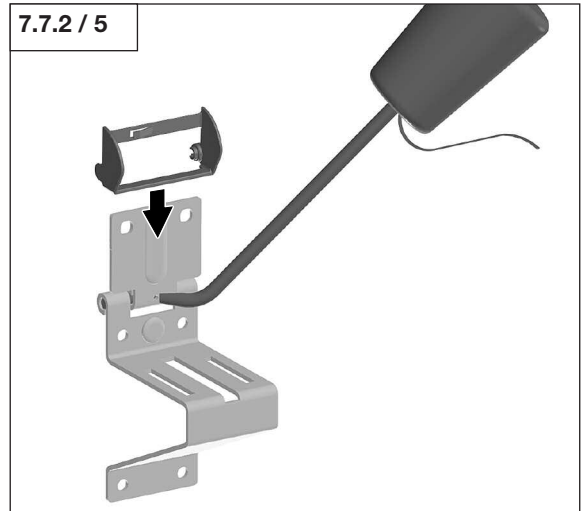
7.7.2 / 4



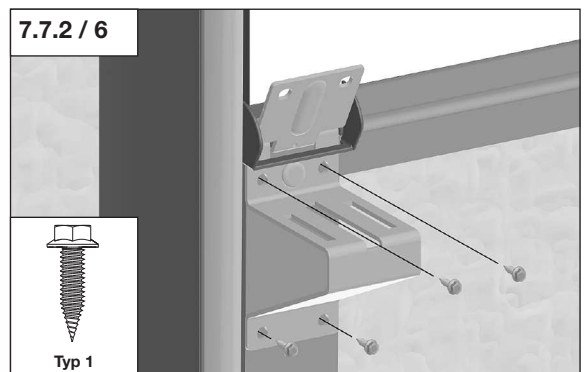
7. Installation of the sectional door

4 spring system

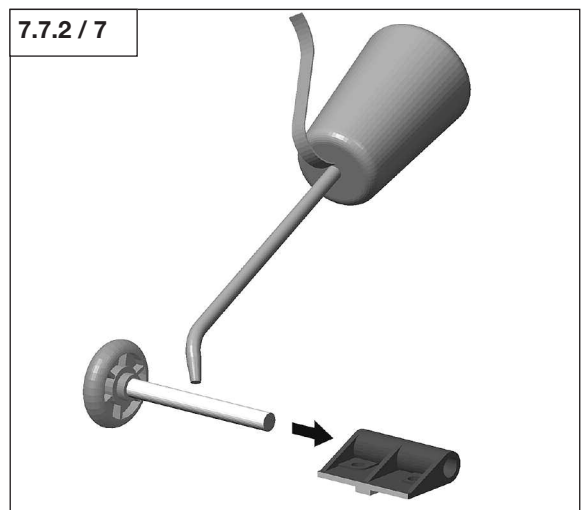
- Oil the side hinge.
- Attach finger pinch protector to the side hinge.



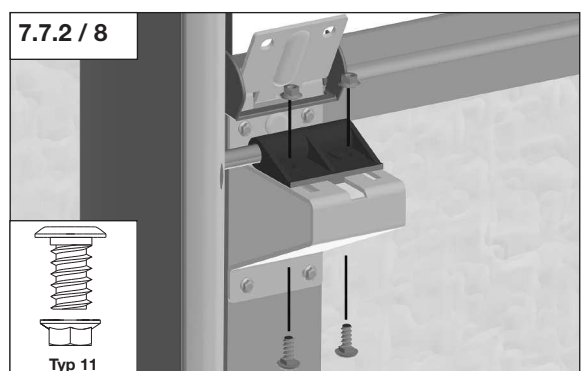
- Screw the side hinges to the lower section using the predrilled holes.



- Oil the rollers.
- Insert the rollers into the roller holders.



- Slide the roller into the runner rail.
- Screw the roller retainer to the side hinge.
- Adjust the rollers.

