

SKYBLADE^{G-3}

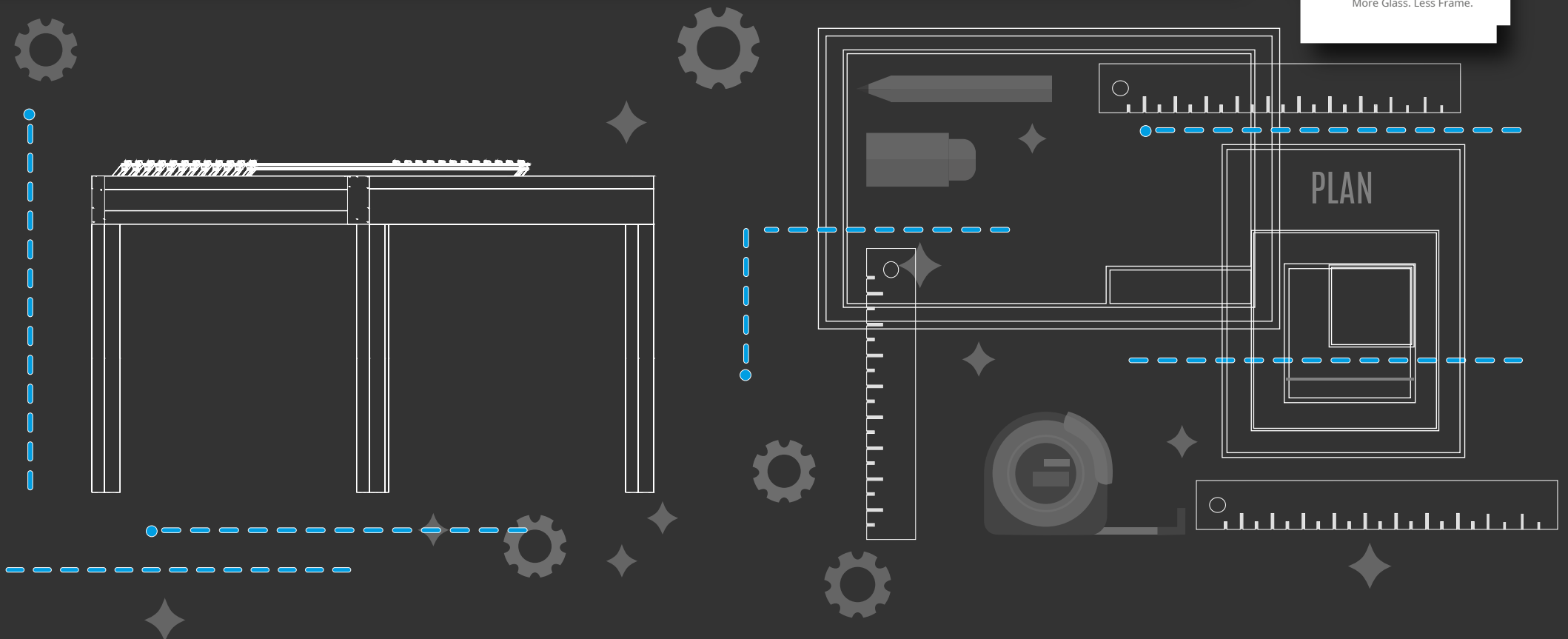
Bioclimatic System

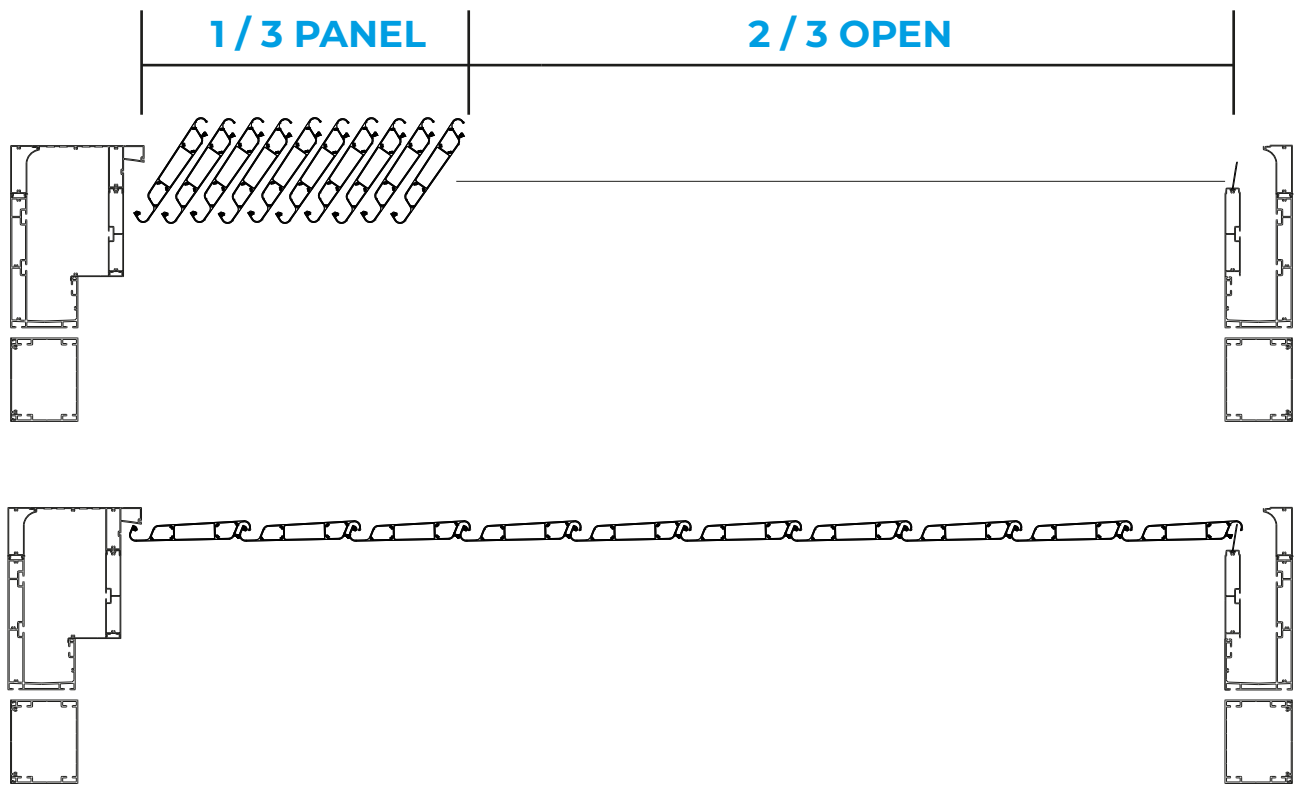
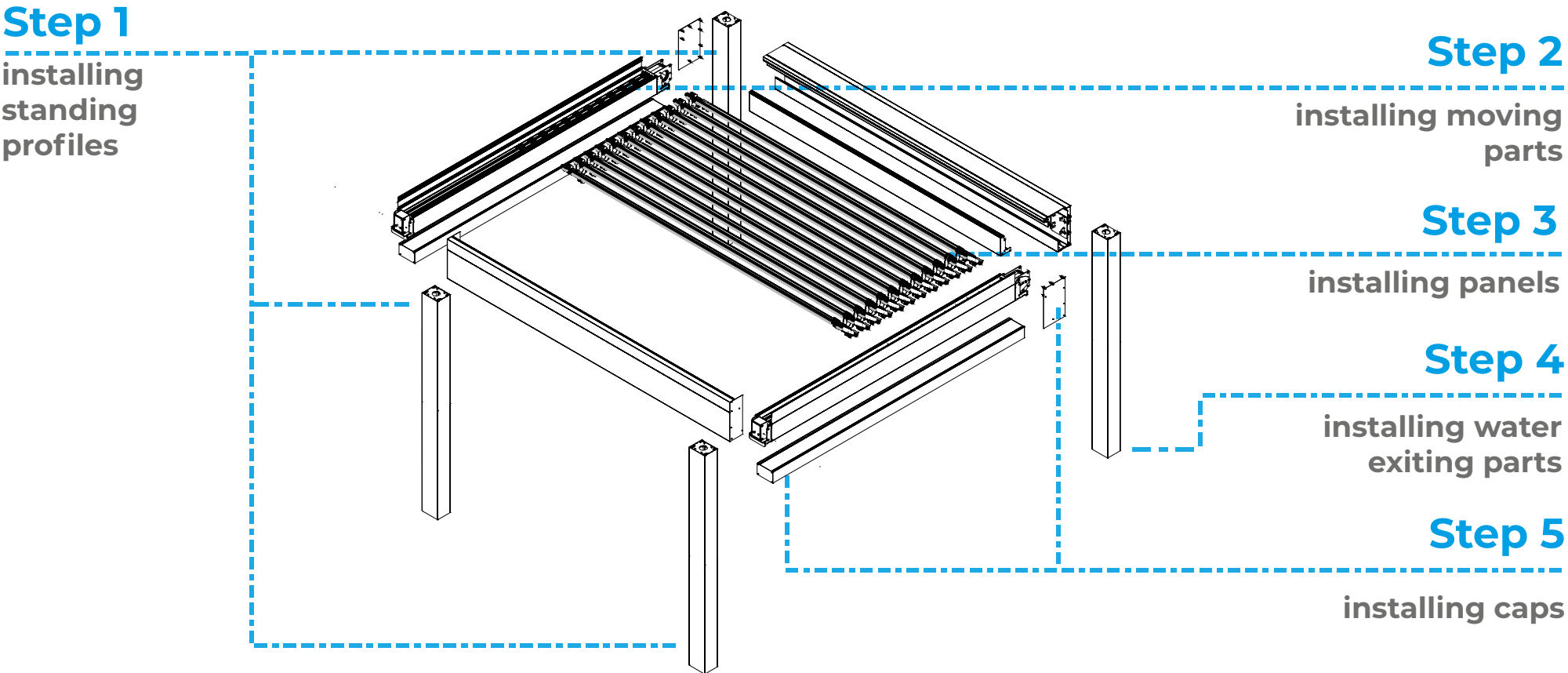
Assembly Instructions

VISION ART

ALUMINIUM

More Glass. Less Frame.





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Introduction

Thank you for choosing the Vision Art Aluminium SkyBlade Pergola System.

These instructions include helpful hints and important information needed to safely assemble and properly maintain the Product. Please read these instructions completely before you begin and follow the steps in the order they are presented.

