

# INSTALLATION MANUAL

## AF85 - SYSTEM

### AUTOMATIC SLIDING DOOR



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# 1 GENERAL NOTES

## SYSTEM DESCRIPTION

- Extruded and filled aluminum framing, tested and approved by European NB - institutes.
- 85 mm frame depth
- Clear, fire-rated safety glazing

## REQUIRED TOOLS

Open wrench key set



Power drill with normal/long 7 drill, pozidriv, 10 or M6 head



Tape measure



Heavy-duty glass handling tools



Leveler



Rubber mallet



Non-metal hand wedges



Gasket roller



C-clamps



Knife



Silicone caulking



Countersink head screw, M6, M10 Bolt, plastic insulators



Mineral wool insulating material



Soap Water



Piece of wood



Strap cutter



Forklift



L-rack



Check to make sure that you have the necessary materials and tools necessary for the installation. Any material substitution must be of equal or greater quality. Consult Alufam Marine prior to substituting any material or for any other questions to ensure that the product's fire ratings and specifications are not violated.

The installation guide provides general instructions and does not address any conditions encountered.

Cutting tolerances are  $\pm 1$  mm unless otherwise specified.

All work must start from, and be referenced to benchmarks, offset lines and/or column centerlines established by the architectural drawings and the general contractor.

All frames must be installed plumb, square, level and in accordance with approved shop drawings. Glass and glazing building codes governing the design and use of products vary widely.

Alufam Marine does not control the selection of the products, product configurations, operating hardware and its function, or glazing materials and assumes no responsibility for these design considerations.

It is the responsibility of the design professional, owner, architect or general contractor to make these selections in strict accordance with all applicable codes and project requirements.

System-to-structure fasteners are usually not supplied by Alufam Marine or if so - they need to be requested by customer.

Fasteners called out on shop drawings usually show the tested and approved type and are to indicate minimum sizes.

1.1. Installation materials like sealants, bolts and screws are incl. Aluflam works unless other specified in the project or shop drawings.

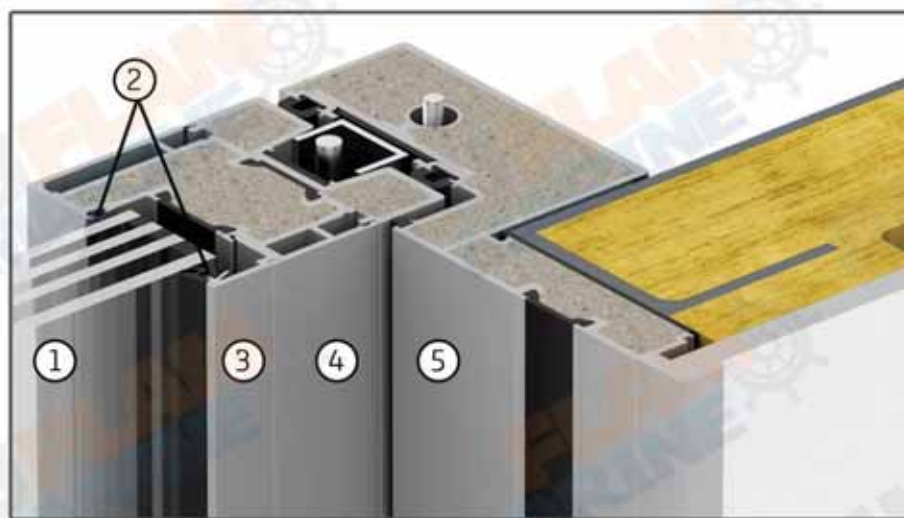
Screws or bolts must be suitable for substrate or wall to be confirmed from customer/yard

1.2. Statically stable underlay, framing or walls are excluded Aluflam works and solutions are given just as advice.

Aluflam is not taking any responsibility for its statical stability.



