FERMOD WALL GUIDED SLIDING DOOR HARDWARE KITS

F2131PAN Installation Guide

FERMOD®

Fermod F2131PAN Wall Guided Sliding Door System

General Characteristics

This is a manual system with an anodized rail designed to fit horizontal sliding doors with specific characteristics, (isothermal, acoustical, clean-rooms, dust tight).

When the door is closed, tightness of the door against the frame is achieved by 2 rollers moving down the ramps and in against the door frame.

When the door is open, the 2 rollers come up the ramps and the door moves away from the floor & frame. This means that the door seals are only in contact when the door is in a closed position. The rollers run effortlessly along the rail until they reach the end of the track stop.

This system is suitable for doors within the following specifications:

Specification	Minimum	Maximum
Door Blade Width	-	1100mm
Door Blade Height	-	2200mm
Door Blade Thickness	50mm	150mm
Door Weight	-	80kg

The operating temperature is between -30 °C and +55 °C.

The maximum noise level generated when the door operates is lower than 85dB.

The lever Handle recommended for use with this system are as follows:

Internal Lever Handle :
F8530, F8530P (Packer)
External Lever Handle.
F8730-70/115K Used for door blades including gasket between 70mm and 115mm thick.
F8730-115/160K Used for door blades including gasket 115mm and 160mm thick.

IMPORTANT INFORMATION

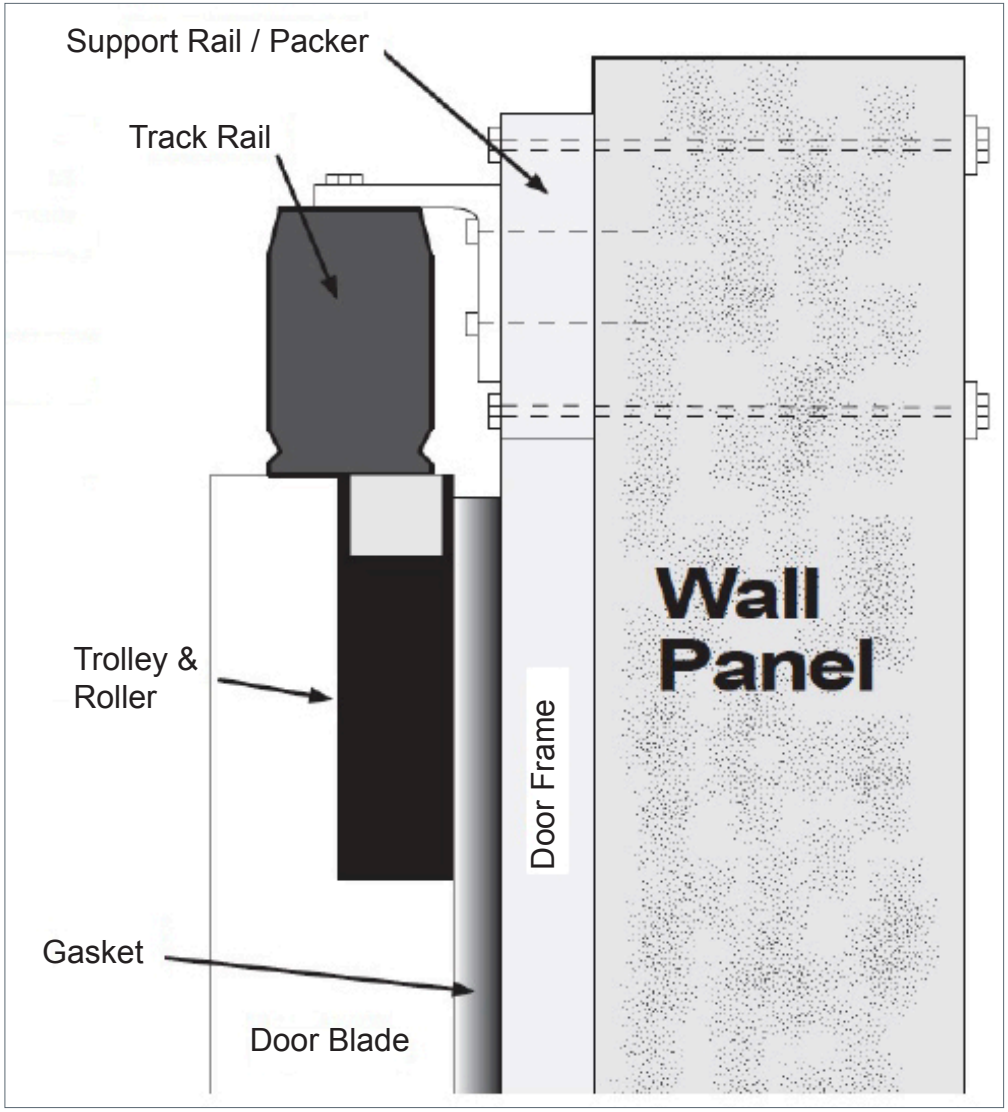
1. Due to the varying density of wall panel types used in Australia, CRH Australia **STRONGLY** recommends that an aluminium Support Rail is securely fixed to the panel wall and then the Track Rail Brackets are secured into or through the Support Rail.

2. The installation drawing that follows in these instructions are all based on the fact that the Track Rail Brackets are Flush with the face of the door frame, i.e. they are both offset the same distance from the wall panel.

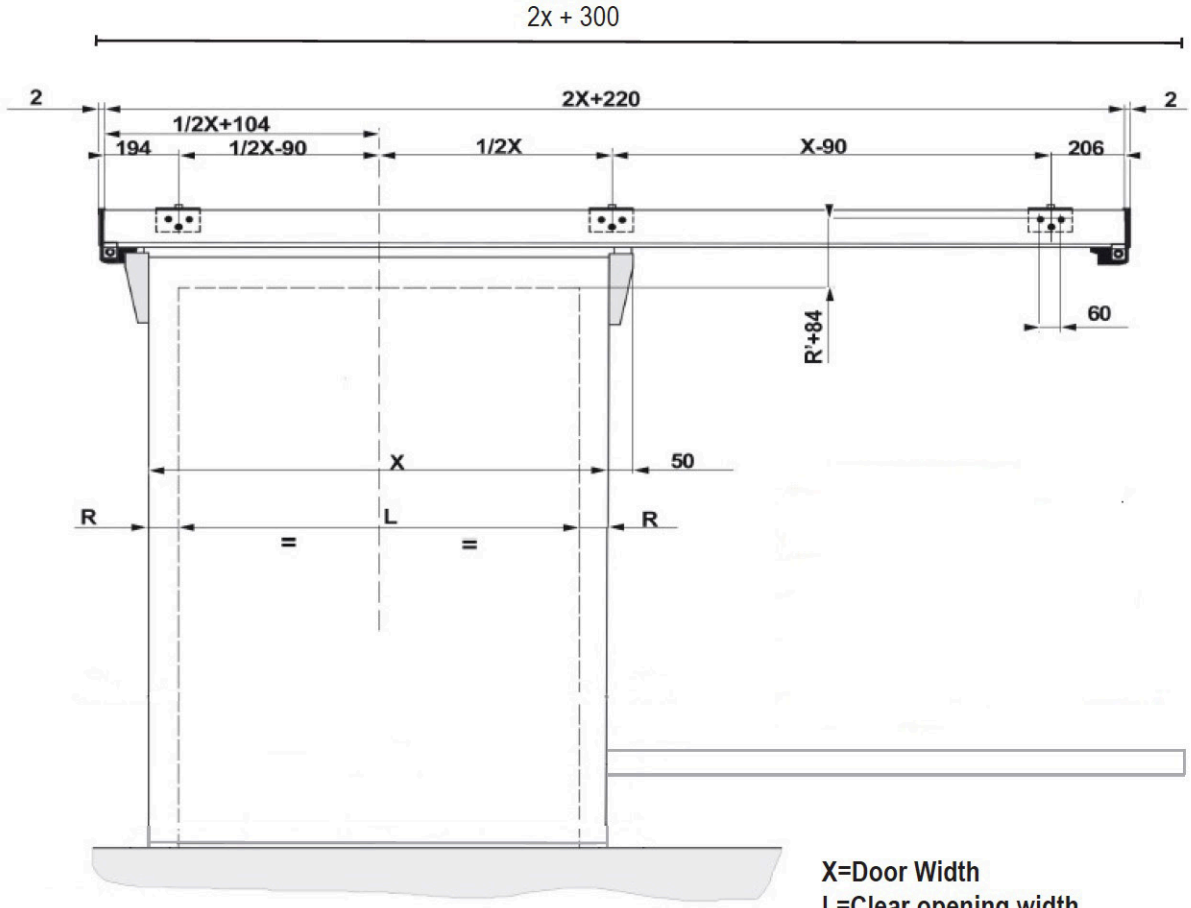
3. As the L shaped Track Rail Brackets need to be packed out the same distance as the face of the door frame it is suggested that the Support Rail also serves as the packer.

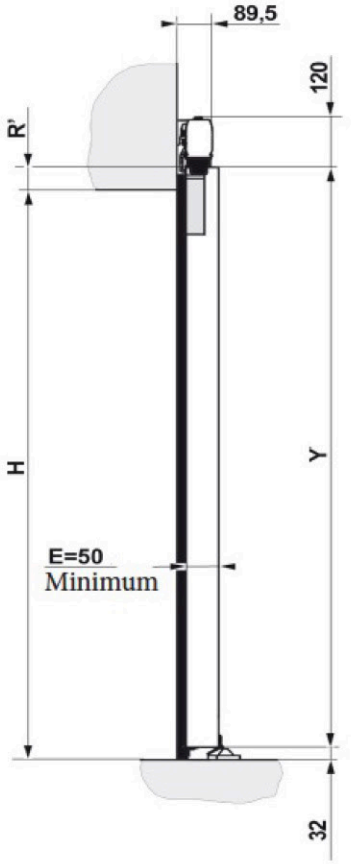
IMPORTANT- THE SUPPORT RAIL/PACKER MUST BE THE SAME THICKNESS AS THE DOOR FRAME.

The standard Fermod 7540 Wall Guide System is designed for door frame thicknesses of **15mm-25mm**. Wall Guide Rail profiles are also available for 26mm-47mm thick door frames, inquire with CRH for options.



General Drawing for F2131





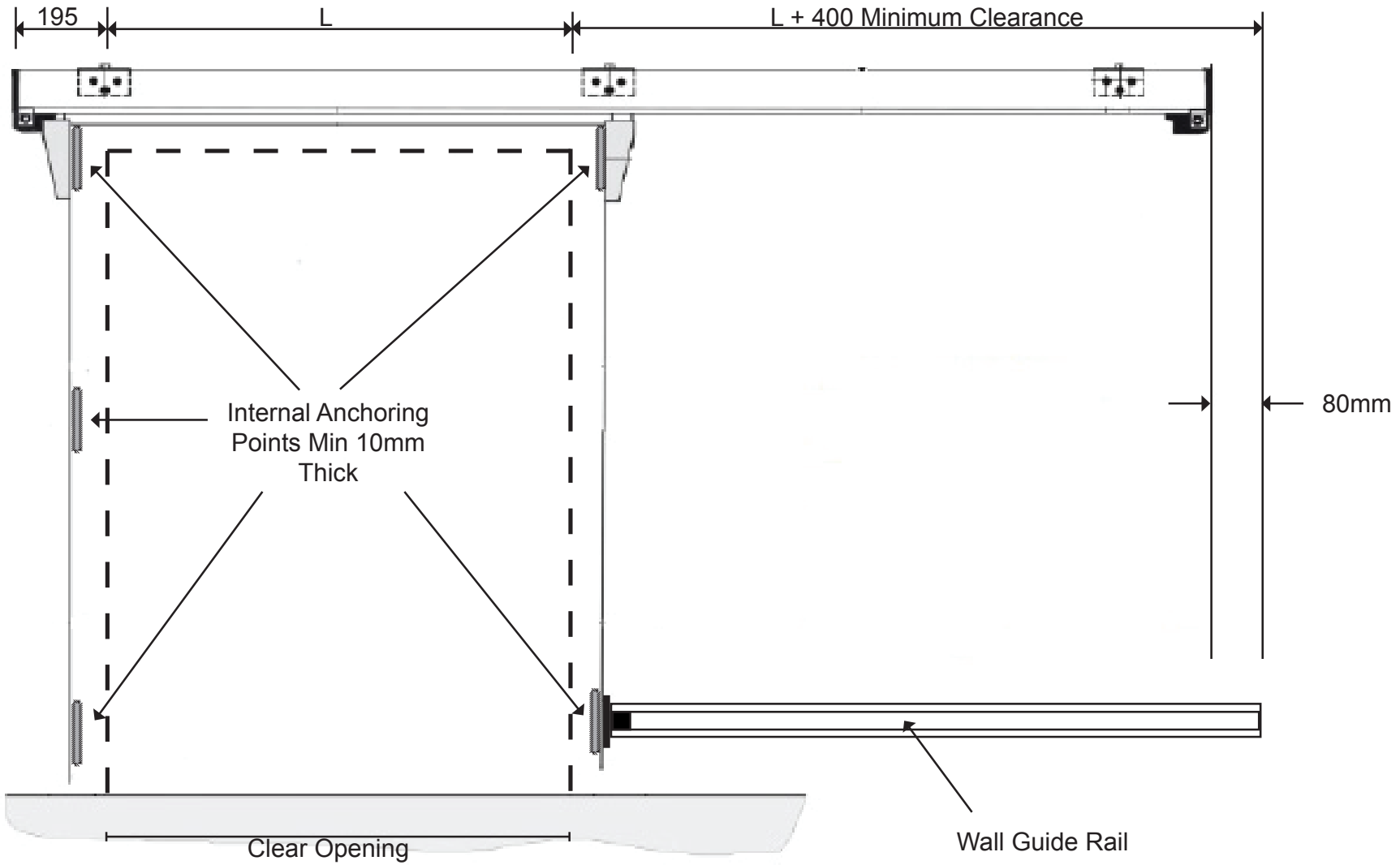
X=Door Width
L=Clear opening width
R=Overlapping width
R'+Overlapping height
E=Door thickness
Y=Door height
H=Clear opening Height
Z=Door Frame

Components & Fasteners Provided

Ref	Description
A1	Rail (1)
A2	Running Rail (1)
A	Wall guide rail (1) & self drilling screws
A4	Ramp (2)
A5	Running profile end clamp (2)
A6	Rail stop opening side (1)
A7	Rail stop closing side (1)
A8	Rail holder & screw (5) (only 3 required for F2131)
A9	Rail holder
A10	Rail upper cover (1)
A11	Frame gasket (1)
A12	Frame fixing profile (3)
A13	Frame gasket corner profile (2)
A14	Floor gasket fixing profile (1)
A15	Floor Gasket (1)
A16	Gasket fixing bolt & nut (Nylon) (2)
A19	Roller + trolley RH
A20	Roller + trolley LH
A21	Door bracket/Door RH
A22	Door bracket/Door LH
A23	Trolley cover
A24	Complete roller assembly RH (1)
A25	Complete roller assembly LH (1)
A26	Rail end cap (2)
G	Opening guide (1)
E	Opening guide bracket (1) 4 x M8 x 40mm bolts & washers
L	Closing guide (1) 2 x M10 x 40mm bolts & washers
J	Size template (1) (6mm thick)
B	Wall guide rail end cover (2)
I	Wall guide end cover (1)
K	Closing guide locator (1) Fastener kit provided
C	Wall guide trolley (1)
F	Opening Guide Bracket Cover (2)
H	Opening Guide Cover (1)
M	Closing Guide Cover (4)

What is NOT supplied in your Fermod Wall Guided Sliding Door Kit.

- Aluminium support rail/packer.
- Bolts & nut sets to fix the aluminium support rail and rail holders.
- Screws for fixing gasket & fixing strips (approx 50-100 M4 x 25mm required).
- Sliding door blade.
- Door frame.
- Fasteners for Internal Lever Handle/Recessed Packer & Strike


195
L
L + 400 Minimum Clearance
Internal Anchoring Points Min 10mm Thick
80mm
Clear Opening
Wall Guide Rail

Door Blade Construction

Each Contractor may have their own method of insulated door construction. The Fermod 7540 Wall Guided Hardware Kit does require metal anchoring points to be constructed within the door blade that can be drilled & tapped to secure key components such as:

- Left hand & right hand trolley assemblies.
- External Lever Handle.
- Opening side Wall Guide.
- Closing side Wall Guide.

It is recommended that the metal anchoring points are 10mm thick. The Wall Guide System operates the most effectively when the opening & closing guides are installed low down on the door.