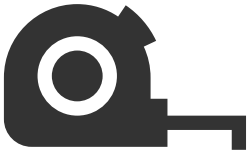
- 1. Make sure you have all the necessary parts.
- 2. Lay the parts out in separate staging areas.
- 3. Select a Location.
- 4. Prepare a Foundation. (if necessary)



ATTENTION:
DO NOT ATTEMPT
TO ASSEMBLE ALONE!

5. Make sure you have the proper tools:

- Tape Measure



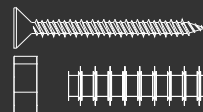
- Work Gloves



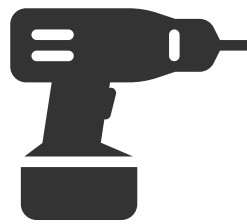
- Safety goggles



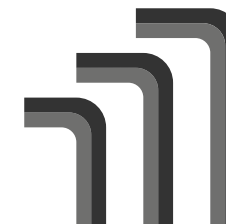
- Concrete Screw - Buldex Threaded Rod & Somun



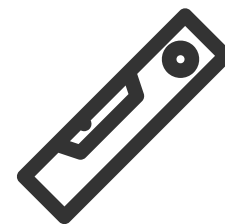
- Drill



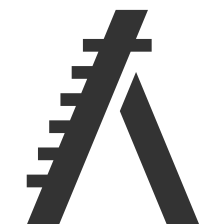
- Hex Key



- Spirit Level



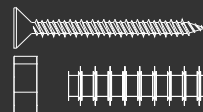
- 2 Small Step Ladders



- Wrench



7.5 x 120 / 7.5 x 150 / 7.5 x 180



10 x 90 (for soft grounds)

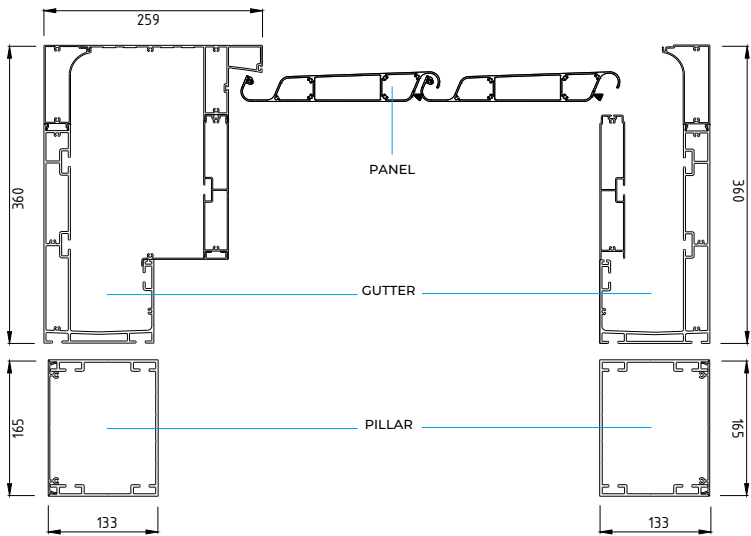


Product Section View

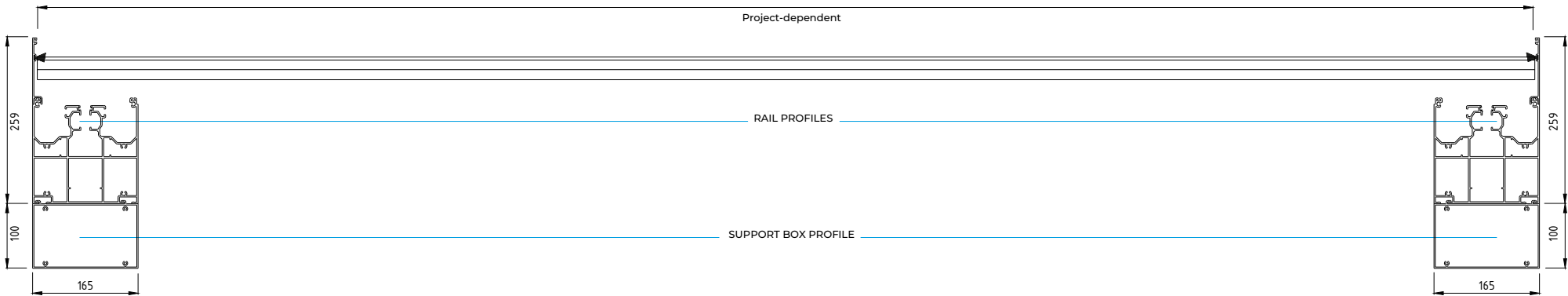
Information:

Below, you can review the A-A cross-section of the SkyBlade system and the B-B cross-section. These section views show the connection details between the system components and supporting parts, including details relevant to impact and water or air leakage.

A-A



B-B

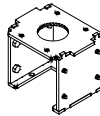
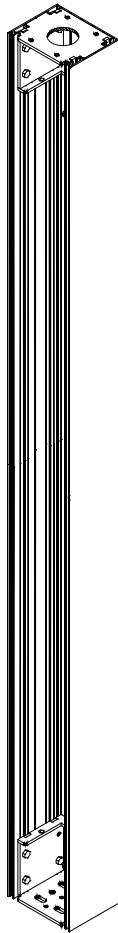


List of Parts

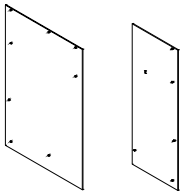
Quantity of parts
depend on the project dimension. !