- 1. Steel frame
- 2. Insulating material
- 3. Covering panel



- 1. Glass
- 2. Glazing gasket
- 3. Glazing bead
- 4. Frame
- 5. Labyrinth

1.3. Glass is always supplied dismantled.

## 2 INSTALLATION

### 2.1. Unpacking Instructions

- 2.1.1. Remove loose components, such as glazing beads, intumescent strips, seals etc. and set aside in a well-protected area.
- 2.1.2. Carefully lift frame out of packaging. At this point, the frame joints are unprotected. Handle the frame with extreme care to avoid separation of the corner joints.



### 2.2. Determine The Frame Reference Point

Establish the frame reference lines on the exterior/interior plane of the frames to be installed using benchmarks, offset lines, or column centrelines provided by the general contractor and referenced in the shop drawings.

- 2.2.1. Use the established reference points to determine the installation points for each frame opening at the head, and jambs.



2.2.2. Measure the size of the frame and confirm that it meets the dimensions referenced in the shop drawings.



## 2.3. Installation Of the Frame

2.3.1. After gluing the fireseal with silicon on the steel panel, place the aluminium labyrinth to its position. After fixating it with c-clamps, drill holes for the bolts using the factory pre-drilled labyrinth holes as guides. Use a 7.0mm drill.



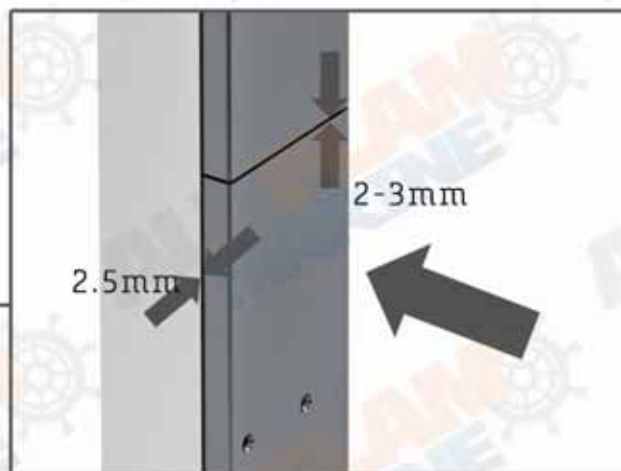
2.3.2. After placing the insulation shoes into the drilled locations, fasten the bolts carefully so they do not bend the aluminium labyrinth.



2.3.3. Drill the anchor locations into the surrounding frame or structure using the factory predrilled holes as guides. Use a long type 7 mm drill. After placing the insulation shoes into the drilled locations, fasten the aluminium labyrinth carefully.



- 2.3.4. The steel labyrinths need to be mounted on the other 2 sides of the opening. One vertical, the other horizontally fixed in a way that the aluminum cover caps align with the edge of the frames. This means 2.0 – 2.5 mm from the edges. Make a check with the aluminium covers on top before drilling the holes.



- 2.3.5. Drill the anchor locations into the surrounding frame or structure using the factory predrilled holes as guides. Use a long type 7mm drill. After placing the insulation shoes into the drilled locations, fasten the stainless steel labyrinths carefully.



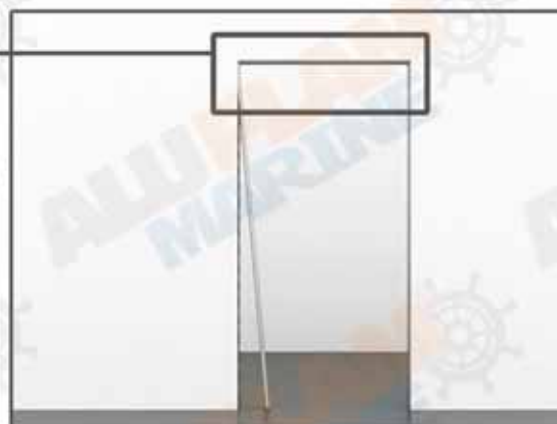
2.3.6. To install cover caps for the steel labyrinths, apply a thin layer of silicon to the surface of the labyrinths in a zig-zag form.



2.3.7. First install the horizontal cover (see picture below). Start with the right side then the left side to be pushed to position.



2.3.8. To finish cover caps installation install the vertical cover for the steel labyrinth like in the picture. For proper fastening use c-clamps.