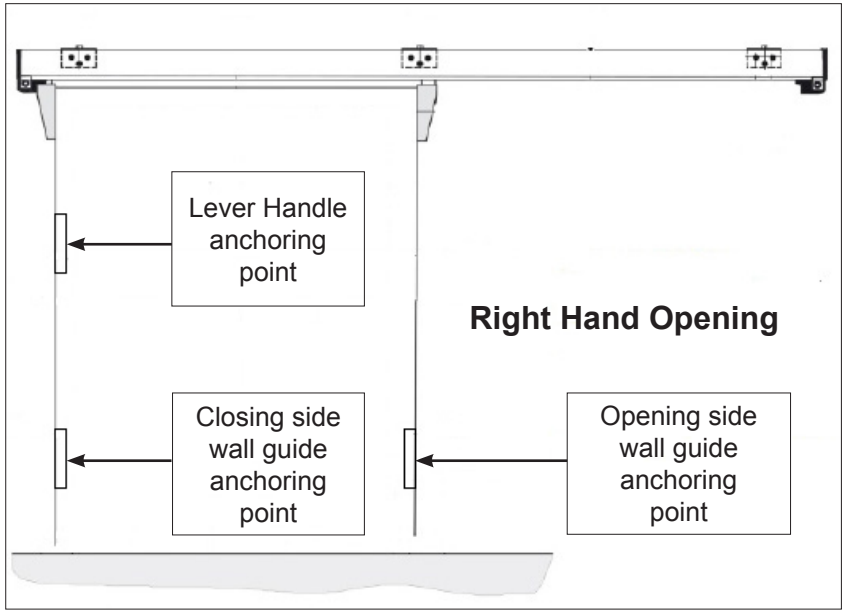
Recommended fastener locations measuring from the bottom of the door:

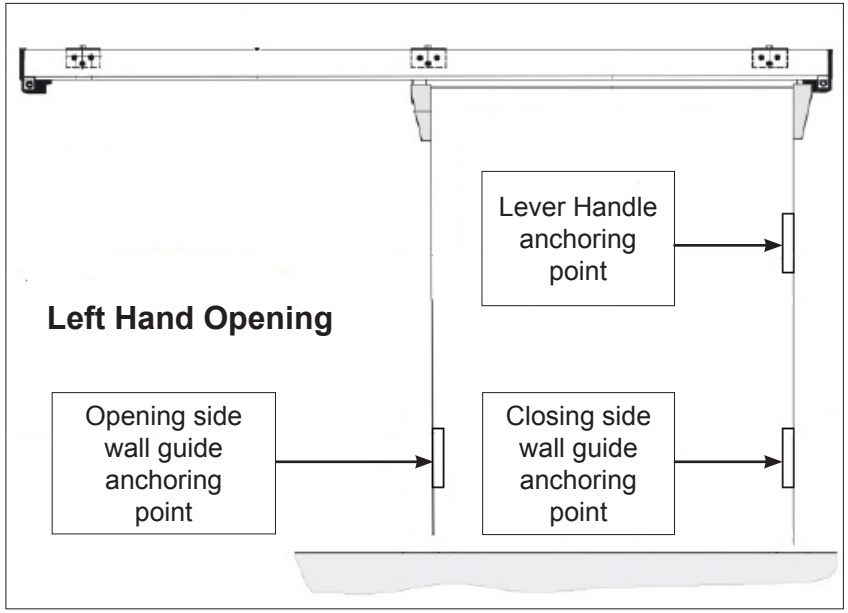
Opening Guide	Lower	60mm
	Upper	200mm
Closing Guide	Lower	150mm
	Upper	265mm

External Lever Hanle anchoring - Recommended fastener height from the bottom of the door.

Lower	1170mm
Upper	1240mm

Door size construction should also allow for the Fermod Gasket supplied in the kit. F8511 Frame Gasket - 35mm Height, F250 Floor Gasket - 35mm Height.

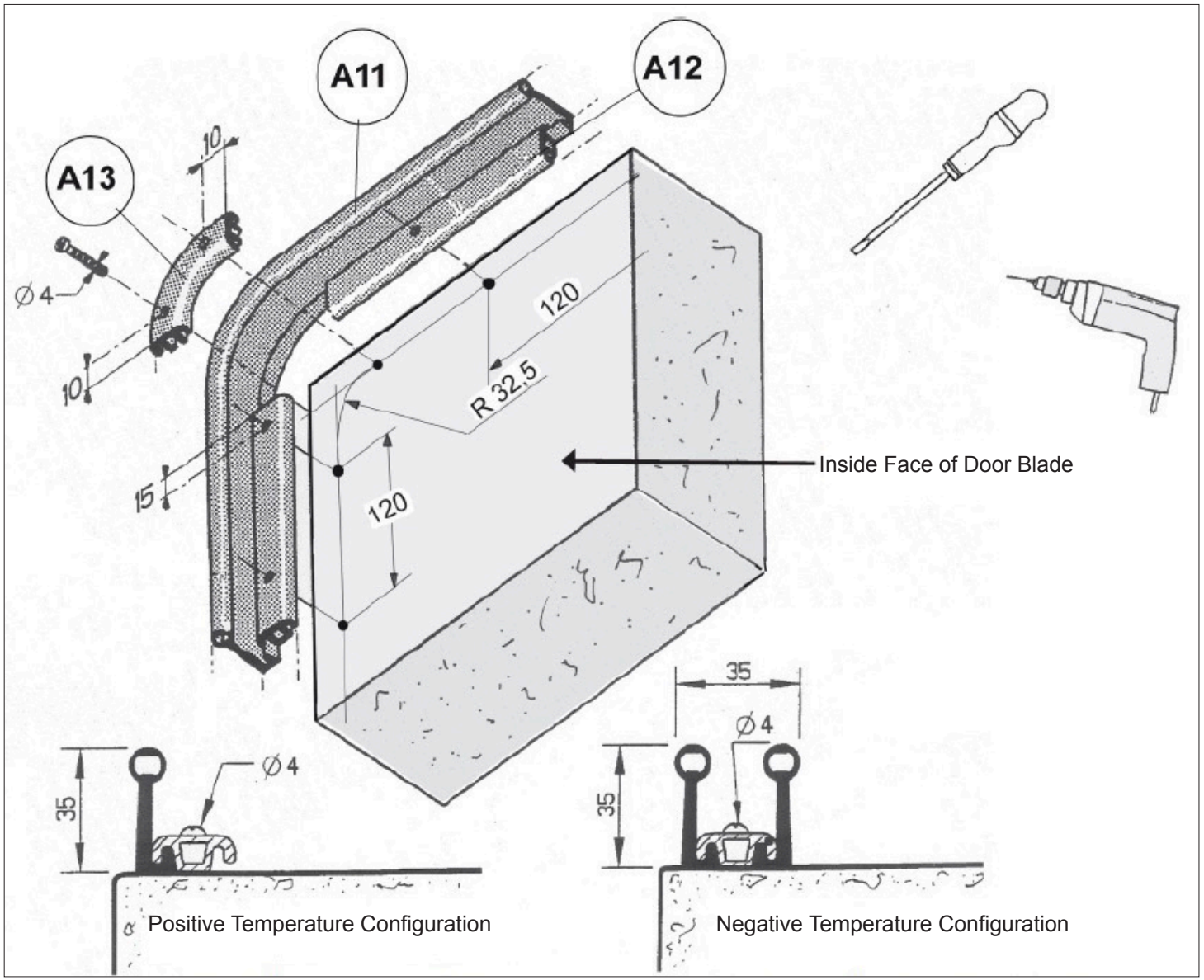




Step 1.

Attach the frame gasket supplied to the internal side of the door blade using the fixing strip & corners.

For negative temperature doors purchase the “Negative Temperature Kit” which will include the extra run of frame gasket.



NOTE:

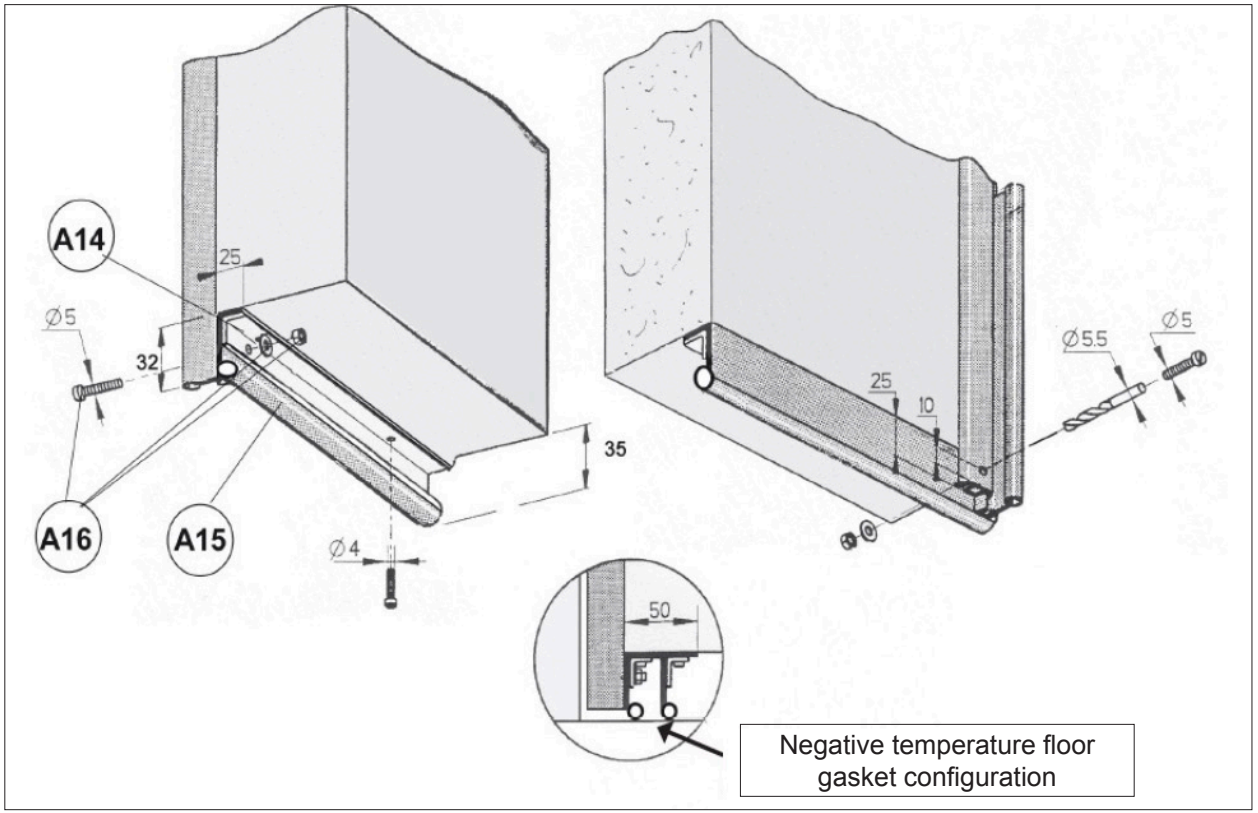
Negative temperature means doors operating below zero degrees celsius

Step 2.

Attach the floor gasket to the bottom of the door blade.

Ensure to bolt through where the frame & floor Gasket fixing strips meet. Nylon bolts are provided in the kit for this purpose.

For negative temperature doors, 2 runs of floor gasket are recommended. Purchase a “Negative Temperature Kit” which will include the extra run of floor gasket and fixing profile.



Negative temperature floor gasket configuration

Step 3.

Mounting Holes for the hanging door brackets.

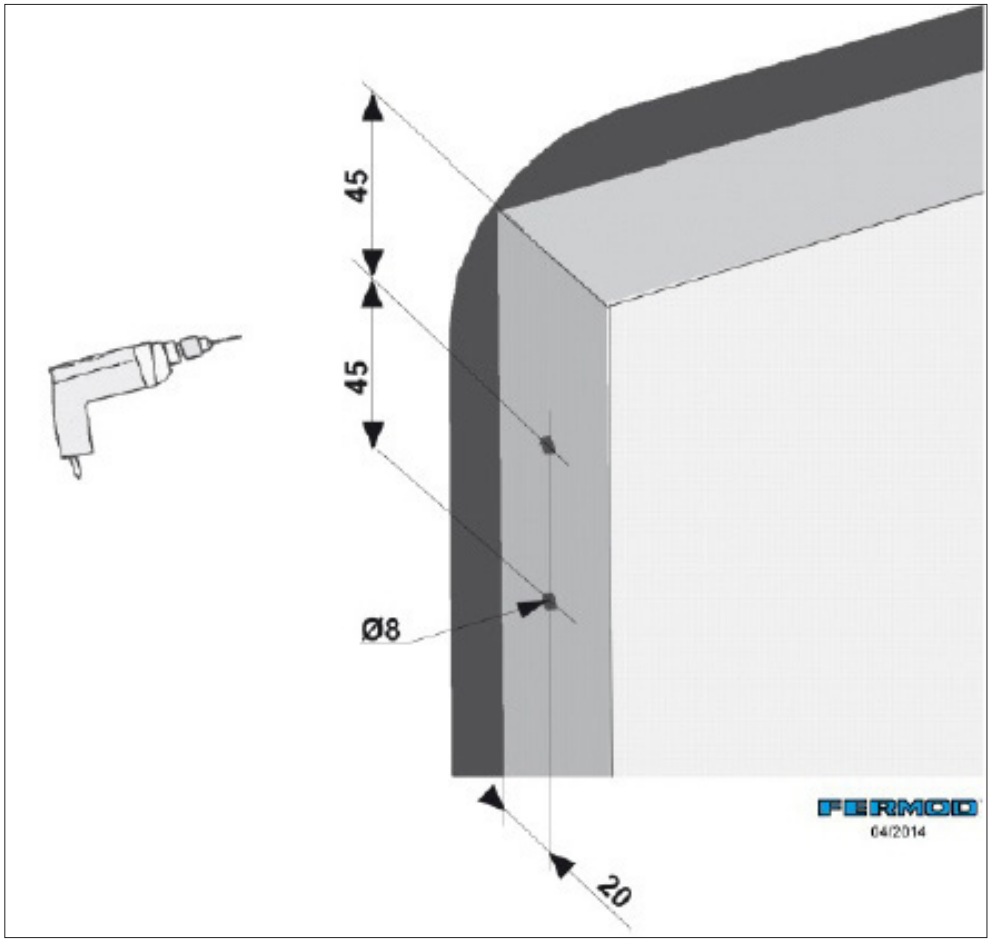
On the top left and right edges of the door blade drill and tap the fixing holes to attach the hanging brackets. Be mindful of the thickness of the support rail packer you are using.

The support rail bracket should be the same thickness as your door frame, if these are different you should adjust you hole locations accordingly. E.G If you were to use a 15mm thick door frame & a 25mm thick aluminium support rail profile the measurement would change from 20mm in from the gasket to 30mm.

The measurements are also based on the use of the Fermod 35mm Frame Gasket. Using a different gasket may require adjustment.

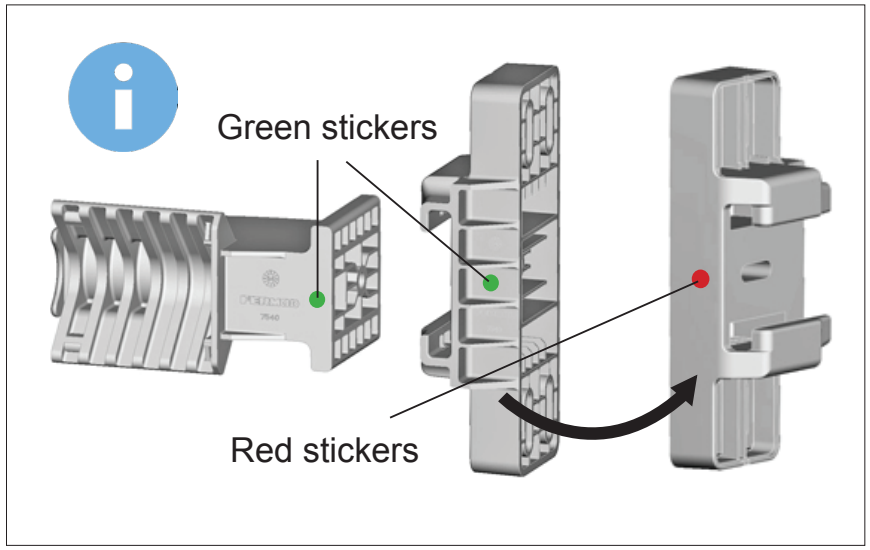
Note:

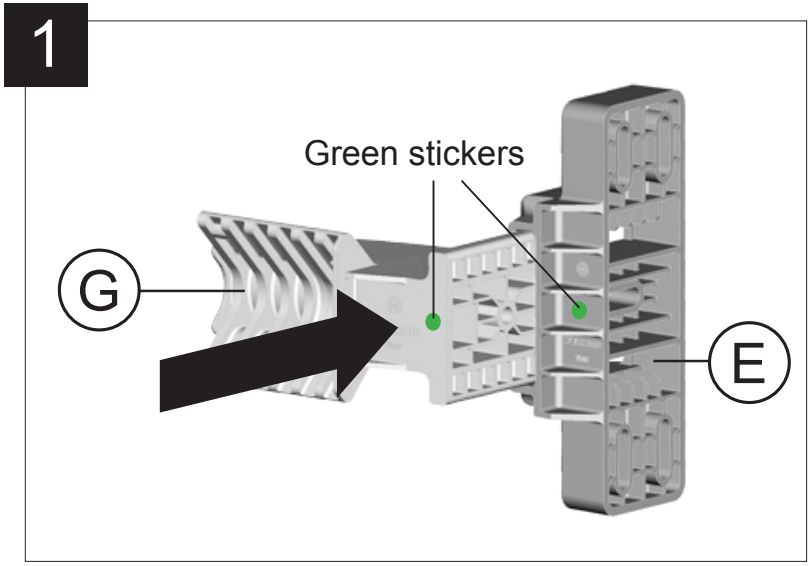
Be precise on your locations measuring from the inside of the door blade, as there is little horizontal adjustment available on the hanging brackets.