Pillar Parts

SF 11
Pillar
Profile



SF 12 Pillar
Side Caps



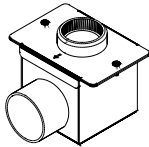
SF 13
Pillar
Front
Cap



SF 15
Filter



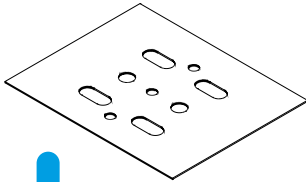
SF 16
Pillar
Pipe



SF 14
Water
Drain
Pipe



SC 17
Pillar
Pipe
Connector



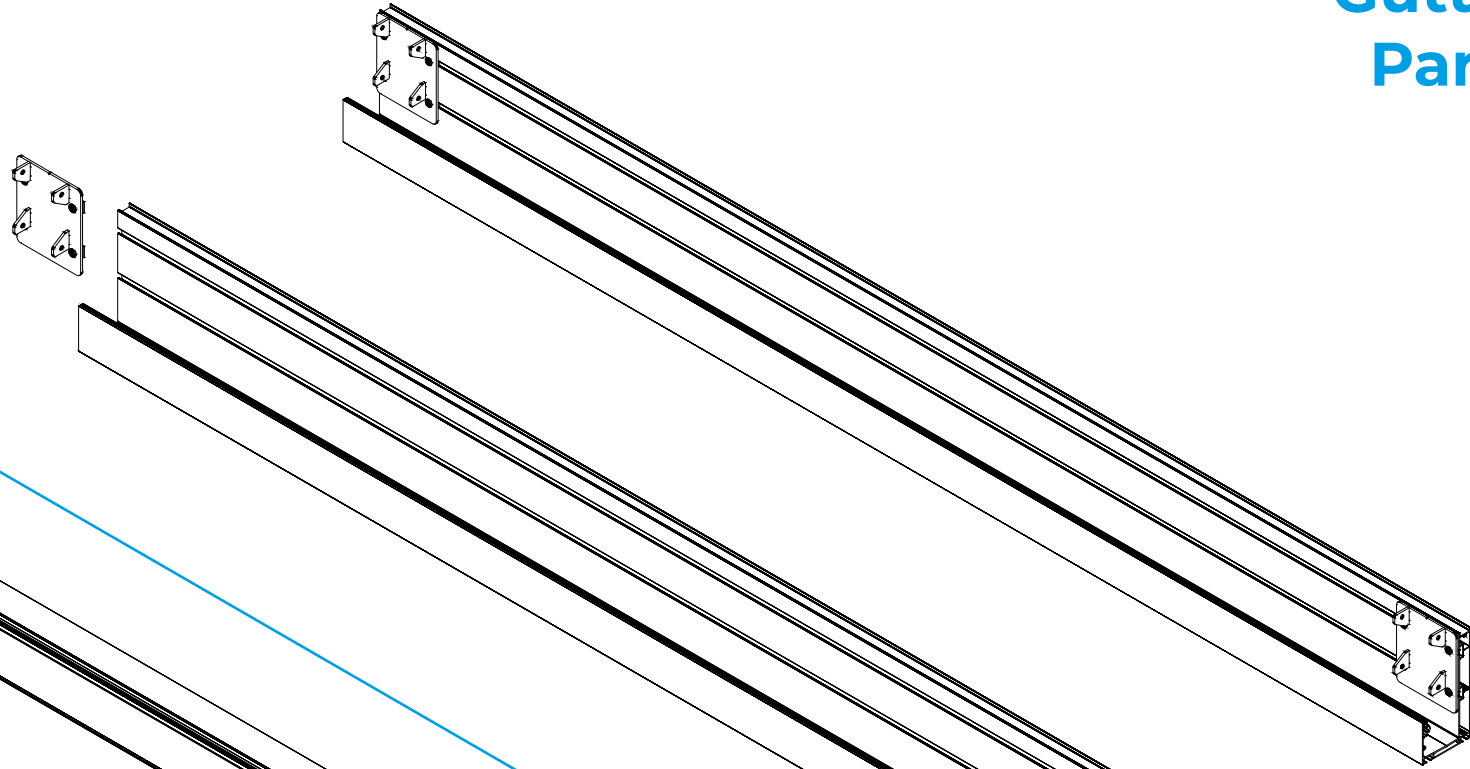
Measuring
Plate

Caps & Water Exiting Parts

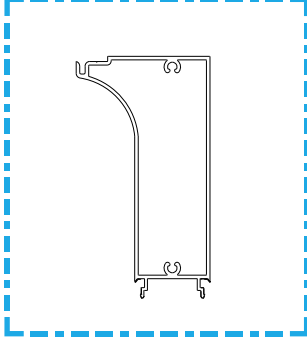
List of Parts

Gutter Parts

SF 21
Gutter
Profile

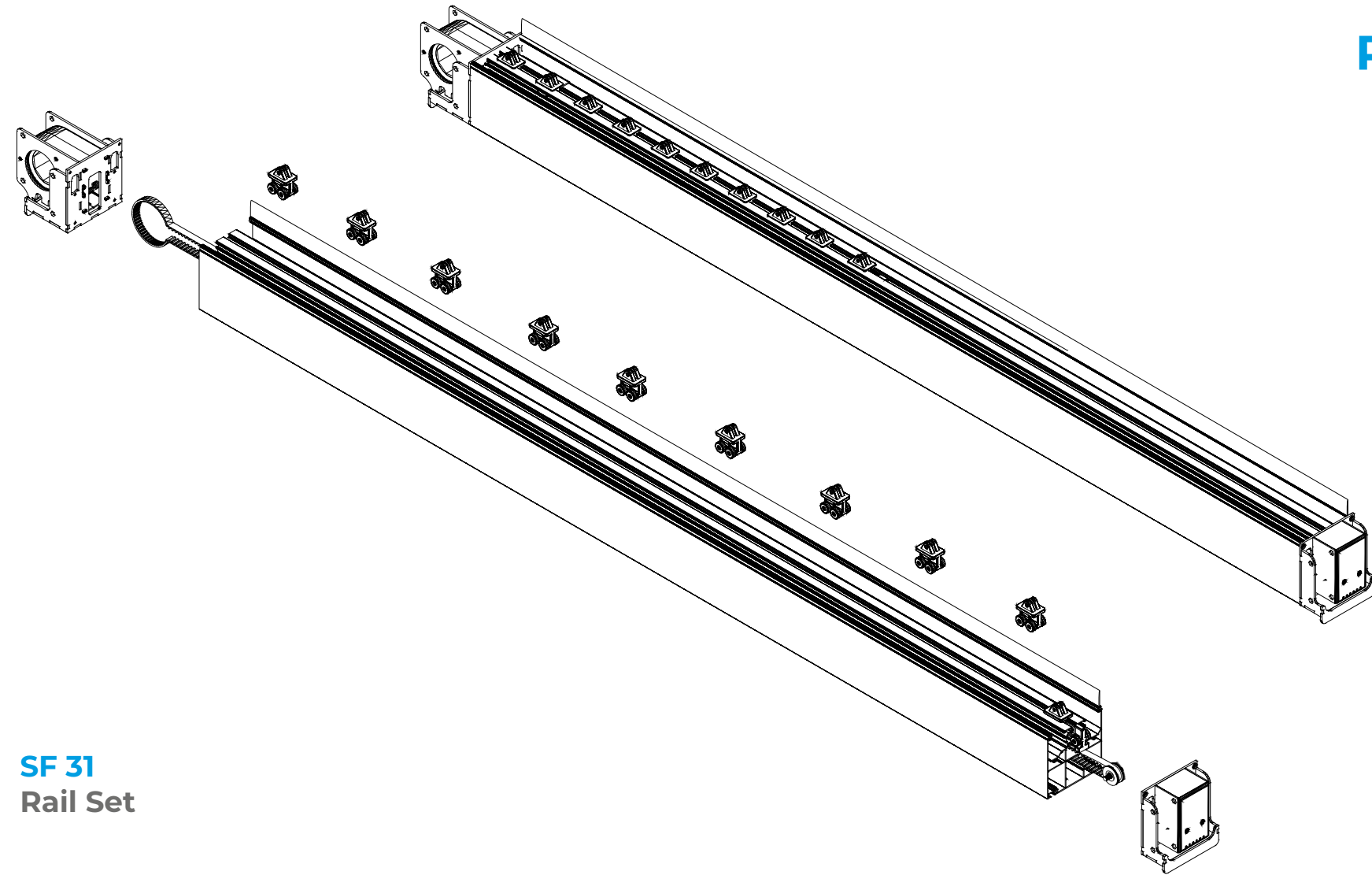


SF 22
Gutter
Cap



List of Parts

Rail Parts

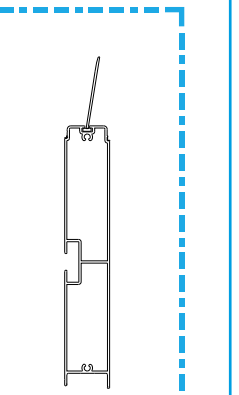
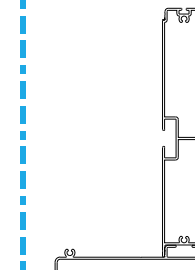
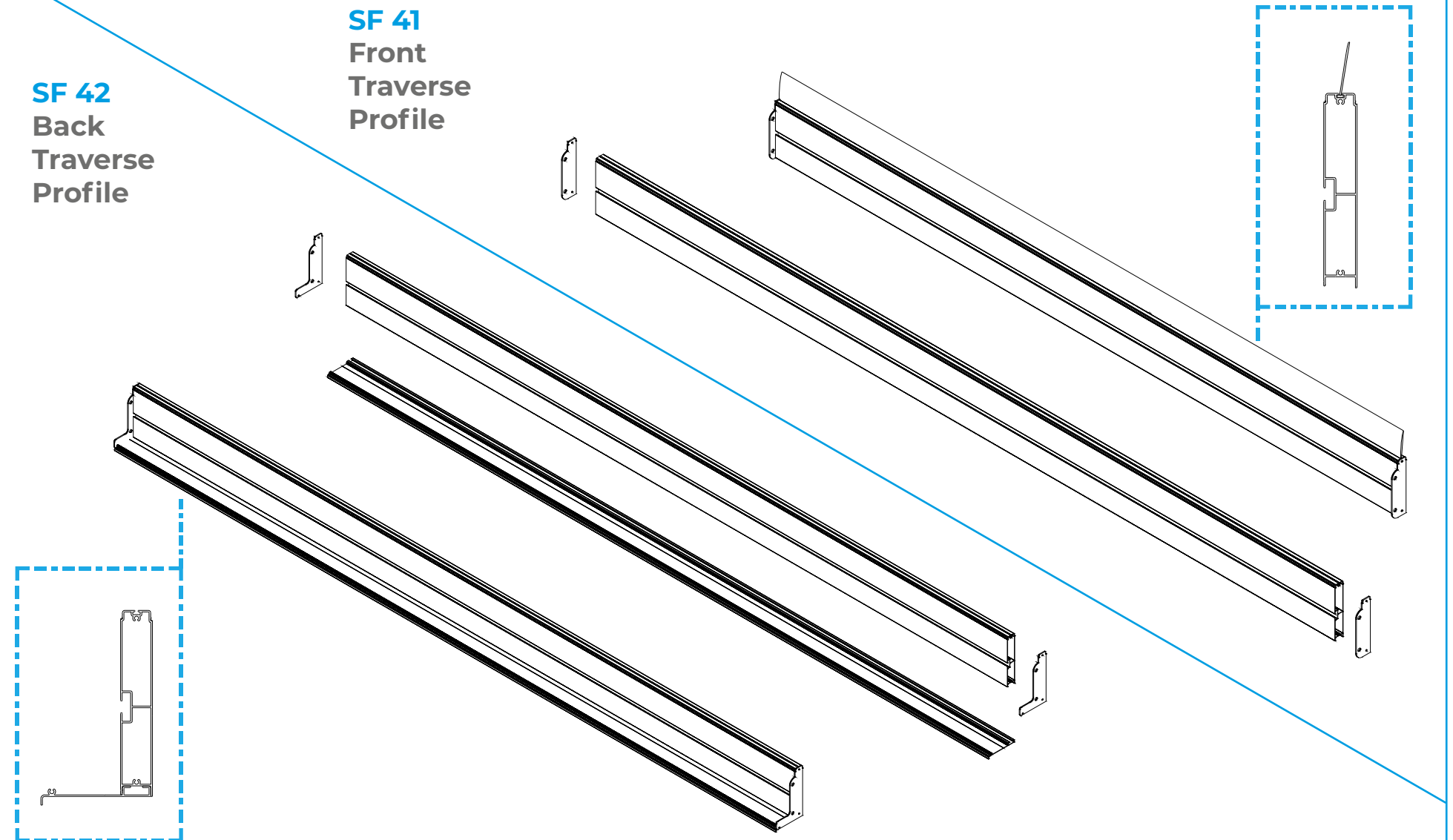


