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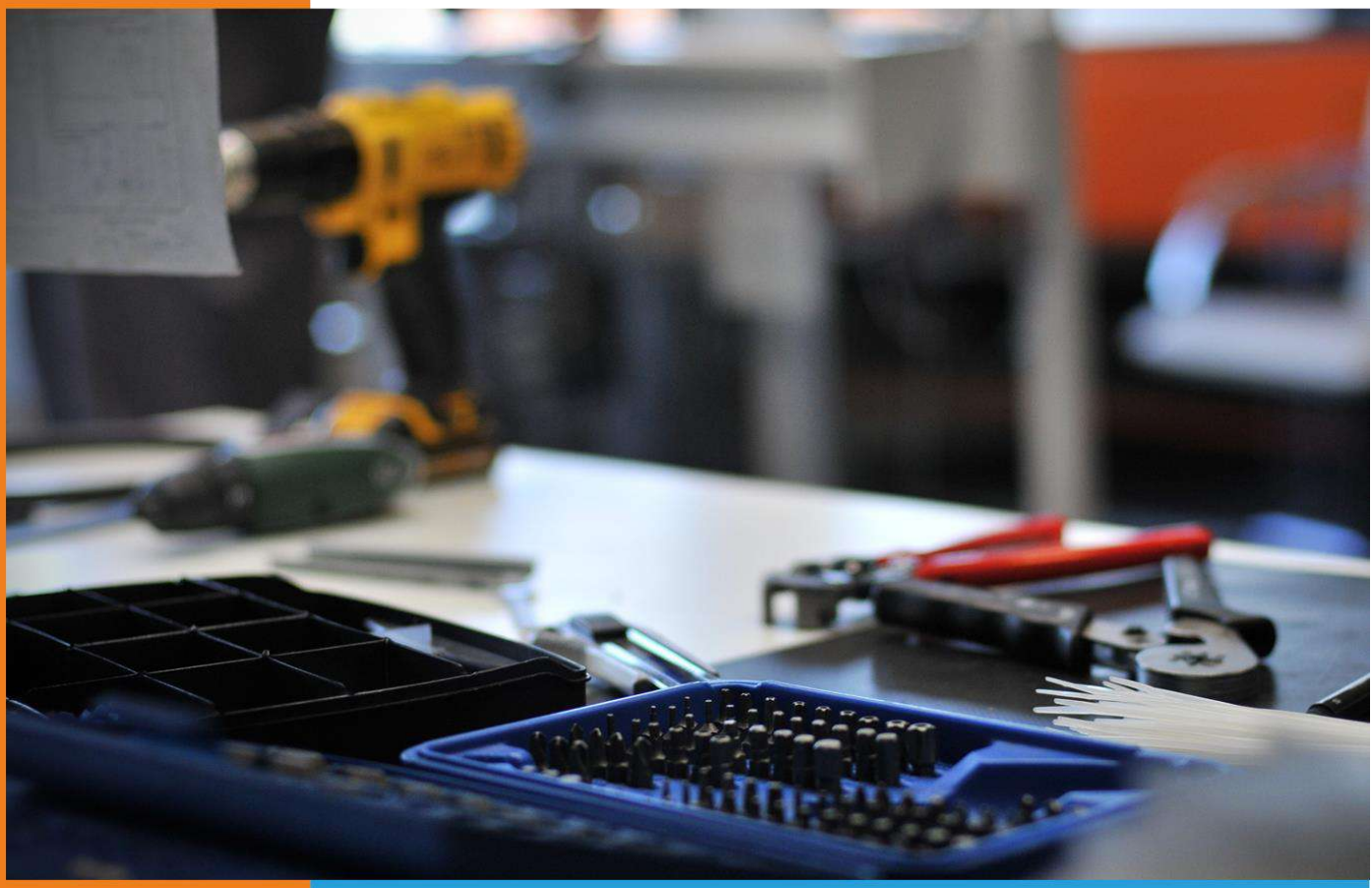
VERTICAL PLATFORM LIFT

SB200

Installation Manual



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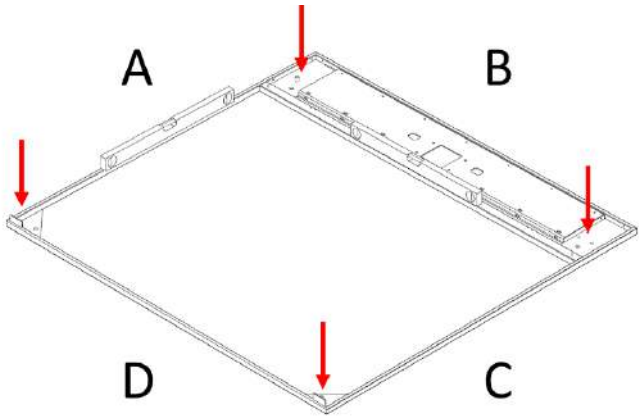
1. Leveling base frame (Vertical and horizontal alignment)

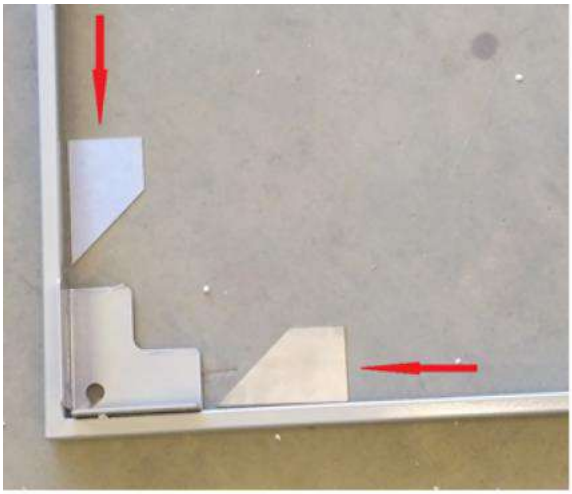
If the base frame, due the pit surface's imperfectness does not lie flat on the pit's bottom surface, the leveling plates must be used in order to level the frame, so the whole lift would be perfectly aligned vertically and horizontally. In most of situations, more than one layer of plates must be applied. Pic. 1.1 indicates places where the plates should be applied.

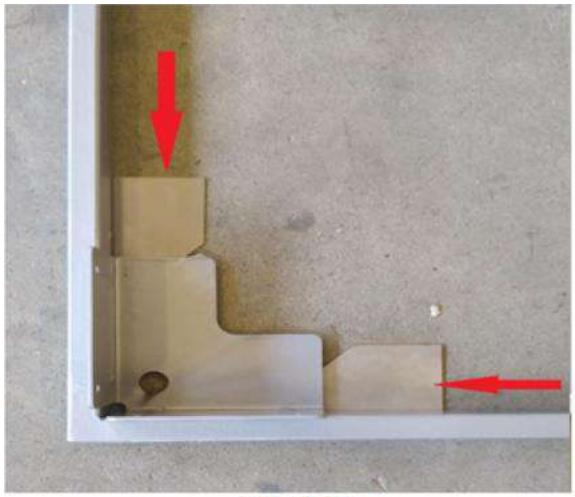


Pic 1.1

The base frame "B" side should be installed as near as possible to the attachment structures (wall, overlap, support rings). When positioning the base frame, please refer to the walls and overlaps, to make sure that the shaft's elements will be able to pass straight through them and they will not affect straight geometry of the shaft

The leveling plates must be placed on the corners (where the corner needs to be lifted) that their edges would be aligned with the frame edges (Pic.1.2, Pic. 1.3), so the plates would be hidden under the frame, but the plates should not cover the anchor's hole.


Pic 1.2


Pic 1.3

After making sure that the base frame is perfectly aligned and leveled, we strongly recommend to use temporary fixing points to secure the base frame, as if the base frame will be permanently anchored to the pit utilizing the anchors, this will make further adjustments of the frame impossible.

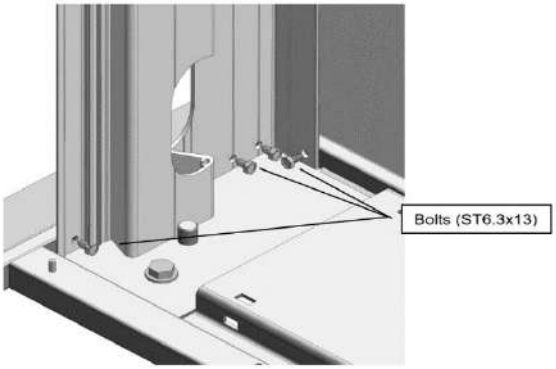
2. Assembly and leveling of the guide rails

As you can see from Pic.2.1 guiderails always are situated on “B” side. Before assembly inspect fixation points and add additional reinforcements if needed.

Pic 2.1

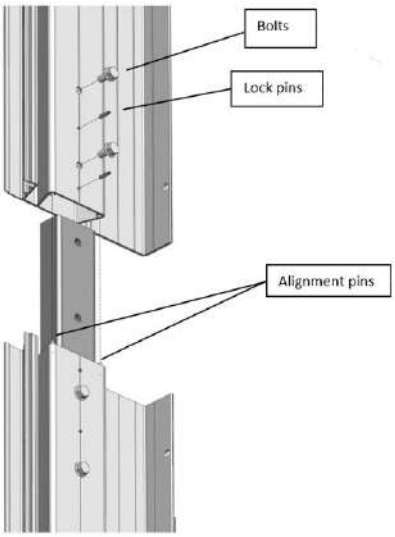
2.1 Guide rails assembly

The left side guide rails are marked L1; L2; etc. respectively from bottom to top. The right side guide rails marked R1; R2; etc. respectively from bottom to top. Put the L1 and R1 segments of the guide rails to the corners of base frame, matched the predrilled holes in the guide rails and the base frame. Attach the guide rails to the base frame using ST6.3x13 bolts Pic 2.2



Pic 2.2

After attaching the lowest segments of the guide rails to the base frame, continue joining other segments consequently respecting the increasing numeration. Please refer to the lift’s frame drawing in order to check the length of the guide railssegments in case if marks on them are not clear. While joining the guide rails, make sure that the alignment pins perfectly fit in place and the bolt holes are matching. Pic 2.3



Pic 2.3

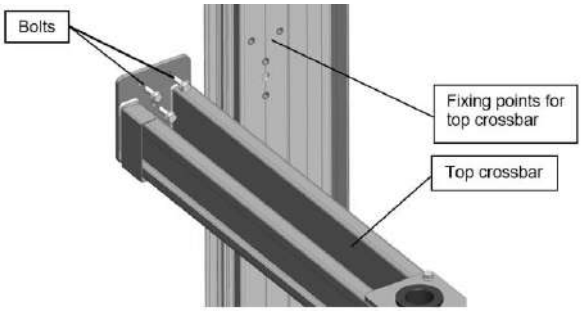
2.2 Installation of middle cross bars

Apply the middle cross bars from inside of the guide rails as it's shown on the Pic 2.4. The cross bars must be secured using M6 bolts with flat head. The cross bars which are on joints of guide rails, should be additionally riveted at least with one rivet on each side of the guide rail's segment joint. If there will be a back wall of the shaft, put in rivet only after the back wall's panels (Sandwich or Glass) are mounted in place. Two last cross bars should be installed after fitting the top cross bar in place, as to insert the top cross bar, the guide rails must be spread apart.

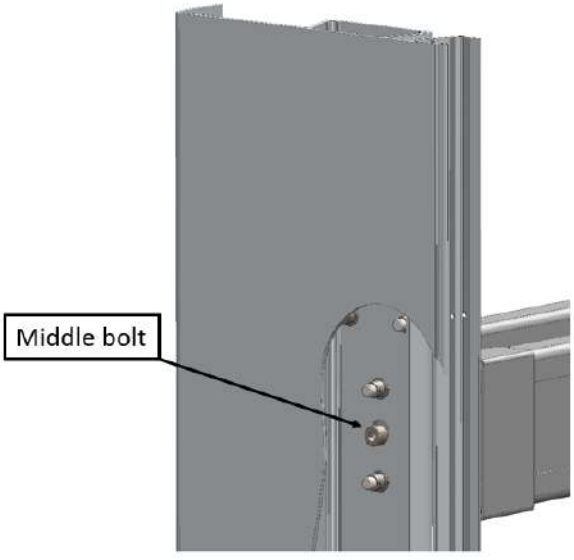
Pic 2.4

2.3 Installation of top cross bar

Place the crossbar in position on middle bolts, they should be lightly out so there would be ~3-4mm gap between head of the bolt and surface of the cross bar plate. Use these bolts as hook for top cross bar mounting Pic 2.5. When cross bar is fitted in place use 13mm hex head M8 bolts for fixation Pic 2.6.



Pic 2.6



Pic 2.5

After installing the top cross bar, install the remaining middle cross bars.

2.4 Leveling and alignment

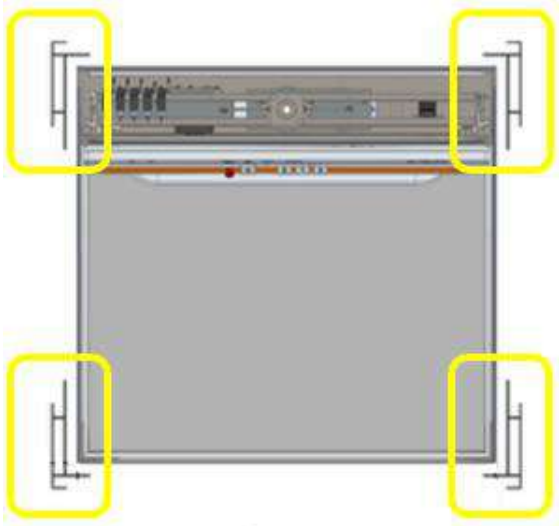
Before fixing the guide rails, make sure that they are perfectly parallel and they are vertically straight and not tilted to sides. Perform all checks using laser and spirit level.

If there is no external B side wall (B side is always the side where the guide rails are), the structure can be fixed to the wall or other support structure, if there are external B side panels, they must be installed before fixing the structure at current point, as after structure is attached, there may be difficult to insert the back wall panels.

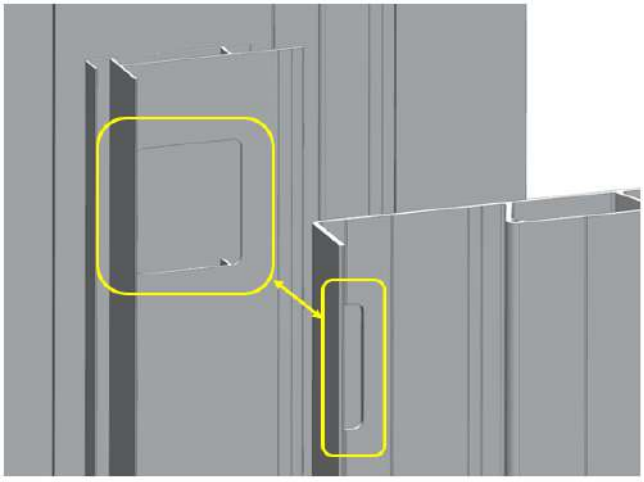
2.5 Fixing the guide rails

Prior fixing the guiderails, install the corner profiles which must be riveted to the guide rails. Always refer to the drawing when orienting the profiles Pic 2.7

Pay attention that the guide rail on the side where main electrical compartment is placed, has shallow openings, for the wires of landing switches. Apply the corner profiles which have corresponding openings on the same side Pic 2.8



Pic 2.7

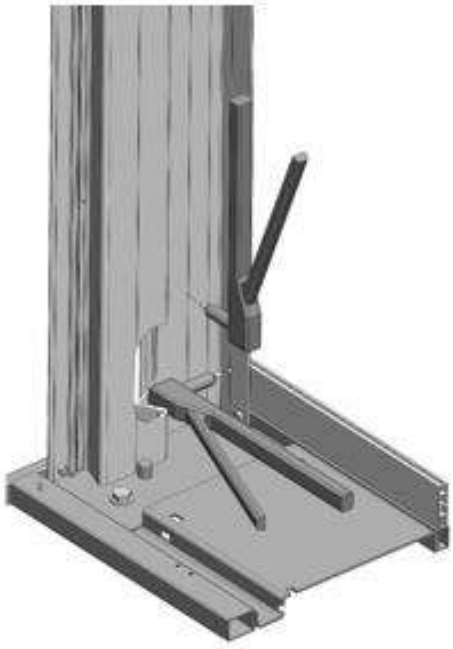


Pic 2.8

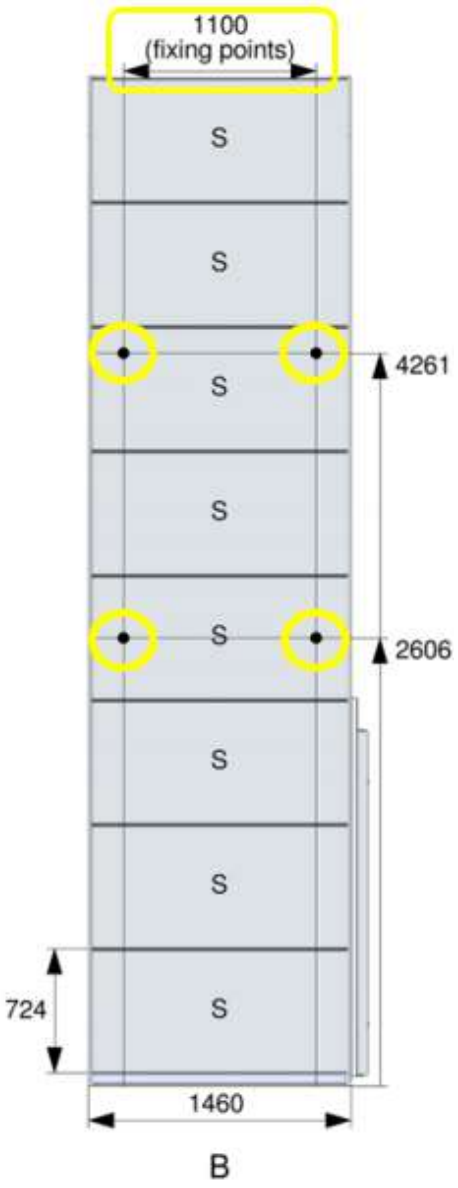
Use 4mm diameter rivets to attach the corner profile to the guide rails from inner side, placing a rivet each 300-400 mm, Pic 2.9

Apply additional rivets near the joints of guide rails and corner profiles. In case if lift is equipped with external back wall, prior putting the sandwich or glass panels in, please apply a 50 mm height skirting profile on the bottom as it's shown on the picture (Pic 2.9). Profile will lay on the base frame and the first panel will lay on this profile. All shaft walls assembly must begin from 50mm skirting profile except door side. Don't use skirting profile on bottom door side.