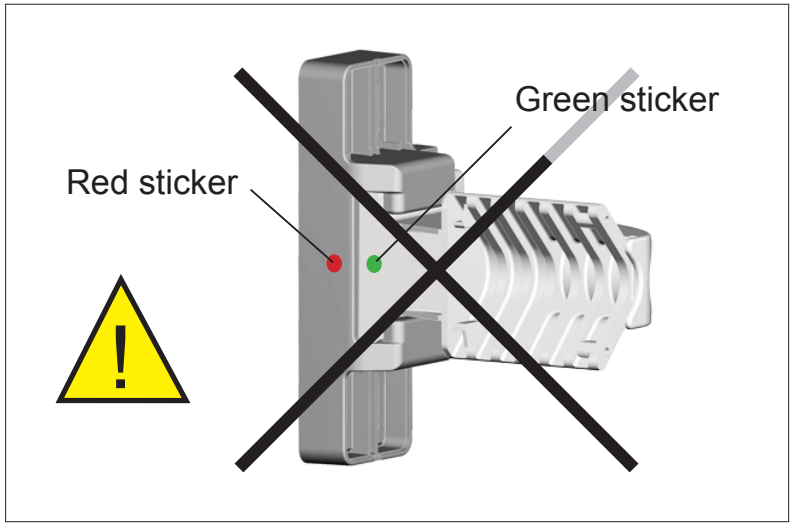


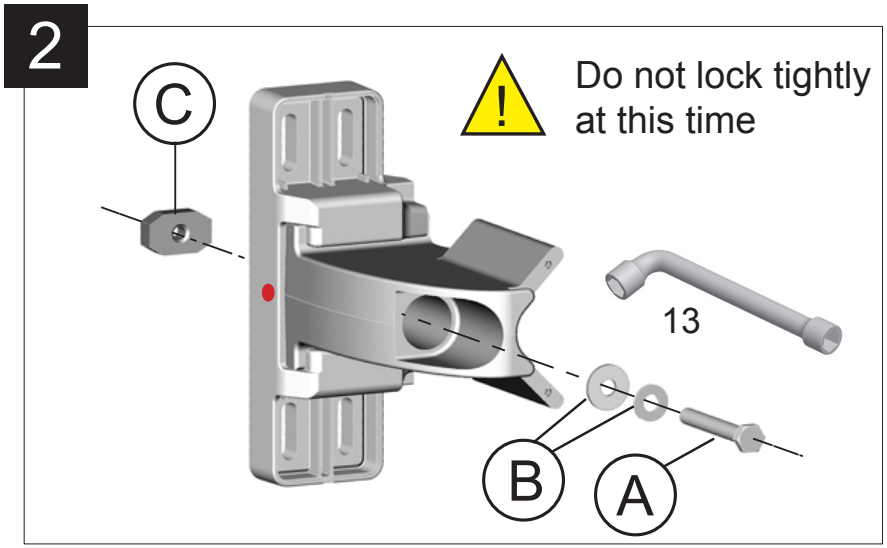
Step 4.

Assemble the opening guide.



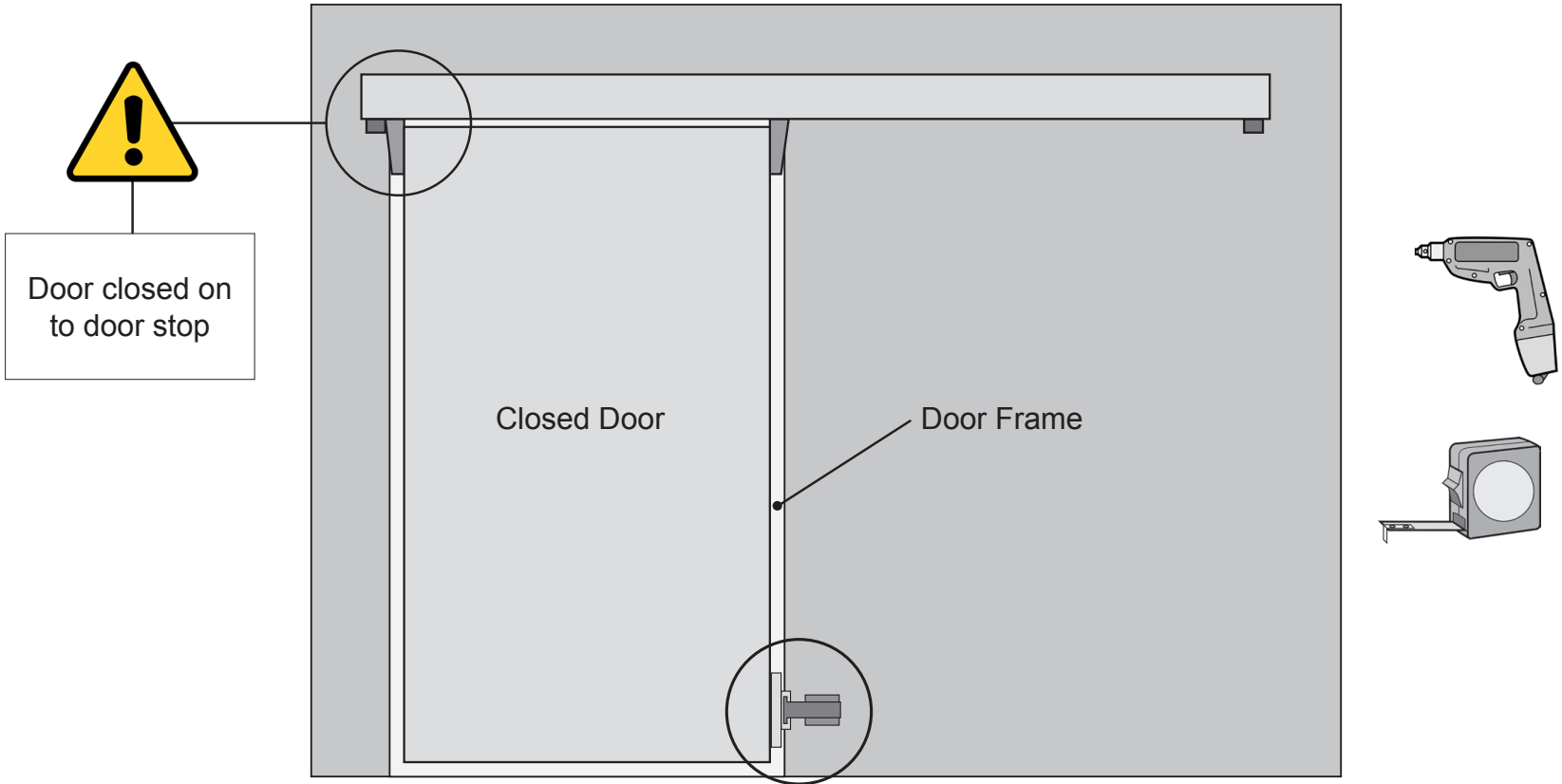






Step 5.

Fixing onto the door.



Case 1. Frame width overlapping 70mm Max.

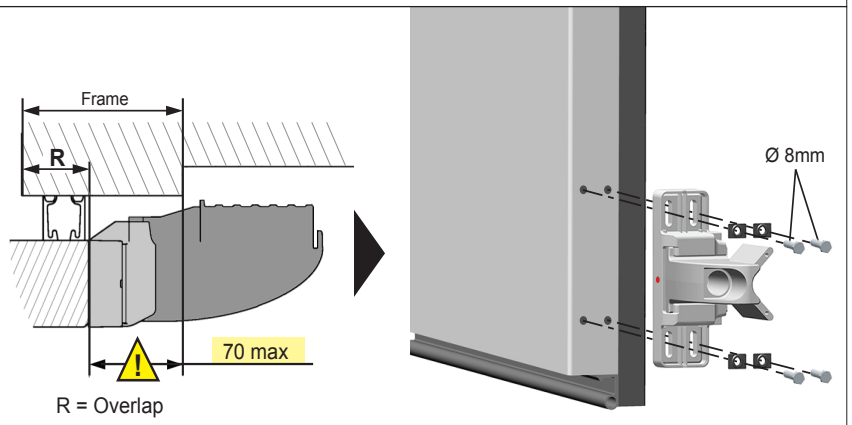
Case 1 (Next Page) is allowed for in the standard kit contents, assuming frame width does not exceed blade width by more than 70mm.

Case 2. Frame width overlapping 100mm Max.

Case 2 (Next Page) shows a frame width overlapping door blade by more than 70mm will require a packer, purchased seperately.

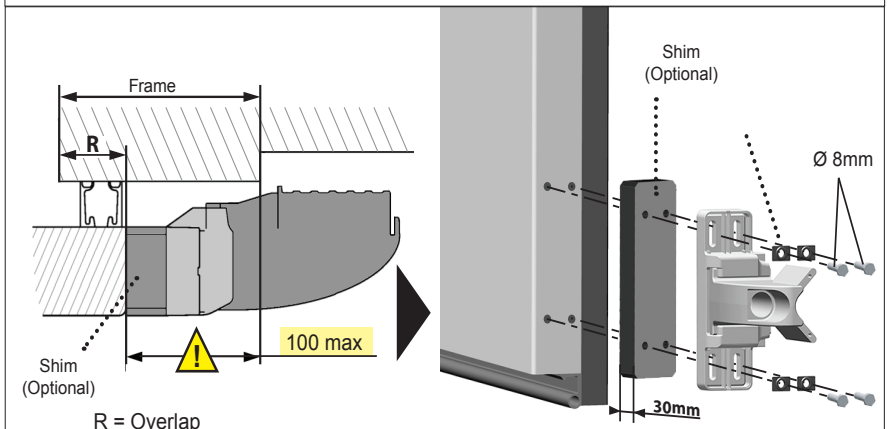
Case 1

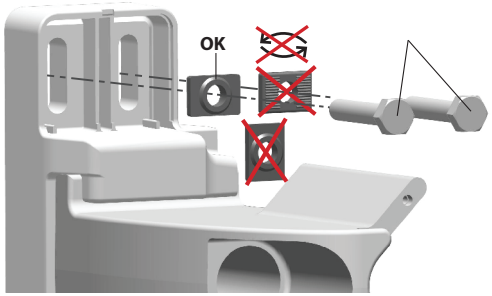
1. Drill 4 holes in the edge of the door.
2. Fix the opening guide with supplied four screws and four washers.
3. Tighten without locking.



Case 2

1. Drill 4 holes in the edge of the door.
2. Fix the opening guide and its shim with supplied four screws and four washers.
3. Tighten without locking.



⚠	Notched plates must be installed the orientation shown.	

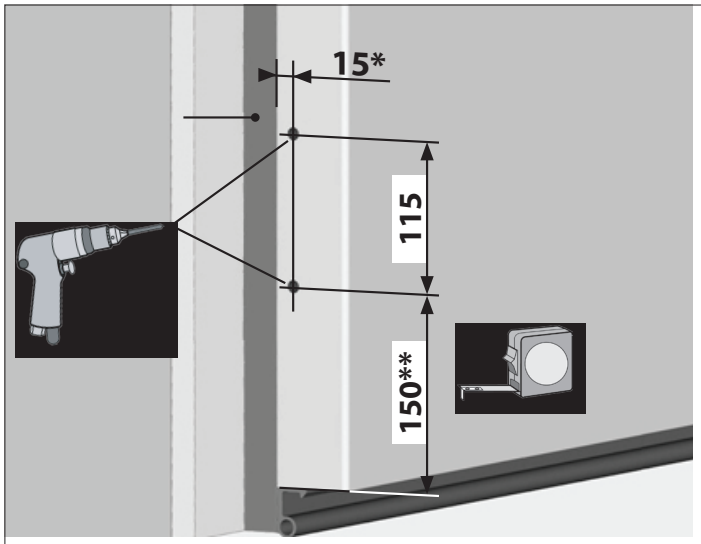
Step 6

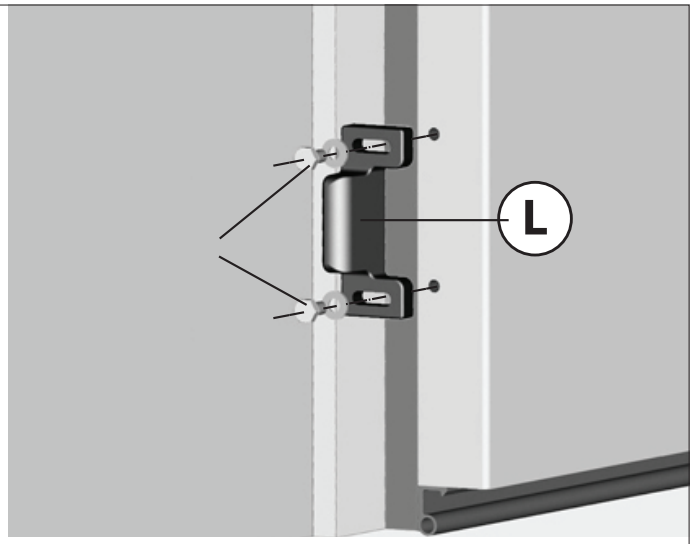
Fixing on the edge of the door.

1. Closing Side drill and tap 2 holes for ø10 in the edge of the door.

2. Fix the closing guide / door with the 2 supplied ø10 screws and washers

3. Tighten without locking.





**This 15mm dimension is dependant on the use of the Fermod F8511 gasket supplied in the kit which is 35mm. If you use a different gasket, please adjust accordinly. E.g. a 20mm gasket will adjust the drill hole to 30mm.

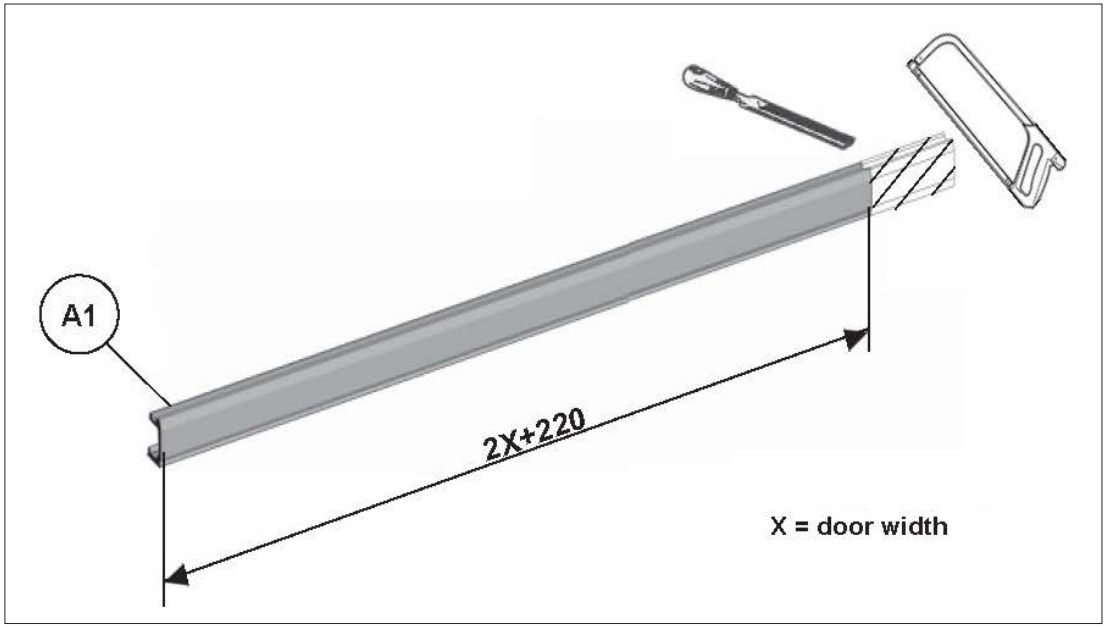
Step 7.

Cutting the main rail to length.

The main rail length must be double the door blade with plus an additional 220mm.

“X” equals the total door blade width.

Example: If the total door blade width is 900mm, the main rail should be 2020mm. (900 x 2 + 220).



Step 8.

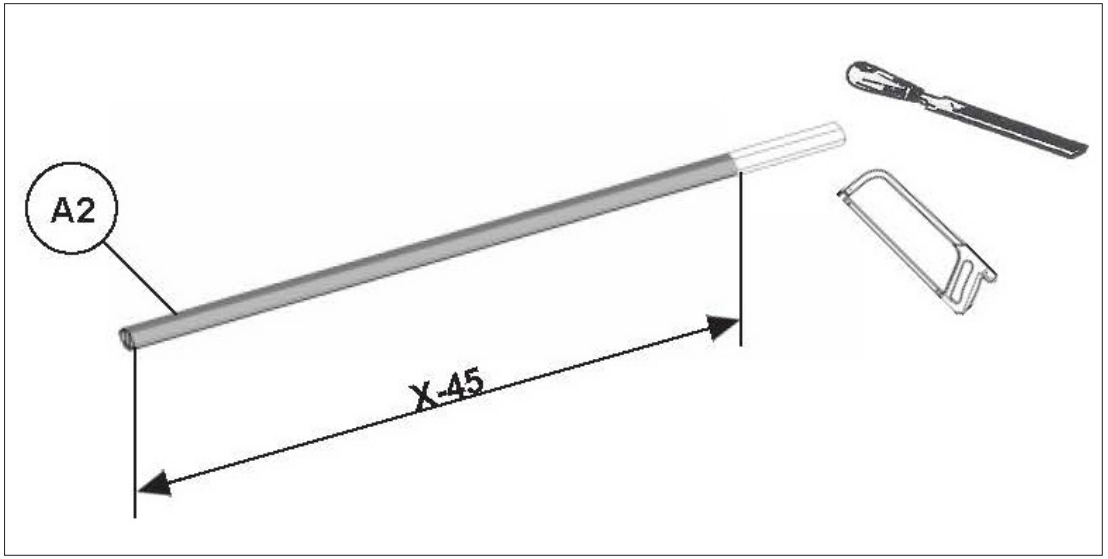
Cutting the running profile to length.

2 x running profiles cut to length are required.

The running profile must be equal to the door blade width less 45mm.

“X” equals the total door blade width.

Example: If the total door blade width is 900mm, 2 lengths need to be cut at 855mm. (900 - 45)



Step 9.

Assembly of the ramps, running profile and rail stops.

Note. The drawing shows a left hand opening door and should be reversed for a right hand opening door.

- Slide the running profile, ramps and clamps into the rail (see drawing for mounting order)
- Tighten the clamp/closing side. Clamp should be flush with the end of the main rail.
- Opening side, push the clamp so all parts are in contact and tighten.
- Slide the rail stops onto each end of the rail and temporarily tighten.

Quick Reference Tips.

• Make your aluminium support rail the same length as your main rail for simple calculations.
• Fix the rail holder brackets to the support rail in the workshop prior to going to site.We recommend that the brackets are fixed using a bolt, nut & washer combination. This can be achieved in the workshop by cutting or drilling holes in the back of the support rail to gain access with a socket.