SF 31
Rail Set

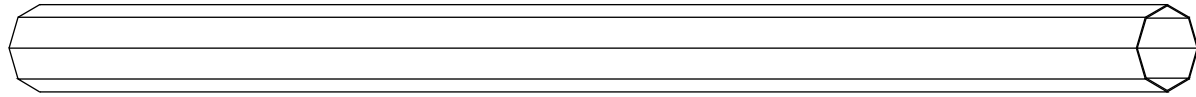
List of Parts

SF 42
Back
Traverse
Profile

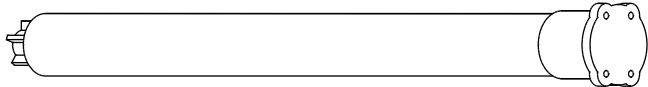
SF 41
Front
Traverse
Profile



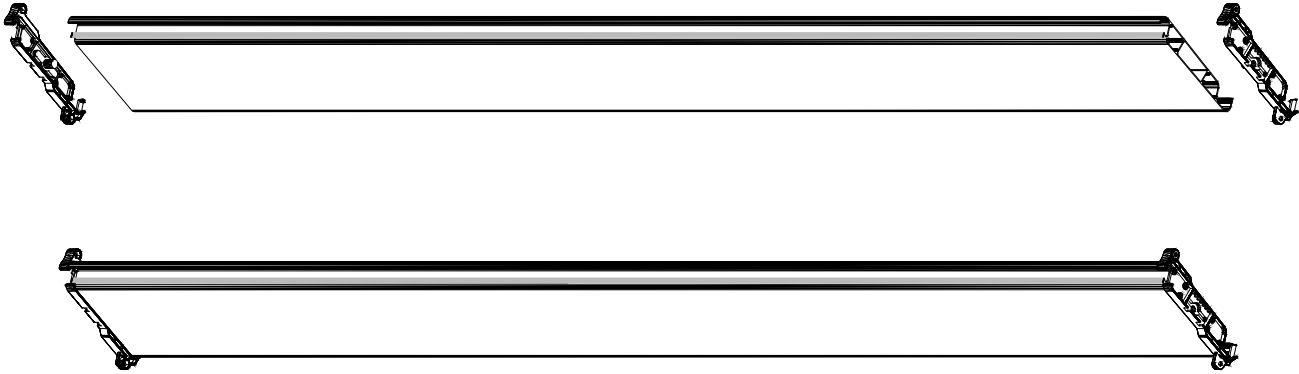
List of Parts



SF 51
Motor
Tube



SF 52
Somfy
Motor



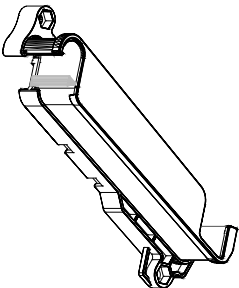
SF 61
Panel

**Motor
Parts**

Panel

List of Parts

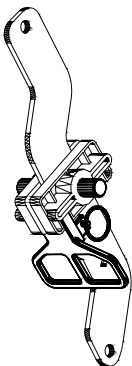
SF 62
Panel
Side Cap



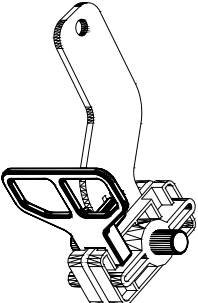
SF 63
Back
Panel
Connector



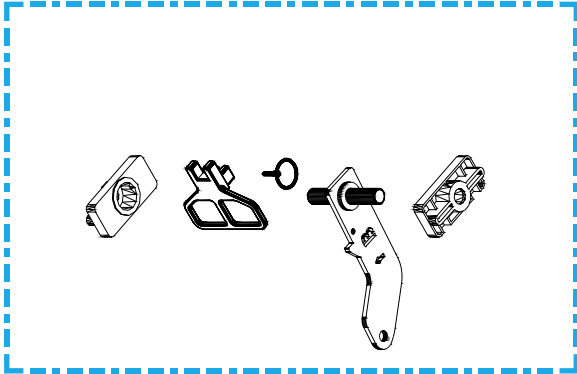
SF 64
Middle
Panel
Connector