- 2.3.9. To install the rail, place and bolt the wall mount brackets with M10 bolts to the wall. Make sure to provide stable underlay since some of the doors weigh more than 200kg.



- 2.3.10. In order to prepare door for fastening to the rail, do as follows:

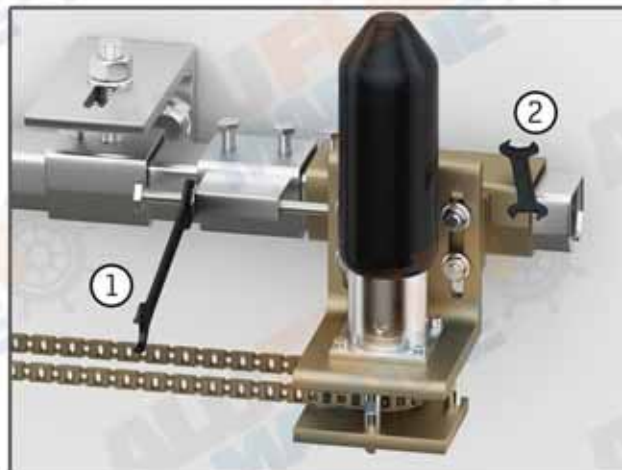
1. Install chain and engine if they are not already on.
2. Install rollers and connect with motorchain.



- 2.3.11. To ensure the chain is stable and properly tensioned do as follows:

1. The bolts holding the tensioner bracket must be tightened.
2. The bolts holding the engine must be loose.
3. Tighten the bolt on the tensioner bracket and then fix the bolt after chain is properly tensioned
4. Tighten all the bolts

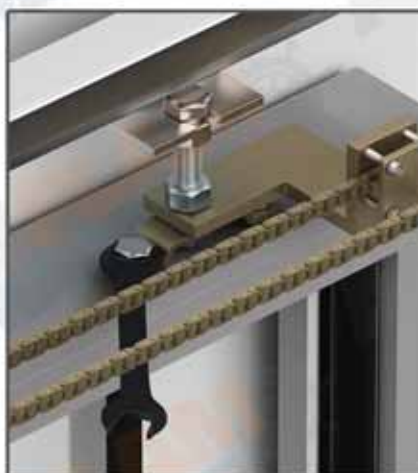




2.3.12. Install the floor guide for the door in the correct position, as shown on the picture below. Use screws or bolts suitable with the underlay.



2.3.13. After placing the door on wooden stripes, connect the rollers bolt with the bracket on top of the door using wrench keys.



## 2.4. Glazing and finish

2.4.1. Prepare the glass for installation.  
Move the box onto an L-rack.



2.4.2. When the box is secured on the L-rack, cut the steel straps using a strap-cutter/metal-cutter. First, remove the top and front. Second, remove the two side covers.



2.4.3. Remove overlaps of glue if they are more than 5mm with a knife to ensure easy installation.  
Always check for direction signs in the glass.

NEVER Rotate the glass (see picture), this may cause bubbles inside the fire gel.



2.4.4. Prepare for the glass mounting by retrieving the correct glazing gasket from the package. Confirm the correct type by checking the shop drawings for each frame. Push the gasket in the channel on all sides.