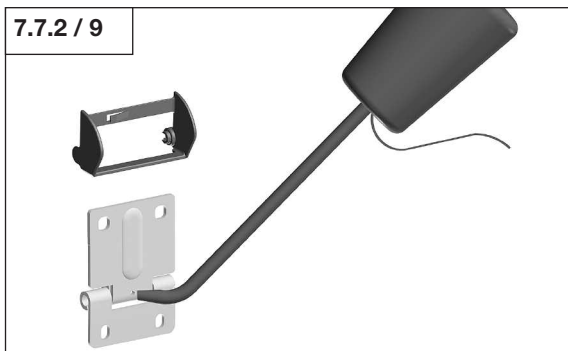


7. Installation of the sectional door

All spring systems

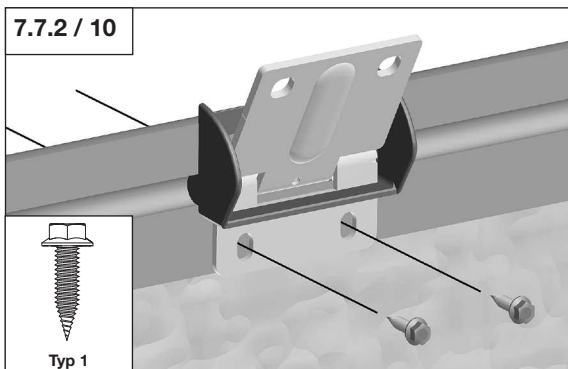
- Oil the central hinges.
- Attach finger pinch protector.

7.7.2 / 9



- Screw the central hinges to the lower section.

7.7.2 / 10

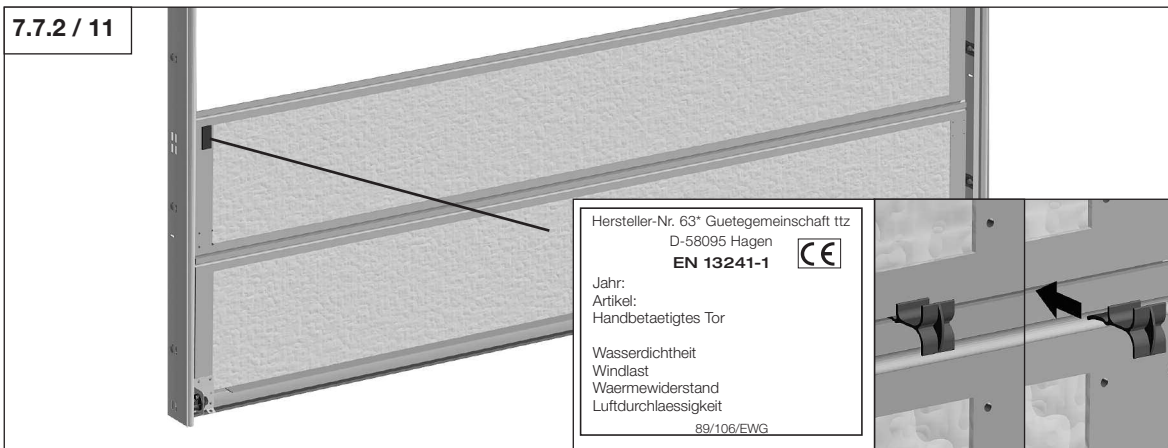


Caution!

The sections could fall down as long as they are not attached to the previous section and the roller holders have not been mounted.



7.7.2 / 11



- Secure every new section placed into the opening.
- Place the section with the type plate onto the bottom section.
- Insert the spacers between the sections.

Note:

The spacers must be removed after screwing the sections together. The spacers must be re-inserted between the sections before unscrewing the sections.

Note for manually-operated doors only:

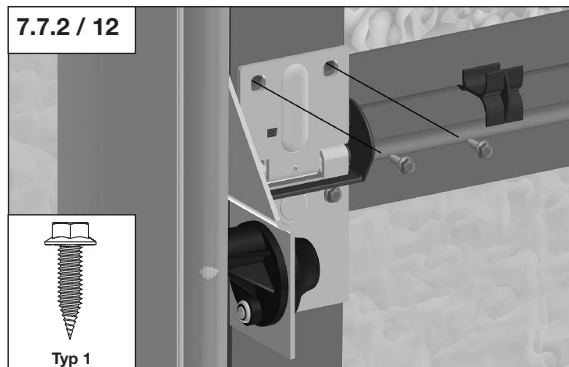
Now mount the handle.
The installation instructions are in the handle pack.



7. Installation of the sectional door

2 and 3 spring system

- Screw the runner rail holder to the upper section.



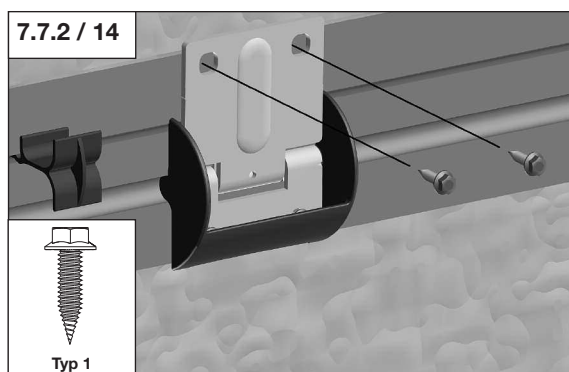
4 spring system

- Screw the runner rail holder to the upper section.