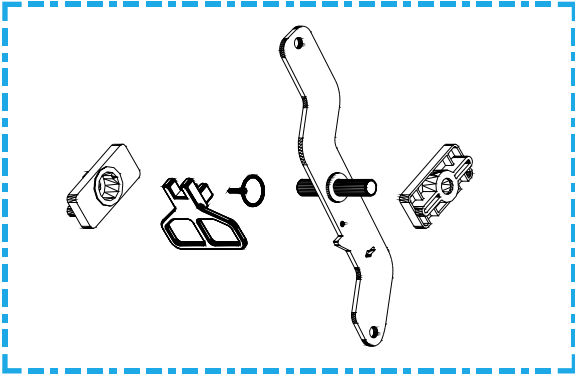


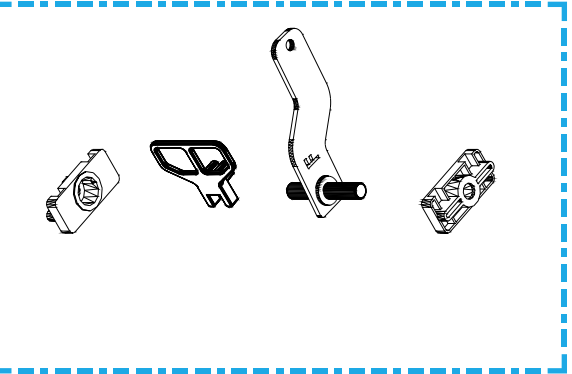
SF 65
Front
Panel
Connector



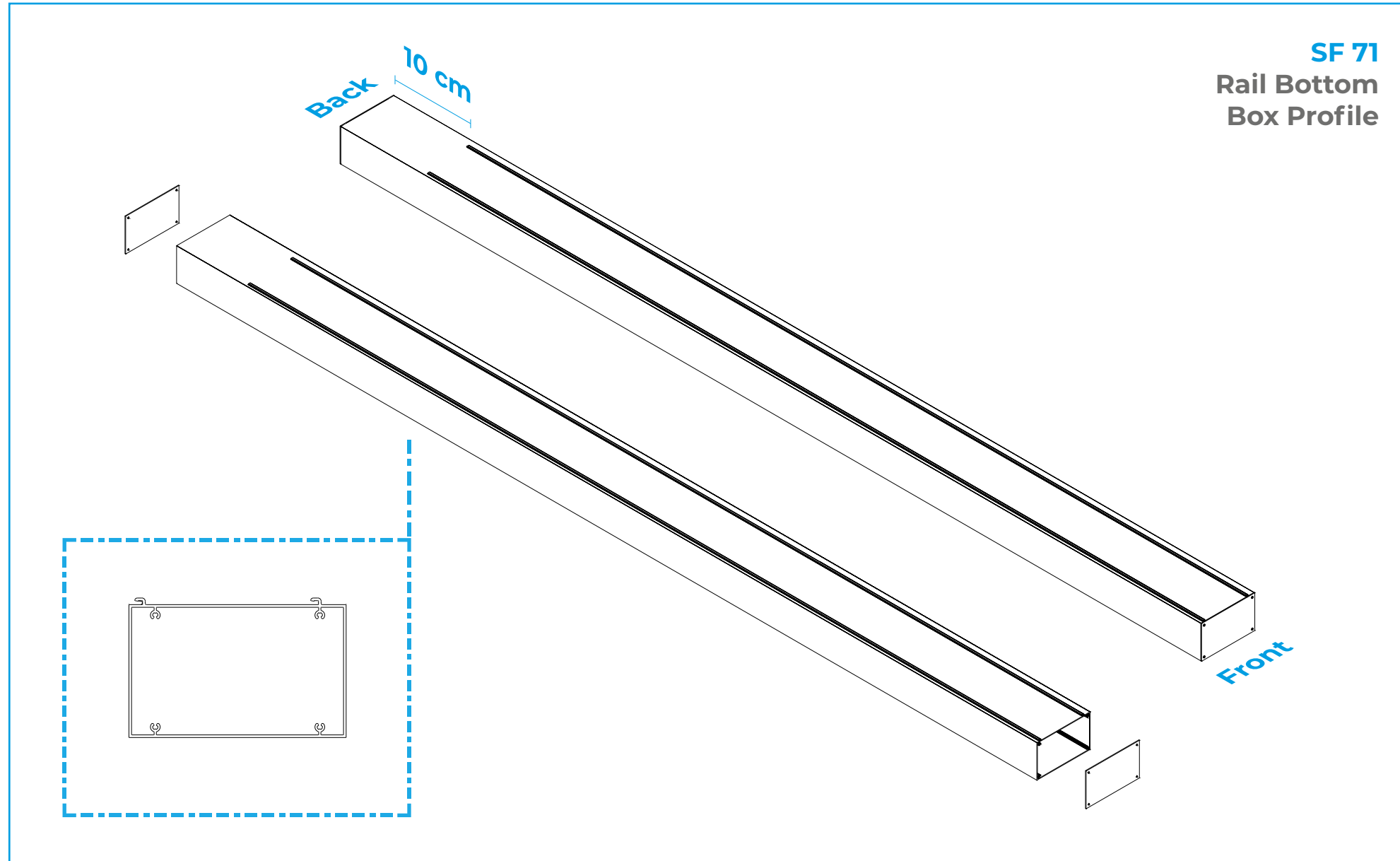
**Panel
Additional
Parts**



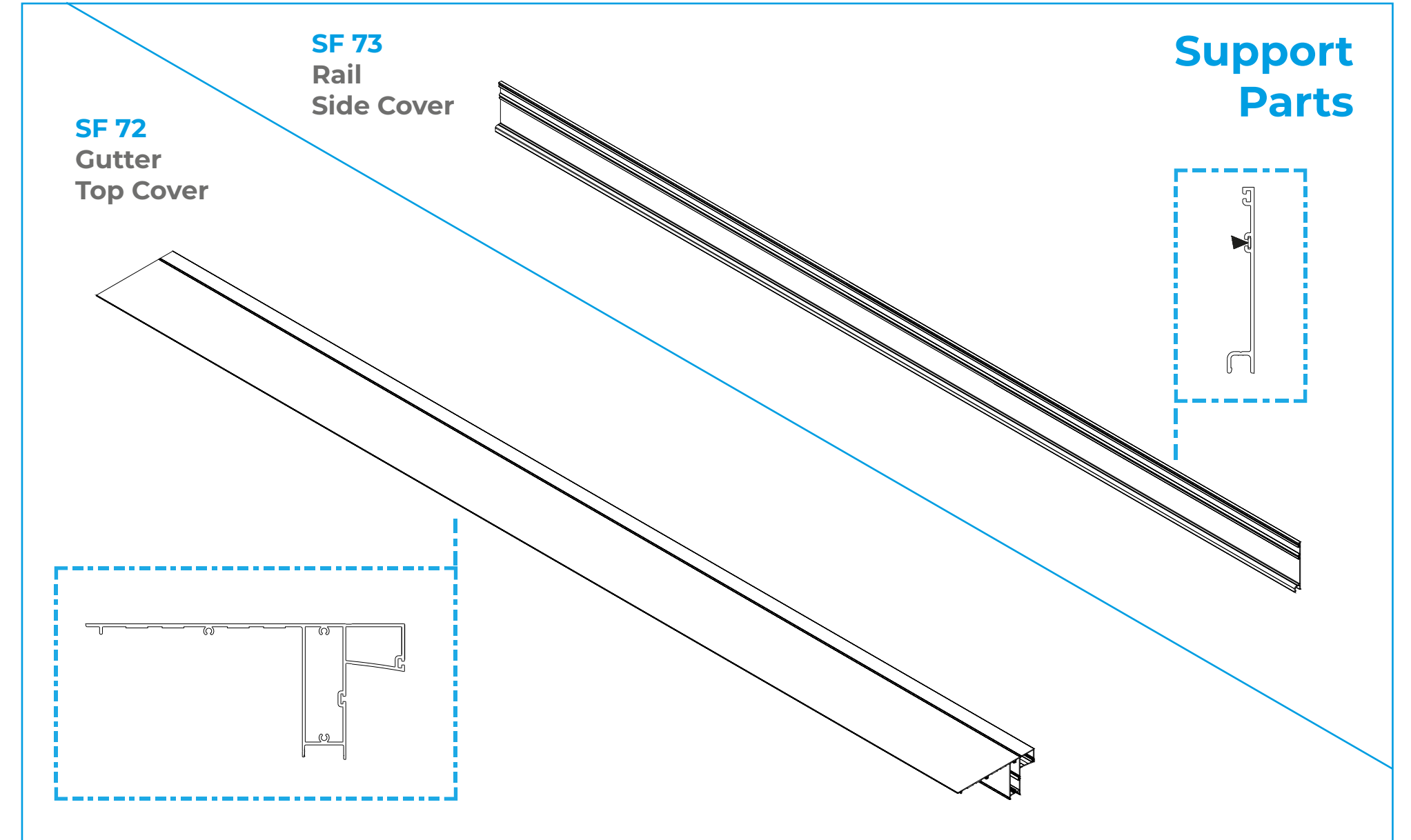




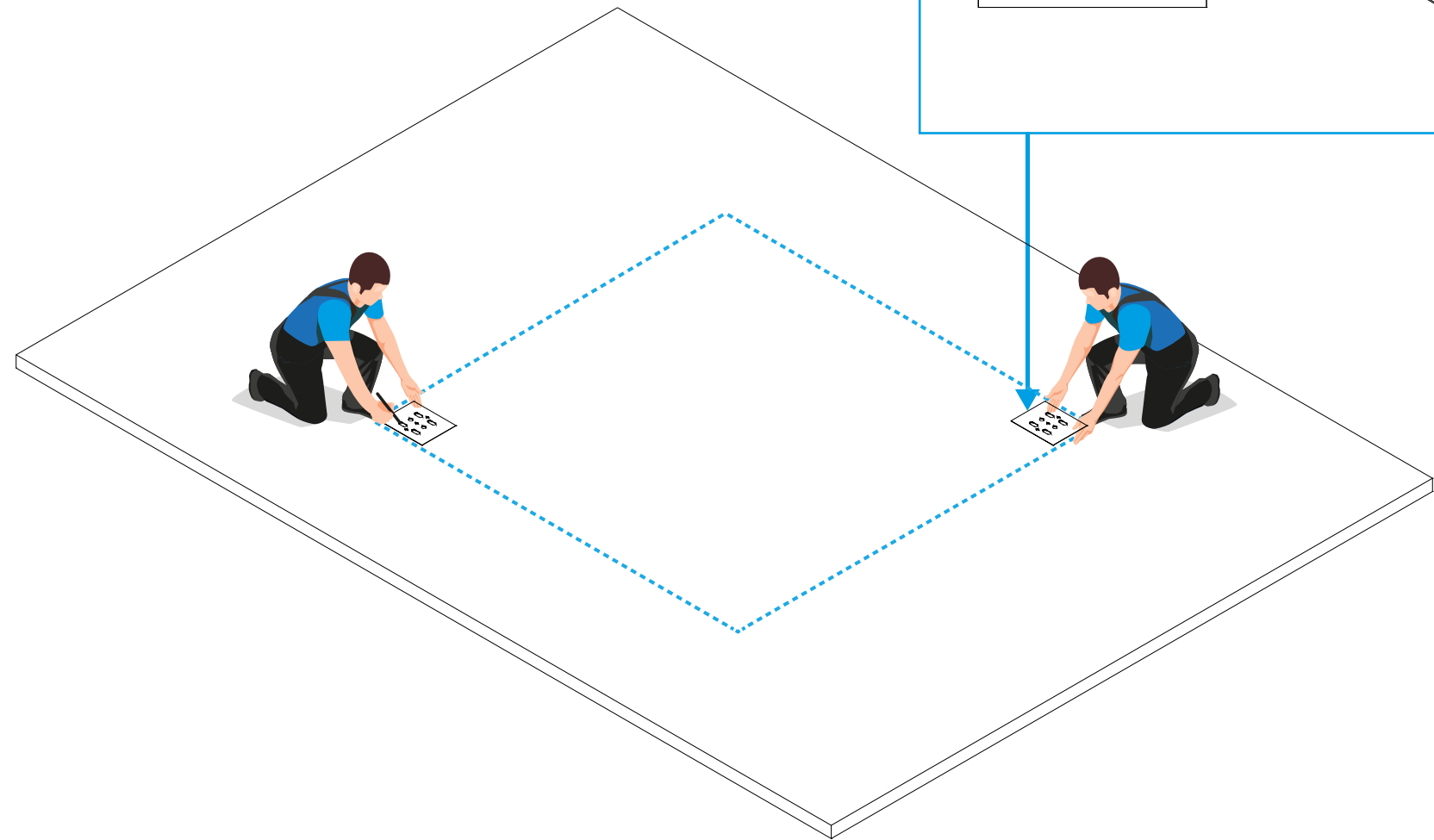
List of Parts



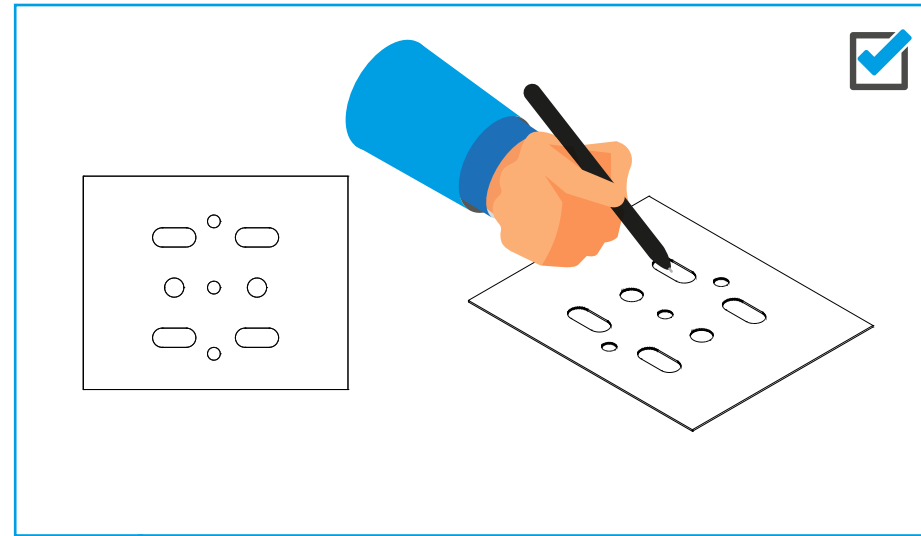
List of Parts



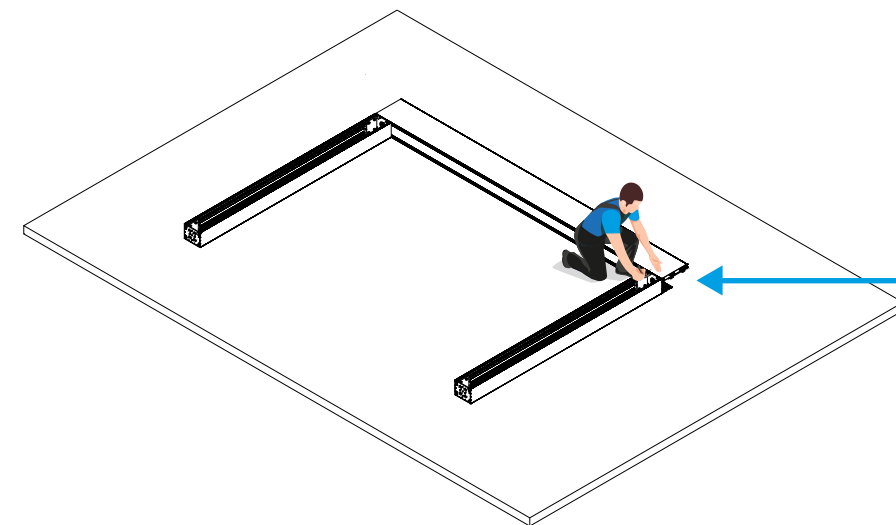
At this stage, mark the location for foot mounting in the area to be installed, taking into account the size of your project with the small-scale plates that will be sent to you.