To fix guide rails to the wall, please use provided "L" brackets, anchors, bolts. Recommended fixation points are marked on general drawing of the lift. Pic 2.10. Fixation points quantity depends on the lift height. The brackets should be placed as near as possible to the guide rails. Please pay attention, that if the lift has external B side wall the fixing must be done trough the sandwich panels. Holes for the brackets must be cut at place. Use 4mm diameter rivets to secure the external back wall panels to the guide rails. Place at least four evenly spaced rivets on each side of the panel (It makes total 8 rivets per panel).



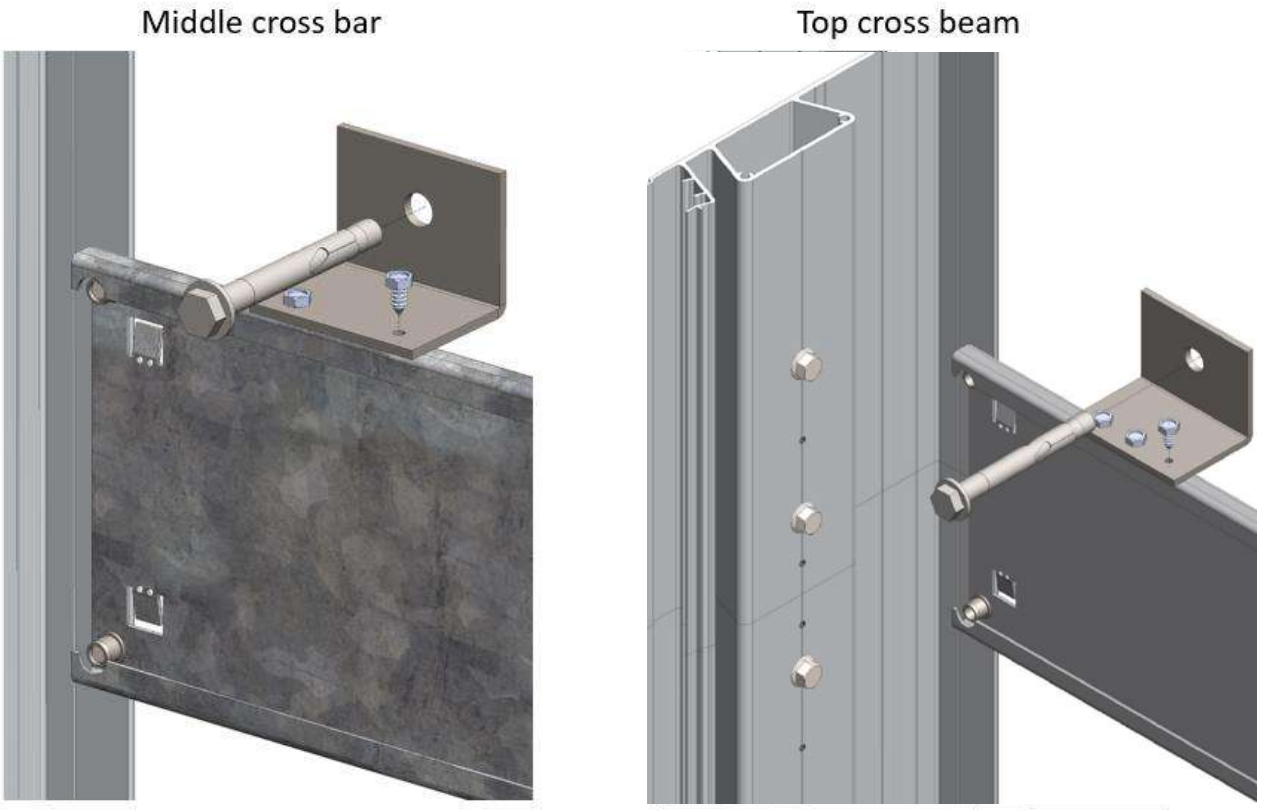
Pic 2.9



Pic 2.10

2.5.1 Direct Guide rails fixing

When the guide rails are perfectly aligned and the structure is in desired position, it can be fixed to the wall or support structure. Standard fixation is done using metal “L” shape brackets, which are anchored to the wall or other support structure and attached to the top cross beam and other cross bars using 10mm hex screws Pic 2.11. To apply the screws, you have to drill 5mm diameter pilot holes. In order to get the structure stable, while drilling, use C or F clamps for temporary fixation.

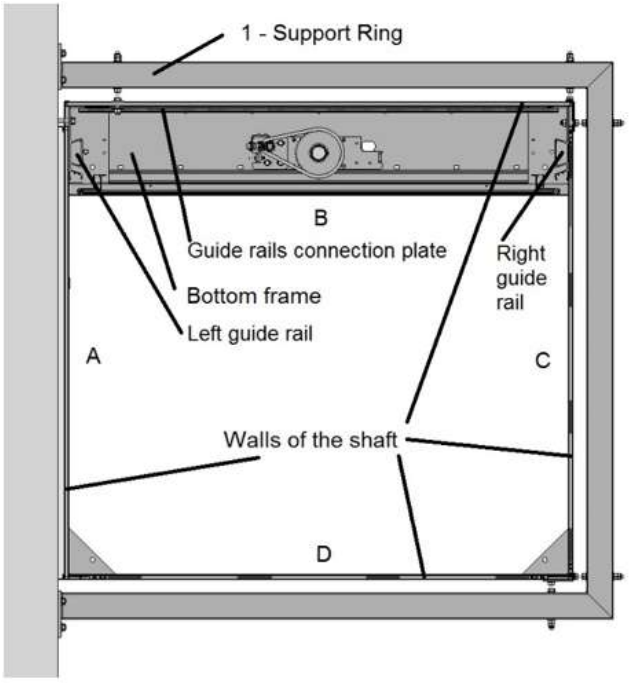


Pic 2.11

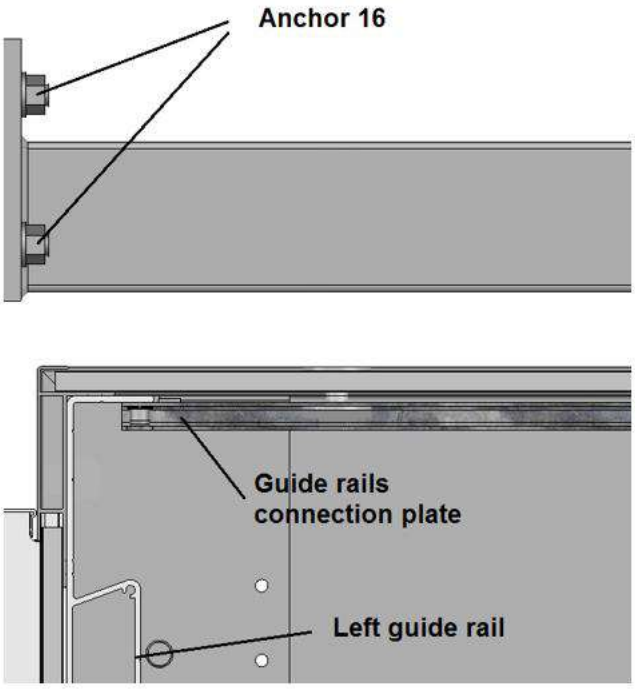
2.5.2 Guide rails fixing to support ring

General view from the top is shown in Pic 2.12

To fasten support ring to the wall: find correct position for the supporting ring just after guide rails have been fixed to the bottom frame and leveled. Align the ring with guide rails connection plate. Level the ring and fasten it with four anchors at both sides Pic 2.13. Depending from a construction of building there may be needed another fastening way than shown. That shall be selected at the site.

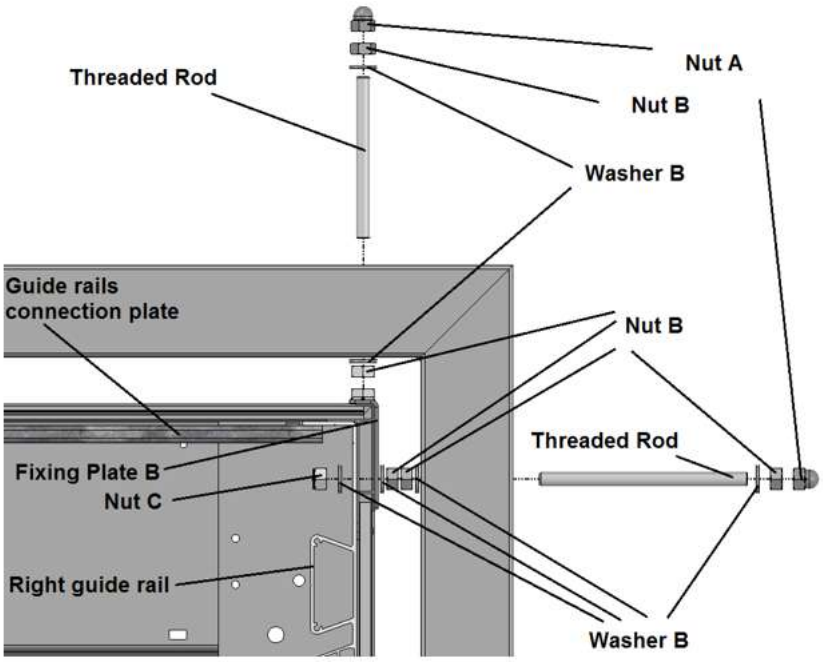


Pic 2.12



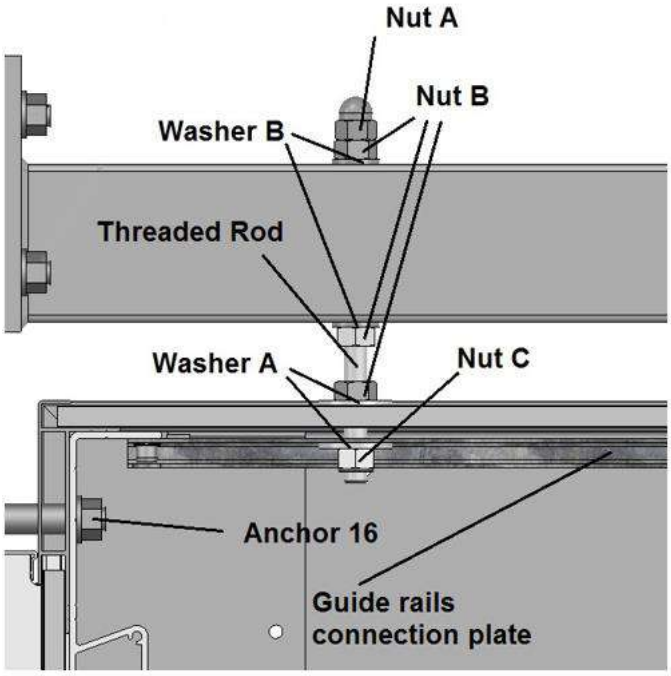
Pic 2.13

Assemble the shaft B side wall (Fix corners profiles and panels) until supporting ring level. Find correct position of “fixing plate B”. Make two holes through supporting ring and one through guide rail from C (or A) side. Cut threaded rod off. Prepare two pieces of required length. Fasten the ring with the shaft Pic 2.14



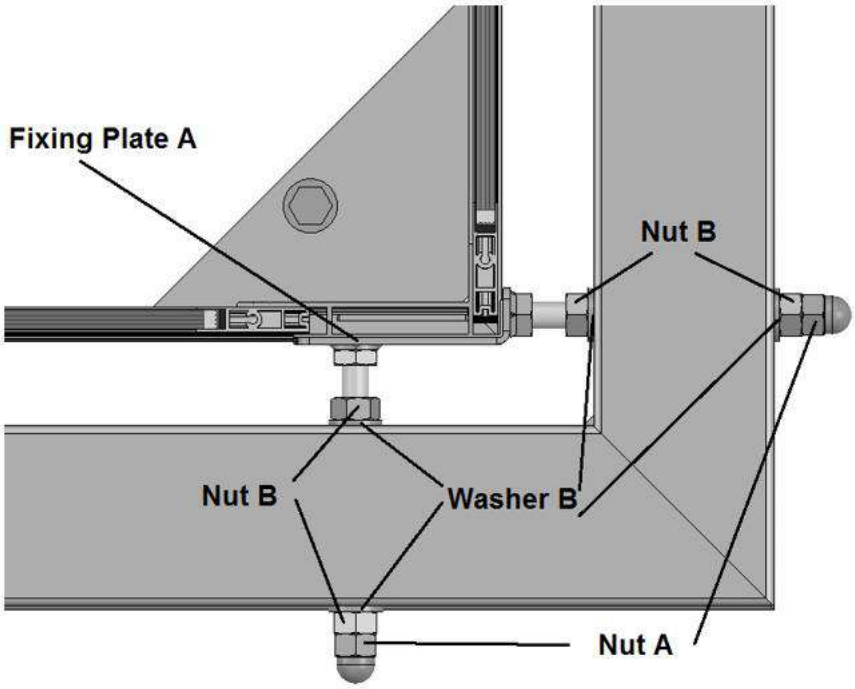
Pic 2.14

Next step is fastening the B side and the guide rail to the wall, before fastening the shaft, in addition, there needs to make one hole through supporting ring and one through panel in the shaft with guide rails connection plate at once. Cut threaded rod off. Prepare one piece of required length. Fix B side. Then make one hole through the guide rail for fixing to a wall. Fix the guide rail Pic 2.15



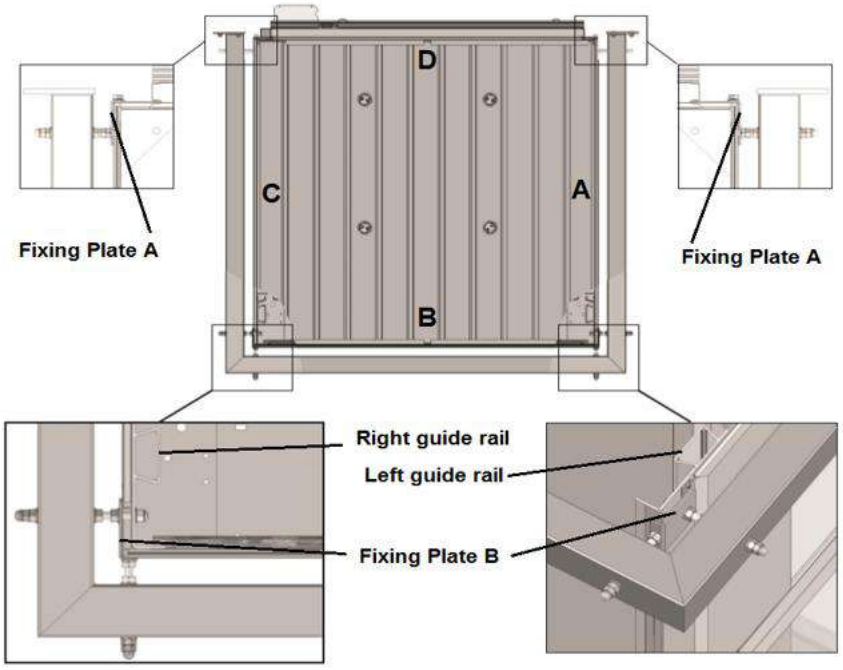
Pic 2.15

Fastening of shafts C (A) and D corners is shown on the Pic 2.16, assemble the shaft at C(A) and D sides. Fix corners profiles. Fix panels at C(A) and D sides until supporting ring level. Find correct position out of fixing plate A. Make two holes through supporting ring. There does not needed additional holes in the shaft. The ring supports the shaft in touch only. Cut threaded rod off. Prepare two pieces of required length. Adjust and fix Plate A.



Pic 2.16

When you have the doors on the D side, please follow the above recommendations and refer to picture Pic 2.17



Pic 2.17

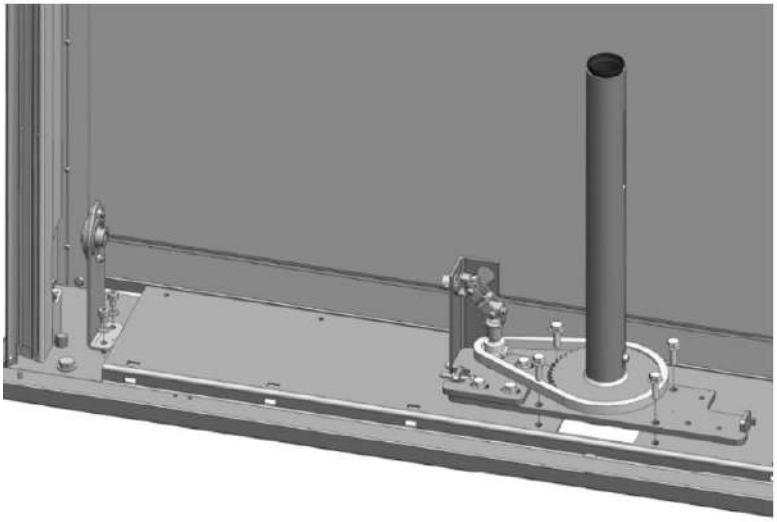
3. Installation of the emergency lowering unit

Prior assembly of the main driving screw, manual or electrical emergency lowering unit must be installed, as it serves as lower fixing point for main driving screw (See chapters 3.1 for manual lowering unit's installation or 3.2 for the electrical).