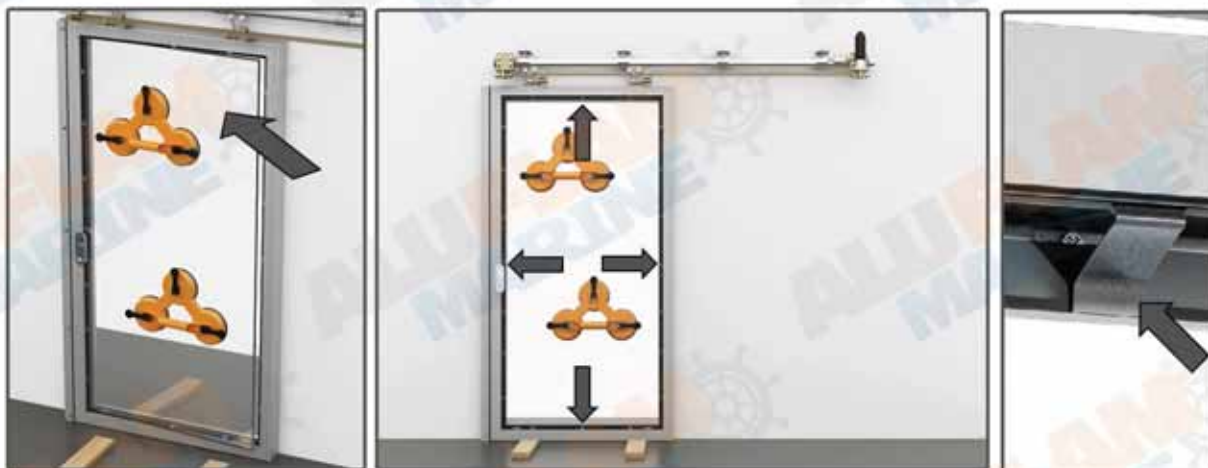
2.4.5. Promatect glazing bricks will provide the exact height and placement of glass. The bricks has to be placed on top of the steel angle brackets on the top of bottom profiles.



2.4.6. To ensure easy installation of the glass, place two wood pads on the floor in front of the frame. NEVER place the glass on a hard surface like concrete or steel. With help of suction cups, the glass is carried to the frame and placed on the wooden pads.



- 2.4.7. Position the bottom of the glass on the glazing bricks and carefully push the top of the glass inside the frame. Secure the glass with 3-4 glazing clips by bending them over the glass.

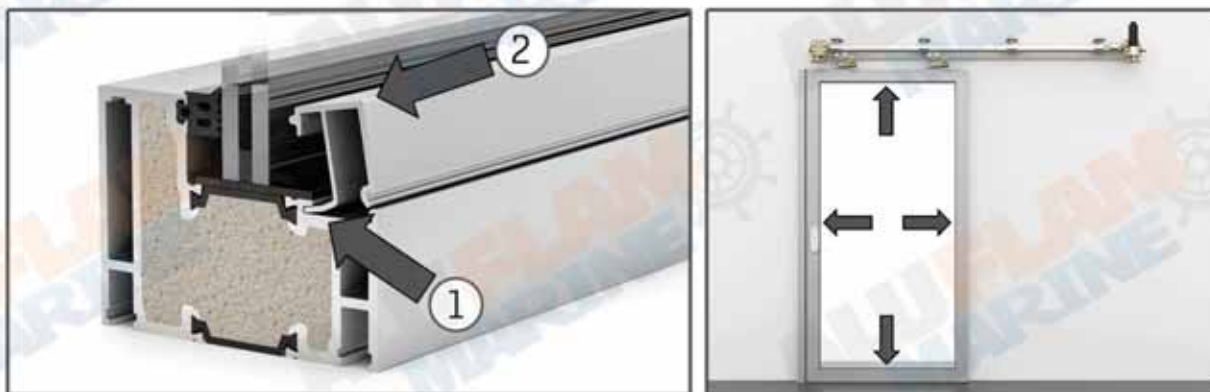


- 2.4.8. Start bending the glazing clips by using a piece of wood. First press towards the glass with care, then gently hammer from top down until the end part of the clips is horizontal to the glass and pushes the glass in.

Even the clips where it got bend to secure stability.



2.4.9. Snap in the glazing beads on all four sides of the frame.



2.4.10. Lubricate the glazing beads with liquid soap with the purpose of easy insertion of the correct gasket.

Always use 5mm extra gasket on each side, since in cold conditions the gasket will shrink.



2.4.11. Cut the gaskets in the corners by bending them 90 degrees and cutting them up to the inner channel. The inner side of the channel must be kept intact, to hold and connect the gasket.