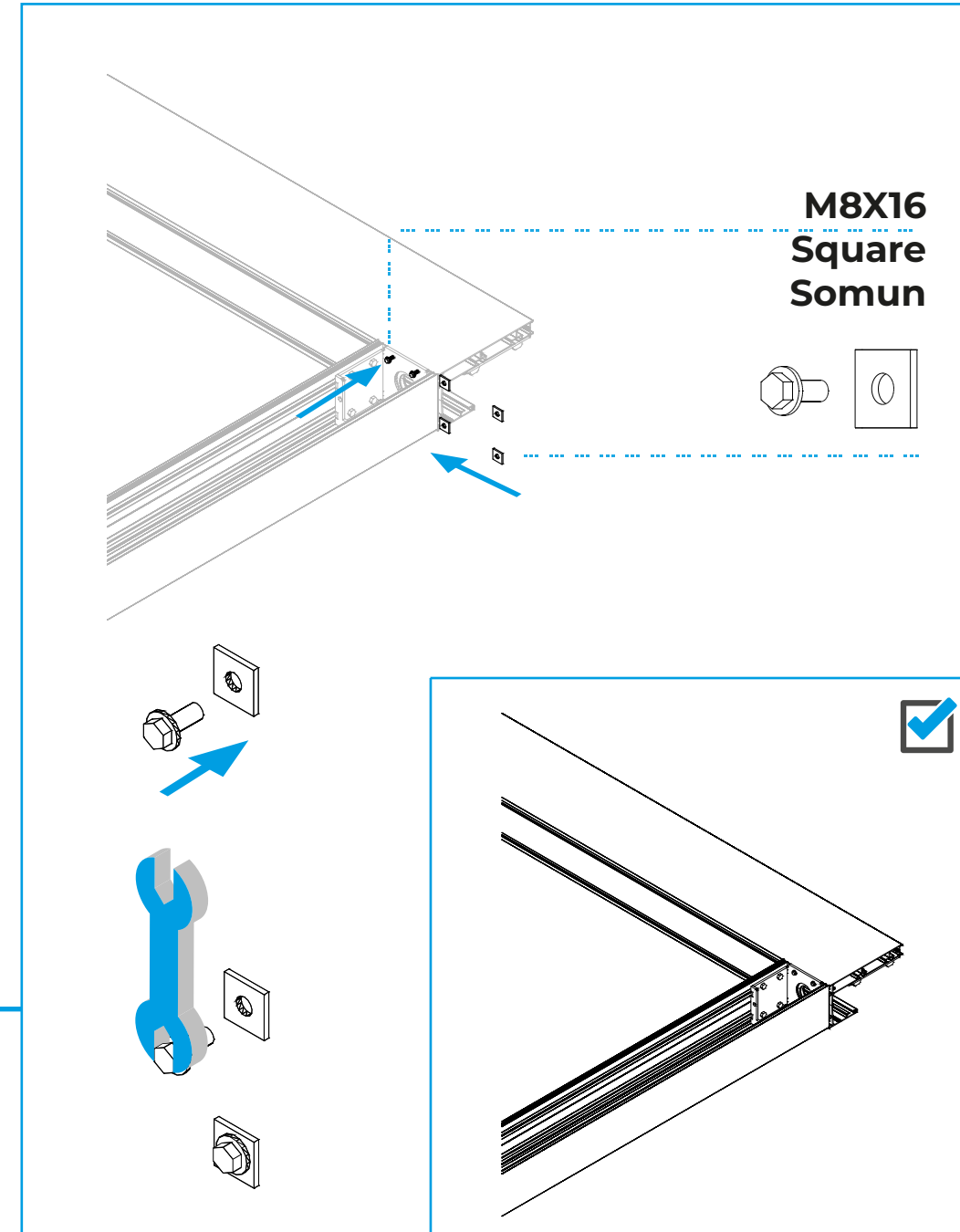
Step 1.1



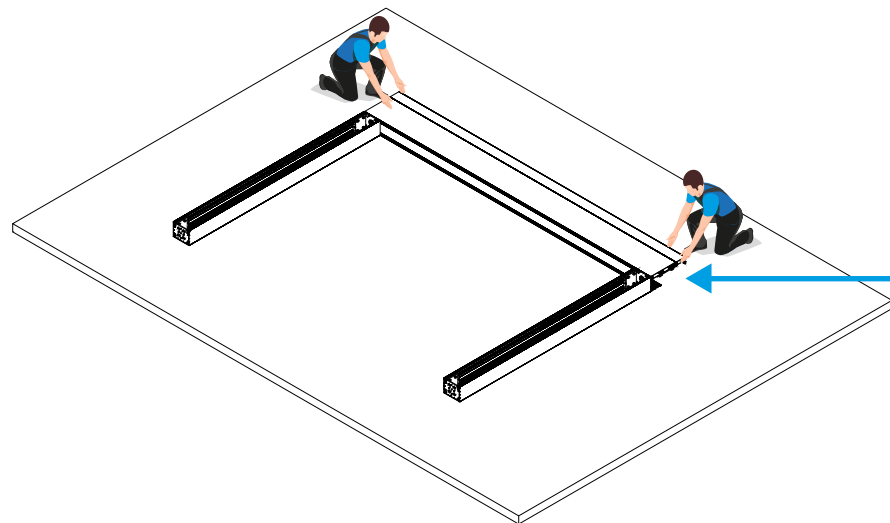
At this step, you will connect Pillars **SF 11** and Gutter **SF 21** with connector screws by using Wrench. Place Pillars profiles parallel to each other the ground. Place one long Gutter into the cut-out on Pillar posts as shown and connect them with the connector. Do this step for both the front and back sides. And add **SF 22** profile on the **SF 21** profile as show.



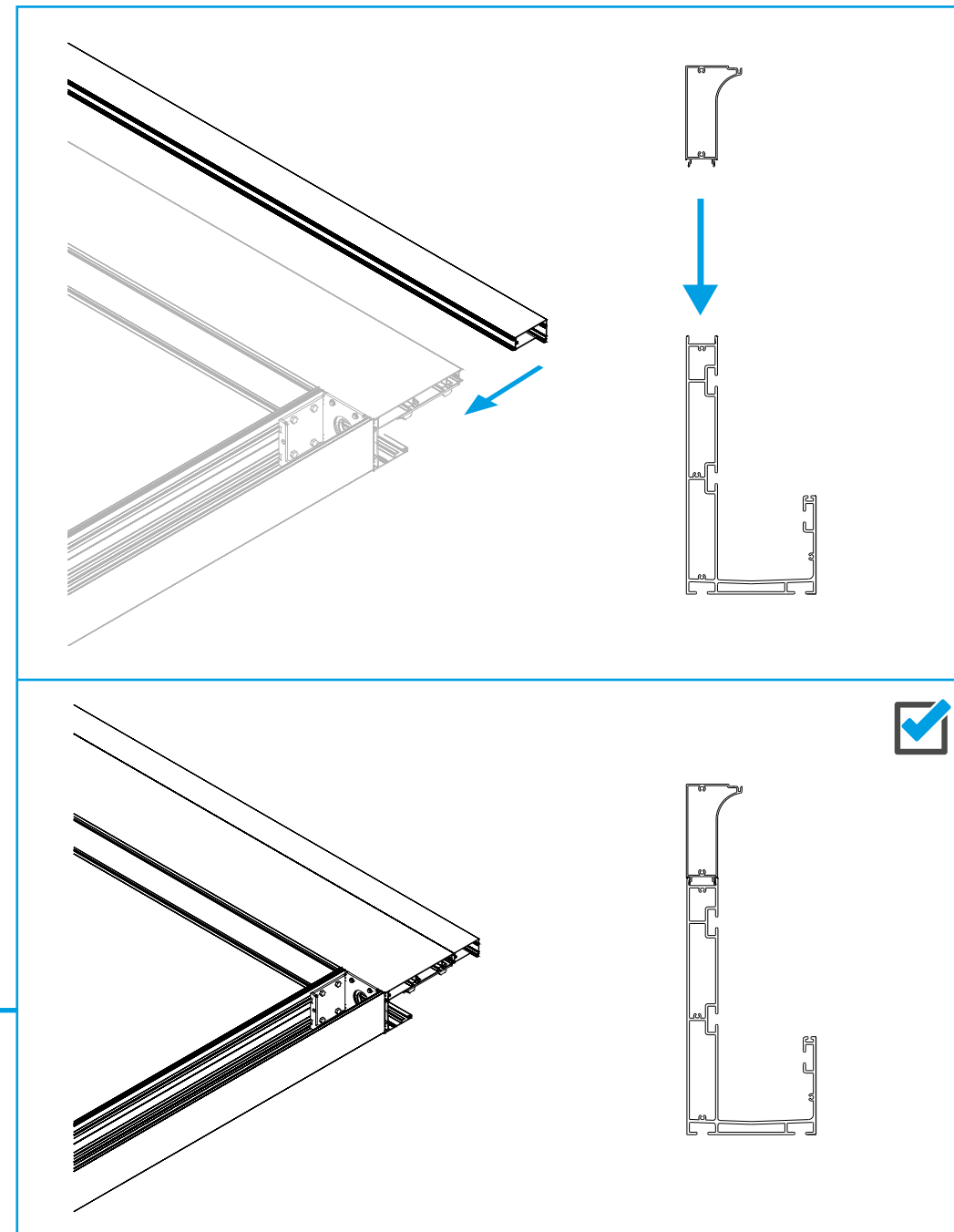
Step 1.3



At this step, you will connect Pillars **SF 11** and Gutter **SF 21** with connector screws by using Wrench. Place Pillars profiles parallel to each other the ground. Place one long Gutter into the cut-out on Pillar posts as shown and connect them with the connector. Do this step for both the front and back sides. And add **SF 22** profile on the **SF 21** profile as show.