All spring systems

- Screw the central hinges to the upper section.

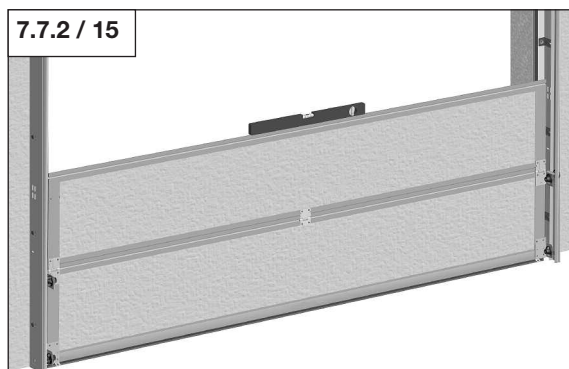


- Check whether the door is aligned horizontally.

Note:

To align the door horizontally, you can adjust the height of the wooden blocks (see fig. 7.7.1 / 13 and 7.7.1 / 14).

- Mount all further sections, except the top section (with sticker top section), as described above (fig. 7.7.2 / 1 to 7.7.2 / 15).



Note:

Mounting of the top section is described below.



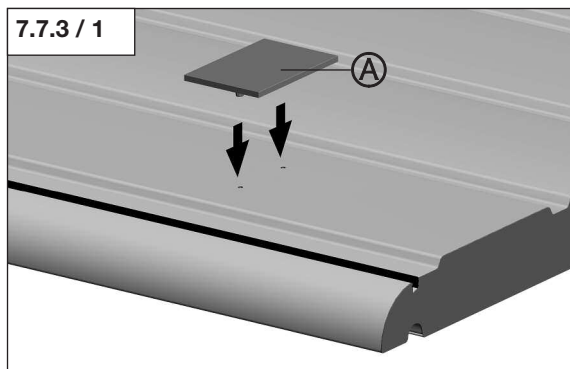
7. Installation of the sectional door

7.7.3 Mounting the upper door section (top section)

- Push the label carrier (A) gently into the hole of the upper door section.

The label carrier must completely overlie the door section.

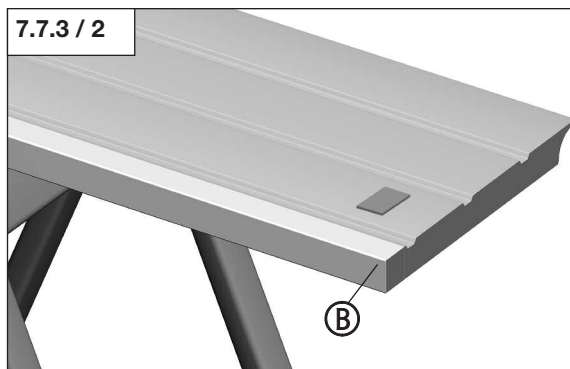
7.7.3 / 1



Note:

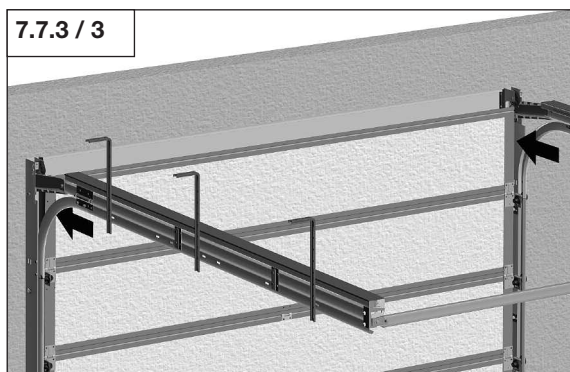
The top section of special door sizes is rounded off with an aluminium profile (B).

7.7.3 / 2



- Place the top section onto the previous section and attach it as described above (see fig. 7.7.2 / 1 to 7.7.2 / 13).