The essential measurements:

• The bottom centre mounting hole on the closing side is 194mm from the end of the support rail.
• The bottom centre mounting holes on the opening side is to be 206mm from the end of the support rail.
• The centre rail holder bracket should be positioned half way between.
• Mark the centre of your clear doorway opening
• Calculate 1/2 the size of the door blade minus 90mm,eg. door blade 1030 ÷ 2 - 90mm = 425mm.
• Measure from the centre of the clear opening towards the closing side & mark.
• Calculate Door Blade overlapping height above the clear opening + 84mm. e.g Door overlap is 65mm + 84mm = 149mm.
• Measure up 149mm from the top of the clear opening & this is the location point of the bottom centre mounting hole.
• You can now locate your support rail holder brackets. Fix the support rail to the wall ensuring it is level.

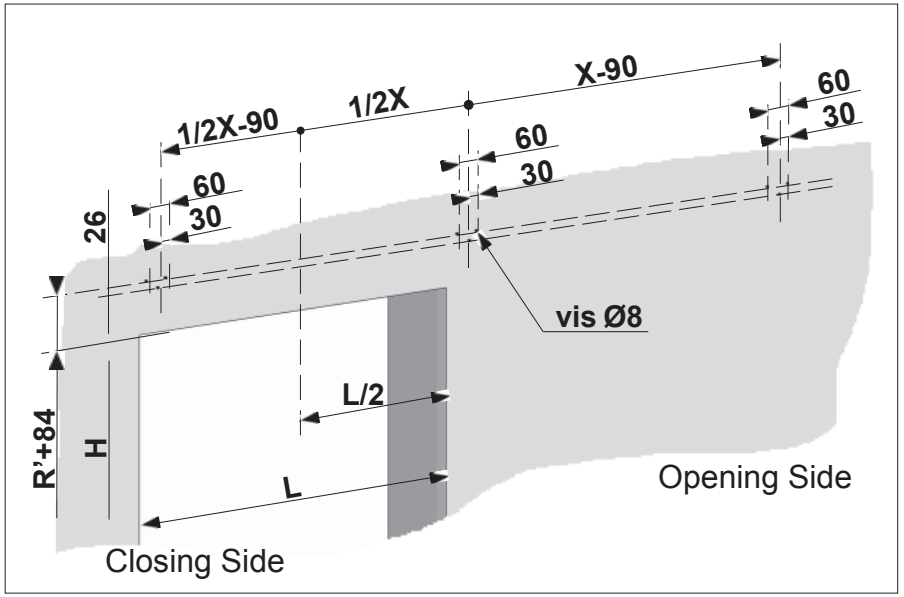
Step 10.

Attach the rail holder brackets to the support rail/wall.

It is recommended that the support rail sits on top of the door frame to provide extra support.

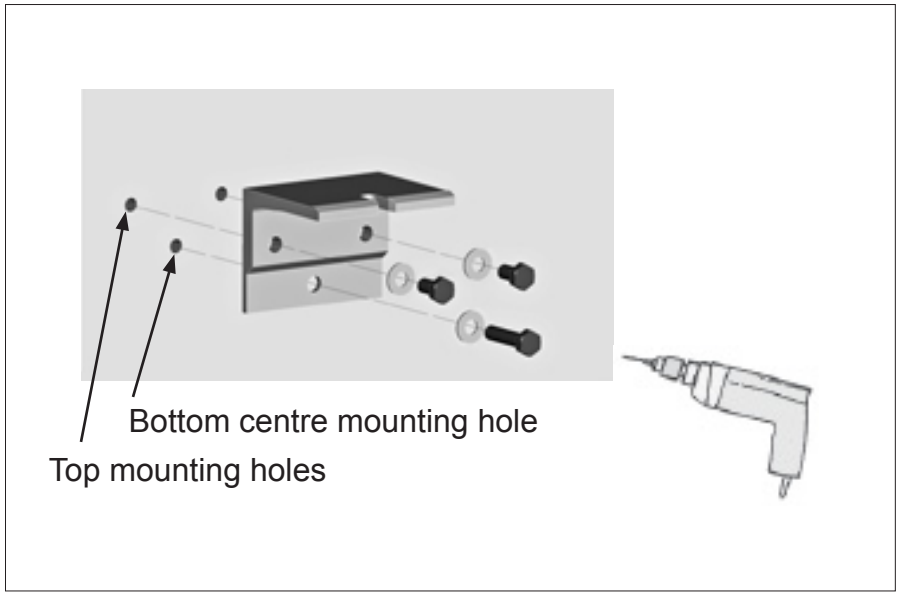
Refer to drawing.

X=Door Blade width.
L= Clear opening width.
R'= Overlapping height (minimum 50mm) - (Y+32) - H.
Y = Door height.
H= Clear opening height.



Step 11.

Mark and drill the fixing holes for the rail brackets.



Step 12.

Attach the main rail to the rail holder brackets.

1. Slide the 3 fixing nuts into the main rail profile and attached each using the bolts & washers provided.

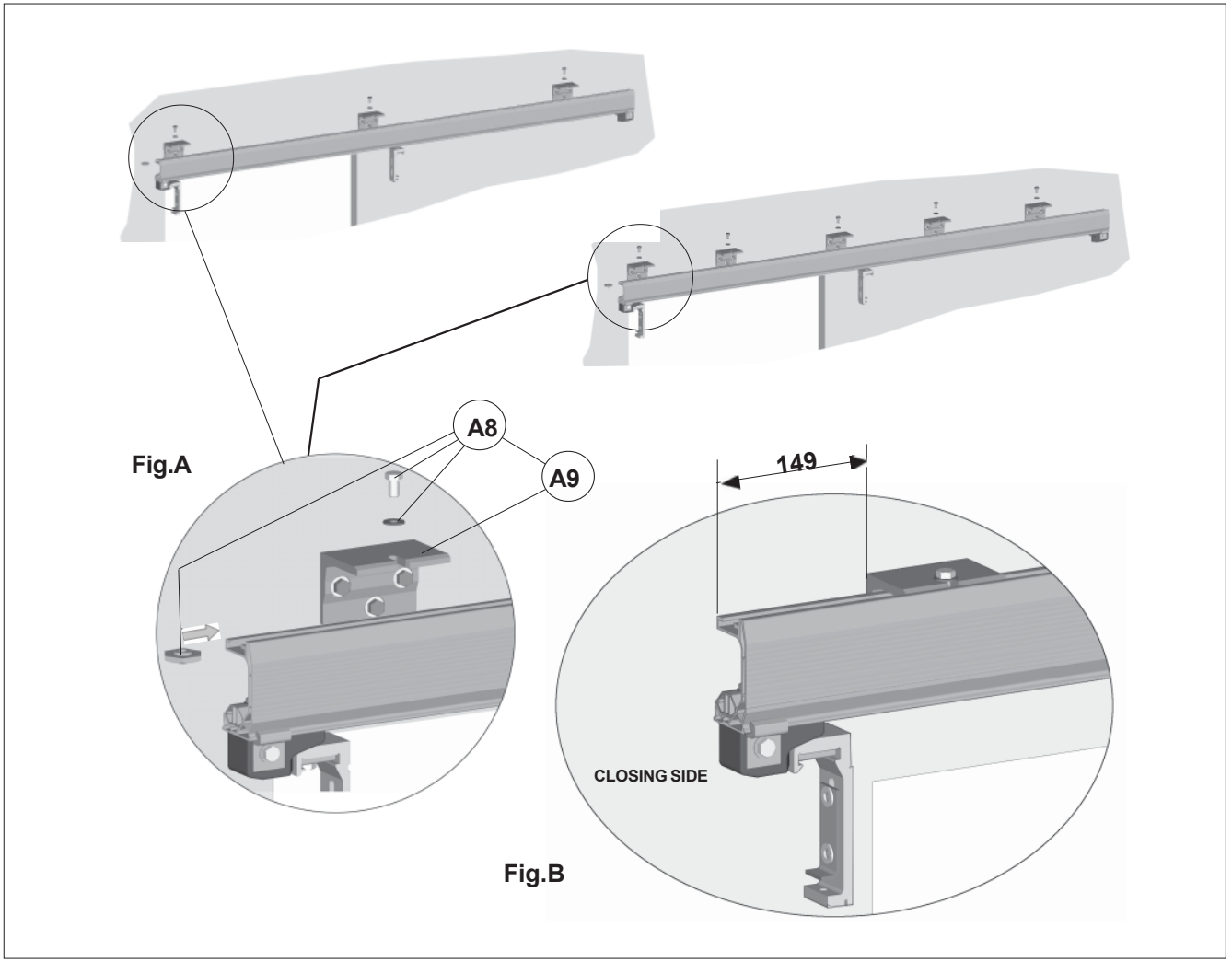
2. Adjust the end of the closing side to the distance shown in fig.B

3. Refer to drawing on page 3 for the distance from the support rail to the face of the main rail, (89.5mm).

4. Tighten the fixing screws.

Note:

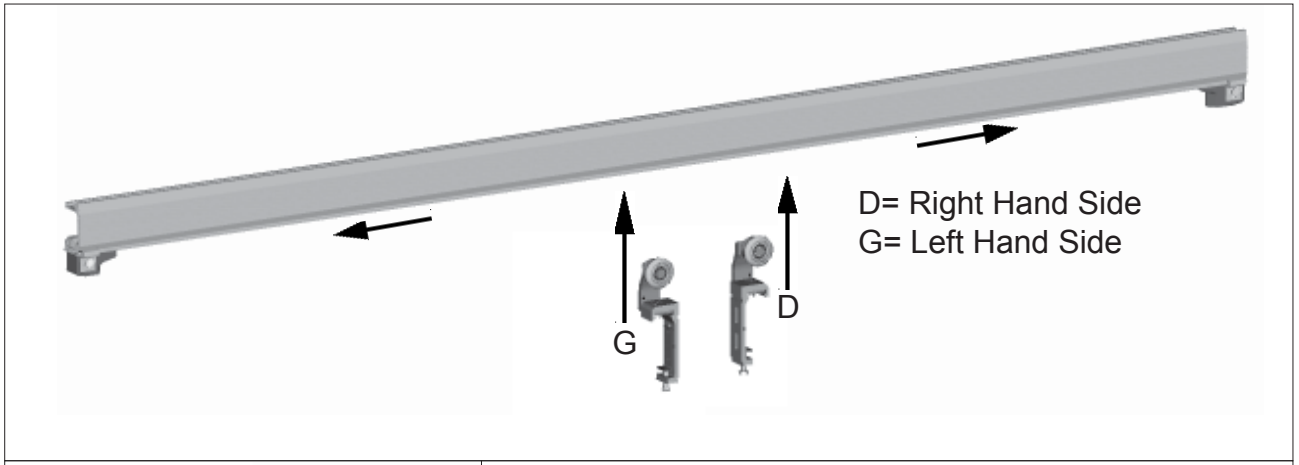
After hanging the door the installer may find that the top gasket is tight against the frame causing the bottom of the door to be pushed outwards. This will affect the performance of the door. In this case, loosen the top bracket screws and adjust the top rail outwards.



Step 13.

Install the door brackets on the main rail and running profile.

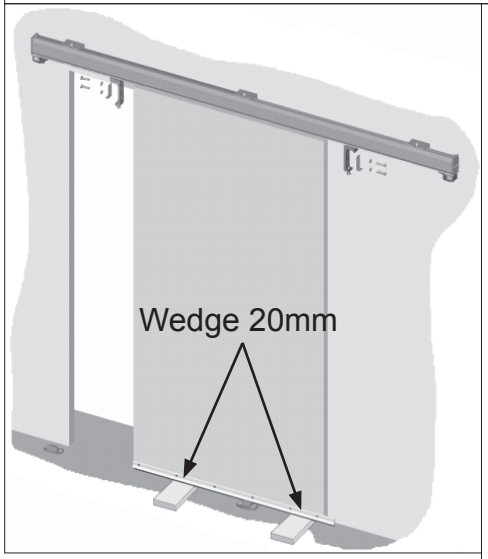
Install each door bracket from the centre ramp and slide to the left & right.



Step 14.

Attach the door brackets to the door blade.

1. Wedge Up the door blade & bolt/screw the door brackets into the previously pre-drilled & tapped holes.



Step 15.

Adjust the door.

1. With the door in the closed position, the floor and frame gaskets should create a firm seal, however the gaskets should not be squashed and out of shape. If the seal at the top of the door is too tight it will push the bottom out and guides will not run smoothly.

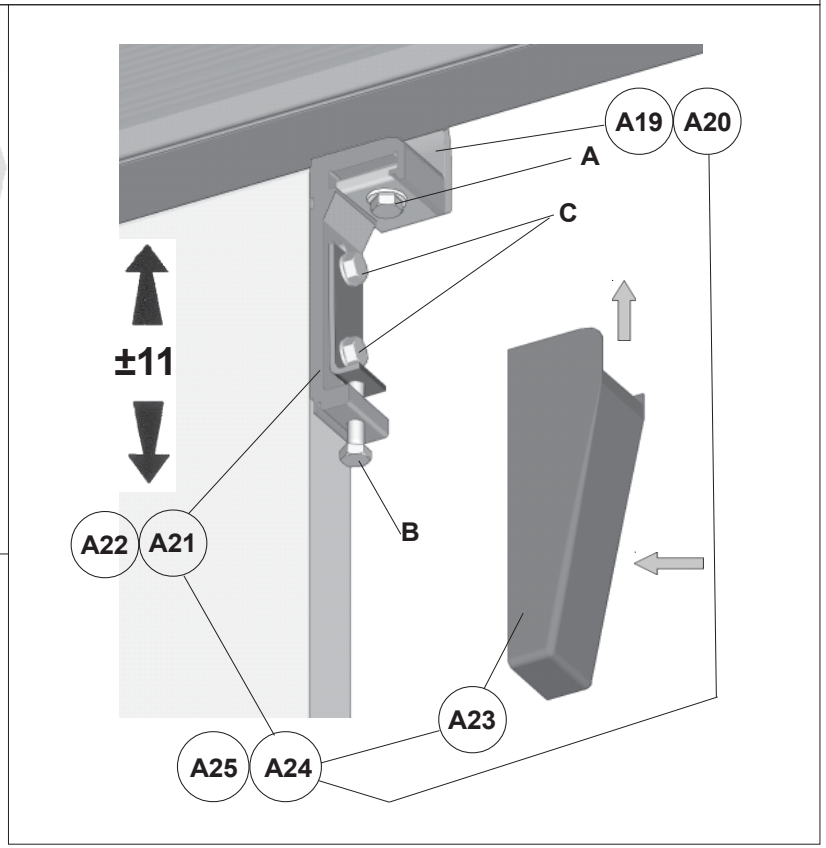
2. When the door is running, the gaskets should not touch the frame or floor.

3. Height adjustment can be achieved by adjusting the door brackets as shown.

4. Loosen A for horizontal adjustment then tighten.

TO ADJUST DOOR:

Loosen screws C 1/2 turn.
Tighten or loosen screw B
Lock screw C



Step 16.

Cutting the wall guilde rail.

1. Fully open the door.

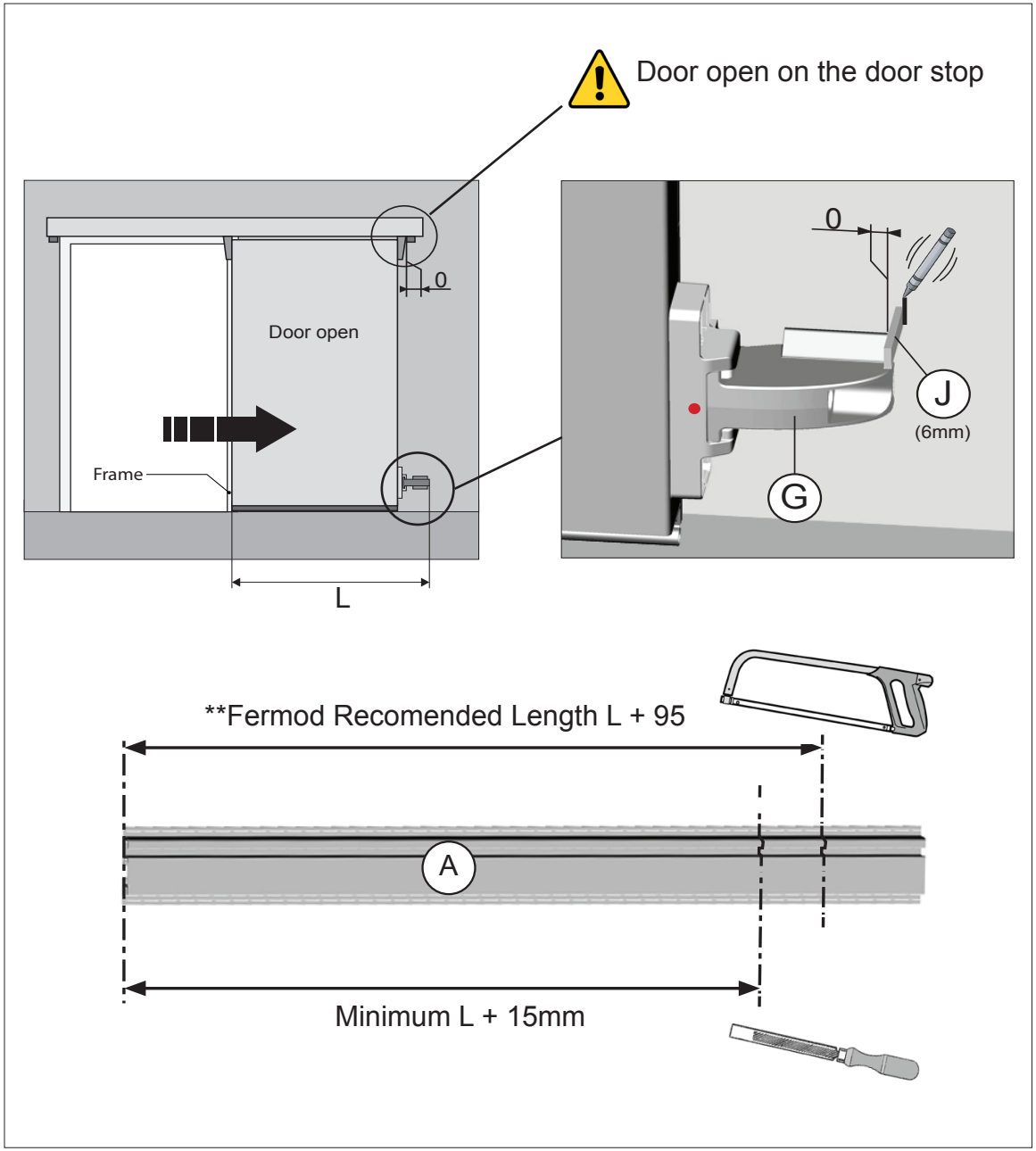
2. Put the size template (J) on the opening guide as shown in diagram.