3.1 Installation of manual emergency lowering unit

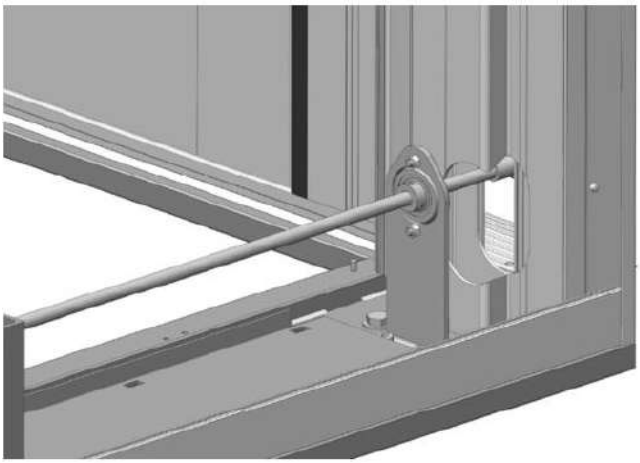
Place the lowering unit on the base frame, matching the mounting holes and secure it utilizing four M8X16 bolts. Place the support bearing for the crank handle Pic 3.1

Please note, that crank handle should be fitted to place only after installing the landing's door.

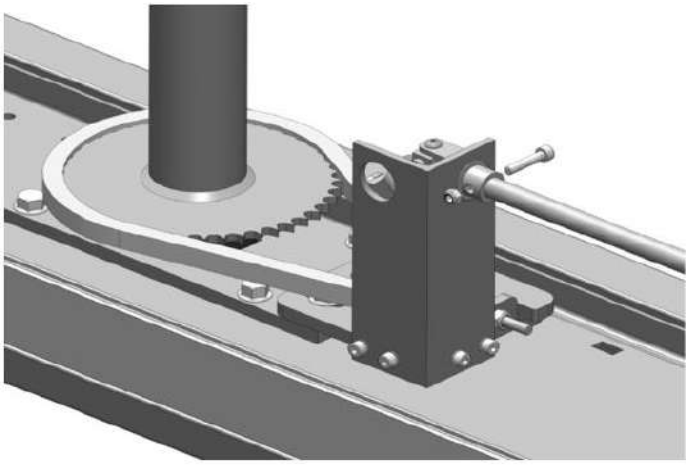


Pic 3.1

Drive the crank handle trough aligned support bearing's and mounting holes and secure it with bolt and nut Pic 3.2 and Pic 3.3



Pic 3.2

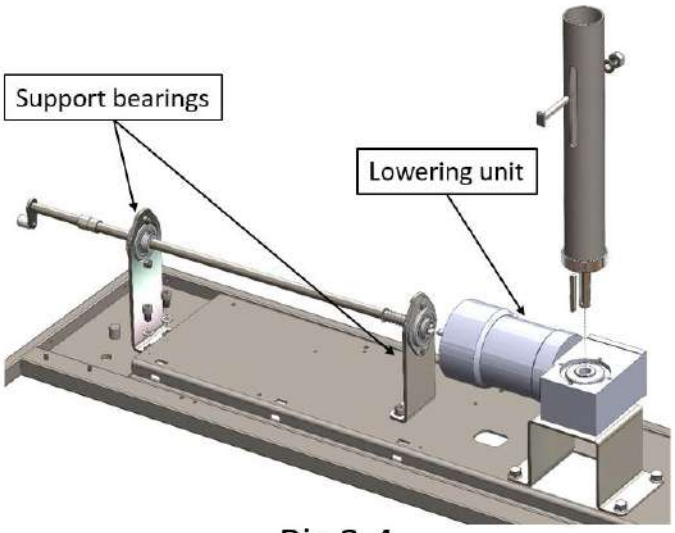


Pic 3.3

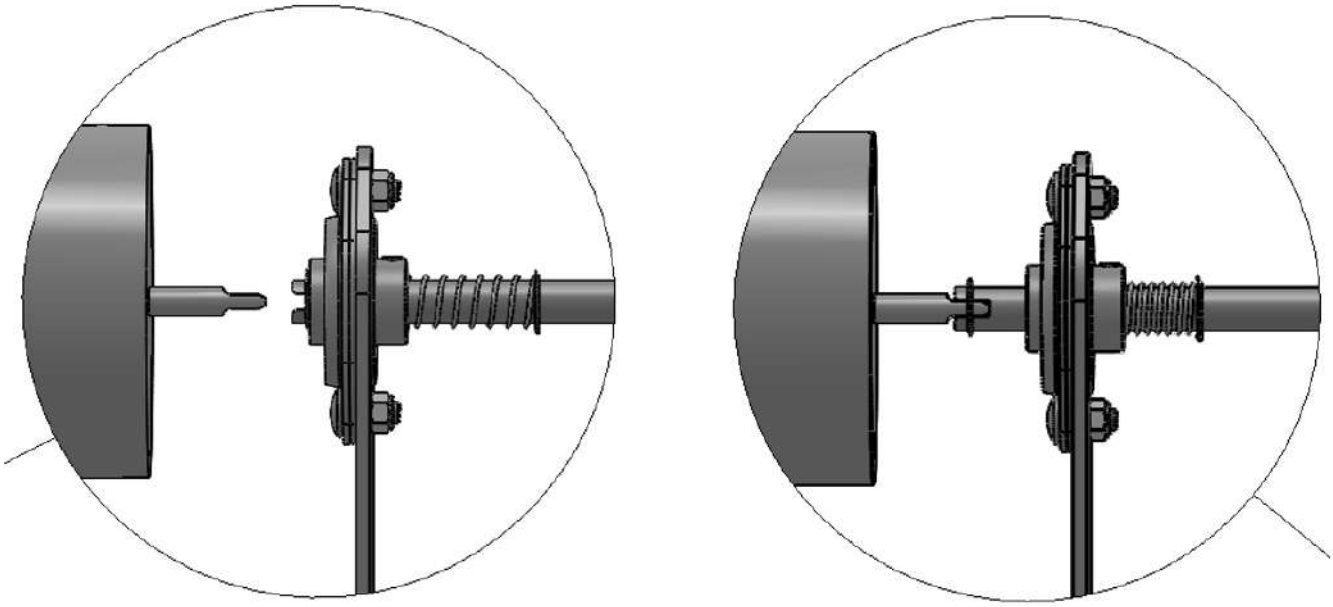
3.2 Installation of electrical emergency lowering unit

Place the lowering unit on the base frame, matching the mounting holes and secure it using M8X16 bolts. Place the support bearing for the crank handle Pic 3.4. Align bearings and whole axle to fit on reduction axle for manual emergency lowering use in case of backup batteries failure. Aligned connection of both axles are shown in Pic 3.5

NOTE: crank handle should be fitted to place only after installing the landing's door.



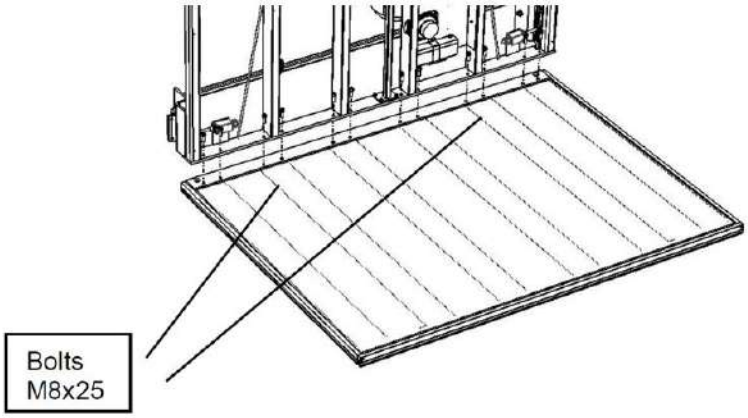
Pic 3.4



Pic 3.5

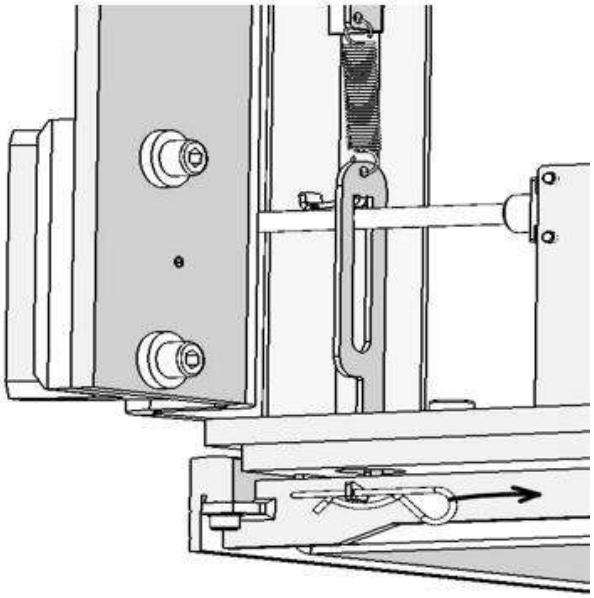
4. Fitting the platform

If fit whole platform to shaft is imposible you can divide the horizontal part form the vertical, it's done by taking off the front facing panels from platform and taking out all the connection fixations bolts Pic 4.1

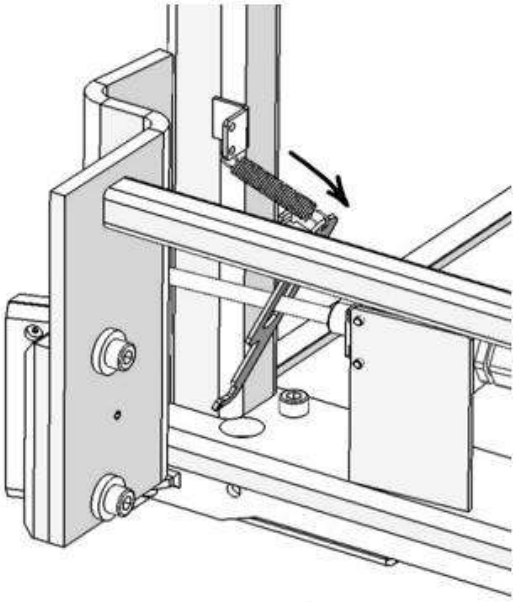


Pic 4.1

Release the suspension springs of safety perimeter's sensors Pic 4.2



Pic 4.2a

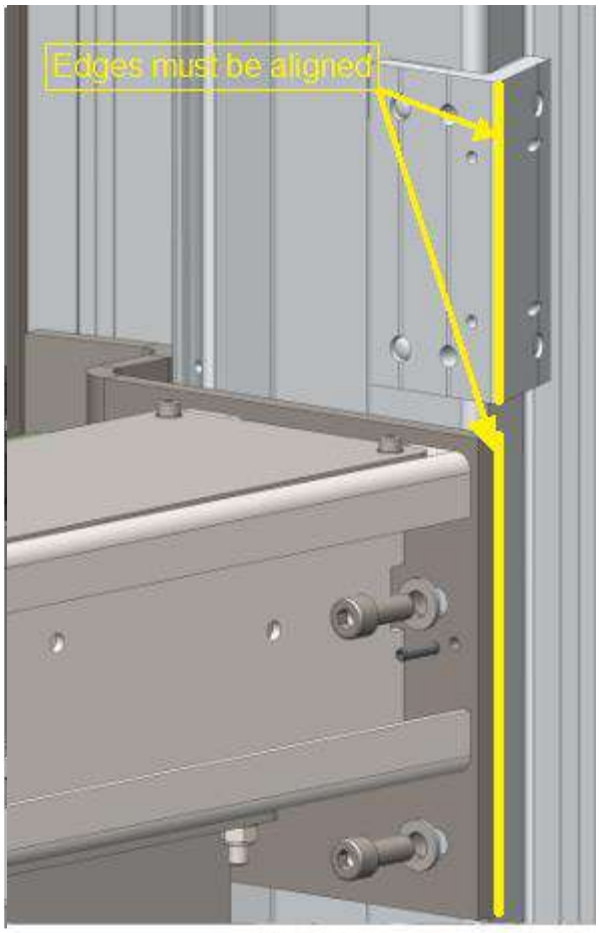


Pic 4.2b

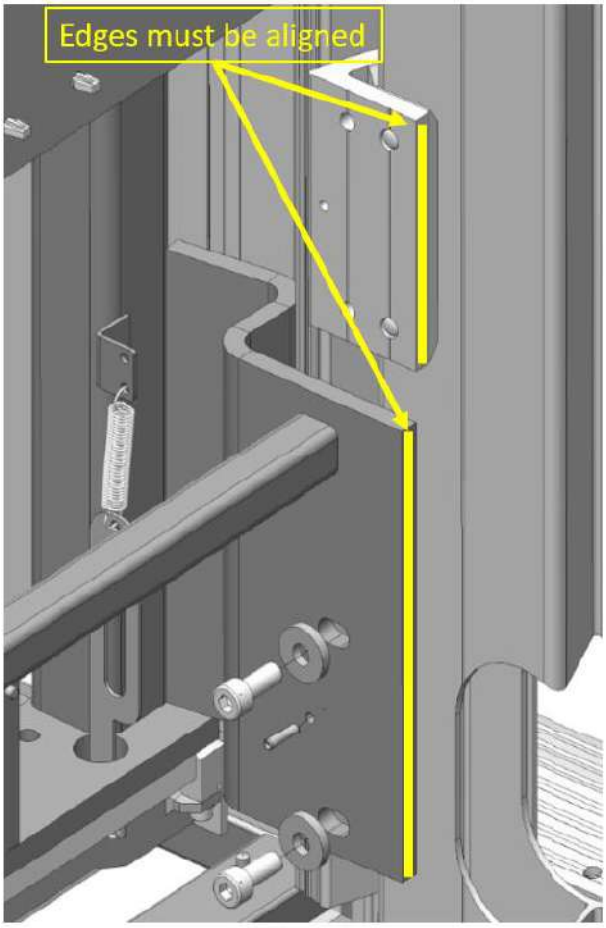
Place the vertical part of the platform between the guide rails and align the driving nut hole with the emergency lowering main driving screw mounting tube so they would be in same line.

Next step is to put in the lower segment of the main driving screw, please refer to **"Chapter 5"** of current manual.

After installing main driving screw, proceed with installation of the sliding pads Pic 4.3 shows placement of upper sliding pads. Installation of lower sliding pads are shown in Pic 4.4



Pic 4.3



Pic 4.4

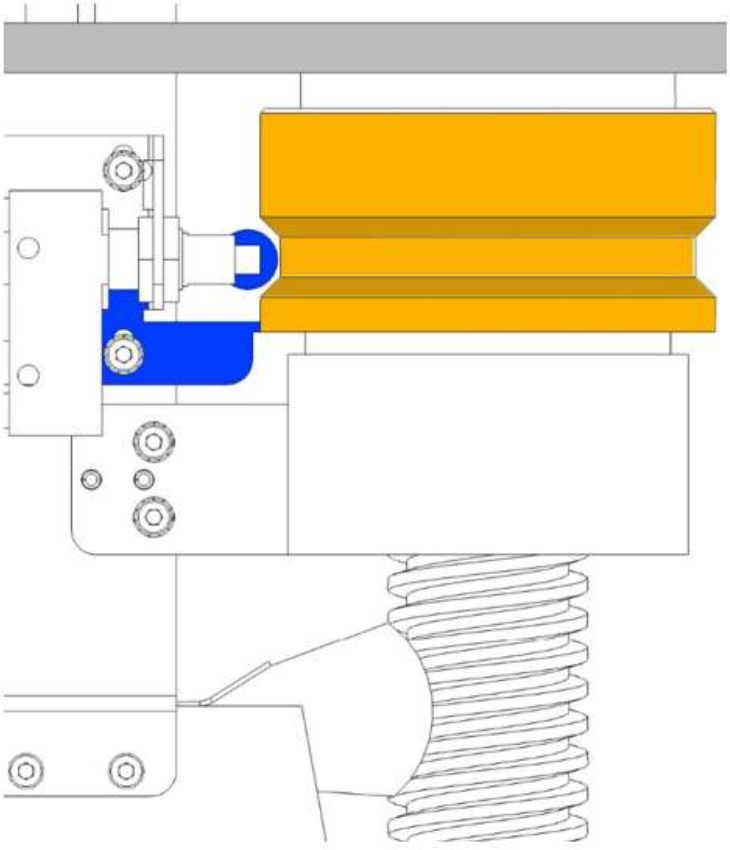
When aligning the sliding pads, make sure that the edge of the slider aluminium bracket is perfectly aligned with platform frame bracket, if they are not, the sliders will not be resting on the guide rail with whole surface and this will cause uneven wear of sliding pads, unwanted vibrations during travel and uneven alignment of the platform.

After installing the sliding pads of platform, manually lift the vertical part, in order to get a gap for platform horizontal part insertion, align the mounting holes on both parts and insert the mounting bolt one by one, making sure that all the bolts are tightened well. Reconnect the safety perimeter's sensor mechanism.

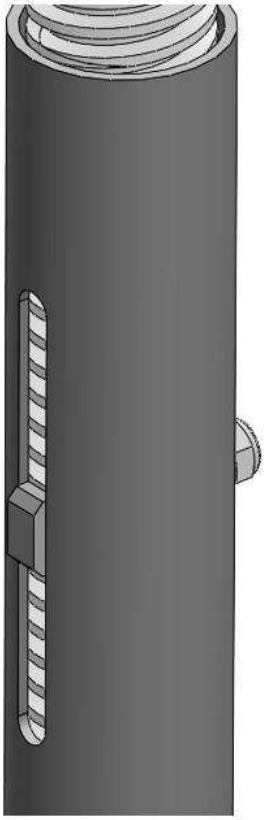
5. Assembly and installation of main driving screw

When the platform is placed between the guide rails and main driving nut hole is aligned with emergency lowering mechanism hole for screw, start inserting the lower part of screw by rotating it clockwise. Please be careful and hold the safety nut aligned with the mark flag as it shown on the Pic 5.1

Safety nut (Marked yellow) and indicator flag edge (Marked blue) must be perfectly aligned as it's shown. The main driving screw must spin freely without major resistance, if it's not, please remove it and try inserting it one more time, until you reach the perfect placement of the end switch wheel (Marked blue). Continue spinning the screw until it enters the mounting hole of the emergency lowering unit. Align the hole in screw end with long hole of the lowering unit tube and fix the screw using bolt and nut Pic 5.2



Pic 5.1



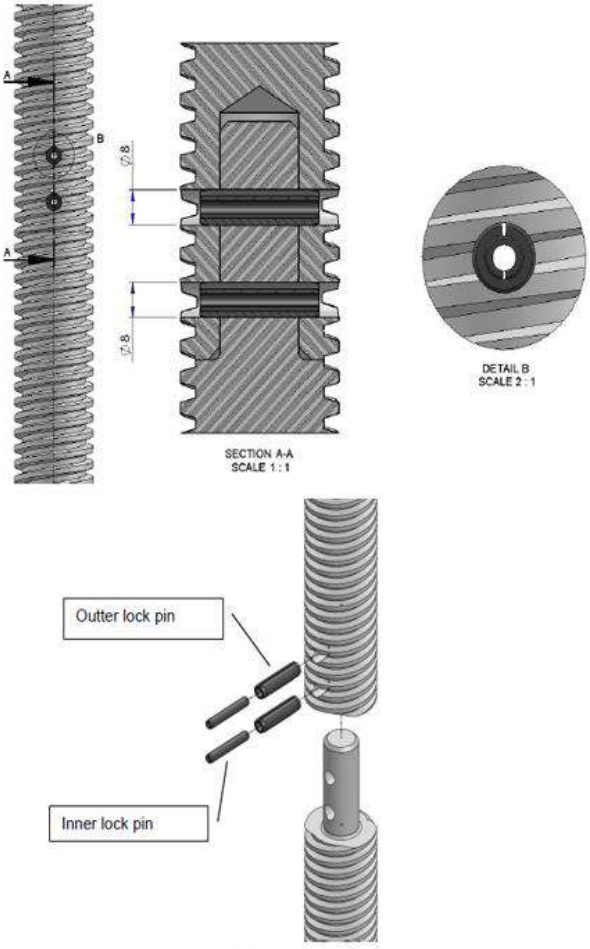
Pic 5.2

When the lower side of screw is fixed, continue putting the rest parts of the screw together. Joining it all way up till top cross beam of the guide rails.