7.7.3 / 3

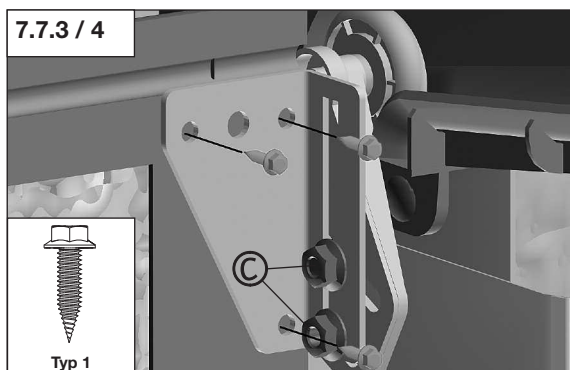


Attention!

The roller support plate which is to be screwed on has to be flush with the outside of the upper door section.

- Release bolts (C).
- Insert the roller of the upper roller holder into the black plastic curved rail.
- Screw the roller holding plates onto the right and left-hand side of the upper door leaf.

7.7.3 / 4



7. Installation of the sectional door



Note only for headroom version 240 mm:

For the special case of headroom version 240 mm, the lower drilling template has to be used to mount the roller holding plate.

- Align the roller in the upper curved rail as follows:

Position 1:

Roller is situated at the TOP of the run sheet:

- For doors **with** drive and without special consoles

Position 2:

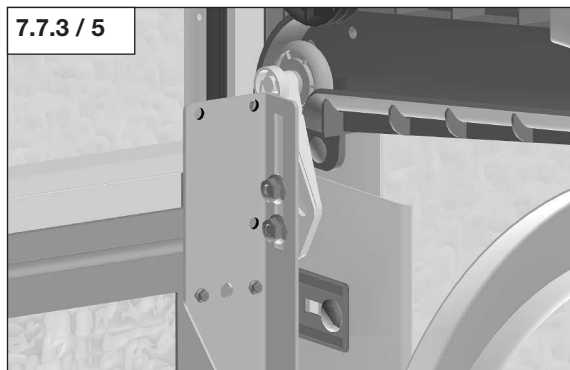
Roller grips just behind the vertical run sheet section:

- For doors **without** drive (manual operation)
- For **all** doors with the header variant 240 mm

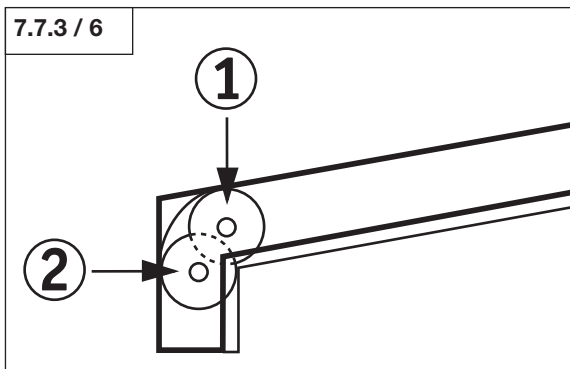
- Ensure that the space between the roller and the roller holder is 1 – 2 mm along the entire length of the door.

- As soon as you have adjusted your door to the correct position, tighten the bolts (C).

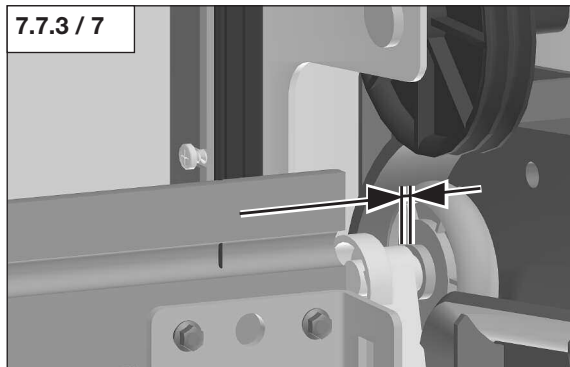
7.7.3 / 5



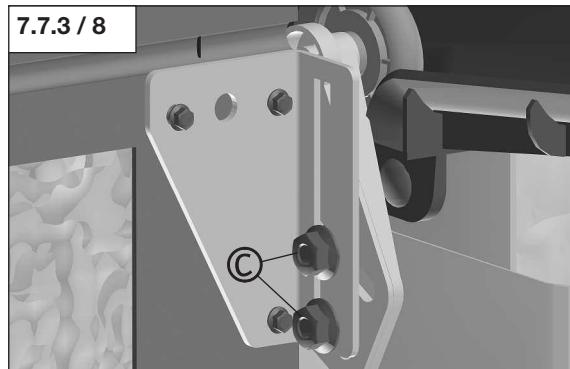
7.7.3 / 6



7.7.3 / 7



7.7.3 / 8



Attention!