3. Close the door. Measure the dimension L between the outer edge of the frame and the line marked on the wall.

4. Cut the wall guiding rail (A) to length (L)+15mm**.

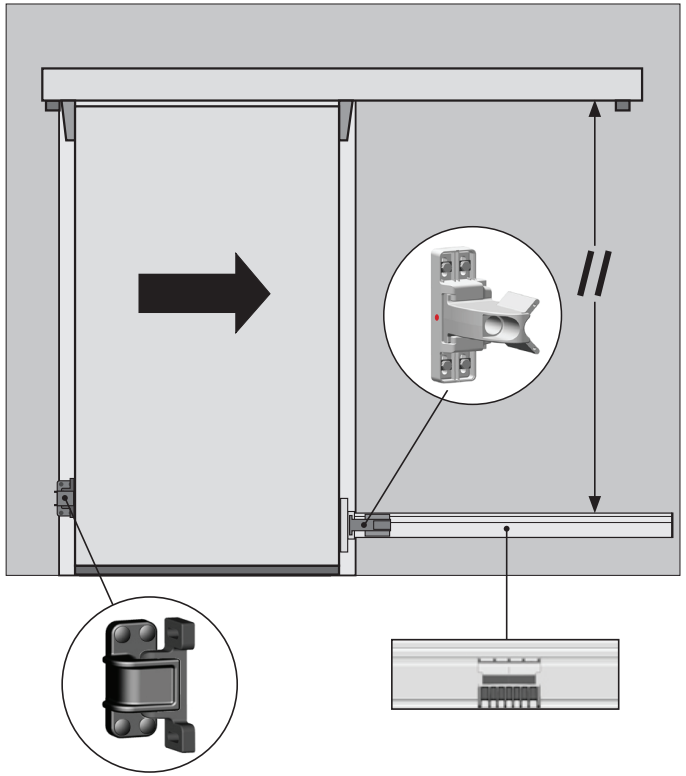
****NOTE:**

Fermod recomends where adequate space is available - The rail should be cut to length L + 95mm. The reason being, if guide trolley is desengaged and the door continued to be used it will operate without causing damage to the end rail cap.

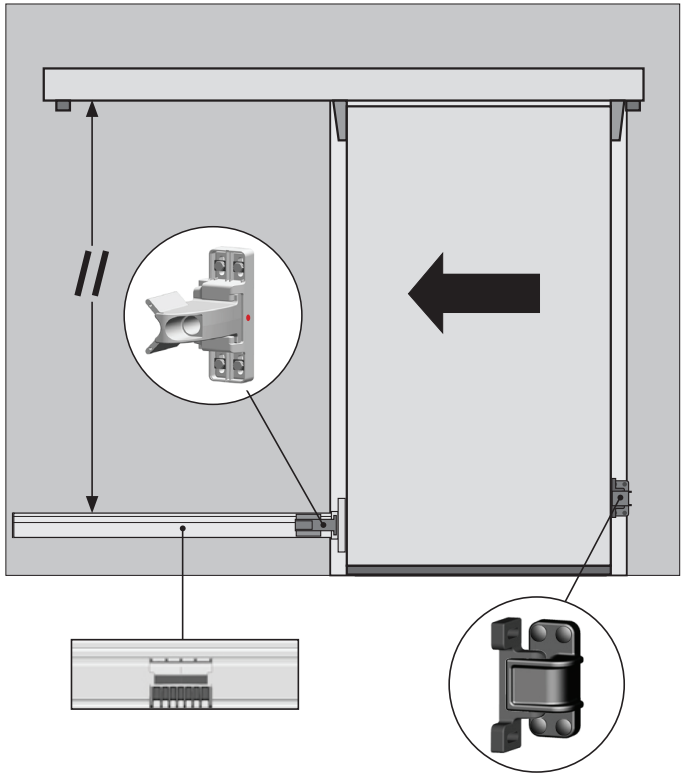


Before starting the installation of the wall guide rail, check that the upper part of the door is adjusted, in accordance with the mounting instructions of the Fermatic system.

Mounting on Right Side Opening Door



Mounting on Left Side Opening Door



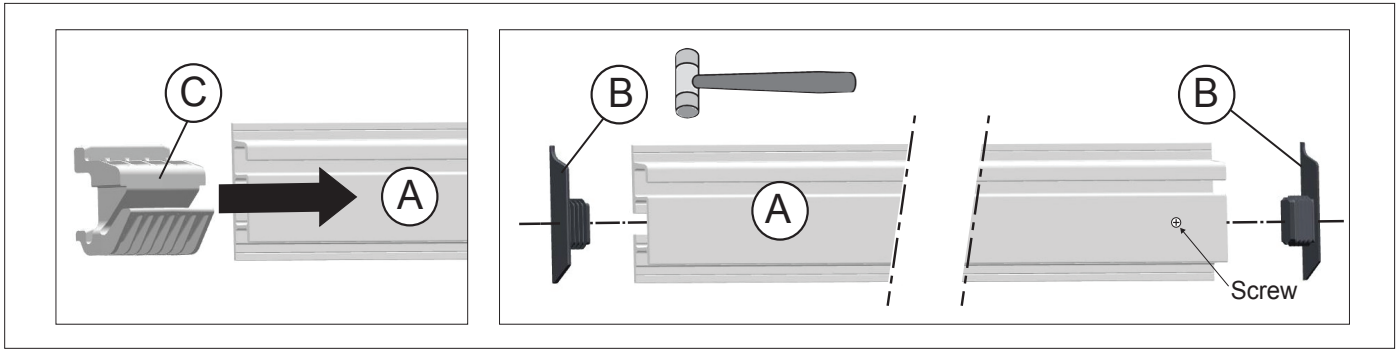
Step 17.

Preparation of the wall guiding rail.

1. Engage the opening trolley (C) in the groove of the guiding rail (A).

2. Slot the 2 covers (B) into the ends of the guiding rail with a mallet.

3. In addition, secure the opening side end cover with a screw.



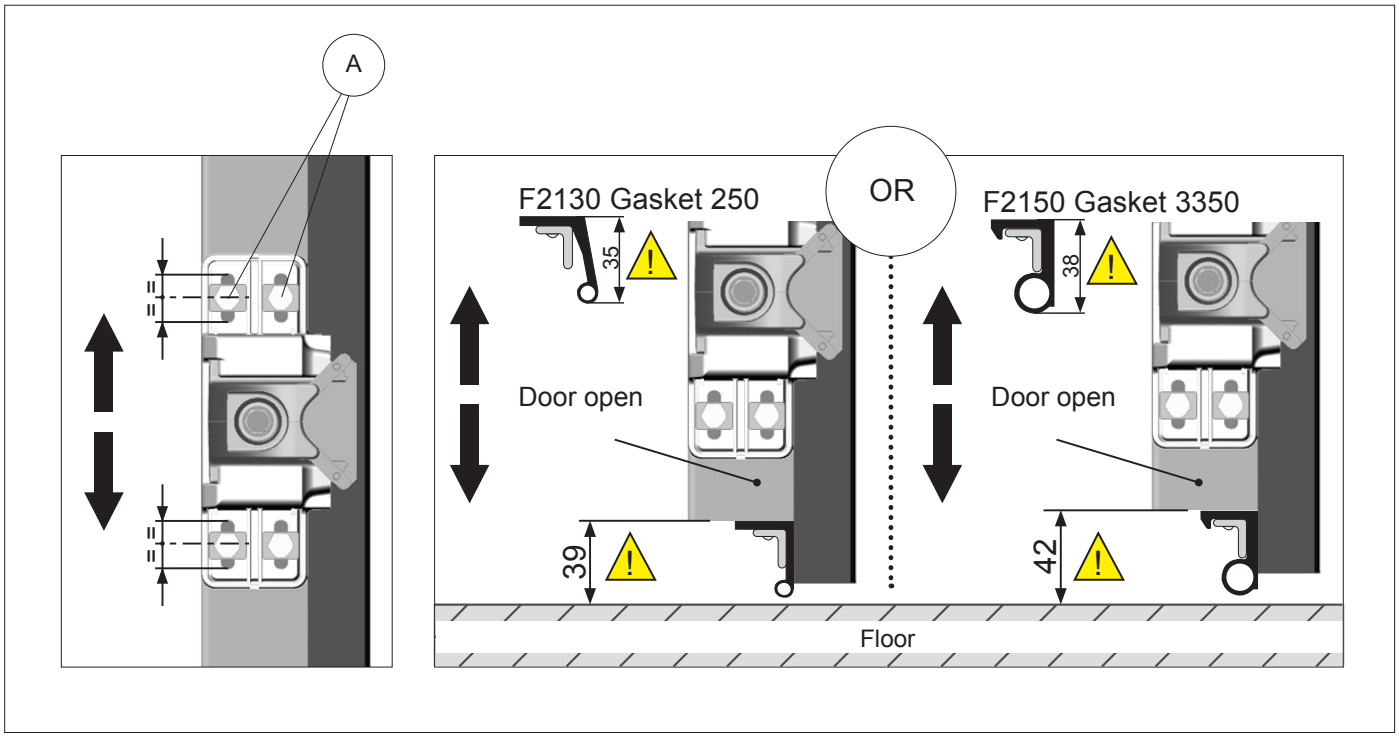
Step 18.

Fixing on the wall

1. Position the opening guide with medium setting:the screws (a) must be in the middle of the slotted holes.

2. Open door, check the vertical adjustment of the door according to its floor gasket.

Ensure the gasket has a nice seal on the floor in the closed position but does not drag on the floor when sliding open.If necessary, adjust the door height by referring to step 15.



Step 18 (Continued).

Fixing on the wall.

3. Open the door aproximately 200mm.

The door must be out of the ramps.

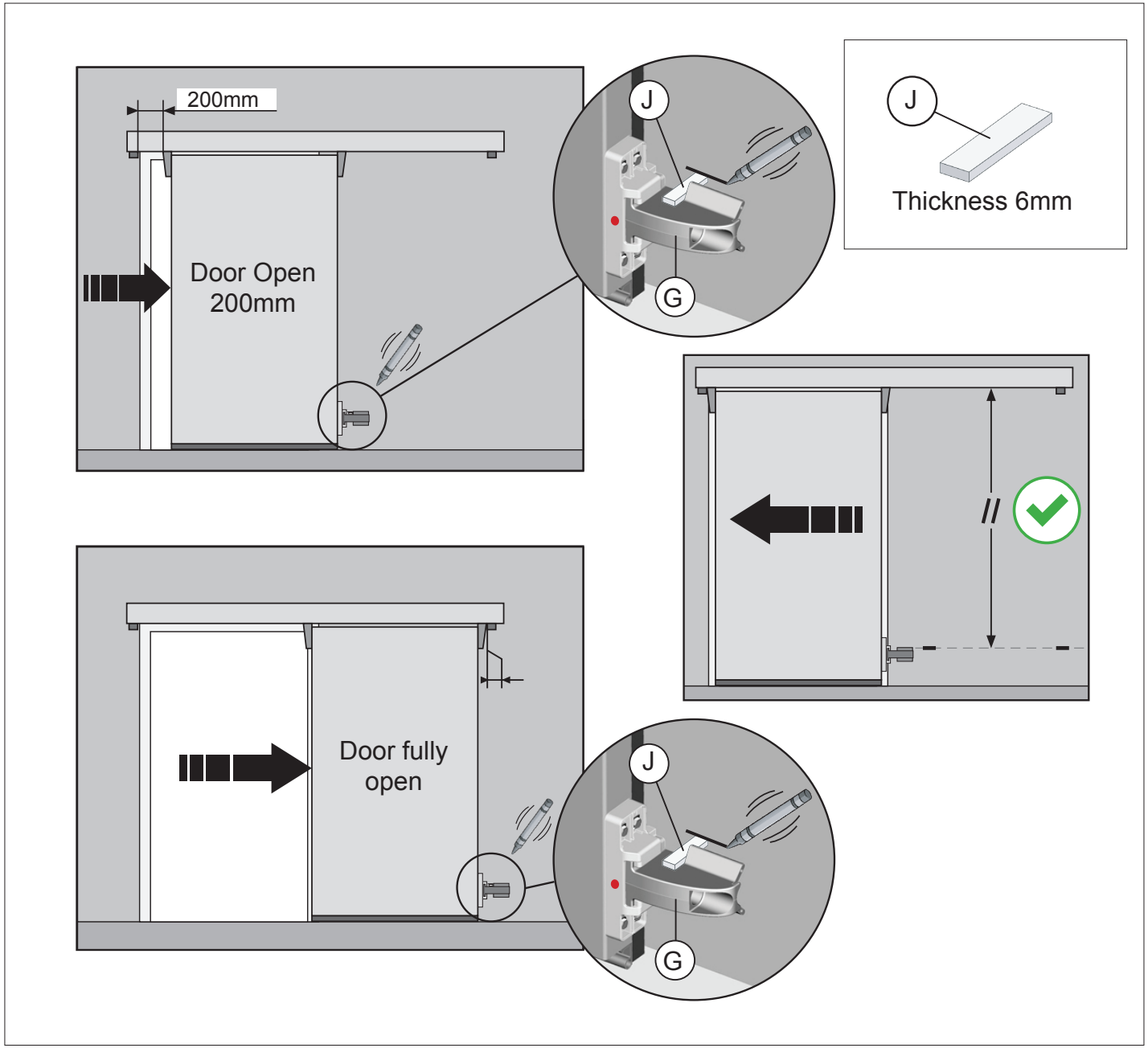
4. Put the size template (J) on the opening guide (G) as shown in diagram.

5. Draw a line above the template on the wall.

6. Fully open the door and repeat steps 4 and 5.

NOTE:

This process is very important as it is essential that the Wall Guide Rail is exactly parallel with the Top Rail.

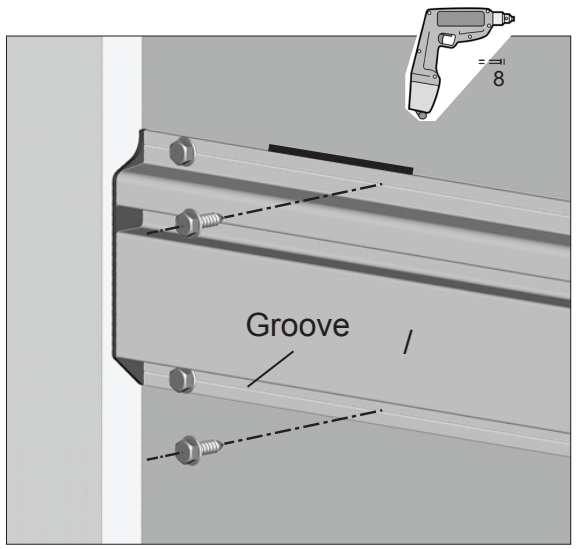


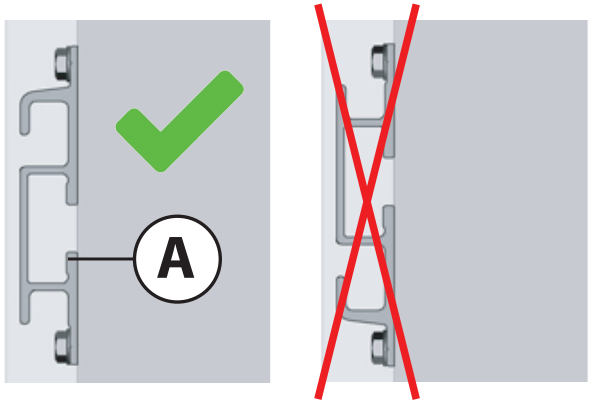
Step 19.

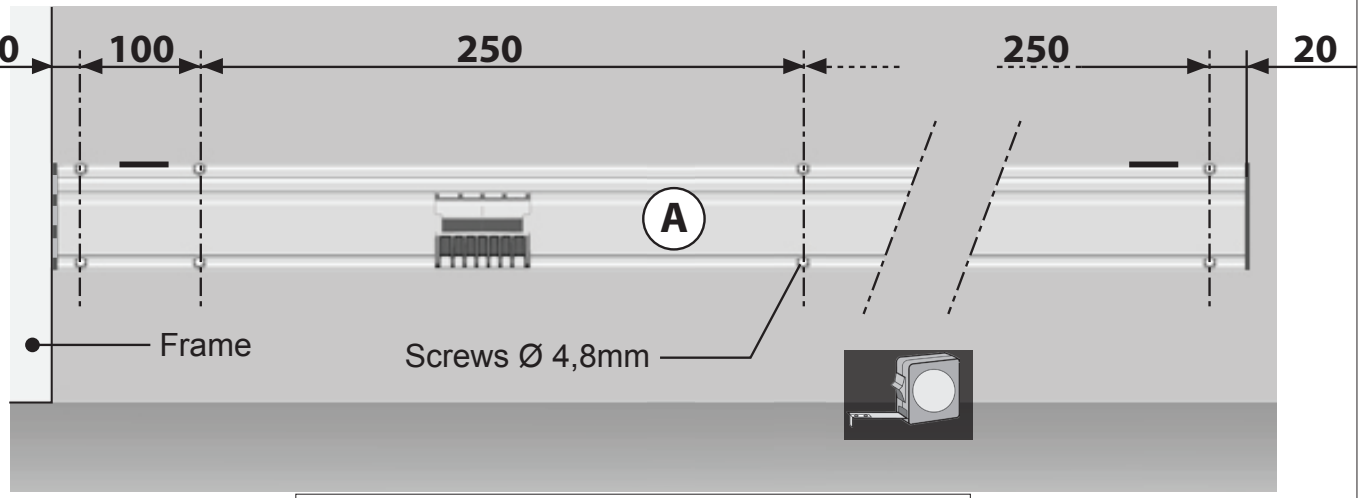
Fixing with self drilling screws. (Supplied)

1. Place the guiding rail (A) against the wall, just under the 2 lines & butted up to the frame. Ensure the closing side end cap is in position. Pay attention to the guiding rail orientation.