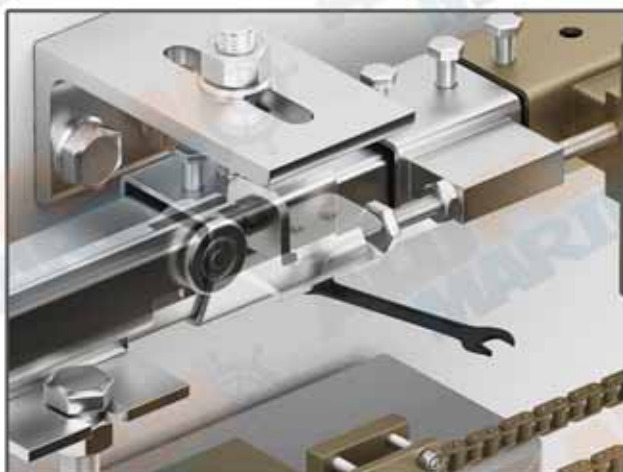


2.4.12. Make two incisions on the gaskets in the end corner at a 45 degree angle and connect them inside the channel.

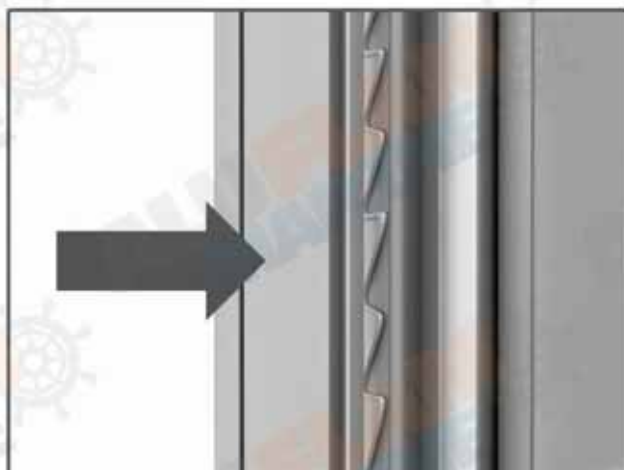


## 2.5. Setting up the automatic

2.5.1 In the next step insert the the stopper into the rail. Make sure to be fasten at the required position, so the door stops before the handles get destroyed or door falls off from the rail.



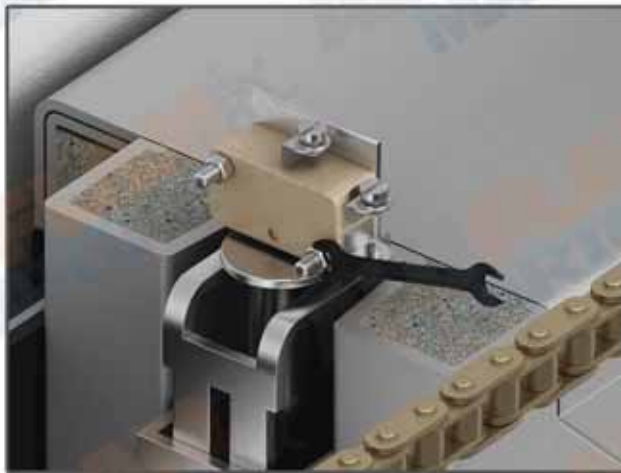
2.5.2. If your door has a safety bumper switch tape, do the followings:  
1. Place silicone on the side of the labyrinth.  
2. Fasten the aluminium profile provided with the safety bumper.