- Alignment of the roller holders should only be carried out when the door is closed.
- The locking screws should not be tightened too tightly.

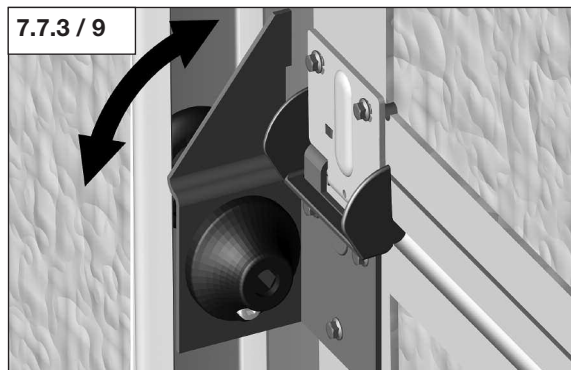
- Align all the roller holders in a way that the rollers are placed in the radius of the runner rails.



7. Installation of the sectional door

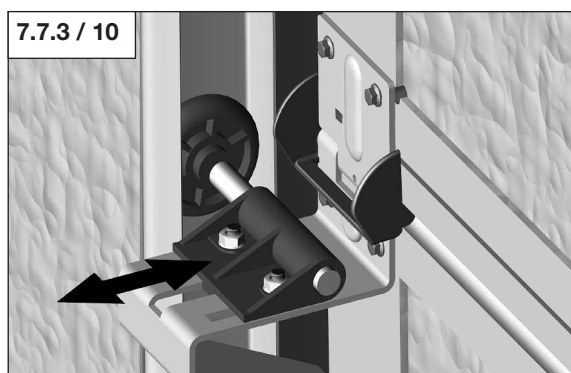
2 and 3-spring system

- Move the roller until it is in the correct position – bracket in the middle, 8 mm Allen key.
- Retighten the locking screw.



4-spring system

- Adjust the plastic roller holder until the roller is set correctly.
- Retighten the M6 nuts.



7.8 Mounting the cables to the door leaf



Attention!

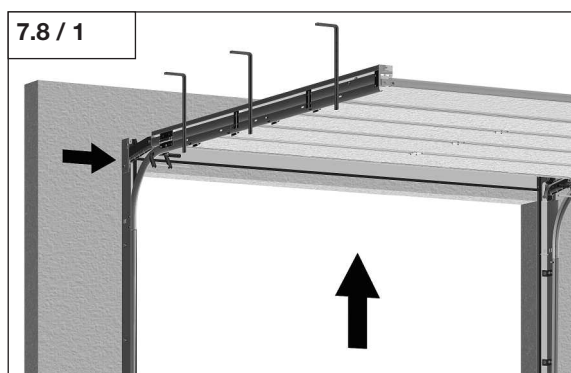
The door is not yet under spring tension.

The force required to open the door is not supported by spring tension.

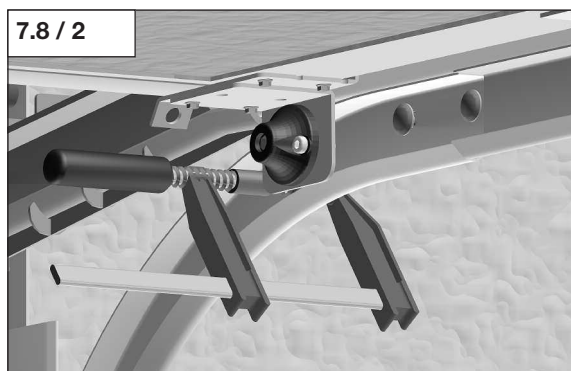
- Open the door carefully up to end position.

Note:

The following diagrams always display the right-hand inside of the door.



- Secure the open door on right and left-hand side to the runner rail using screw clamps.



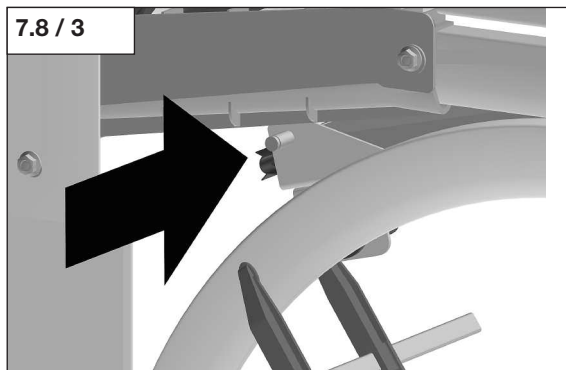
7. Installation of the sectional door



Attention!