2. Fix the guiding rail with self-drilling screws 4.8mm (supplied), drill in the grooves. Respect the fixing distances shown in diagram.

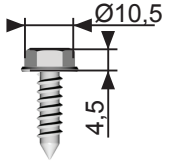






Note - Modified Trolley

If the screws provided are not used - Respect the maximum dimensions.



Step 20.

Assemble the opening guide.

1. Open door, slightly move the door out from the wall.

2. Slide the trolley (C) in front of the opening guide.

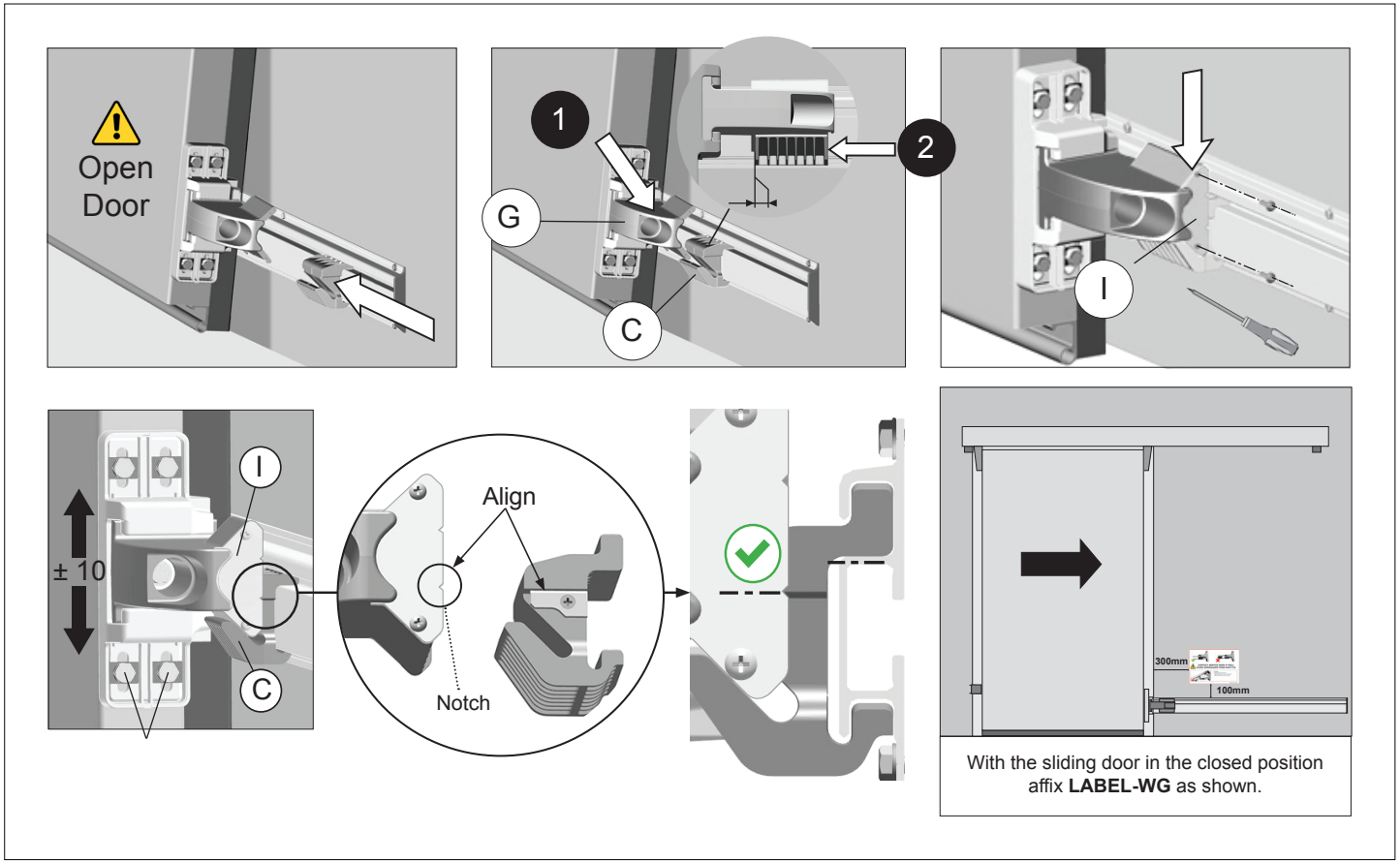
3. Push the door against the wall and slot the opening guide in the trolley.

Push the trolley all the way in.

4. Slide the guide end cover into the slot containing the trolley in position. Adjust the guide to align the trolley with the notch on the end cover. (I) & (C).

5. Fix the end cap (I) on the opening guide with two screws (B) supplied.

6. With door in closed position. Attach **LABEL-WG** as shown in diagram 100mm above guide rail, 300mm from door blade.



Step 21.

Fixing on the wall.

The outer colorbond skin of insulated panel is very thin so it is recommended that the closing guide (K) is fixed securely through the entire panel thickness, if not screwed to an aluminium frame.

The kit provided includes 2 x powder coated stainless steel strengthening plates, a 15mm nylon packer to allow for the frame thickness, stainless steel bolts, washers and dome nuts suitable for up to 150mm wall panel.

1. Position one strengthening plate, the closing guide (K) and packer in the door closed position to (L). Mark the plate position on the wall and then drill hole positions. Drill the ø6mm holes in the strengthening plate and mirror onto the second (internal) plate.

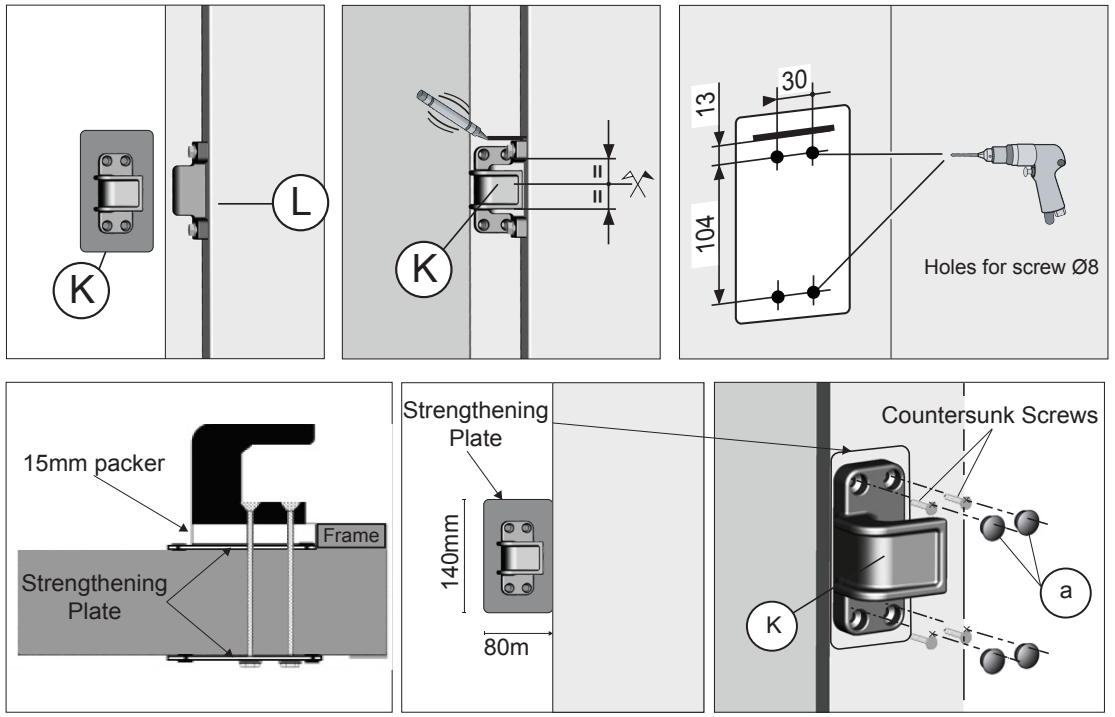
2. Fix the external strengthening plate to the wall with rivets of self-drilling screws.

3. Drill one fixing bolt hole through the entire thickness of the panel to position the internal strenghtening plate and fix this to the panel on the inside of the room.

4.Drill the remaining holes from each side.

5.Place the long stainless bolts through the closing guide (K) and the 15mm packer and through the entire thickness of the wall. Trim the length and secure with washers and dome nuts.

6. Place the covers over the screw heads.



Step 22.

Adjustment of the frame setting.

1. Close the door. When the gaskets are compressed, the dimension between the inside of the door and the frame must be 31mm. This may differ if not using the FERMOD Gasket.

2. To adjust this dimension, open the door and loosen the screw.

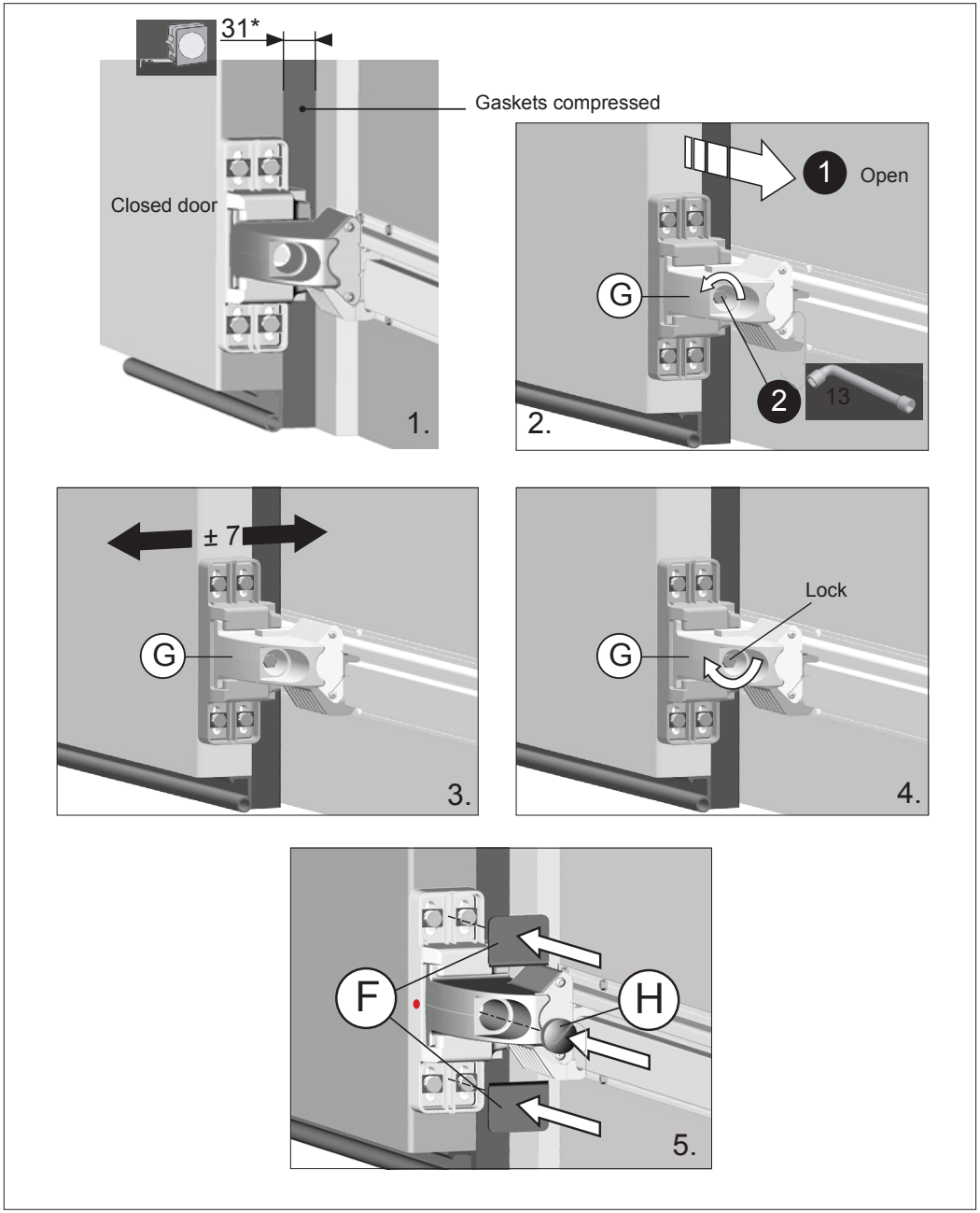
3. Hold the opening guide and push or pull the door to the correct position.

4. Lock the screw (b). Close the door, check the dimension.

5. When adjustments are made, slot the covers (F) and (H) in the opening guide.

Note:

If the installer finds the top gasket to be tight pushing the bottom of the door outwards, firstly adjust horizontal setting on the hanging roller assembly (step 15), if more adjustment is required, loosen the top screws on the brackets holding the main top rail and move the top rail outwards, see step 12.

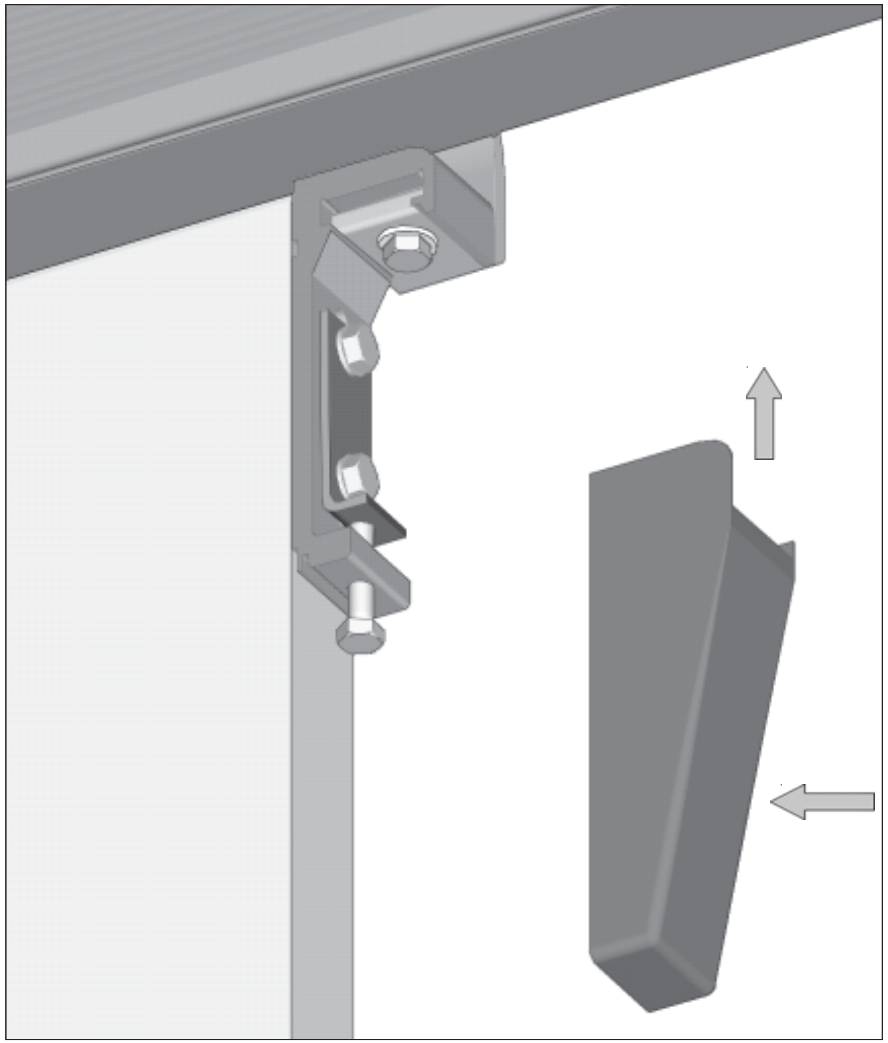


Step 23.

Attach the trolley covers.

To attach push in and straight up. To remove slide straight down.

Note: Take care with the trolley covers as the plastic lugs are easily broken if forced the wrong way

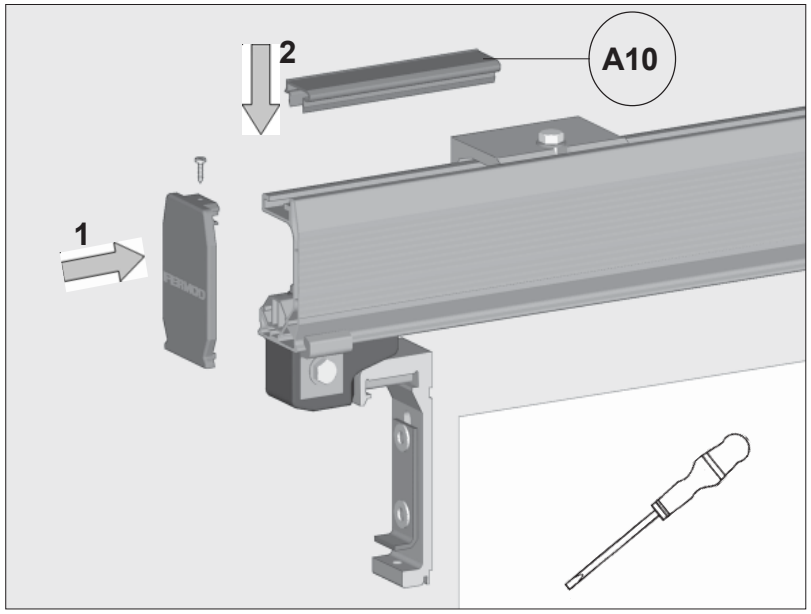


Step 24.