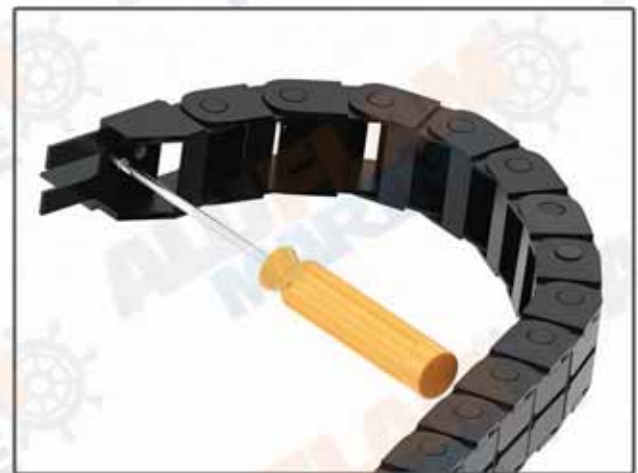
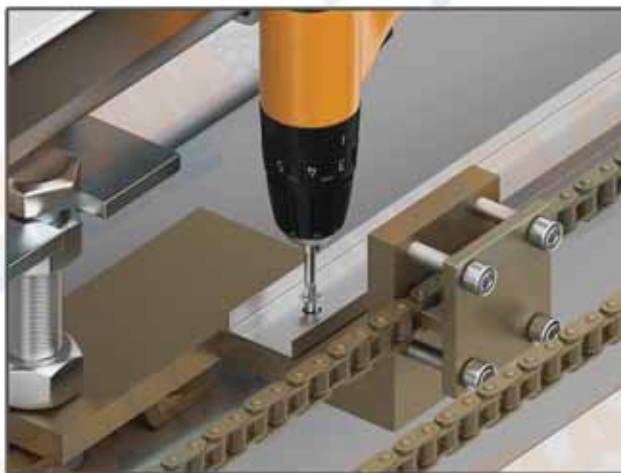
3. Put soap water on the installed frame, then push the sensor in and connect it to its plug.



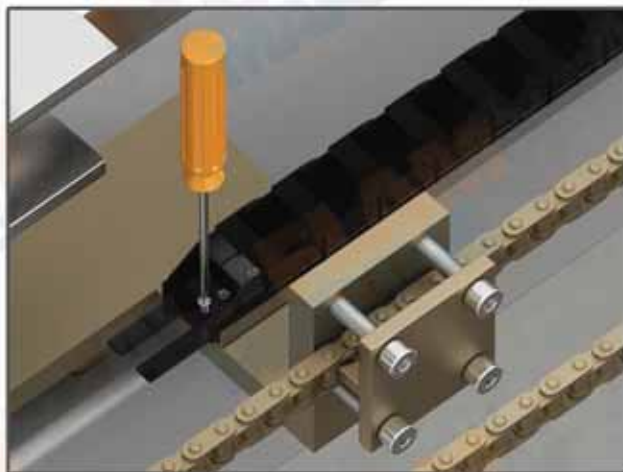
2.5.3. In the next step install the microswitch on top of the door.



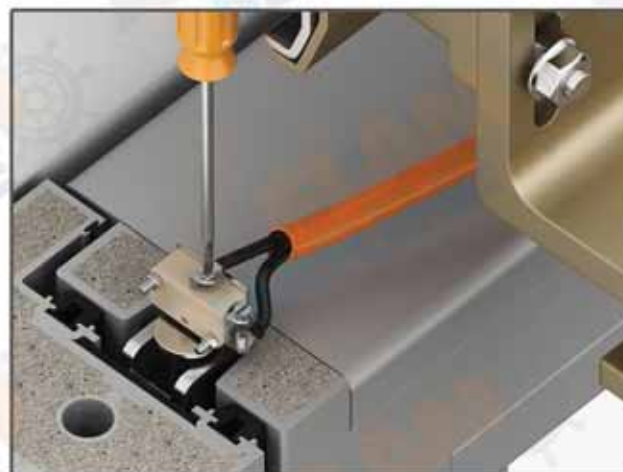
2.5.4. Prepare the installation of the cable chain by mounting the frame on top of the door actuator.



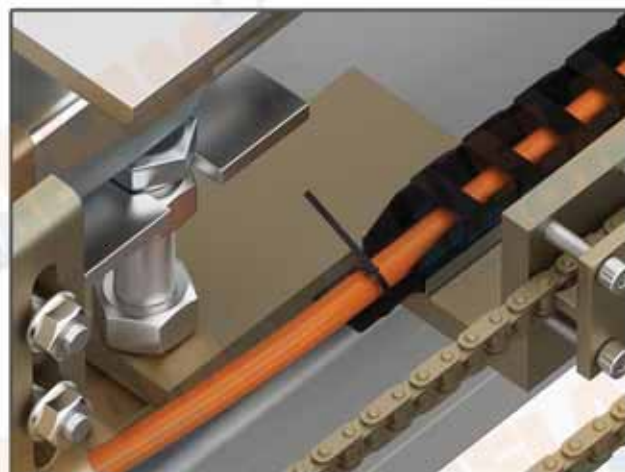
2.5.5. Fasten the screws on the cable chain carefully.