You must have free access to the bolt at bottom bracket.

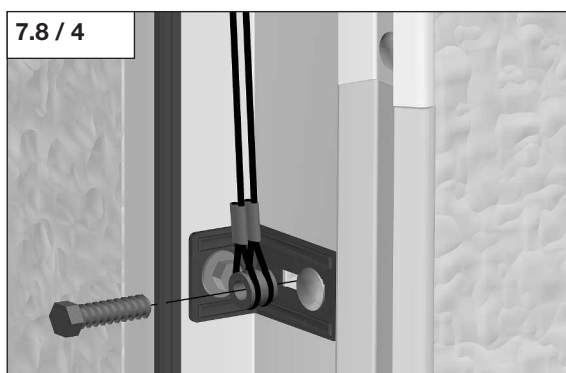
7.8 / 3



Caution!

The cable is under tension due to the spring.

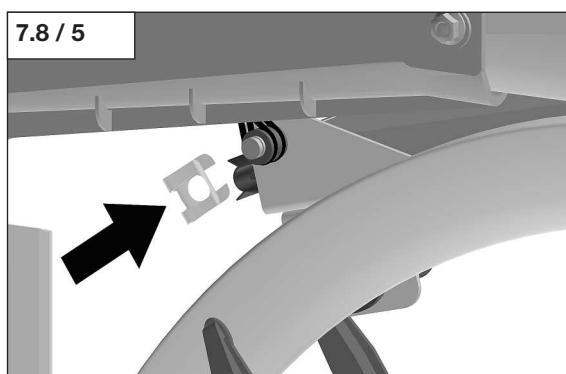
7.8 / 4



- Hold the cable firmly.
- Do not release the cable until it has been secured.
- Remove the screw on installation bracket / frame.
- Place the cable loop onto the lateral receiver at the bottom bracket.

- Secure the cable loop with an SL securing device.

7.8 / 5



Note:

The steps have to be carried out laterally reversed on the other side of the door side.



Caution!

Make sure that the cable loop is secured before removing the screw clamps.

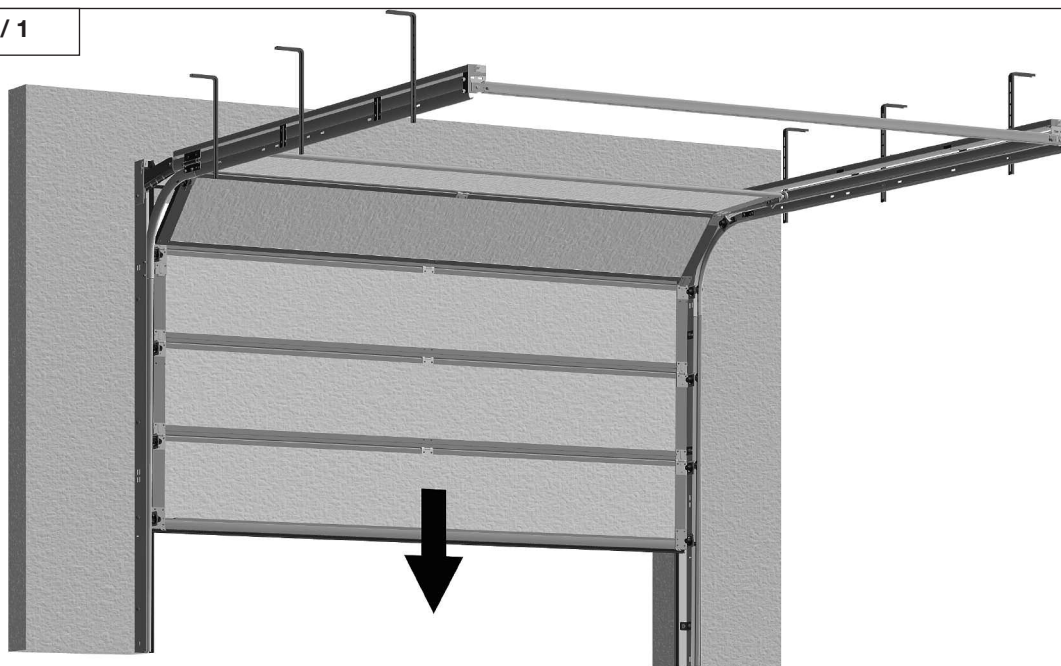


- Now remove the screw clamps (see fig. 7.8 / 2).
- Remove the blocks of wood (see fig. 7.7.1 / 13 and fig. 7.7.1 / 14).