Attach the final covers.

1. Cut to size and attach the rail upper cover (A10). This is a dirt and hygiene protection feature

2. Attach the 2 x rail end covers.

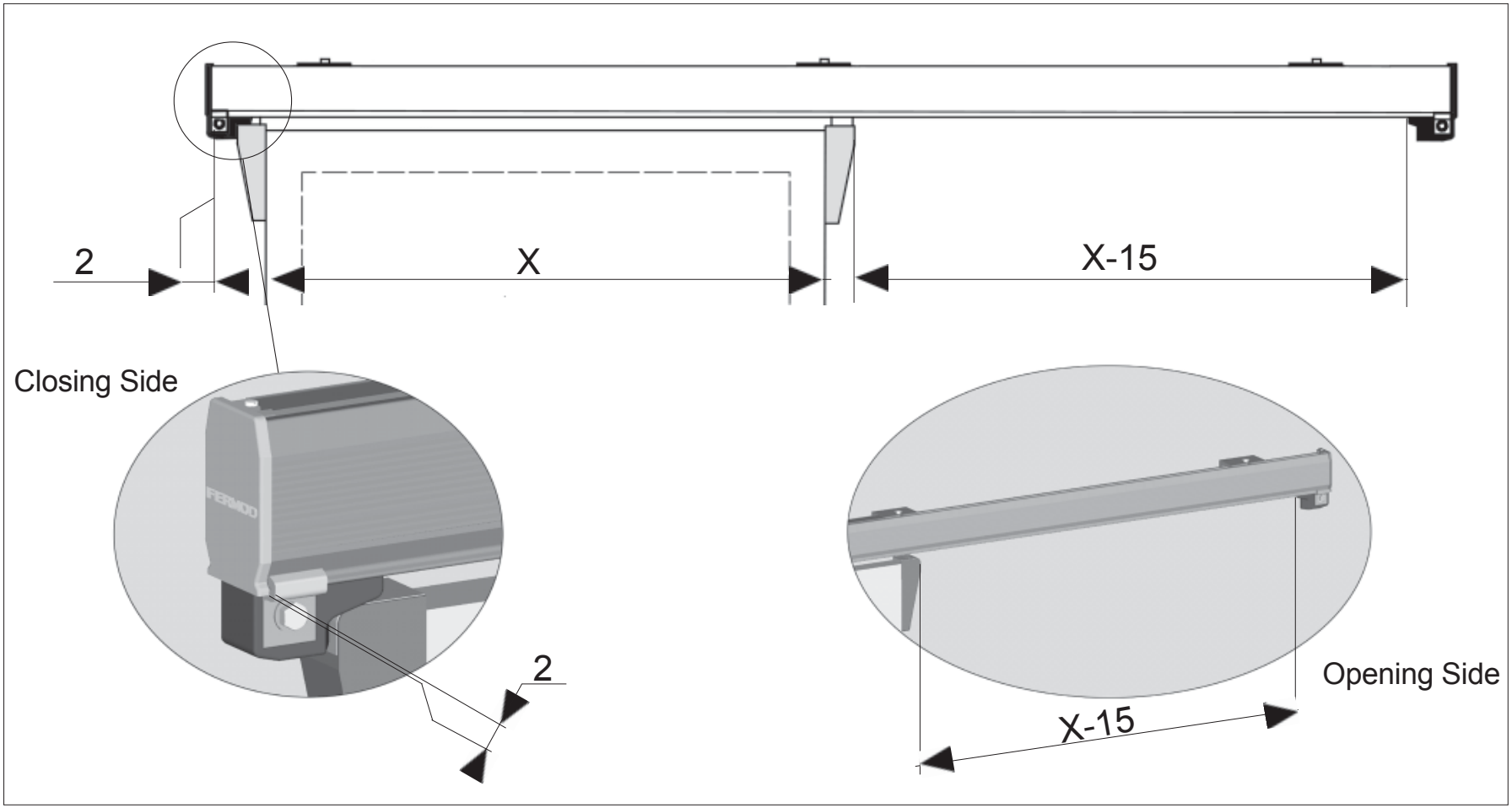


Step 25.

Adjust the opening and closing side stops.

1. Adjust the stops and tighten the screws as shown.

X = Width of door.

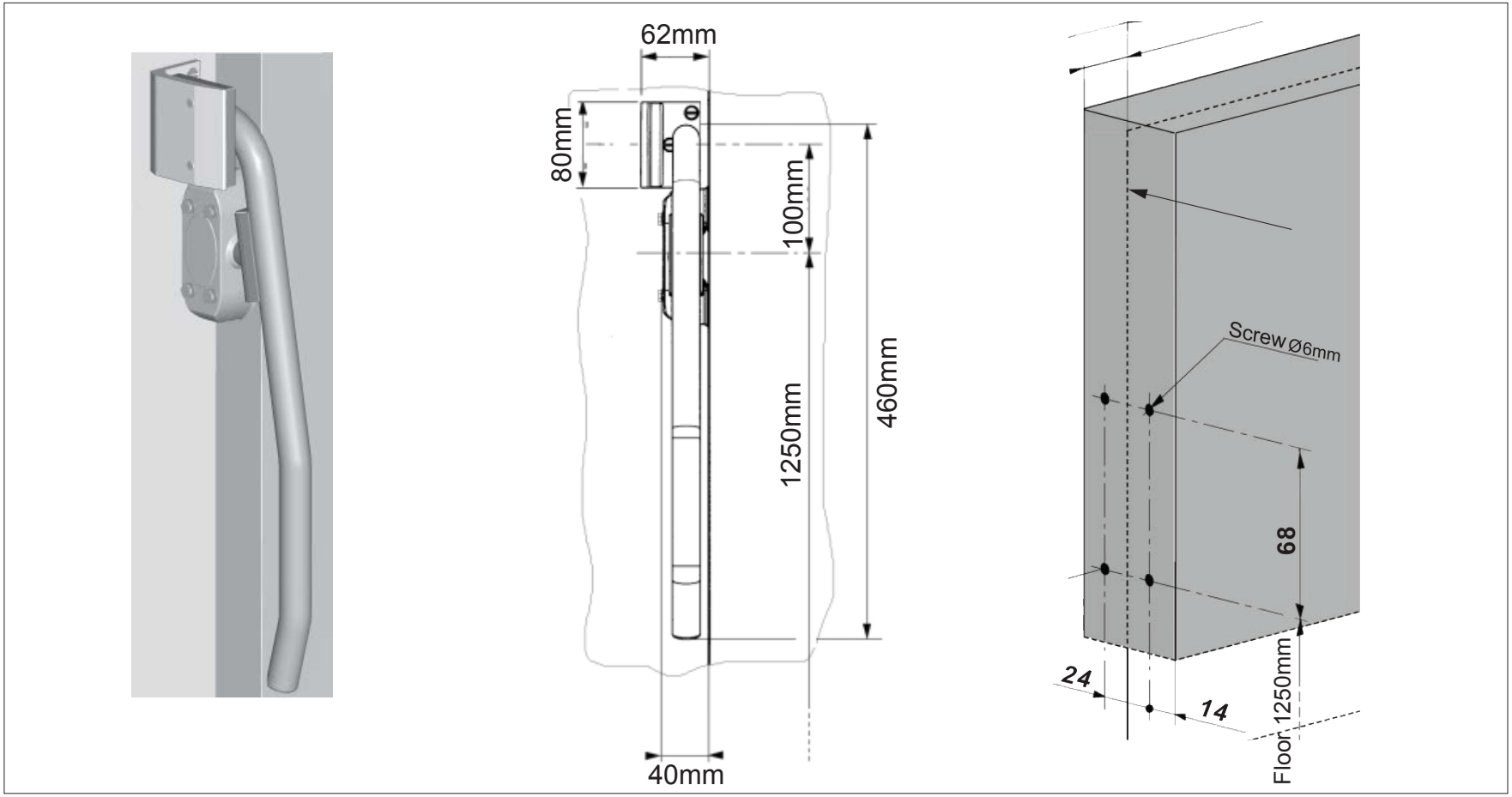


Step 26.

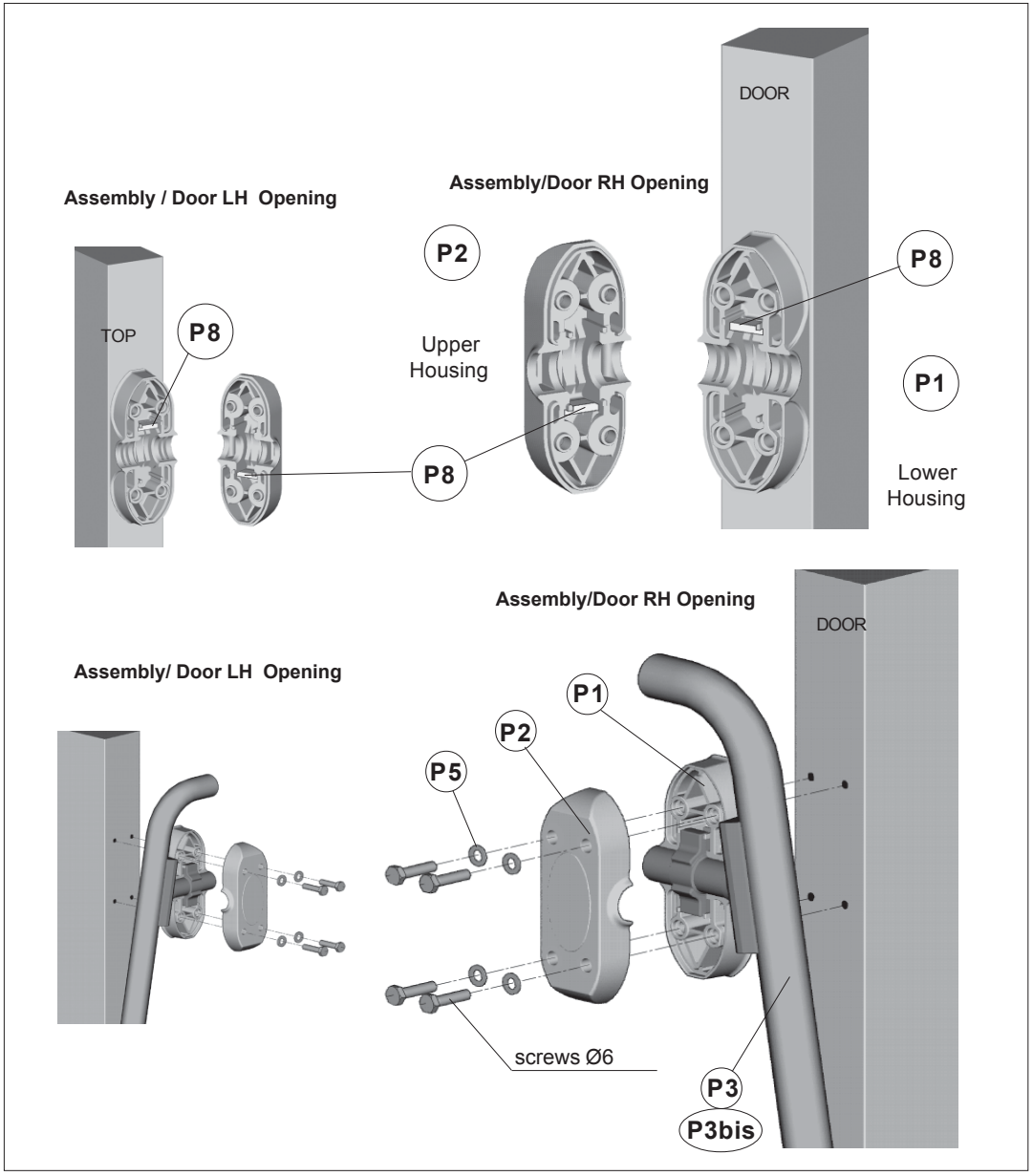
Attach the external lever handles.

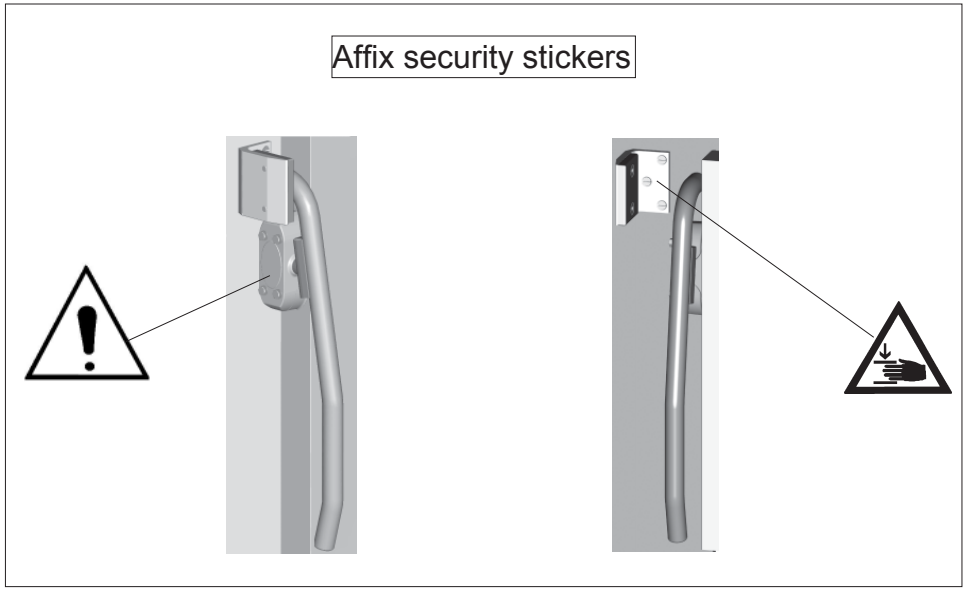
The external lever handle can be attached to the door blade prior to going to site. To comply to Australian Standards the area where the hand grips the handle should be 1000mm - 1100mm from the floor.

See drawings for optimal anchoring locations.