When joining two parts of main driving screw, carefully align 2 parts so there would be no unevenness on the thread, each joint is marked with different color paint from one side, so it's enough to combine the mark for accurate match. When it's aligned put the fixation pins as it shown on the Pic 5.3

In case if screw's length is over 10 meters, all the joint's above 10 meters mark are additionally threaded. And the driving screw joint can have ~2mm gap between two parts cutted thread. In this case Pic 5.4 align perfectly paint marks and fixation pin holes.

Use special punch to drive the pins in. Make sure that they are perfectly fitting and not sticking out of thread, as imperfectly inserted pin will scratch the main driving nut, this will cause it's very quickly wear out. If the surface of thread got scratched a bit, please use a small file to fix the scratch, make sure that there are no sharp edges left.

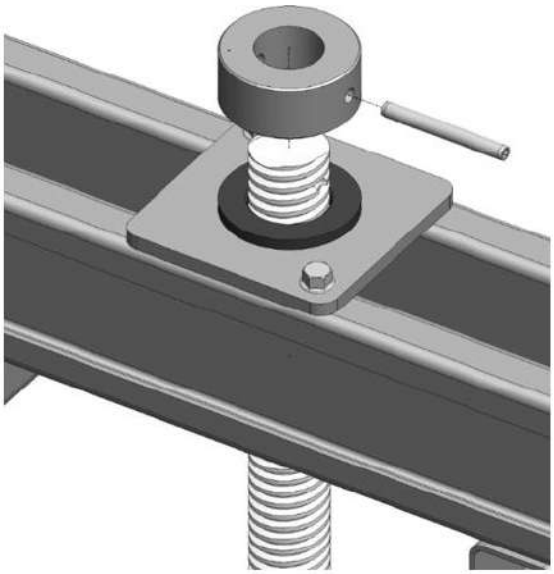


Pic 5.3

Pic 5.4

5.1 Main driving screw upper fixation point, manual emergency lowering

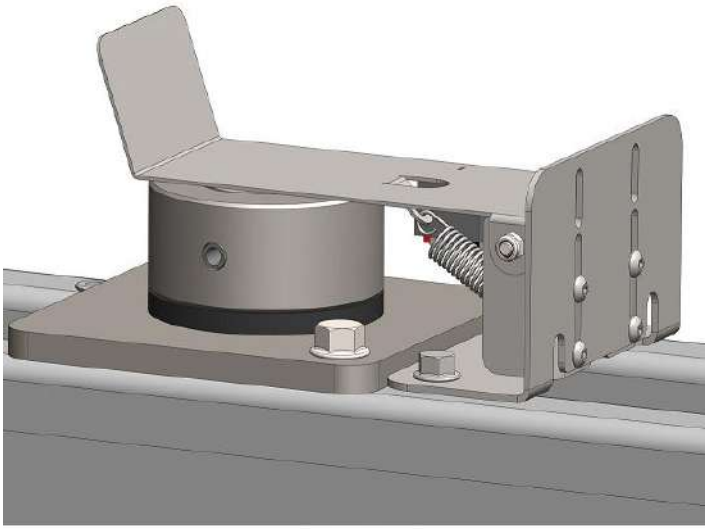
When the upper segment of main driving screw is inserted to the hole of upper beam and connected with the rest of the screw, make sure that the screw is straight, put on the upper nut. Make sure the painted mark(arrow) on top of nut and screw is aligned. Lock it in place with pin Pic 5.5.



Pic 5.5

After the screw if in place install upper screw's safety sensor. Pic 5.5.1

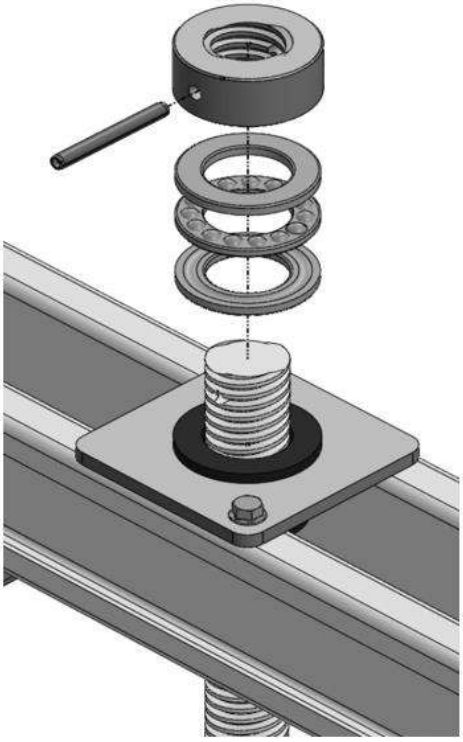
The sensor will prevent the screw from being pushed up.



Pic 5.5.1

5.2 Main driving screw upper fixation point, electrical emergency lowering

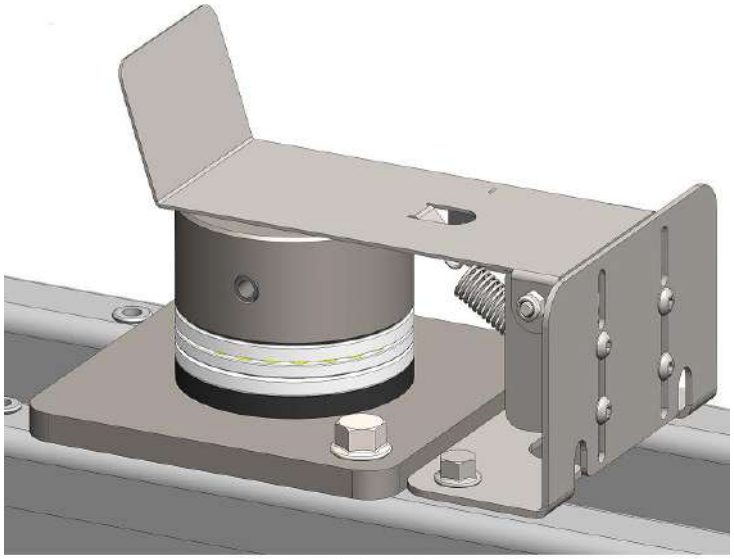
When the upper segment of main driving screw is inserted to the hole of upper beam and connected with the rest of the screw, make sure that the screw is straight, put a support bearing between plastic inlay of the upper beam and upper nut of screw. Put on the upper nut. Make sure the painted mark(arrow) on top of nut and screw is aligned. Lock it in place with pin Pic 5.6.



Pic 5.6

After the screw if in place install upper screw's safety sensor. Pic 5.6.1

The sensor will prevent the screw from being pushed up.



Pic 5.6.1

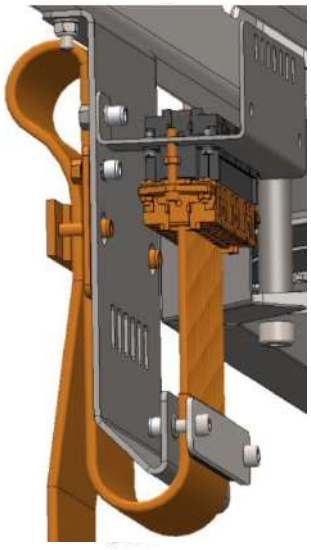
6. Installation of the trailing cable

When installing the trailing cable, please refer to the drawing provided with the lift, example on Pic 6.1

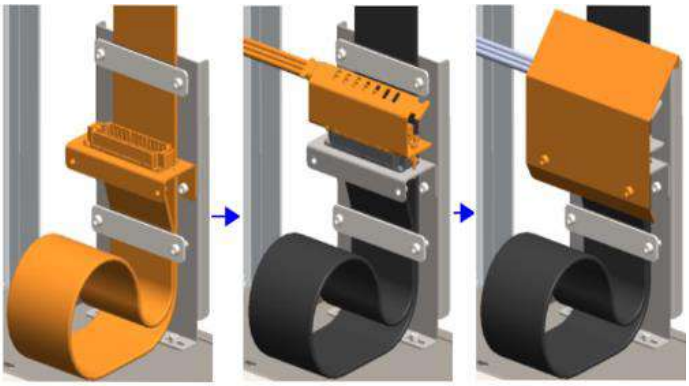
Suspension height and offset from the lift's corner depends on the lifting height and platform's width. Fitting must be precise so both pieces of folded cable would be parallel one to another.

Upper cable's suspension point if mounted precisely, matches with cable end attachment on the platform. Cable attachment to platform is shown on the Pic 6.2. Cables fixing at the bottom of the shaft is shown on the Pic 6.3. General side view of installed trailing cable Pic 6.4

Pic 6.1



Pic 6.2



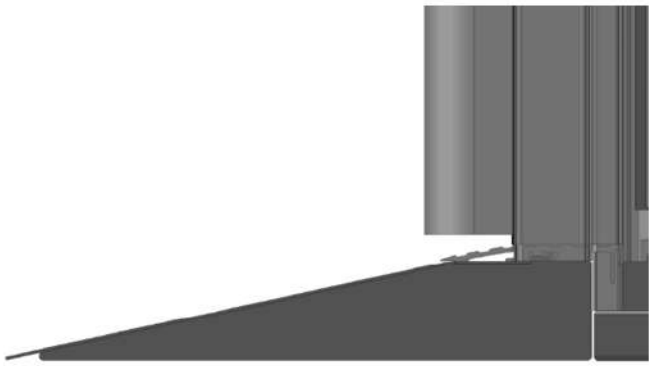
Pic 6.3

Pic 6.4

7. Door installation

To proceed with installation of the door, at least one of the corner profiles must be installed. If the door is on C or A side, the corner profile that is mandatory to install prior this is one that is on the guide rail. If the door is on D side, you have to install the corner profile that is on the hinge side of the door, that also means, that the wall (sandwich or glass panels) from this side, also must be installed (Please refer to chapter 8 Shaft assembly). If the door must be installed in to the portal in the wall, the opening in the wall must be at least 40 mm wider than actual door frame's outer width. Please note, that from the upper side there should be enough space to insert the emergency release key and rotate it. It's enough to have 20-30 mm from the key hole's edge.

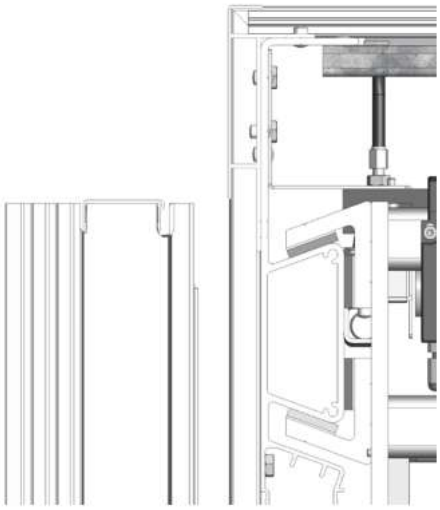
The door frame lower profile should fully rest on the floor, or the ramp in case if it is lower landing door with installation where is no pit Pic 7.1. Use shims if the floor is not perfectly leveled.



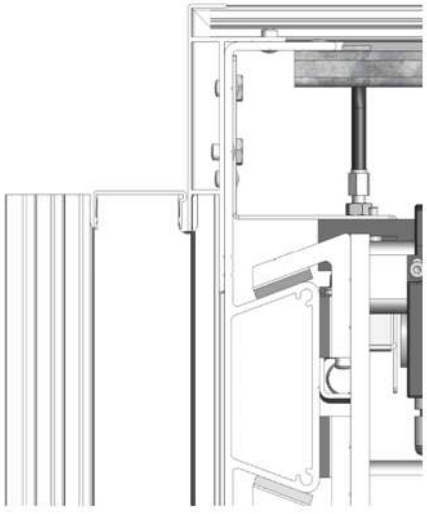
Pic 7.1

7.1 Installation of regular door

If the door is on A or C side, remove the lid from the wide side profile (or electrical compartment's lid) before beginning of installation. Place the door vertically and align it in the way, that corner profile's edge would go to the door side profile's grove Pic 7.2 and 7.3.

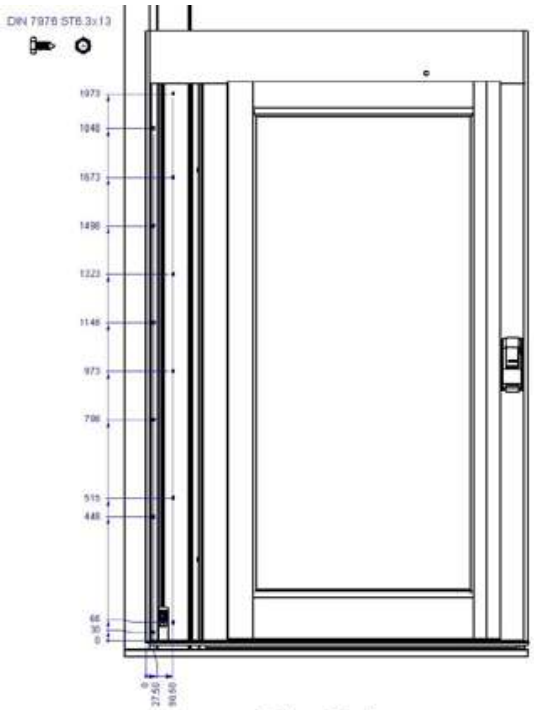


Pic 7.2



Pic 7.3

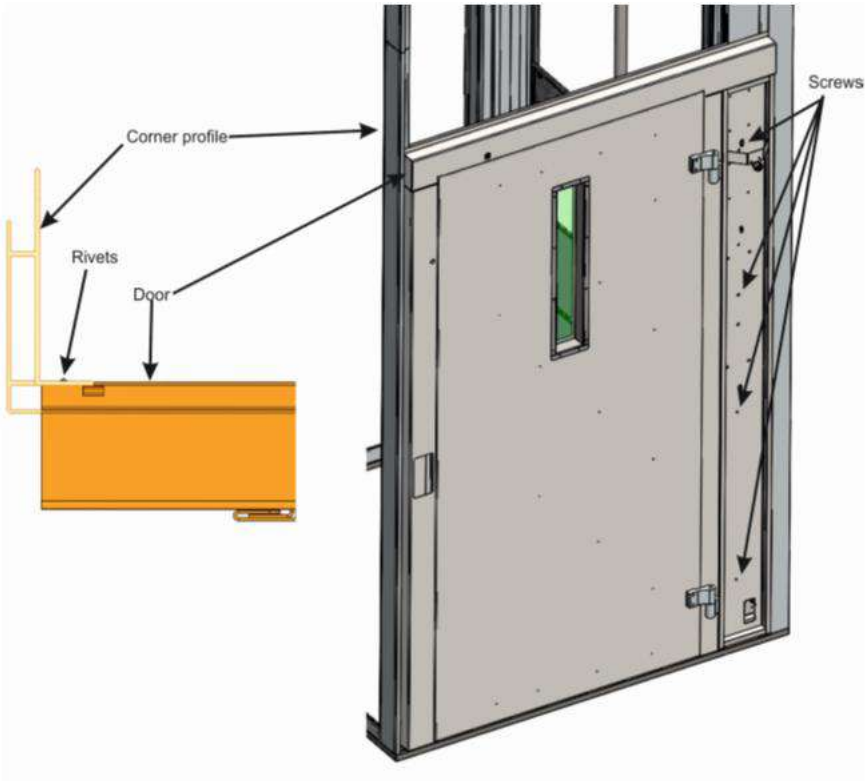
After placing the door to its place, make sure that the corner profile is all way in the grove of the door profile. That will mean, that now the door can be attached to the guide rails through predrilled holes. The door has predrilled holes for fixation to the guide rail, but to put in the screws, you must drill 5mm diameter pilot holes for the screws in guide rail Pic 7.4.



Pic 7.4

7.2 Installation of fire proof door

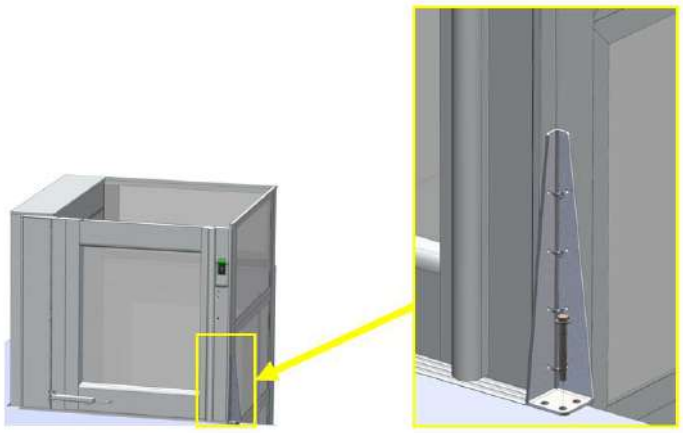
Installation of the fire proof door mainly is performed the same way as installation of regular door. The difference is that the fire proof door, does not have the gap in its frame profile, where the corner profile would be placed. In this case it connected edge to flat surface see the Pic 7.5.