7. Installation of the sectional door

7.9 Setting the spring tension

7.9 / 1



- Close the door and test the spring tension.

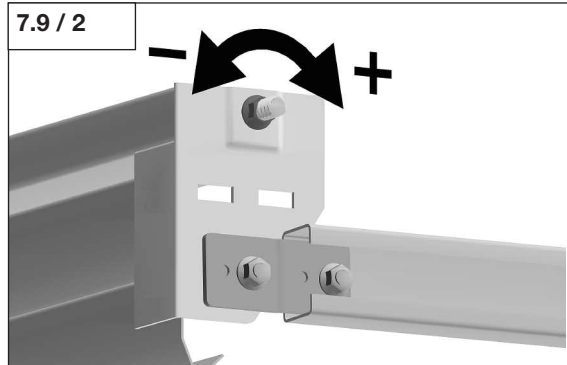


Attention!

- Spring tension should only be changed when the door is open.
- Both sides should always have the same tension.
- When reducing the spring tension, the threaded rod should never be unscrewed from the nut.
- The tension has to be set in away which enables simple up or down travel.
- The cable has to have sufficient initial tension in every door position.
- The cable should always be under tension!

- To increase tension, turn the M8 nut clockwise.

7.9 / 2



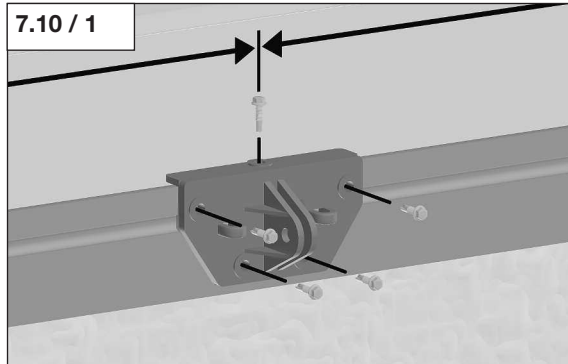
7. Installation of the sectional door

7.10 Mounting the door link bracket

- Mount the door link bracket in the centre of the top door section.

Note:

The door link bracket should be screwed on, even if an electric drive has not yet been fitted. The door link bracket is specially designed for this sectional door and should be used if an electric drive is retrofitted.



7.11 Mounting the pull cord (optional accessories)

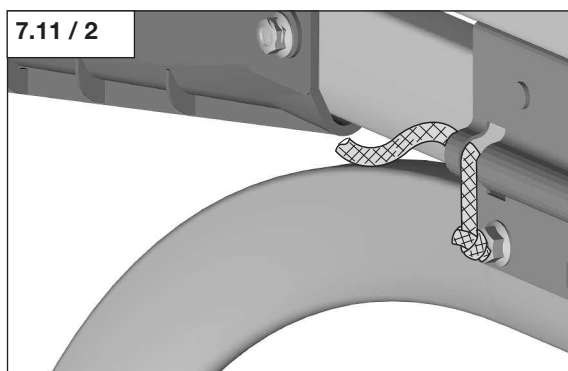
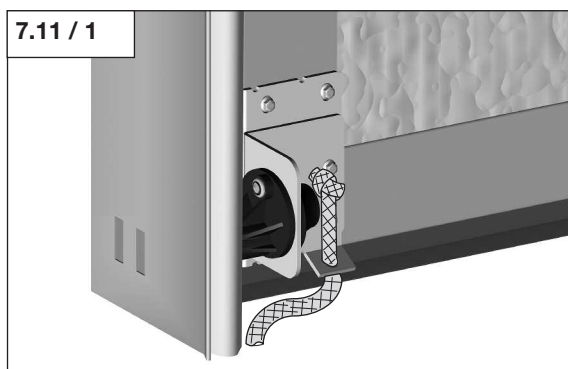
Caution!

To avoid injuries, never use the cable in connection with an electric drive!

Always remove an existing cable if an electric drive is retrofitted to the door!

For door heights from 2250 mm and higher:

- Insert the pull cord from below through the flap of the bottom bracket and knot the end of the cord.
- Insert the pull cord from the front through the hole in the horizontal frame.
- Pull the cord to the required length and knot the end.