Step 1.4



Step 1.5

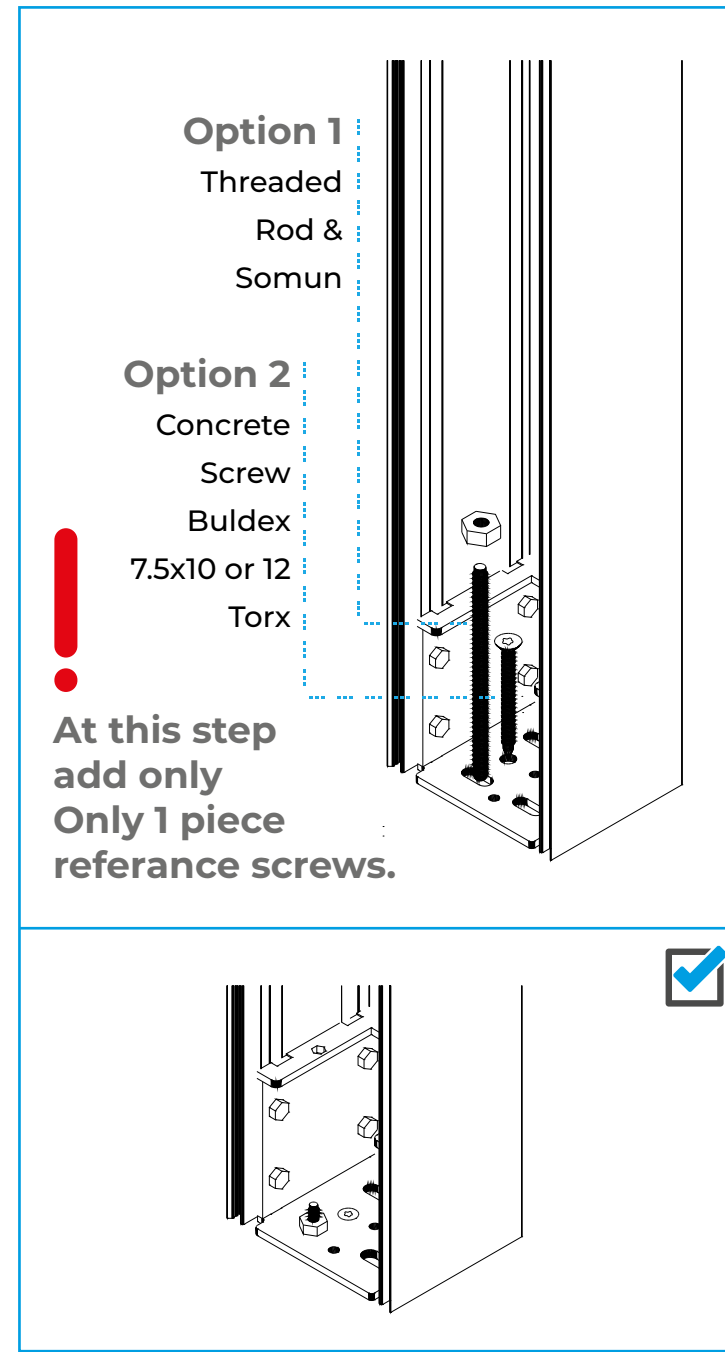
Option 1

Threaded
Rod &
Somun

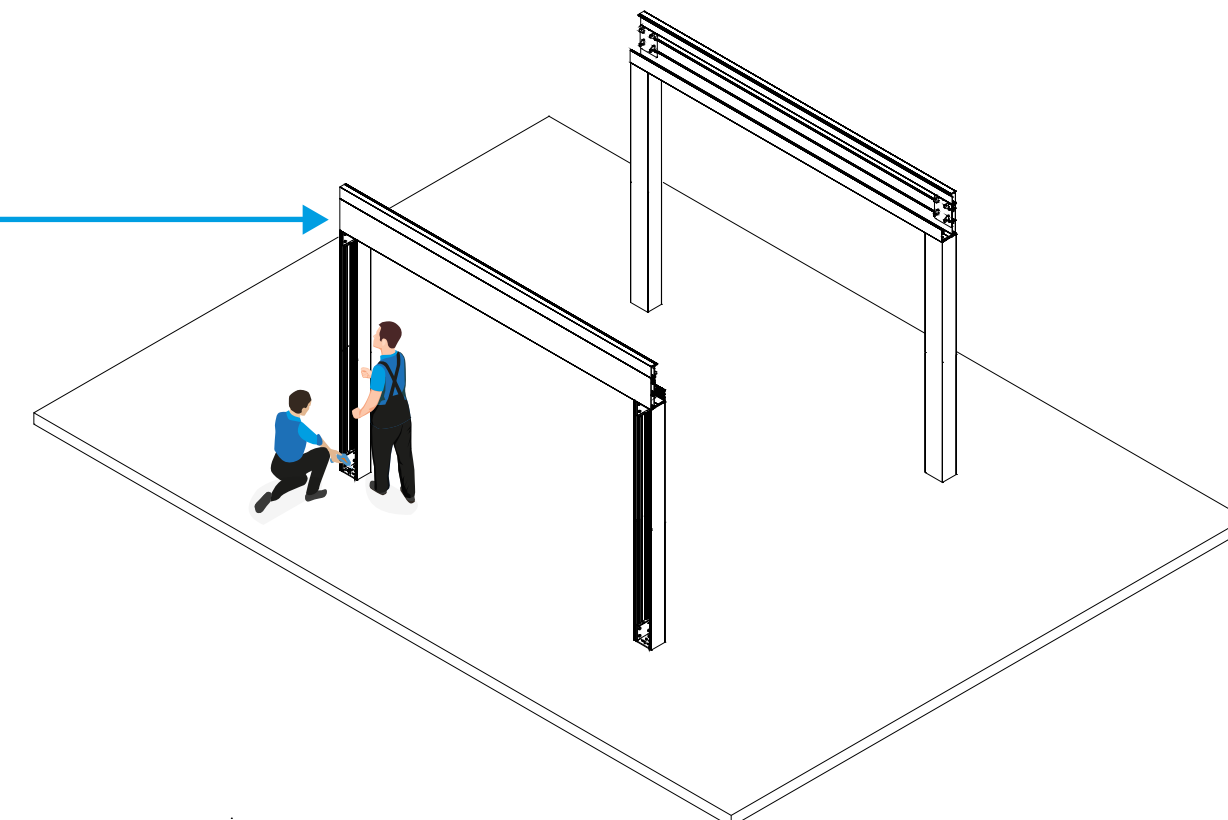
Option 2

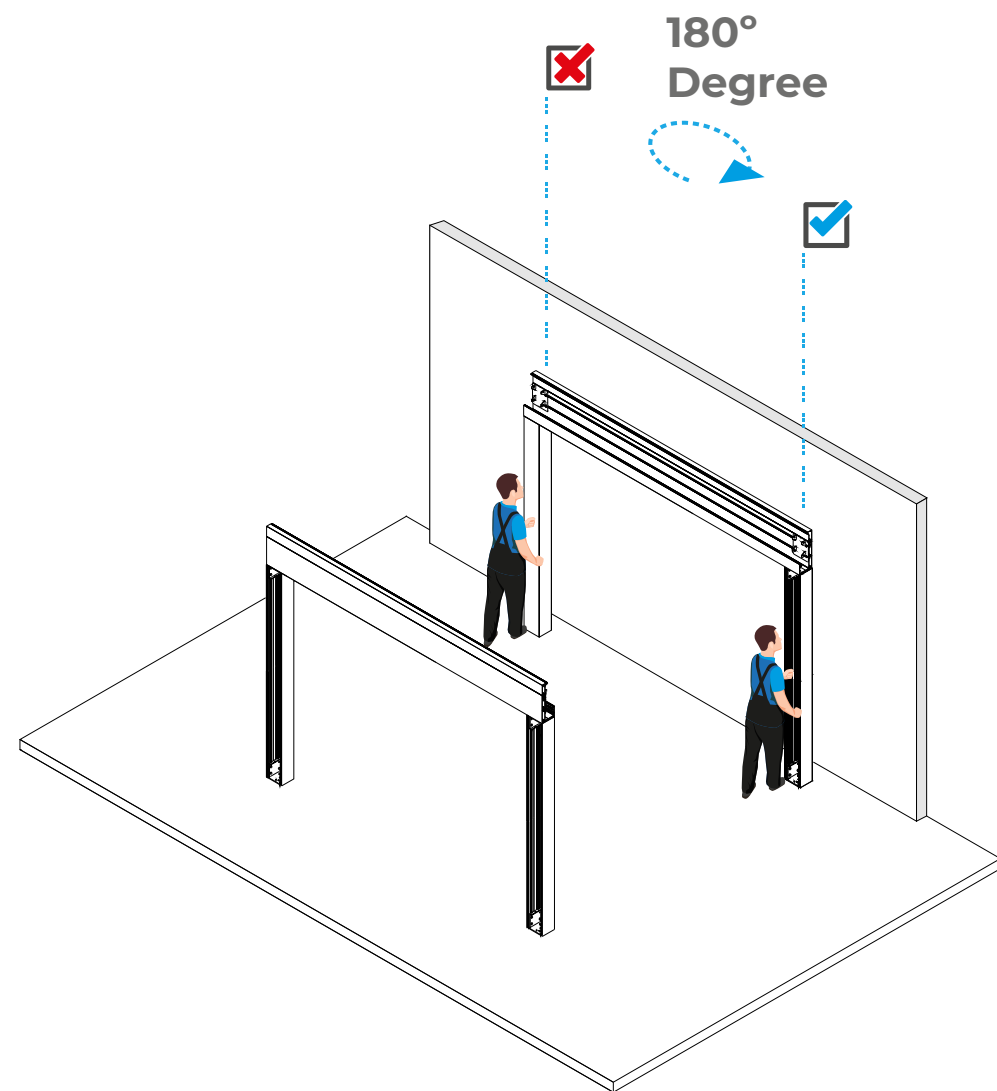
Concrete
Screw
Buldex
7.5x10 or 12
Torx

At this step
add only
Only 1 piece
reference screws.



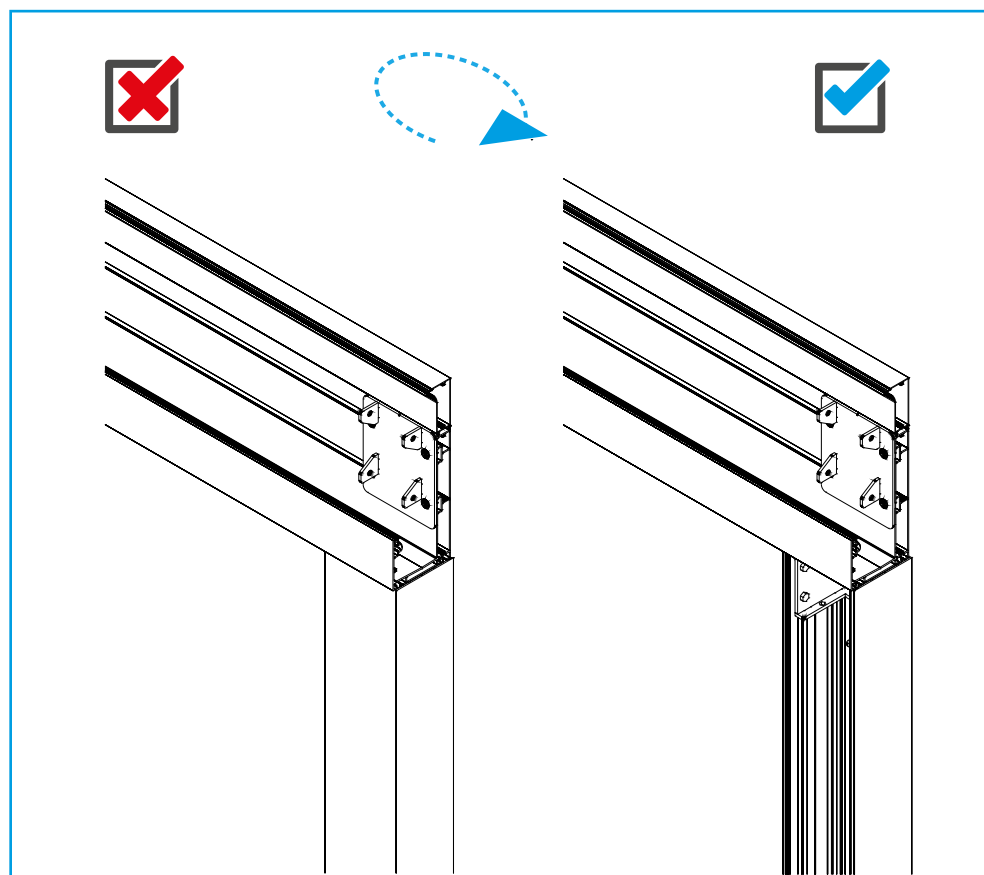
At this step, you will connect Pillars with the Ground surface. Place pillar profiles **SF 11** parallel then connect to base plates with connectors (**only 1 piece reference connector** for every pillars) in the forward direction as you can see at previous step need minimum two people for keeping your insalled pillar-gutter system standing and one person for installing your connectors for the ground surface. For concrete surfaces Concrete Screw- Buldex is enough. But for soft ground, you need to use Expansions Bolts. For making your system standing stronger.