Pic 7.5

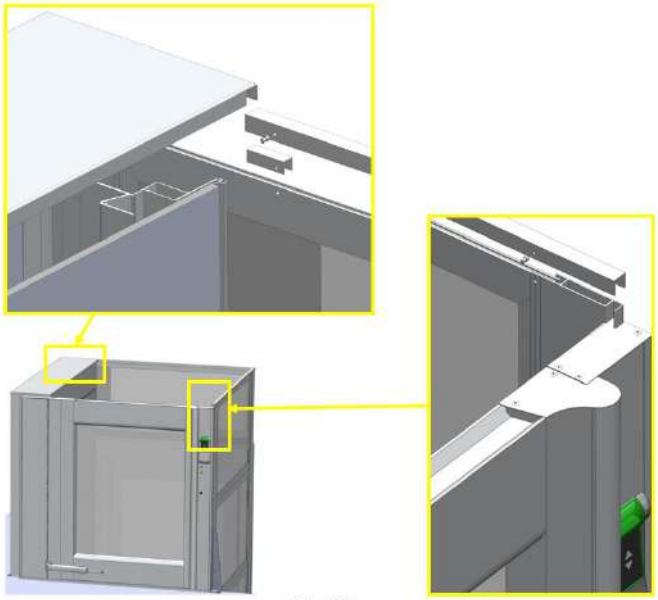
7.3 Installation of gate (Half door)

If you choose to order half door (this option is available only on top landing) first installation steps are same as regular doors from chapter 7.1. Just on hingeless side you must install metal mounting bracket for extra support. Please look at Pic 7.6. it shows place of extra support. First attach bracket to floor (how to fix depends on floor material). For fixation to aluminium gate frame use 10mm hex head screws, same as on guiderail side, and don't forget to drill 5mm pilot holes. Before installation align whole half door frame vertically and horizontally.



Pic 7.6

When gates are aligned and fitted next step is decorative top shaft finish. Because option with half door doesn't have ceiling or roof option, shaft walls and guiderails must be closed with finishing profiles. For closing guide rails use cover delivered with your order. Shaft wall must be finished with 20mm "U" profile, it fits perfect on corner profiles, just cut it to needed length. On wall next to "guiderail cover" under 20mm "U" profile install 15mm profile to eliminate free play, because sandwich or glass panel are thicker than corner profile. All profiles must be locked in place with rivets. Visualization how these parts must be assembled are shown in Pic. 7.7



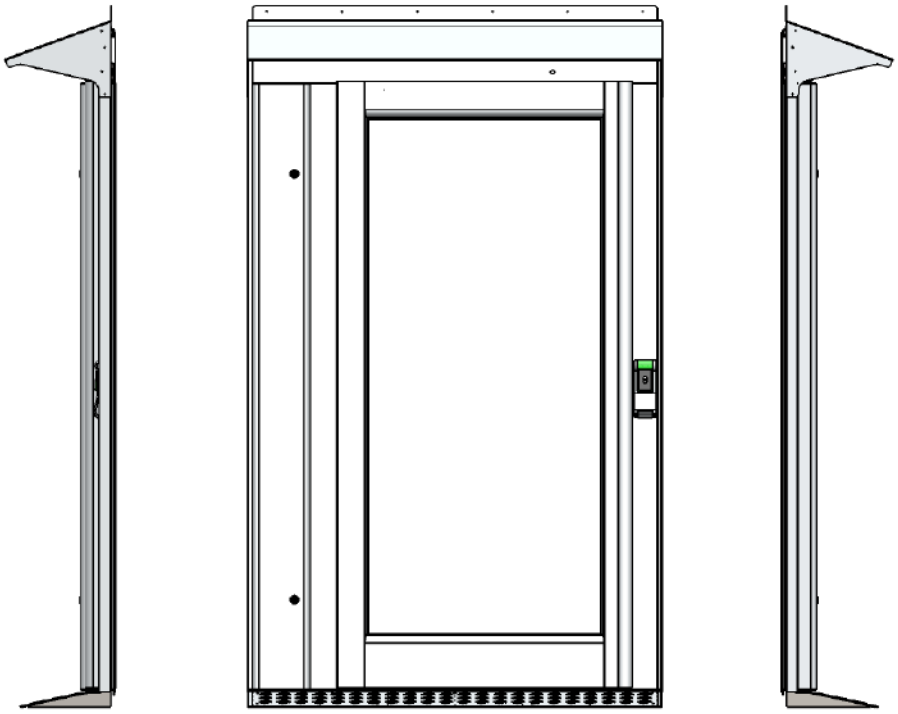
Pic 7.7

Half door doesn't have top frame so there is free play between door leaf and side frame. Position of it depends on flooring level and whole shaft alignment so door contact bridge must be installed when half door is mounted in place. Please measure exact height of door contact fork place and drill 5mm holes for fixation. Use prepared bolts and springs KIT for installation. Assembly of contact bridge are illustrated in Pic 7.8

Pic 7.8

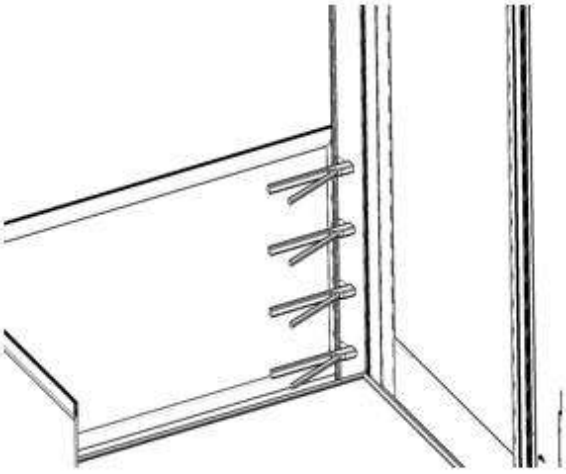
7.5 Door canopy installation

In case of outdoor lift, all doors that are exposed to outside environment must have a canopy. The canopy must be applied using silicone sealant. Before applying the sealant, clean the surface of canopy and lift, degrease it using isopropyl alcohol or some other none aggressive cleaner, don't use acetone as it can damage the plastic canopy and painted surface of the lift panels. Canopy has predrilled holes for 3.2 mm diameter rivets, drill corresponding holes in lift's surfaces trough them and apply the rivets. General view of the door with canopy is shown on the picture below.



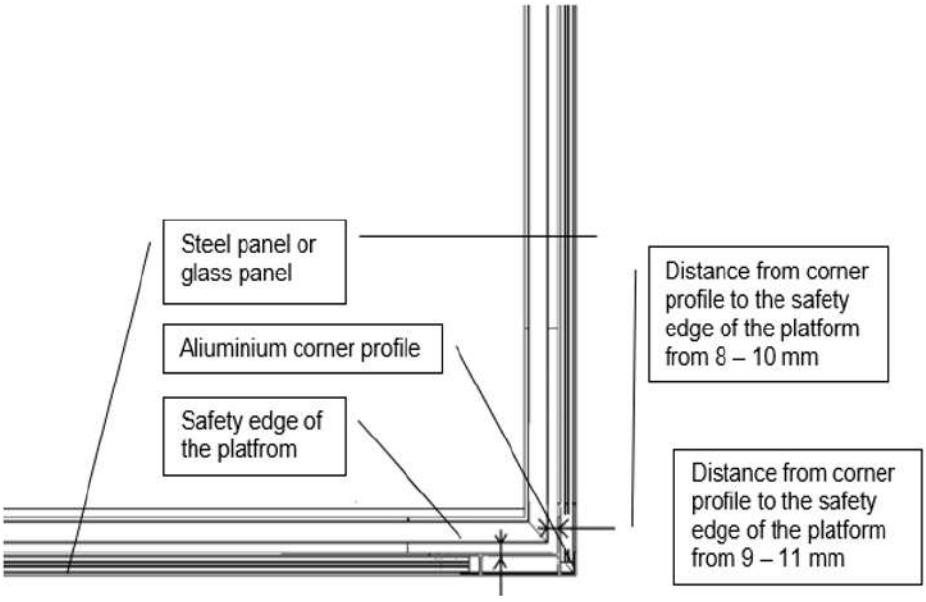
8. Assembly of shaft

Assembly of the shaft begins from placing 50 mm aluminum skirting profile, on the base frame. Assembly of the shaft should begin from side that is opposite to bottom landing door. When placing the profile, make sure, that you left at leas 3 mm distance between bottom of corner profile grove and the edge of the profile, the same is applied to the sandwich panels. The bottom profile and the sandwich panels must be riveted through the guide rail (use 4mm rivets) and corner profiles (use 3mm rivets). Apply at least 4 evenly spaced rivets per one panel's side. Height of the standard panel is 724 mm so to apply four rivets, make 90 mm offset from the panel's edge to the first hole for the rivet and 181 mm for the rest rivets, that way you will get evenly distributed rivets on all panels Pic 8.1



Pic 8.1

Use 3.2 mm diameter rivets when fixing the panels and doors to the corner profiles inside the lift. The corner profile has 2 groves going along the profile. Apply the rivets in to the grove that is near to the edge of profile. When putting each panel, make sure that you maintain the recommended distances from the platform's safety edges to the walls of shaft Pic 8.2

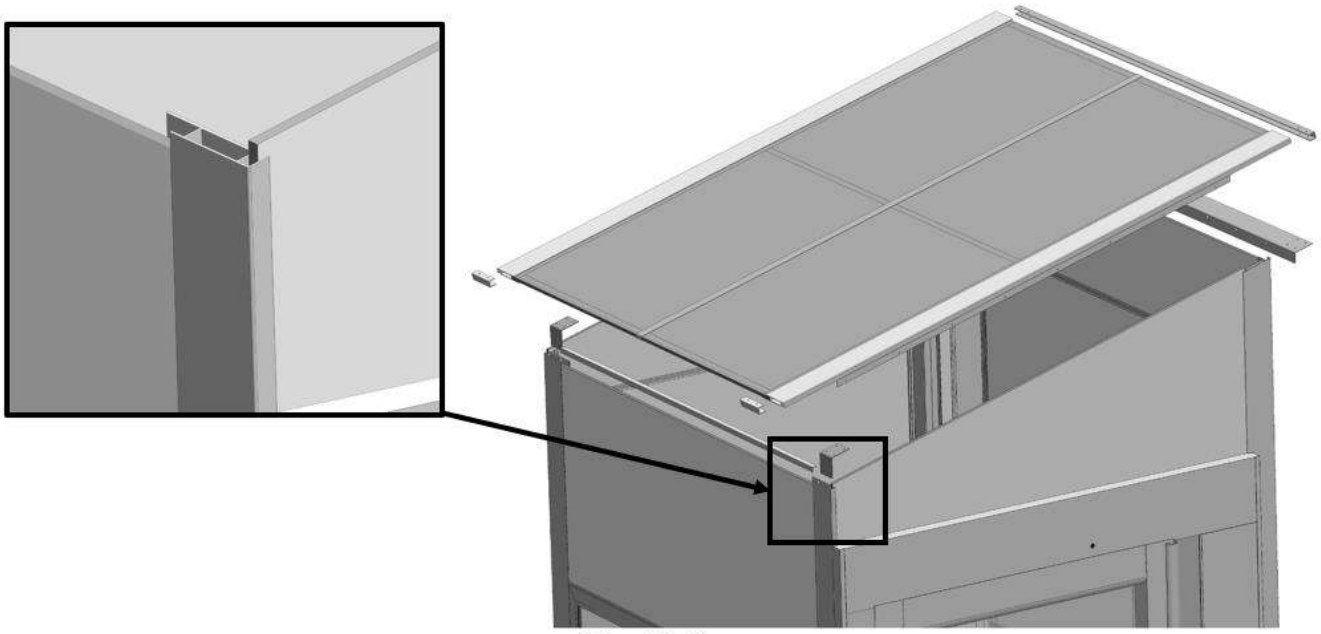


Pic 8.2

At the place of corner profiles connection joint place additional rivet on the both sides of the joint. Recommended offset from the joint is 10-15 mm.

9. Roof assembly (Outdoor installation)

Lifts for outdoor application come with roof which depending on project can be oriented multiple ways and have different tilt angle. The top segments of the corner profiles already come precut to perfectly match project's design although the top sandwich panels must be trimmed to fit at place. General view of roof assembly and elements positioning is shown on Pic 9.1



Pic 9.1

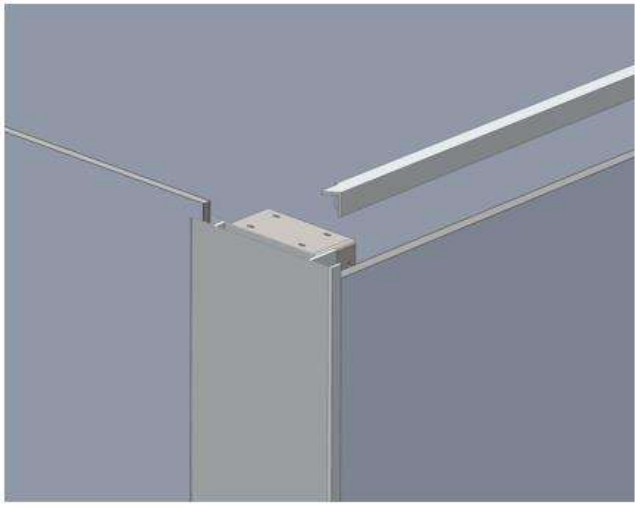
Please note that all the roof elements must be applied to place using silicone sealant (provided with lift assembly kit), this will assure better hermitization of joints between the roof elements.

Sandwich panels, which has to be trimmed to match the angle of the roof tilt, must be cutted leaving 10 mm excess so its edge would be 10 mm higher than corner profiles edge. Panels on other two sides must be trimmed 10 mm lower than corner profile's edge. Pic 9.1.

We strongly recommend to leave the top sandwich panels without fixing till the roof will be placed at place, as if there is error in shaft assembly, unsecured sandwich panels will allow to make fine adjustments for the roof to fit at the place.

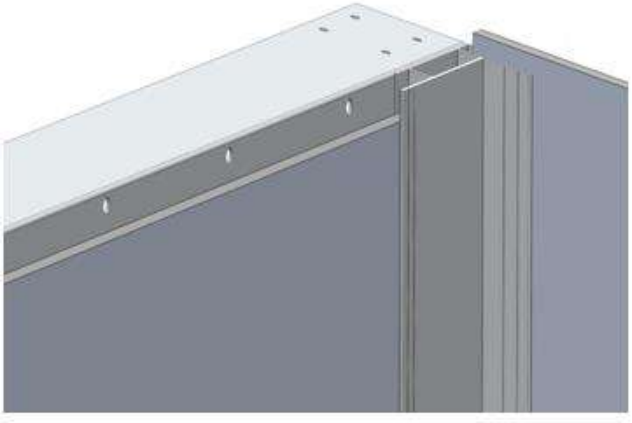
Put a layer of silicon inside the gap of profile that must be placed at the lower side of the roof and applied it as shown on the Pic 9.2

When the profile is fitted to place, secure it from the inner side of shaft to the sandwich profile with 3.2 mm rivets. applying a rivet approximately each 190 mm

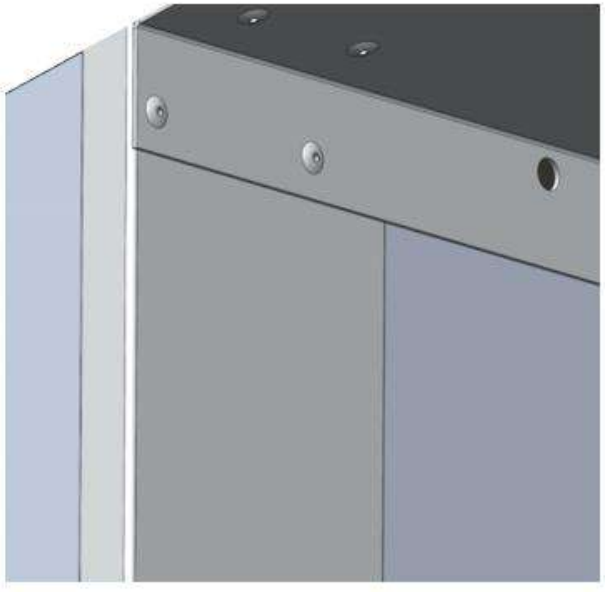


Pic 9.2

Apply “L” shaped profile to the sandwich panel which is on higher side of the roof. Put the layer of silicone near the edge of sandwich panel. Pic 9.3. Secure the profile to corner profiles using 4 mm diameter rivets, from both ends as it shown on the Pic 9.4.

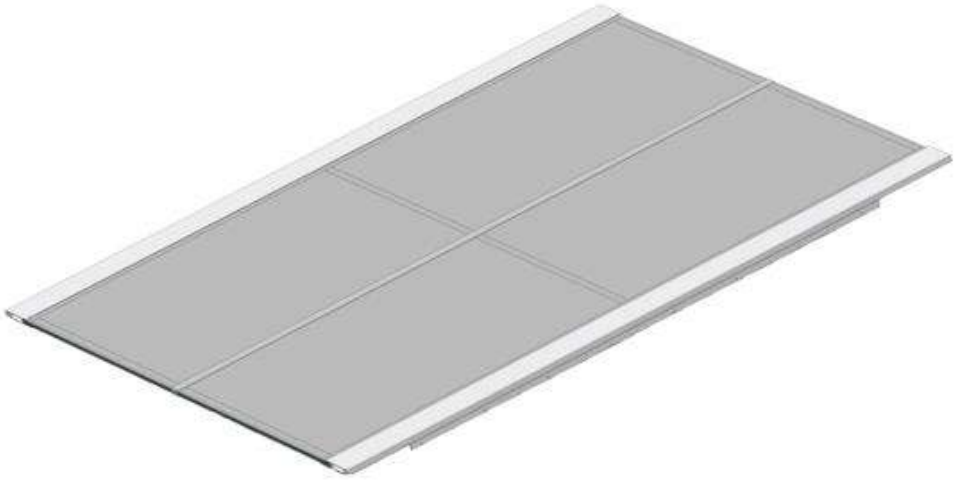


Pic 9.3



Pic 9.4

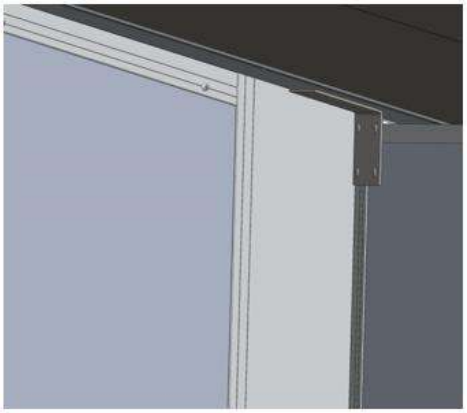
Apply side profiles of roof panel to the roof Pic 9.5. Put a layer of silicone inside the gap of profile. Secure the profiles to the roof panel with 4 mm diameter rivets. The rivets must be applied from inner side of the shaft along the edge of profile, each 190 mm.