7. Installation of the sectional door

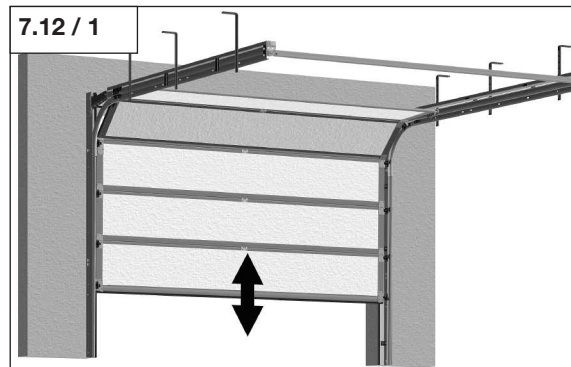


7.12 Testing the door travel

Caution!

To avoid injuries, check whether the door is secure:

- Have all installation steps been carried out?
- Have the lateral rails been sufficiently fixed?
- Are the springs on both sides under sufficient tension as described?
- Have the door sections been attached at all the specified positions and has the space of 2 mm between the sections been adhered to?



- Open and close the door manually.

Successful testing of the door should fulfil the following requirements:

1. The door travels easily.

- If the door does not travel easily, please check:
 - Have all the lateral frames been aligned correctly (see point 7.2.4)?
 - Have the cables been twisted (see point 7.5)?
 - Have the lateral runner rails been aligned horizontally (see point 7.6.1)?
 - Has the door leaf been aligned in the centre of the door opening (see point 7.7.2)?
 - Is the door leaf, when closed, in a horizontal position (see point 7.7.2)?

2. The door travels to the end positions "Door OPEN" and "Door CLOSED".

- If the door cannot travel to the end position "Door OPEN", please check:
 - Is an object obstructing door travel? Especially check the runner rails.
 - Does the cable run correctly over the pulley blocks on both sides (see point 7.5)?
 - Is the tension of the spring correct (see point 7.9)? The spring tension is possibly too low or too high.

3. The door should stop immediately between the end positions after being released.

- If the door does not stop immediately, please check:
 - If the door carries on opening, reduce the spring tension (see point 7.9).
 - If the door carries on closing, increase the spring tension (see point 7.9).

Attention!

The protective film on the outside of the sections has to be removed; otherwise strong sunlight will cause it to stick to the sections!

- Remove the protective film from the outside of the sections.



8. Operation of the sectional door



Caution!

In order to avoid personal injury due to uncontrolled door movements:

- Only open or close the door when the door opening is clear of obstruction.
- Do not operate the door under heavy winds in order to ensure that control over the door is maintained.

8.1 Manually operated doors

Note:

- Only operate the door with the controls provided for this purpose.
- Move the door at a constant speed until the limit positions are reached.
- When closing the door, ensure that the latch bolt engages.
The door is automatically locked in the CLOSED limit position.

Operation from outside - opening the door

- Unlock the door with the key.
- Turn the handle clockwise, then lift the door a few centimetres.
The door is unlocked.
- Slide the door to the OPEN limit position. The handle does not have to be turned in the process.

Operation from outside - closing the door

- Move the door to the CLOSED limit position.
The lock engages automatically when the door is closed.

Operation from inside - opening the door

- Unlock the handle with the securing lever on the lock.
- Turn the handle clockwise, then lift the door a few centimetres.
The door is unlocked.
- Slide the door to the OPEN limit position. The handle does not have to be turned in the process.

Operation from inside - closing the door

- Move the door to the CLOSED limit position.
The lock engages automatically when the door is closed.

8.2 Power-operated doors

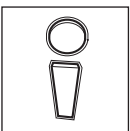
Caution!

In order to avoid personal injury due to uncontrolled door movements:

- Ensure that the control unit and handheld transmitter are not used by children or unauthorised persons.
- Ensure that the handheld transmitter is not inadvertently actuated (e.g. in the pocket of your trousers).

Reference:

Refer to the documentation for the drive system for information about the operation of the door drive.



9. Maintenance instructions sectional door



Caution!

A damaged door can cause severe or deadly injuries.

If there are signs of damage, fractures, or tears, the door must be immediately shut down and repaired by a qualified expert in accordance with EN 12635.

Service tasks arising under 1, 4, and 5 below must be performed by a qualified expert in accordance with EN 12635.

Maintenance at least every 6 months:

1. Inspect the steel ropes for damage, fractures, and tears.

Maintenance at least every 12 months:

2. Check the rollers.
3. Lubricate the hinges and the rollers.
4. If necessary, re-tension the springs.
5. Check the springs.
6. Check the roller settings.
7. Check the condition and fixing of all screws and nuts and bolts.
8. Carry out a visible inspection of all the components for fractures and damages.