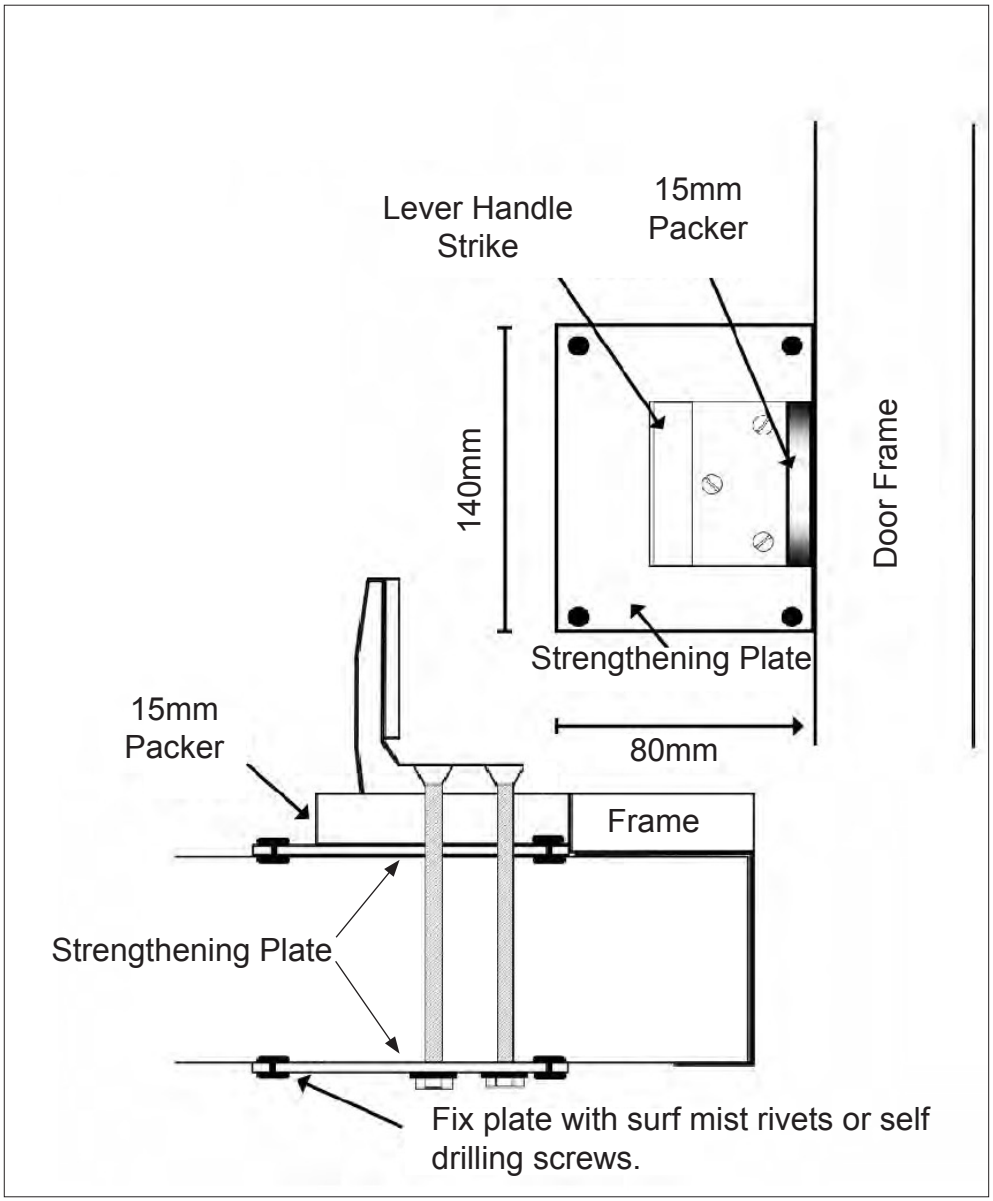
Step 26 Continued





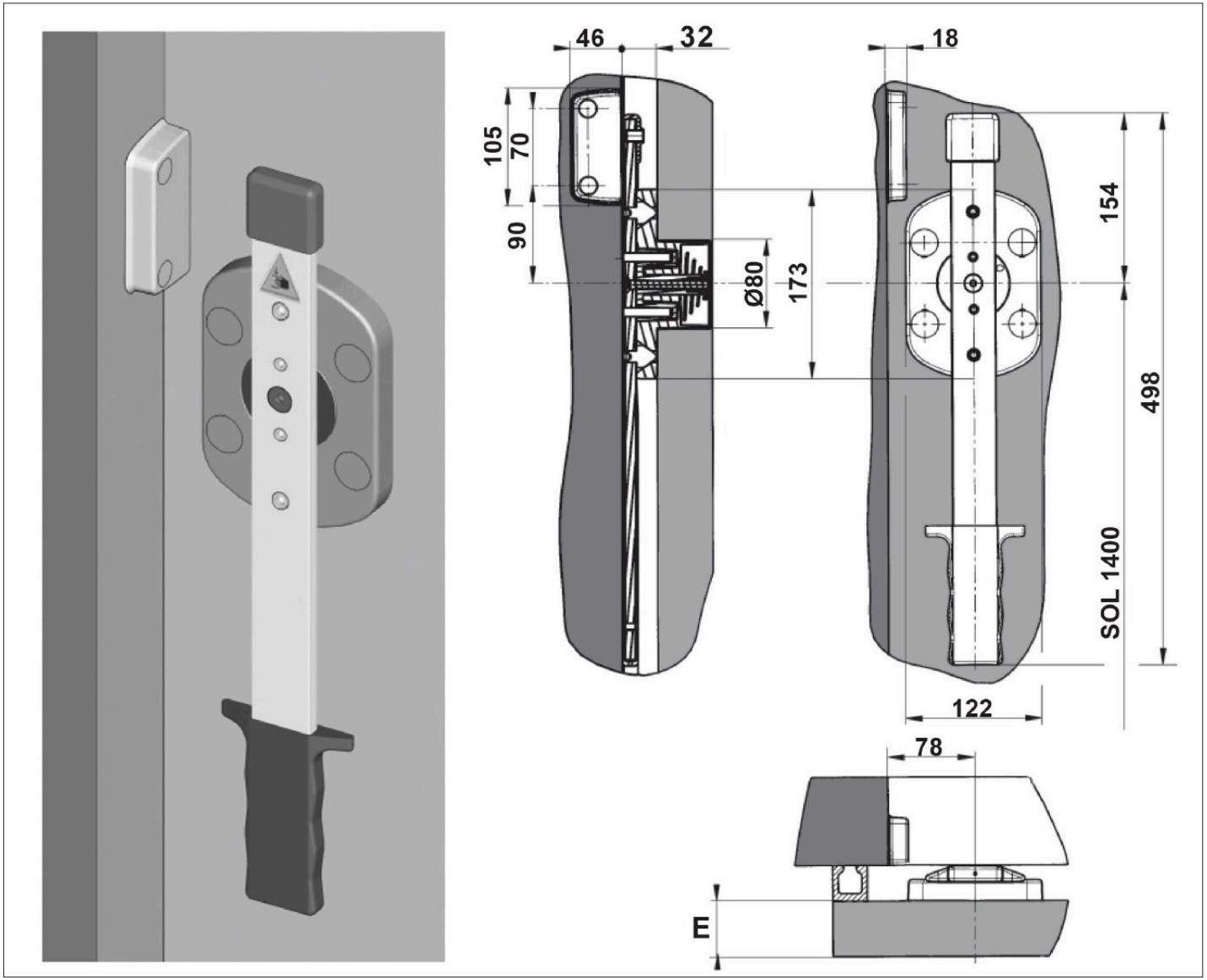
Step 26 Continued

Recomended installation method of the lever handle strike when fixing to insulated wall panel.



Step 27

Attach the internal lever handles.



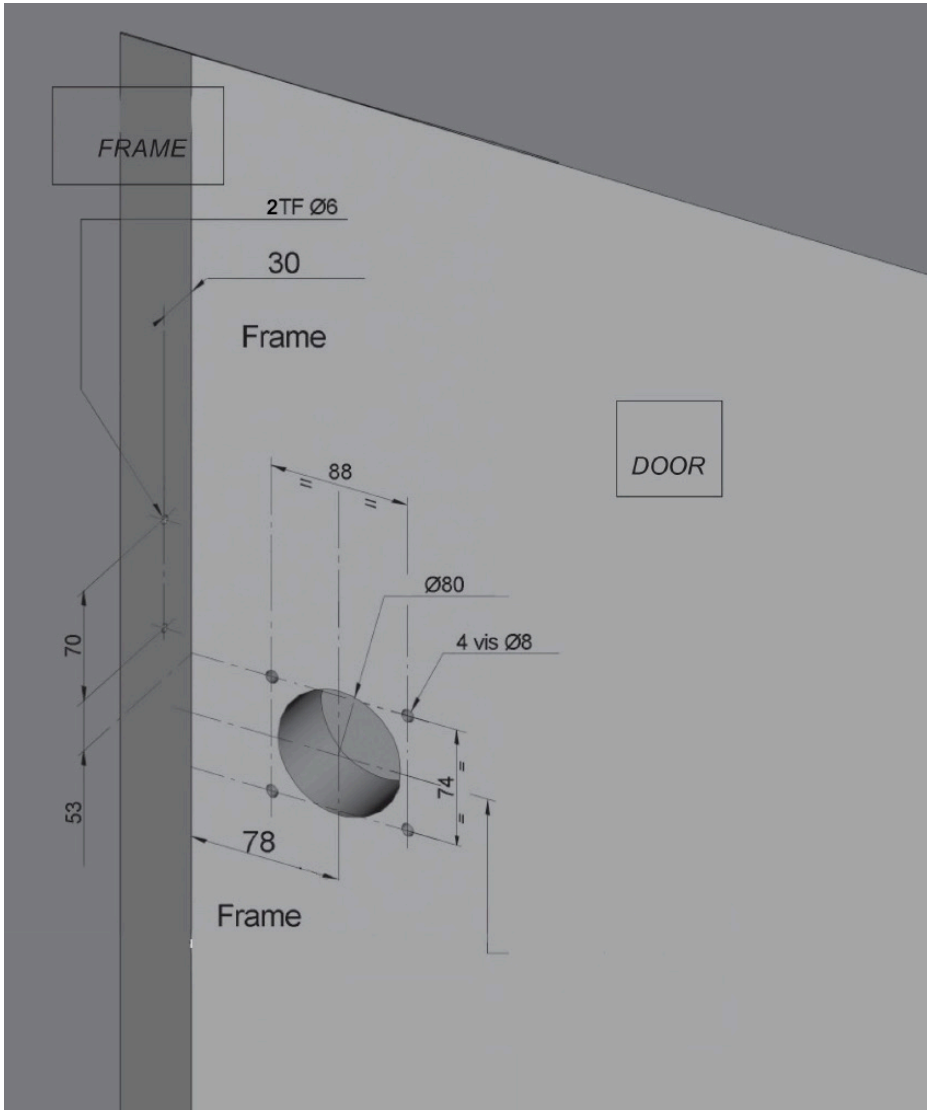
Step 27 Continued

Hole location on the door blade in the closed position.

Note:

Some door construction methods have a 10mm to 15mm thick PVC thermal break / packer around the inside edge of the door where the frame gasket is fitted. If this is the case a packer is required to be used for the internal handle. This is available as an additional item to the standard kit, stock code **F8530P**.

Failure to install the packer may mean the internal lever handle will not connect with the strike.

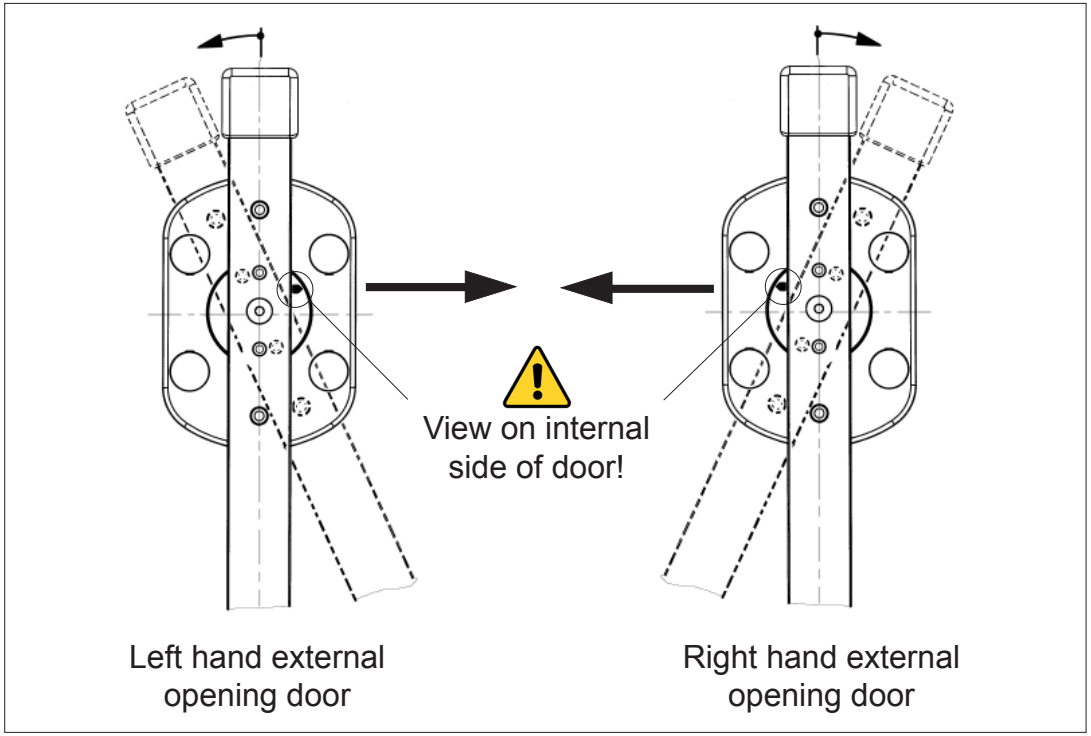


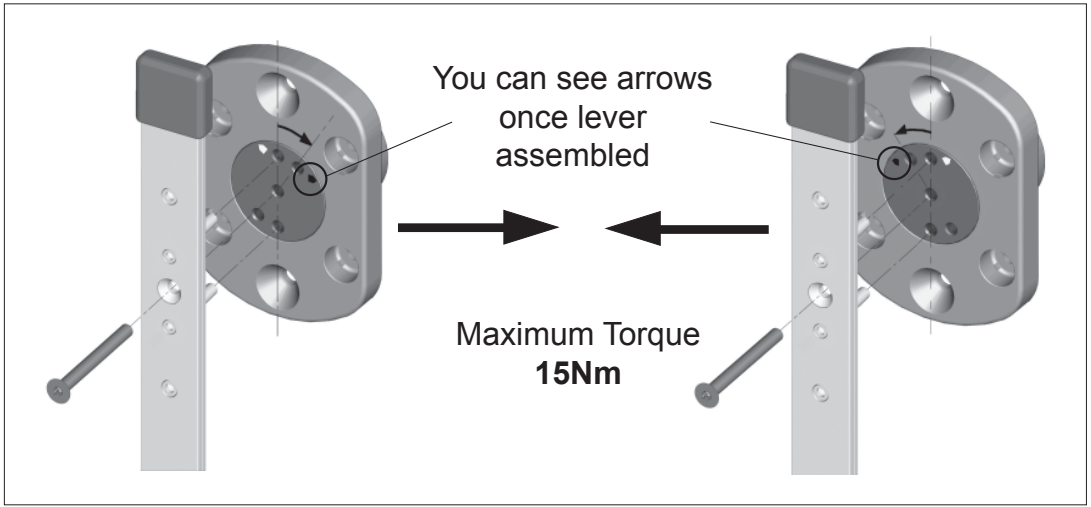
Step 27 Continued

Handle assembly.

1. Turn internal butt in the required position.

2. Fix the lever handle with the screw supplied

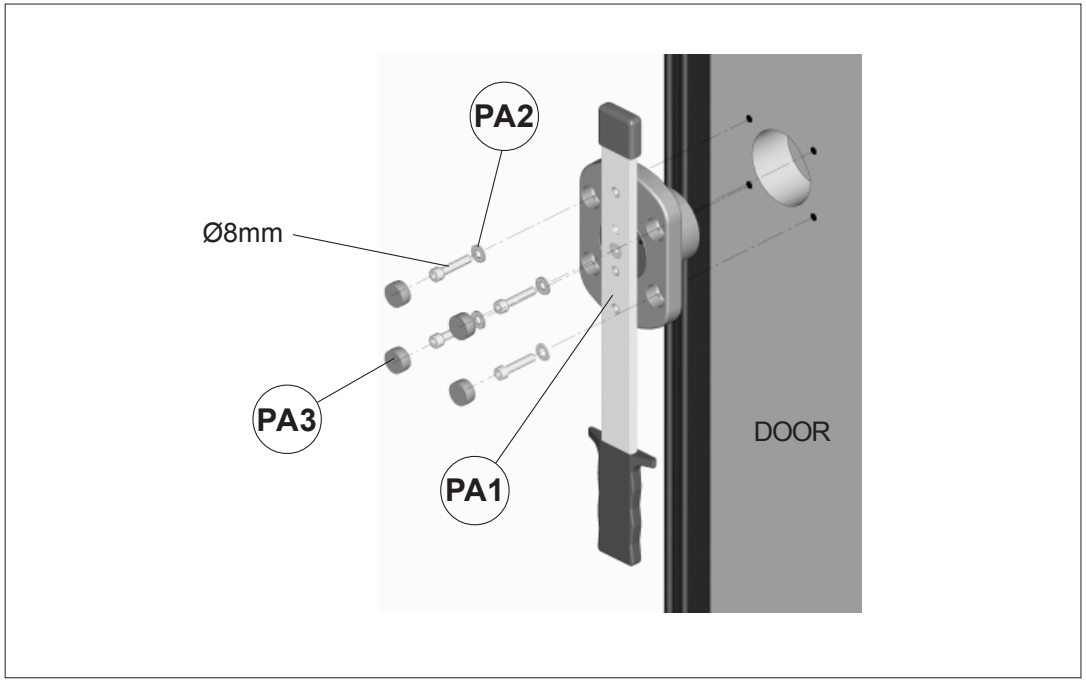


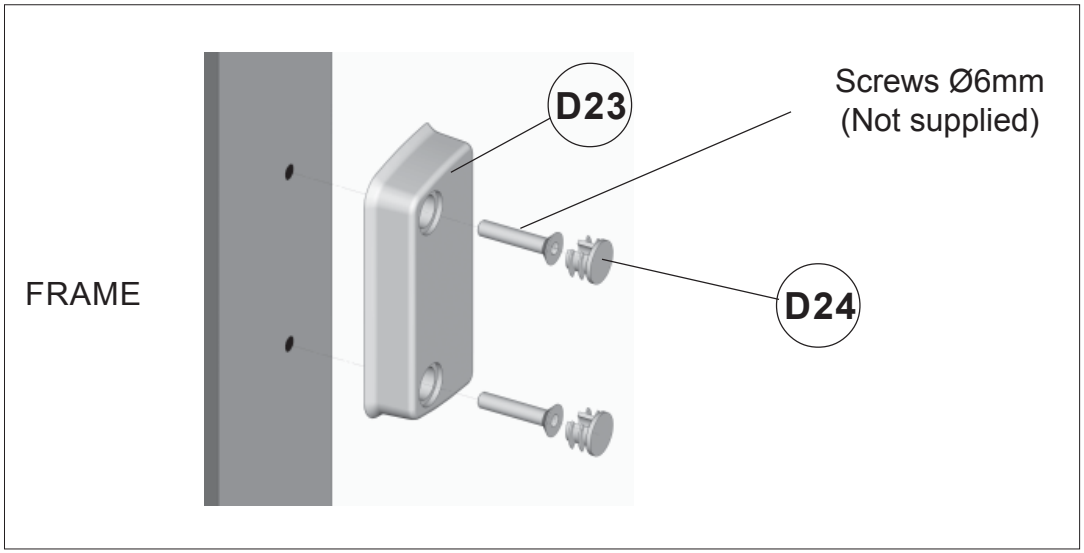


Step 27 Continued

1. Mounting of the lever

2. Mounting of the strike.





Cleaning and Maintenance

Cleaning:

Cleaning of the door must include cleaning of the floor.

The equipment should be cleaned using cleaning agents that are compatible with the materials of the supplied product.

For dilution percentages, refer to the instructions of the cleaning agents to be used.

Materials:

Gasket: EPDM or natural rubber.
Rail: Anodized aluminium.
Trolleys: Steel.
Handles: Stainless steel, anodized aluminium, composite.
Guiding profile: anodized aluminium.
Floor guide opening side: composite.
Floor guide closing side: cupro-alu nickel plated.

Maintenance

The final user must carry out periodical yearly or twice yearly checks, or have them carried out.
Maintenance must be carried out by qualified staff.
When replacing a component, choose the right component from the manufacturer's after sales service, and respect the instructions of the different sections in this manual.

Main Consumable Parts

Consumable Part	**Regularity of maintenance**	Criteria for scrapping
Rollers - Ramps	20,000 cycles or yearly	Rolling part uneven Fissures on rollers or on ramps
Guiding profile	2000 cycles or quarterly	Wear marks > 3mm
Guiding parts	2000 cycles or quarterly	Fissures or missing plastic parts
Floor gasket	When black dust on floor or quarterly	Cut in rubber
Frame gasket	When black dust on floor or quarterly	Cut in rubber (especially in corners)

For enquiries, please e-mail info@crh.com.au or call us at 1300 274 287