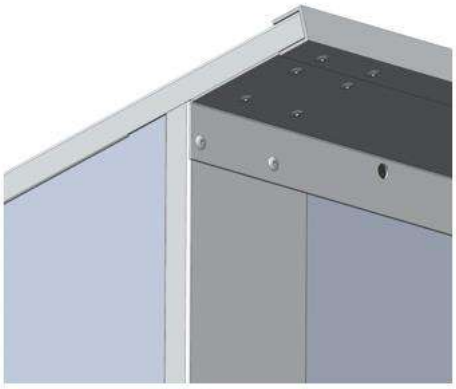
Pic 9.5

Before placing the roof on top of the shaft, please apply a layer of silicon inside the profile's gap. Mount the roof to place. As soon as it is well aligned and there are no visual gaps, secure the roof to the side sandwich panels from inside with 3.2 mm diameter rivets.

Place additional reinforcement brackets in the corners of the lower shaft side and secure them to the roof and the shaft using 4 mm diameter rivets Pic 9.6. Finally apply the longer 20x20 "U" profile to upper edge of the roof Pic 9.7 and fix with 4mm diameter rivets.



Pic 9.6



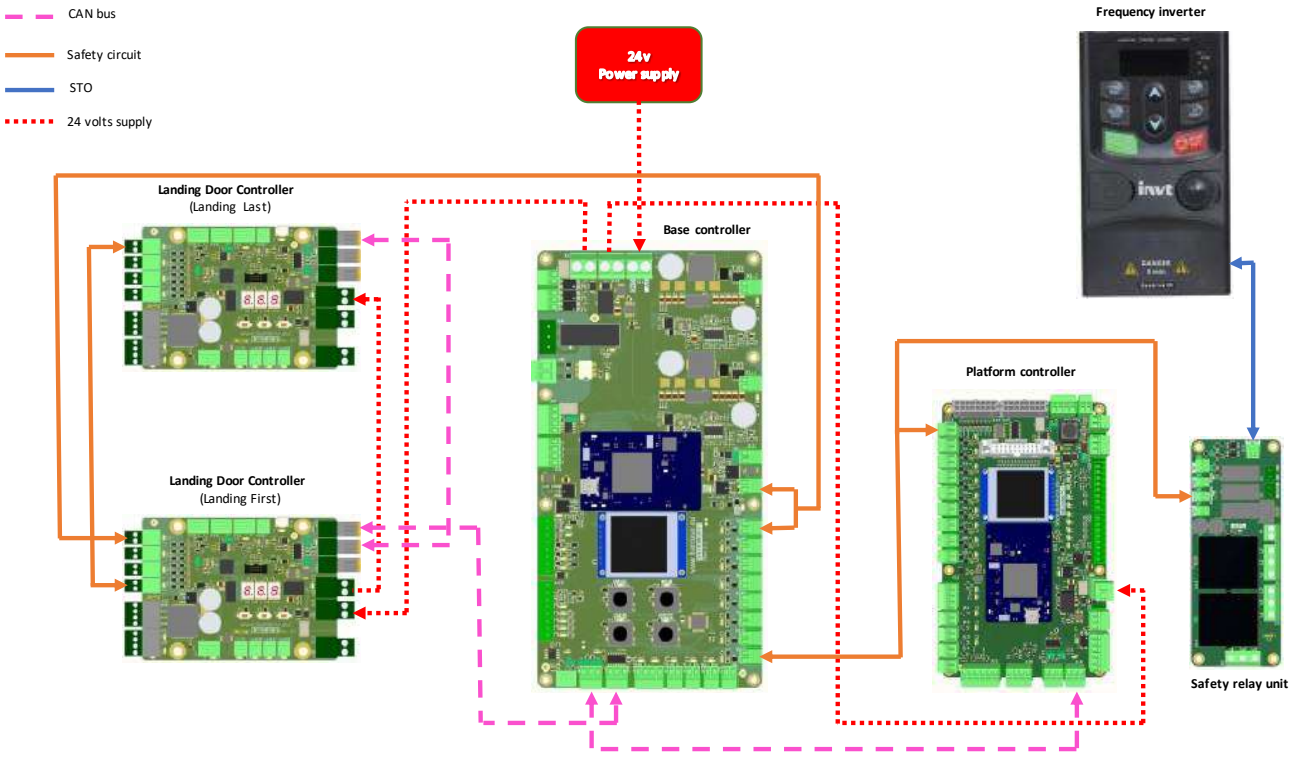
Pic 9.7

Pic 9.8

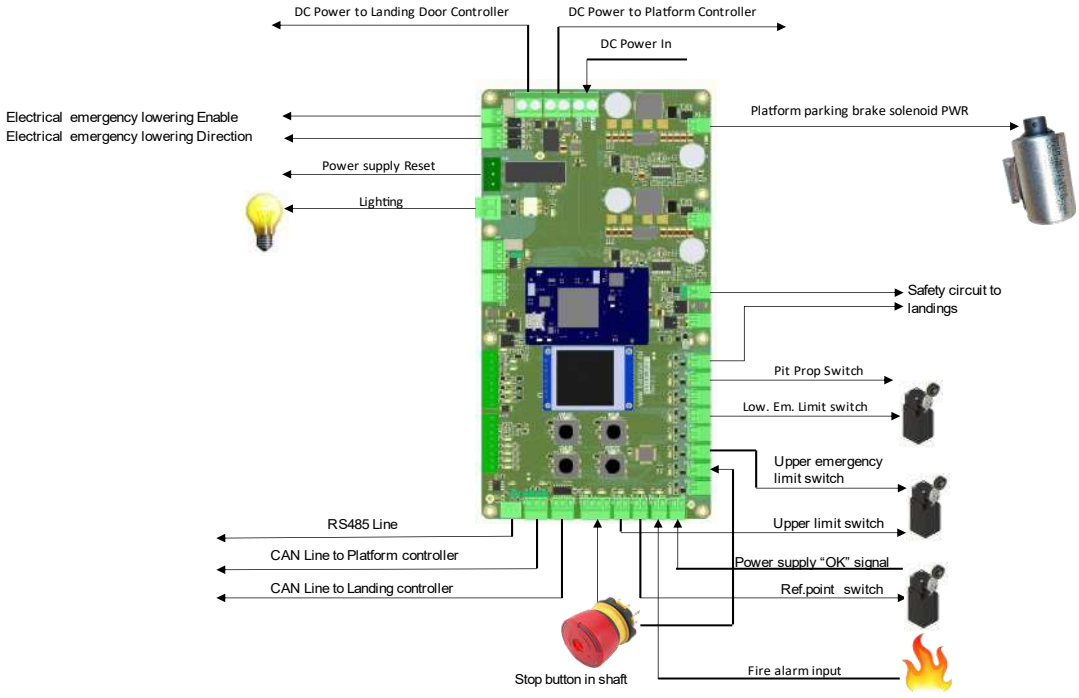
Mount short "U" profiles on lower roof corners and with 4mm diameter rivets lock them in place as it is shown at the Pic 9.8

10. Wiring and cable management

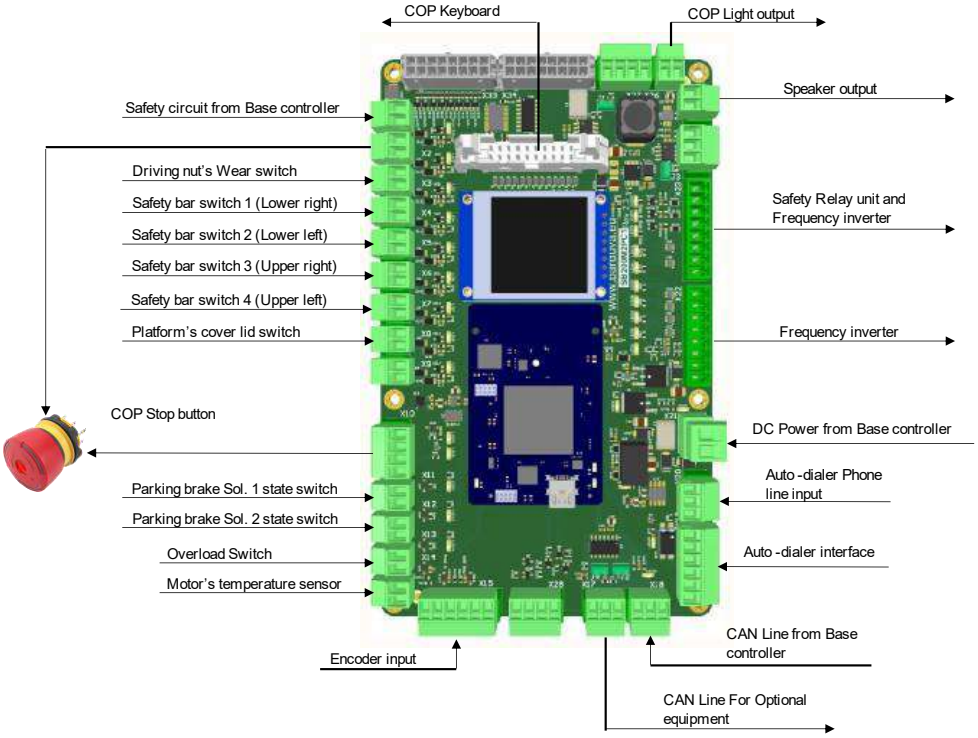
Connections between all PCBs



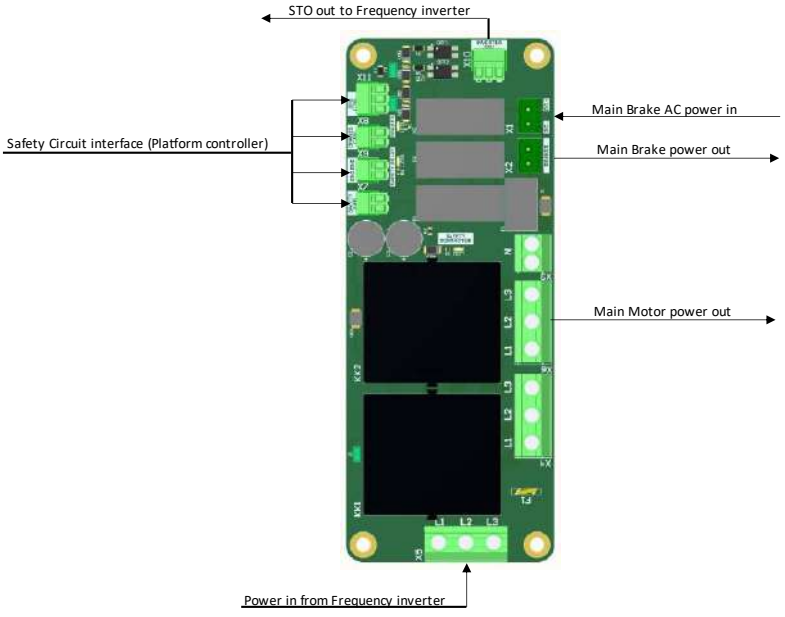
Base Controller



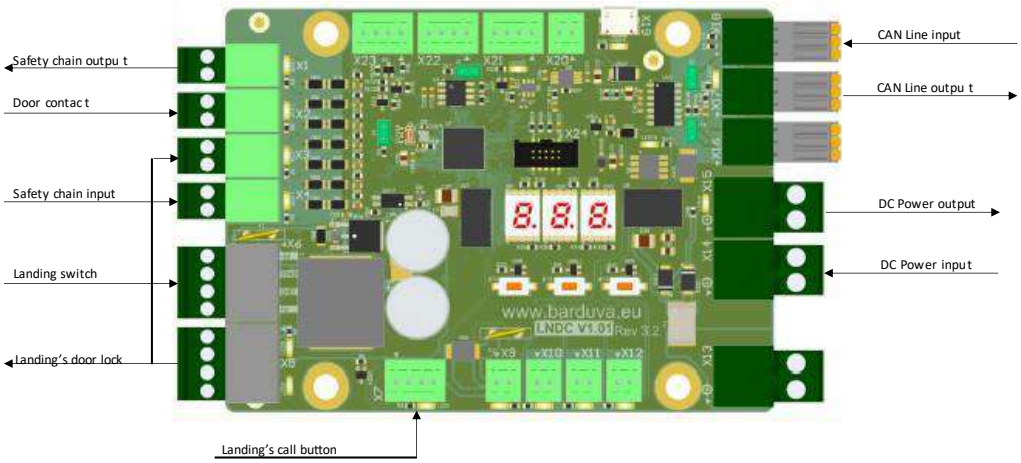
Platform controller



Safety relay unit



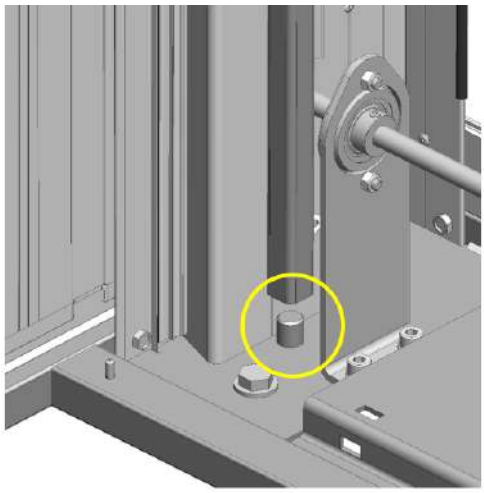
Door controller



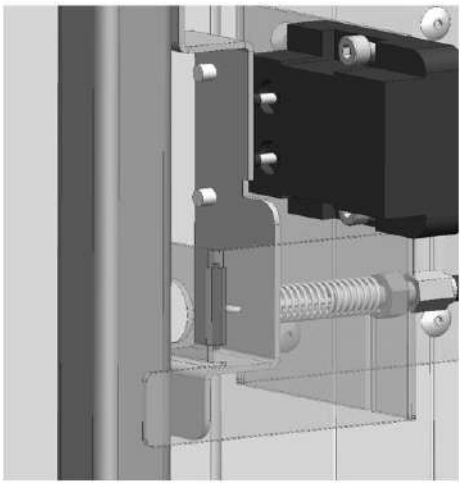
11. Installation of pit prop and emergency stop button

11.1 Pit prop installation

Put the pit prop lever on the support cylinder Pic 11.1. Apply pit prop activation mechanism corresponding to pit prop contact pins. Align it on the guide rail so the contacts would freely go out of suspension, and there would be no obstacles for prop Bowden rope to engage and release the pit prop Pic 11.2. Secure the ASSY utilizing 4 mm diameter rivets Pic 11.3.



Pic 11.1



Pic 11.2

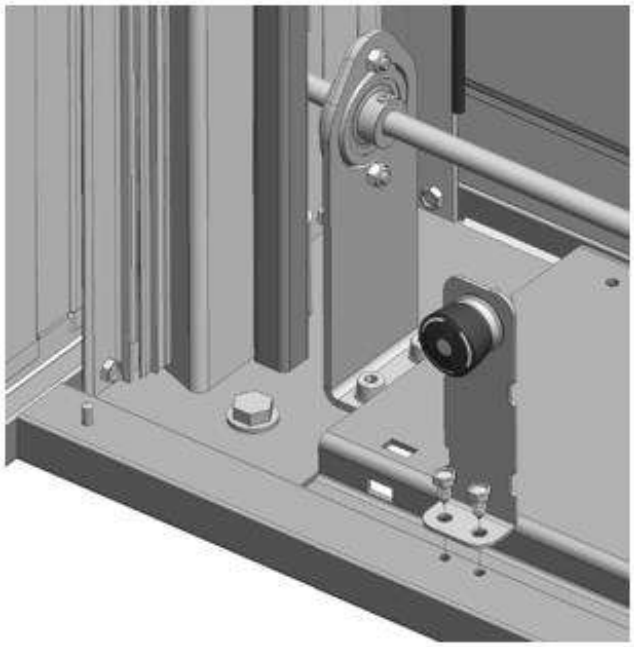
Pic 11.3

Pass the sensor's cable and the Bowden rope to door electrical compartment trough the opening for cables that is on the bottom of door. Use plastic zip ties and adhesive plastic brackets for cable management. Connect the sensor cable to "Base unit" controller boar corresponding connection (refer to lift circuits diagram), attach Bowden rope to pit prop activation lever Pic 11.4. Adjust tension of the rope and test the unit.