2.5.6. After placing the cable inside the cable chain, connect it to the microswitch, in a way so the connection is ON.



2.5.7. Fasten the cable for the microswitch to the cable chain with using plastic fasteners.



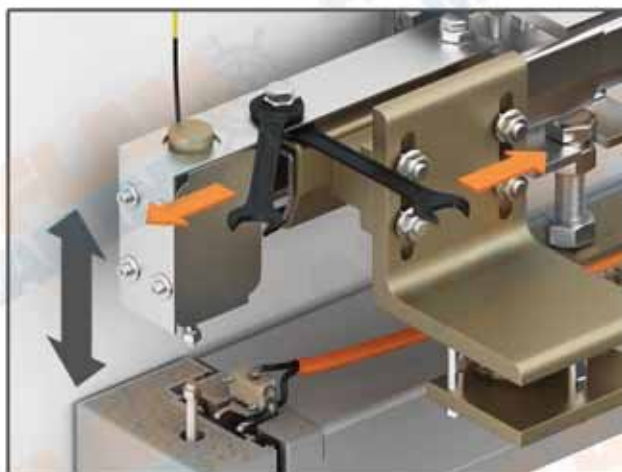
- 2.5.8. Install the control box to the wall on a preferable position near the railing system.



- 2.5.9. With the help of the electrical plan, connect the electrical cable to connector JP1 on the control box. Connect the remaining plugs to the control box. If 24V needed, please provide it from the main grid.



- 2.5.10. Install the electromagnet in front of the railing system and adjust the position of it, so its completely vertical to the rod.



2.5.11. After aligning the magnet, screw and fix with rods with a long nut. Fasten it carefully.



2.5.12. Connect the cables for the electro magnet and the piezo push buttons.



2.5.13. Open the door manually. After opening lubricate all mechanical parts inside and outside. Also rail has to be lubricated.



2.5.14. In the next step push down the hook inside the labyrinth and check if hook is moving back to its position.  
If hook is not moving to its original position, step 2.5.11 has to be repeated.



2.5.15. After closing the door the hatch should automatically close the door.  
It is possible to adjust the height of the hook if necessary.



2.5.16. Install the linkbox and the thermo fuses together with the cabling.



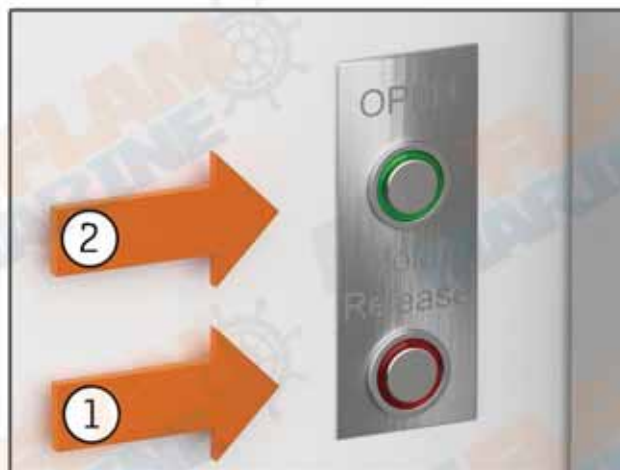
- 2.5.17. Start the system by opening the control box and pushing the on button. The door should automatically close. If the door is not closing check all connections, and the microswitch on the top of the door.



- 2.5.18. In the next step push the green open button, the door should open and then close automatically. The opening time speed can be adjusted with the help of a software and data cable. Please order software and cable separately.



- 2.5.19. By pushing the red hold/release button first then the green open button the door opens and should stay in open position until release button is triggered.





Please do not hesitate to contact us if you have any further questions or concerns.

Kind Regards

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