Pic 11.4

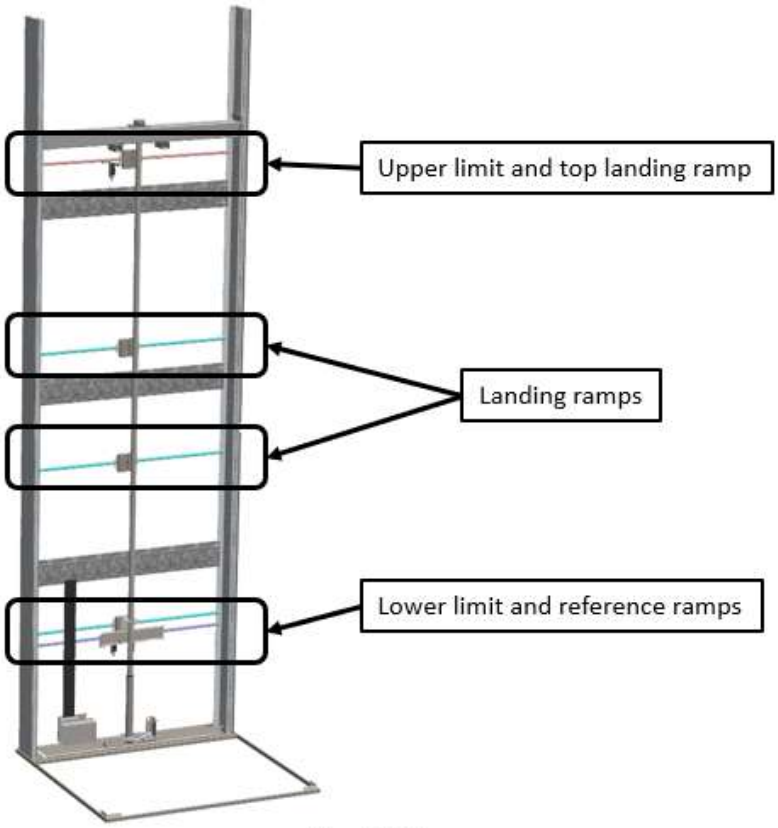
11.2 Installation of emergency sop button

Attach the stop button ASSY to the base frame, it has predrilled holes Pic 11.5. Pass the cable to the door compartment same way as pit prop cable. Connect Stop button cable to dedicated connection on the “Base unit” controller board (Refer to circuits diagram).



Pic 11.5

12. Installation and adjustment of activation ramps



Pic 12.1

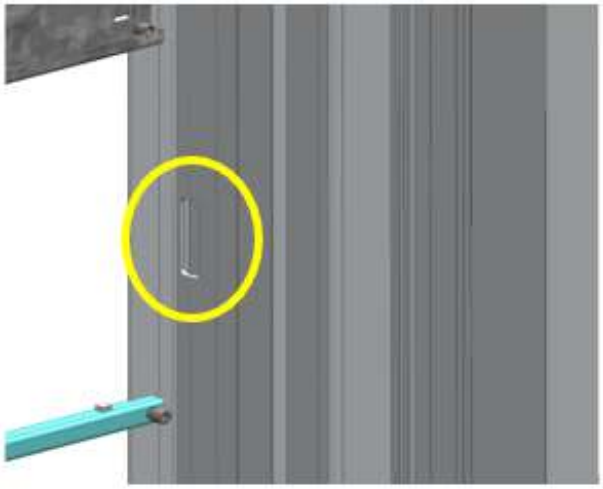
Activation ramps must be placed according the lift's landings heights and must be perfectly adjusted so when the platform is at the landing height, platform activator appears a bit bellow the center of ramp contact ASSY. Bottom and top landing ramps have overtravel limit and reference switches on them. As the bottom landing height is obtained from the reference switch, adjust the ramp the way that the platform would perfectly stop at bottom landing. The ramp must be inserted between the edges of the guide rails profiles Pic 12.2.

Pic 12.2

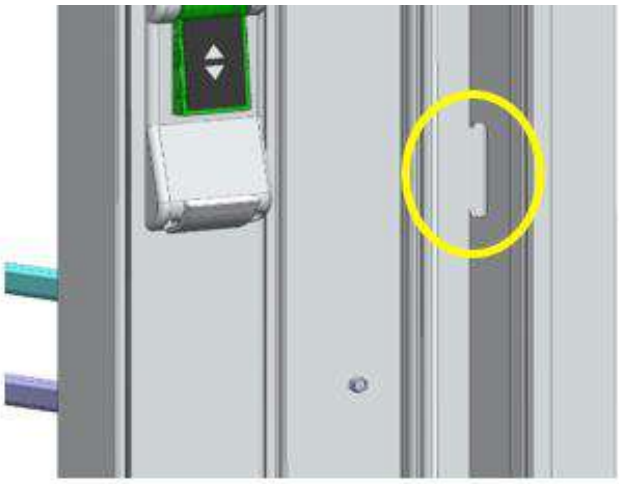
In case if the ramp's sensor is offset left or right release its attachment bolts and move the sensor, so the platform activator would be perfectly centered between the sensor contacts Pic 12.3

Pic 12.3

Activation ramps wiring must be passed through the corresponding holes in the guide rails, corner profiles Pic 12.4 and in to the door Pic 12.5, and connected to door controller board, that is placed in upper compartment of the door.



Pic 12.4



Pic 12.4

13. Landing preparation for use

13.1 Landing height programming

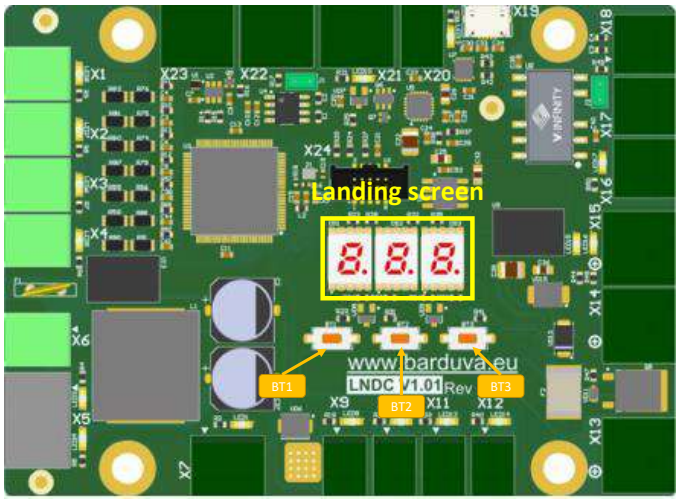
A travel height of each landing must be saved in to a system memory. After assembly of the lift or after changing reference point position, also after replacement of the Base controller board (**A5**) there is required to perform programming of each landing except ground floor. Ground floor is always set at 0.00mm height and must be set with reference switch. When lift powers up and the platform is not in lowest landing zone, platform will go down and it will stop when reference switch is triggered. In case if the reference switch was already triggered (platform was in lowest landing), the platform first will go up for 50-100mm and after that will go down until the reference switch is triggered.

Preparation for programming:

1. make sure the reference switch SW07 and Lower limit switch SW03 on the same ramp are in right position. Platform stops in landing level at ground floor;
2. ensure the landing switch SWx1 is installed in each floor and corresponds right level where the platform should stop in landing;
3. ensure door control board shows correct floor number.

Setting address of the door controller:

1. Use configuration buttons **BT1**, **BT3** and set up appropriate number on the *control board* inside of each door.
2. Press button **BT2** for no less than 10 seconds to apply the value to the *control board*.



Pic 13.1

Each door control board **LNDC** with version v1.01 or higher must have own unique address in the lift. This is like a number of floors where is used the control board.

Programming:

1. switch operational mode from *Normal* to *Service* / *Maintenance*. Press and hold 2sec. **Red** button **SERV** on the Base controller **A5**;
2. move the platform to the required landing, floor level. Use Black buttons **UP** and **DOWN** on the Base controller **A5**. It's also possible to manage the movement from the control operation panel on the platform by ground and next floor buttons;
3. press STOP button **BT11** on the control operation panel of the platform as soon as the platform is in appropriate landing level. Leave it in such state;
4. press a call button on door frame for ***more than 5 seconds*** and release it, red/green illumination should go off;
5. press the call button for ***a moment***. The call button should **blink once in yellow**;
6. press the call button again (it will blink yellow once, as a confirmation) and hold it for ***more than 5 seconds*** and release it;
7. release the STOP button;
8. program other floors. Repeat steps 2) – 7);
9. move the platform to ground floor and stop it at level around 50 cm over ground landing level;
10. restart the power fully (wait at least 10 seconds after turn OFF). Platform will run initialisation and calibration cycle itself, moves automatically down till the reference point which corresponds ground landing level;
11. test memorised height levels in normal operation;
12. repeat programming procedure if that would be necessary until wanted result achievement.

13.2 Door contact and lock latch adjustment

Ensure that closed and locked door would play only a bit. There is recommended to achieve 1-3 mm free play result.

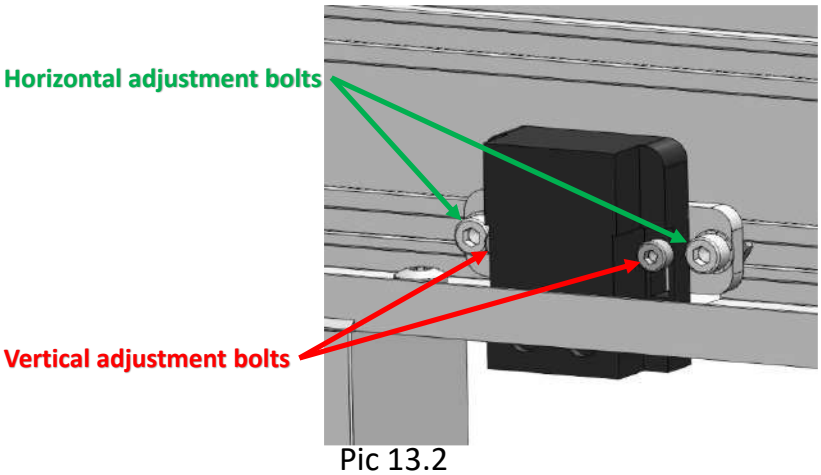
If the door is under power, open and close the door to check if / when it is closed, the door should always touch the upright at the same place (to avoid variation in the latch position).

If the door is closed and the lock not under power, you should operate the lock using triangular key. While locking and unlocking, the lock must remain lightly and smoothly, and the bolt should move freely.

After door installation always adjust door contact and lock.

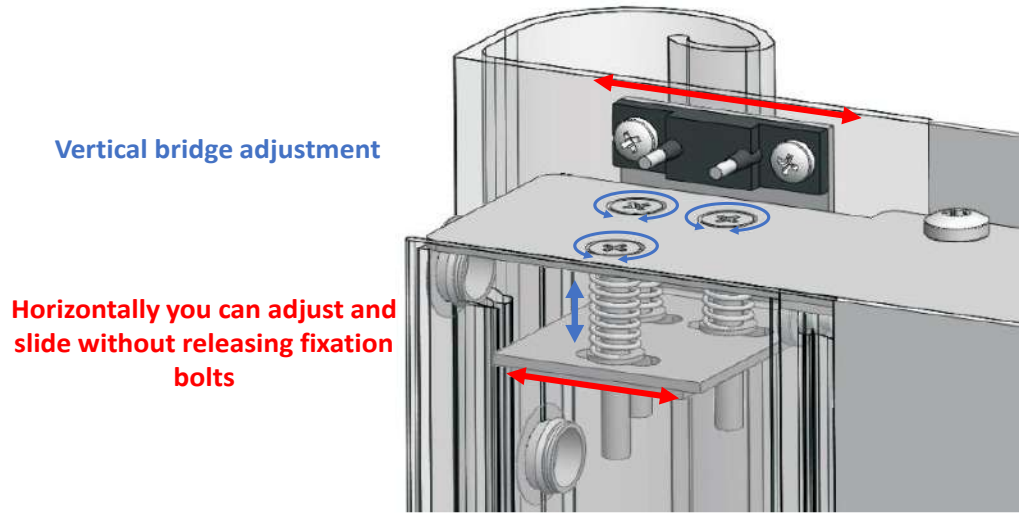
Door contact adjustment:

A) Contact socket:
Adjust socket position to fit perfect horizontal and vertical



Pic 13.2

B) Bridge:

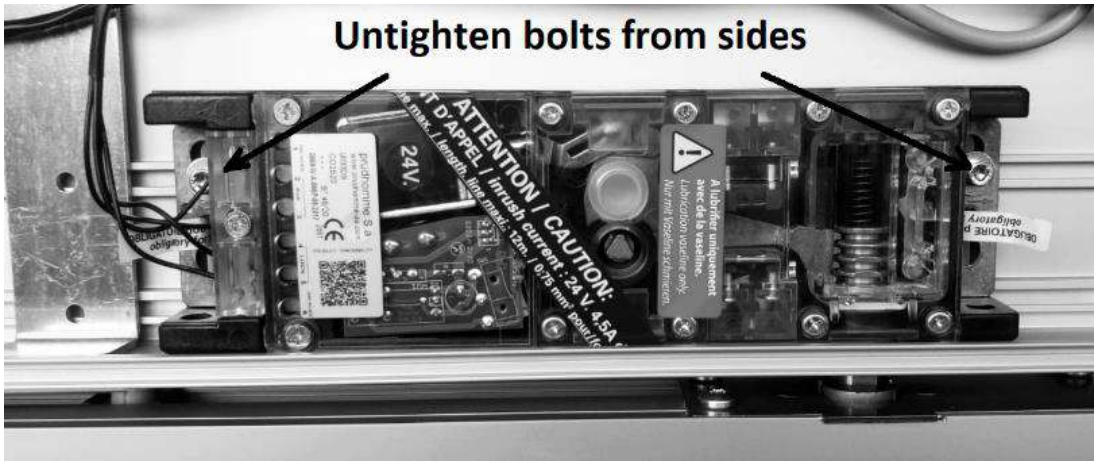


Pic 13.3

Lock adjustment:

A) Lock latch:

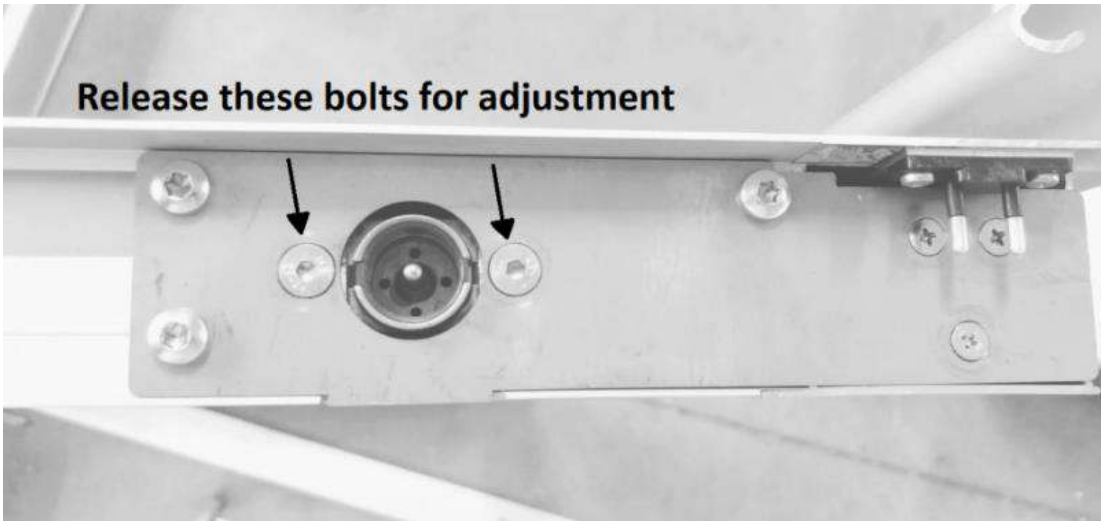
Untighten bolts and adjust position of whole lock unit to fit lock latch. It must move free without any resistance and when lock is *powered* don't touch latch cup on door. It must be ~1mm clearance between lock latch and cup when lock unit is powered.



Pic 13.4

B) Lock latch catcher (cup):

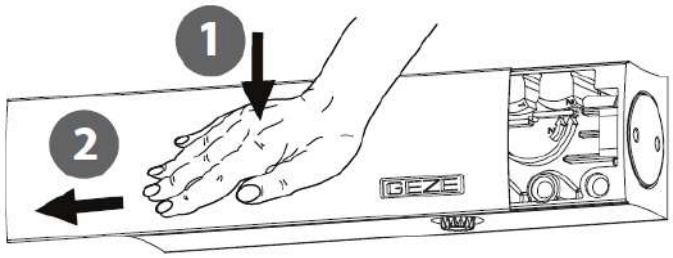
For latch catching cup adjustment you must release bolts from side. When door is fully closed, latch should fit without any resistance. After adjustment don't forget tighten bolts. In cup there is always installed plastic ring, DON'T REMOVE IT. It must be always installed to avoid, too much free play.



Pic 13.5

12.3 Hydraulic door closer adjustment

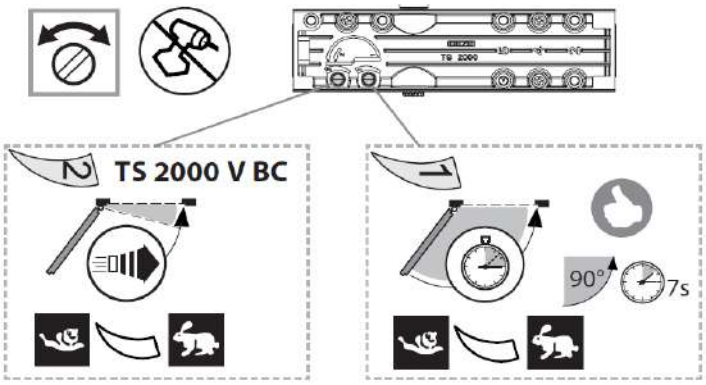
In SB200 we use GEZE hydraulic door closer. It is installed inside the door frame. To get access to it you must open top door cover from inside the shaft. When you can reach it, remove it's cover like it is shown in Pic 13.6



Pic. 13.6

When cover from hydraulic closer are removed you can adjust closing and end soft closing speed. For this step you need slotted type screw driver. **Do not use power tools for that.**

How to adjust speed is shown in Pic 13.7



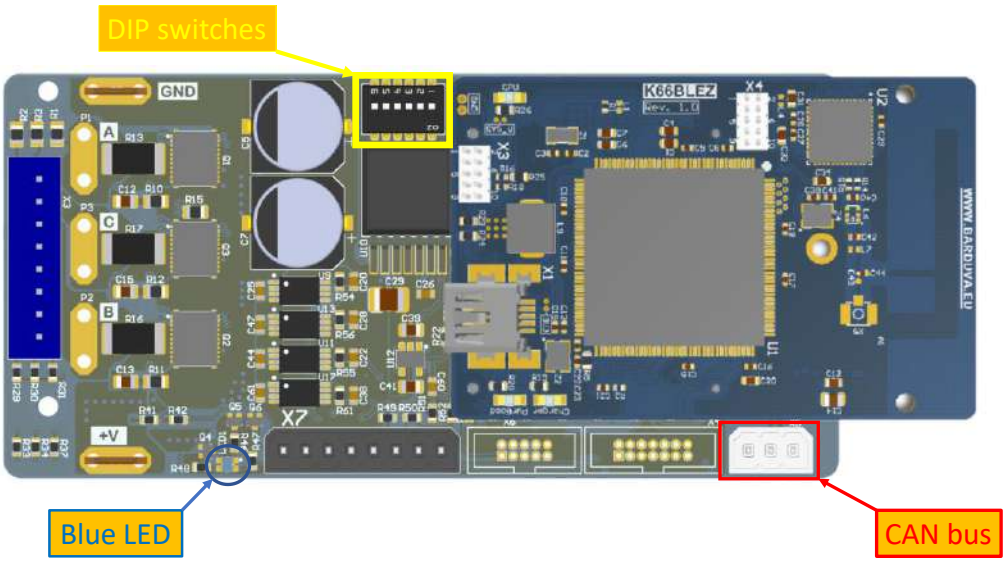
Pic 13.7

12.4 BAR Automatic door opener/closer calibration (OPTIONAL)

Steps for auto opener/closer calibration with DIPswitches (Controller pcb Pic. 13.8):

1. Power OFF DMC v4.12. Unplug connector.
2. Unplug CAN bus cable**.**
3. Open door / gate manually.
4. Power ON DMC v4.12. Wait 10 seconds.
5. Enter Calibration mode: Switch micro switch No.1 to opposite position (if it is ON switch it to OFF and vice versa). **Blue** LED must start blinking on main opener/closer pcb.
6. Save data of closed door / gate: Manually close a door completely. Switch micro switch No.2 to opposite position (if it is ON switch it to OFF and vice versa).
7. Save data of opened door at wanted position: Manually open a door and leave it at required opened position. Switch micro switch No.3 to opposite position (if it is ON switch it to OFF and vice versa).

8. Exit from Calibration mode: Switch micro switch No.1 back to position which was at the beginning. Flashing **Blue** LED must turn OFF. Calibration done.
9. Power OFF DMC v4.12. Unplug connector.
10. Close door / gate manually.
11. Return switches 2 and 3 to their original positions.
12. Ensure that all settings on dipswitch are correct (meet floor number, suitable speed level). If auto opener was delivered fitted in to a door just return micro switches to their original position as they were at the beginning.
13. Plug in CAN bus cable.
14. Power ON DMC v4.12. Wait 10 seconds.
15. **Check out operation.** Press call button to open door / gate.

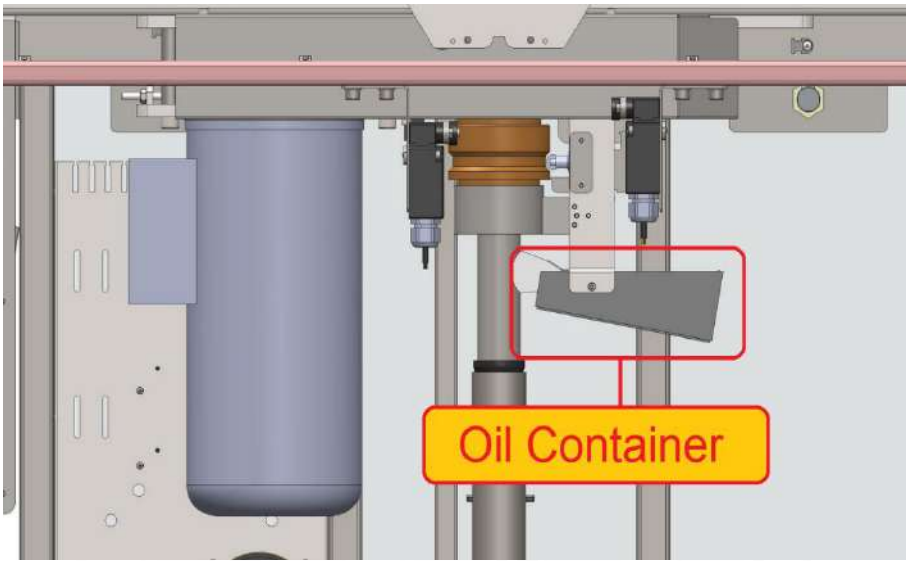


Pic 13.8

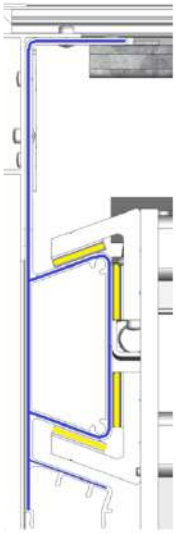
13. Lubrication

Each platform lift is delivered with 1l synthetic oil 5w-40. Please use this oil for platform lift lubrication. This oil must be used for 2 parts lubrication:

1. Fill driving screw oil container: slide aluminium cover to side and fill container. Wait few minutes and when sponge soak in all oil fill it again. Repeat till container are filled up. For first fill you should add ~0.5l oil to make it full. In Pic. 14.1 oil container are marked in RED (Platform are showed from behind).
2. Add oil on guide rails. In Pic 14.2 you can see cut of guide rails horizontally. Blue color shows guiderail profile. Yellow color shows guide slaids friction plates. Places there these two parts meets each other must be lubed with oil. Take paper towel add oil on it and rub the surface of guide rail all the way from top to the bottom.



Pic 14.1

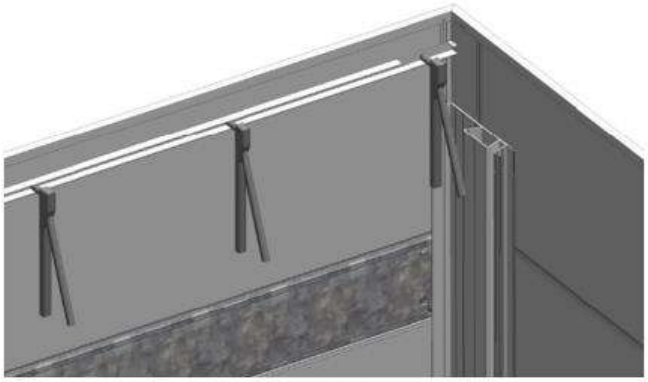


Pic 14.2

NOTE: All lubrication must be done before inner wall assembly.

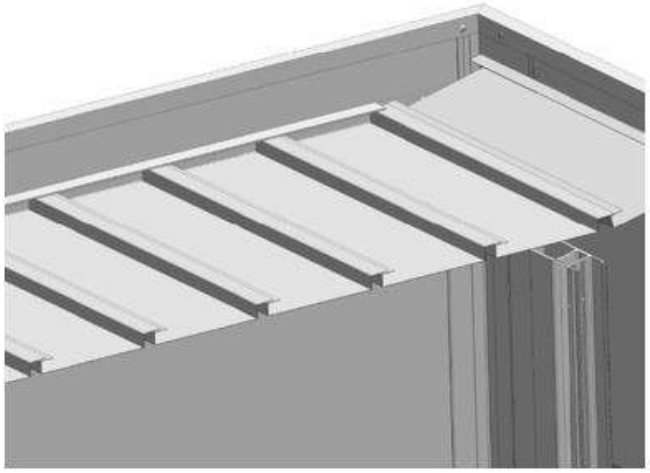
14. Ceiling installation

Place ceiling support profiles along B and D side on desired height. Drill 3.3 mm diameter holes for rivets and secure the profile Pic 15.1



Pic 15.1

After securing the profiles install the lighting led spots in to the holes in ceiling profiles (if lift comes with shaft lighting option). Start inserting the profiles one by one in such order: 3 blind panels, 1 panel with spots, 3 blind panels, one panel with spots, 3 blind panels ending with a profile that comes with no side “lip” Pic 15.2

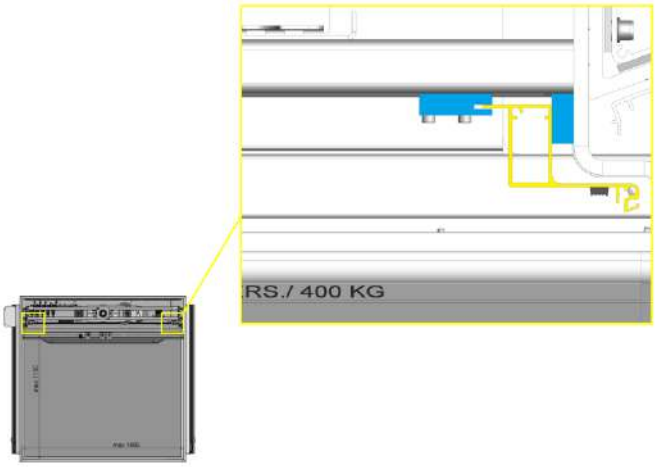


Pic 15.2

Run shaft lighting cable to electrical compartment box together with other cables and connect to dedicated connection on the “Base unit” controller board (Refer to circuits diagram).

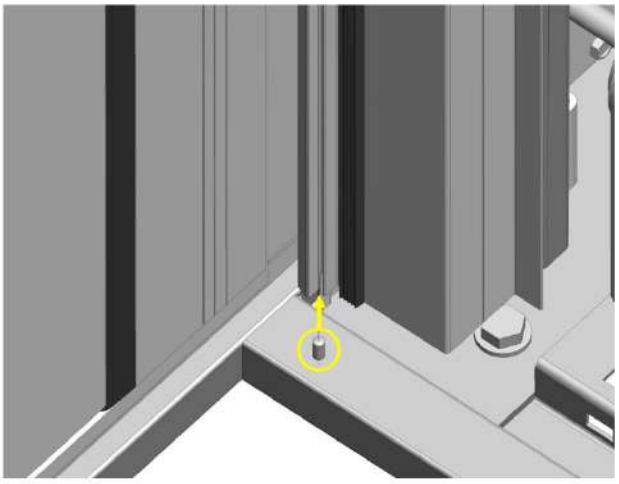
15. Assembly of guard (inner) wall

Before starting assembly of guard wall check in drawing the length and place of each delivered “Guard wall holder” profile. You must start from bottom one. Insert profile into guide slides of guard wall on top of the platform. Check pic. 16.1 “Guard wall profile” is marked Yellow and slides are Blue install them as shown in picture and slide profile all way down to the bottom frame.



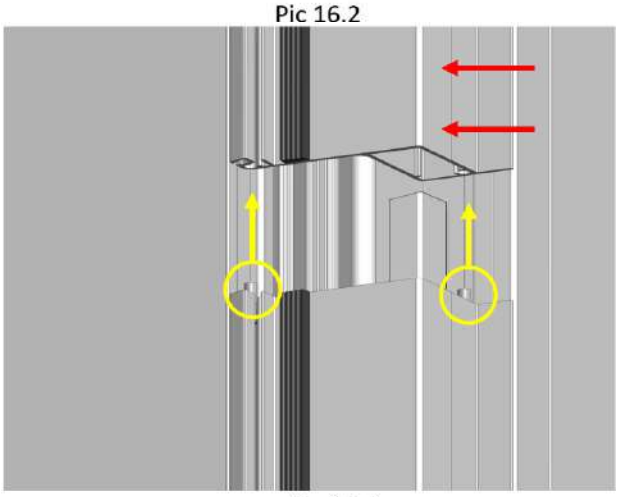
Pic 16.1

On bottom frame you can find pins already installed on it. Mount profile on them all way down. Shown in Pic 16.2.



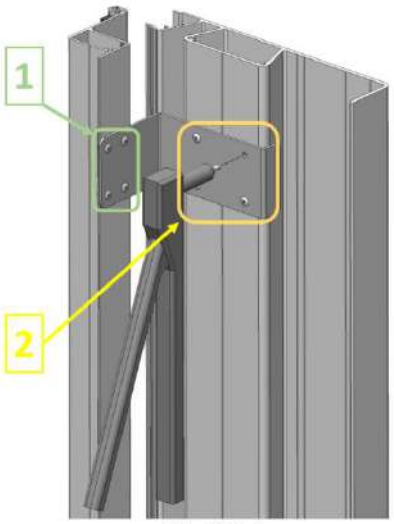
Pic 16.2

When both (left and right) bottom “guard wall holder” profiles are installed proceed to next length profiles from drawing. Connect them with installed profiles, guide pins will help to connect them perfectly. Please look in Pic.16.3 (guide pins are circled). When both parts are connected add 2pcs. 3mm rivets to fix connection in place (arrows indicate rivets place). Connect all “Guard wall profiles” from drawing to the top of shaft in same way.



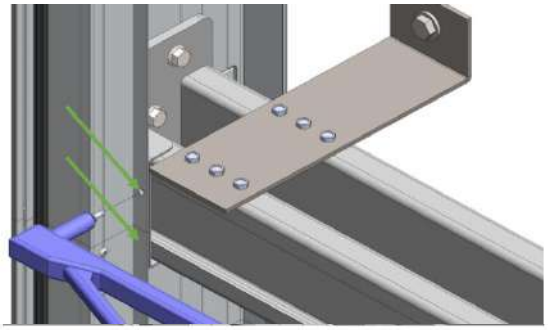
Pic 16.3

Measure height where “Guide rails” ends on “Guard wall profile” and 5-10 cm lower drill 4mm holes and fix mounting bracket with rivets. Edge of bracket must be aligned with edge of profile. Next step is drill and fix bracket to “Guide rails” profile. Both steps and position of bracket are shown in Pic 16.4



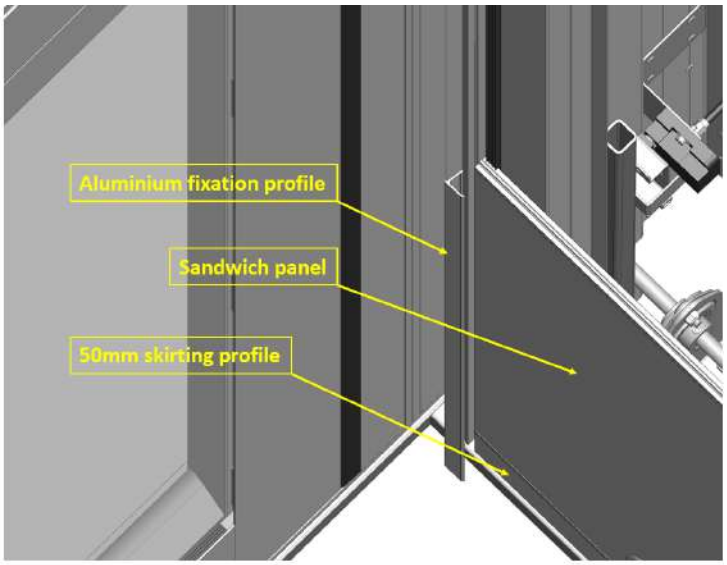
Pic 16.4

After mounting bracket installation add 2 extra rivets for strength to top cross bar. There is welded plates on it for this step. Edges of profile and welded plate must be aligned (Pic. 16.5).


Pic 16.5

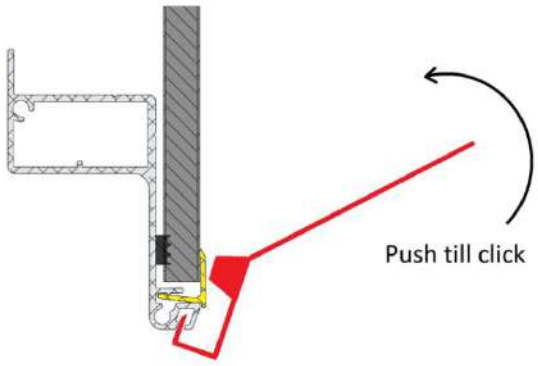
To start guard wall sandwich panels installation you need:

1. Lift platform to upper floor
2. Activate PIT PROP
3. Open door manually
4. Activate shaft emergency stop button
5. Put 50mm skirting aluminium profile on bottom frame (Pic 16.6)
6. Put 1st sandwich panel (with prepared hole for pit Em. Stop button)
7. Lock from sides both parts together with aluminium fixation profile. Use 774mm length profile. (Pic 16.6)



Pic 16.6

8. Put 2nd sandwich panel and lock with 724mm length aluminium fixation profile.
9. Get out from shaft and release all activated safety devices
10. Lower platform and install next panels to the top from platform
11. Measure last panel height and cut it to needed size (leave between ceiling and last panel ~1cm gap)
12. Cutted edge of panel cover with “U” profile

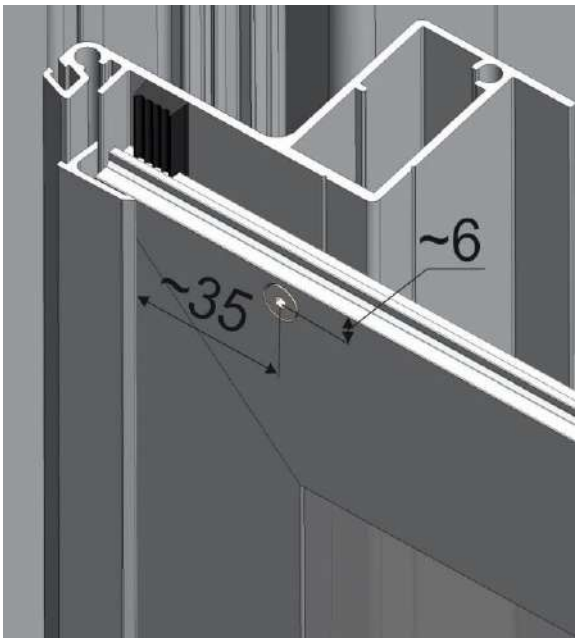


Pic 16.7

NOTE: for easier fixation profile installation use **Panel's shield KEY.** How to use it look in Pic 16.7

If back wall consists of glass panels, we strongly recommend to fix every second glass panel utilizing **M4X20 DIN7991** bolts. Start from the second lowest glass panel and go all way up till the top

1. Apply the panel and lock it with fixing aluminium profile.
2. Drill 3.2 mm diameter holes through the upper glass panel’s profile on the left and right side. The hole must go through panel’s frame and support profile.
3. Take of the panel and tap M4 thread in the wall’s support profile.
4. Hole in the panel’s frame must be enlarged (min 4mm).
5. Make countersink for bolt’s head.
6. Put the panel back and secure it with fixing profiles and bolts



Pic 16.8