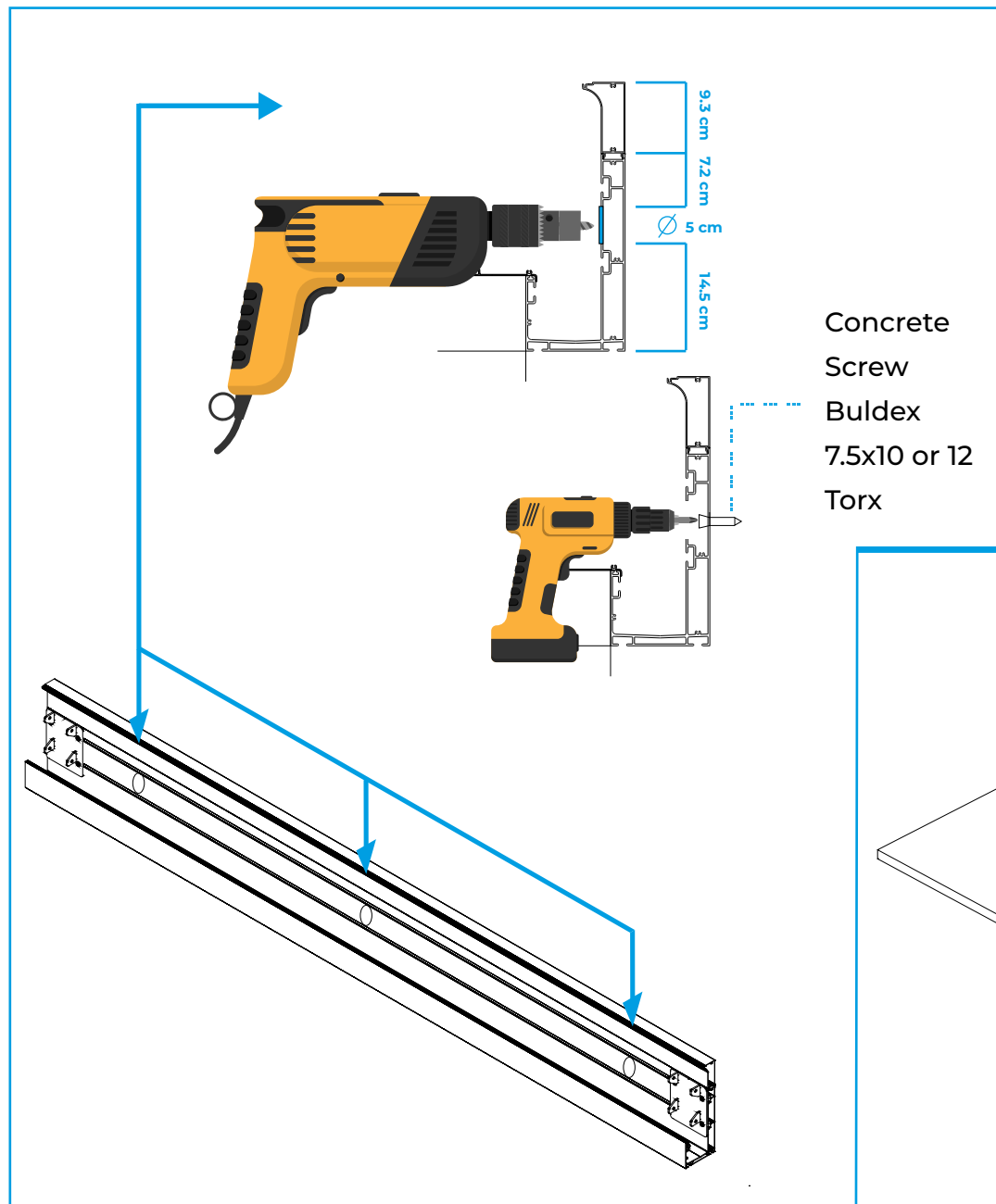


When the project back pillars is close to the wall or any construction turn back pillars 180° (your project will be produced according to this process). This process important because of the next steps of the installation.

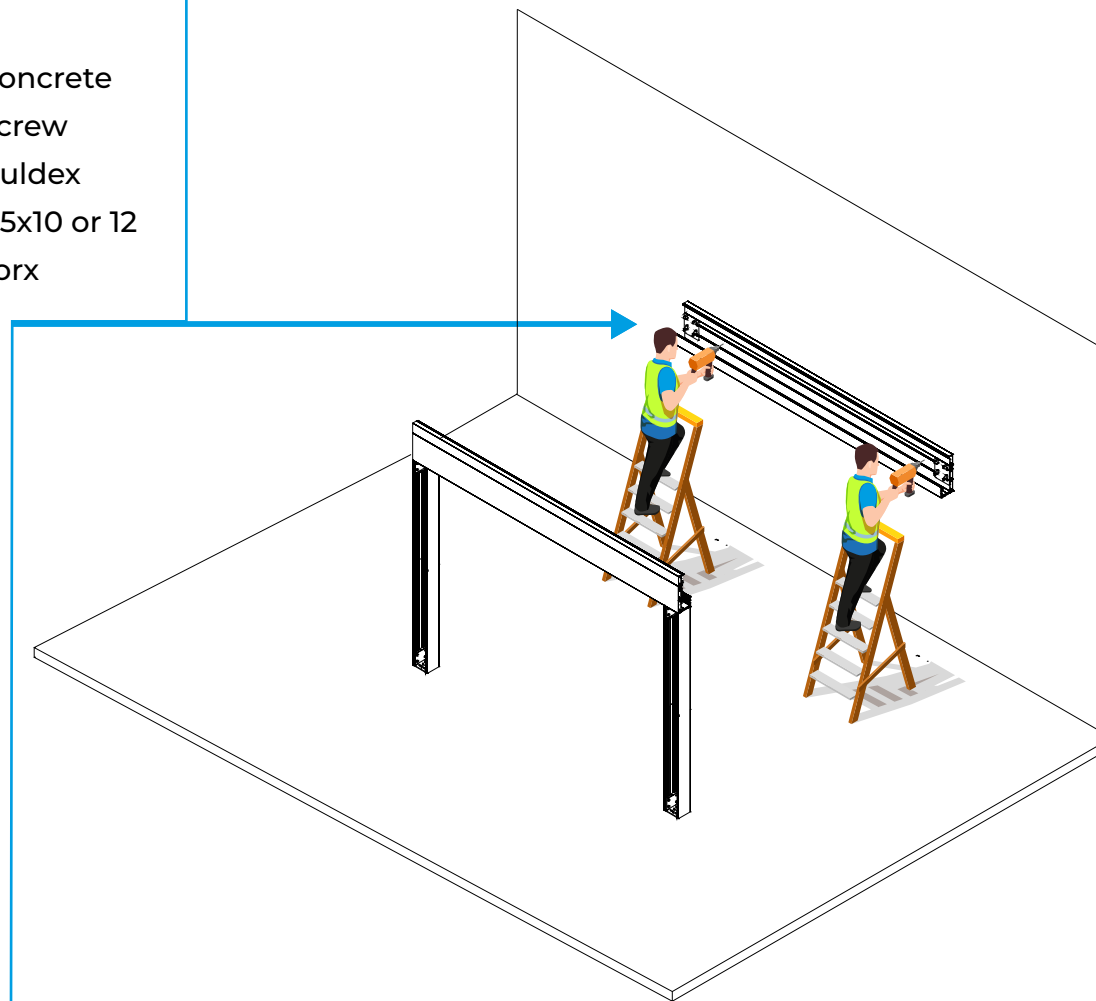
EXTRA STEP FOR INFORMATION !



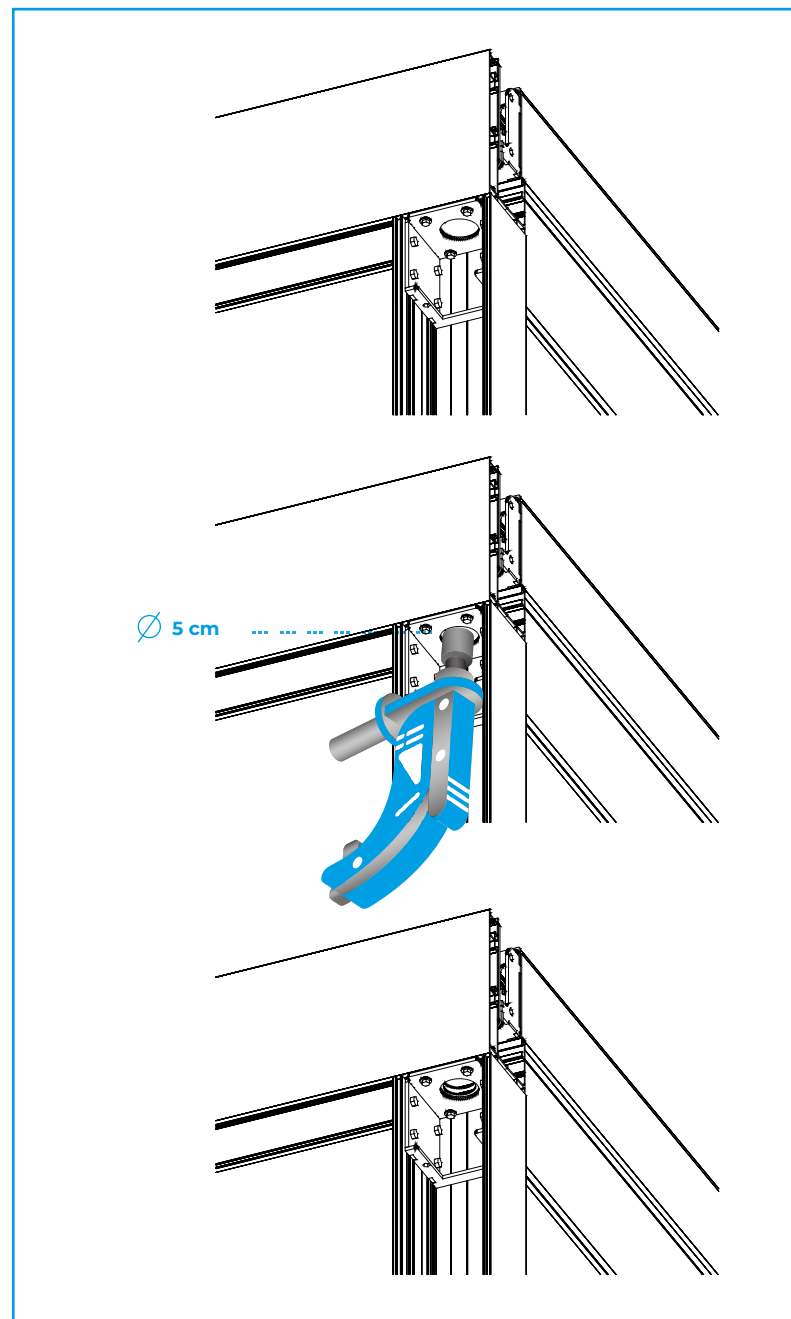
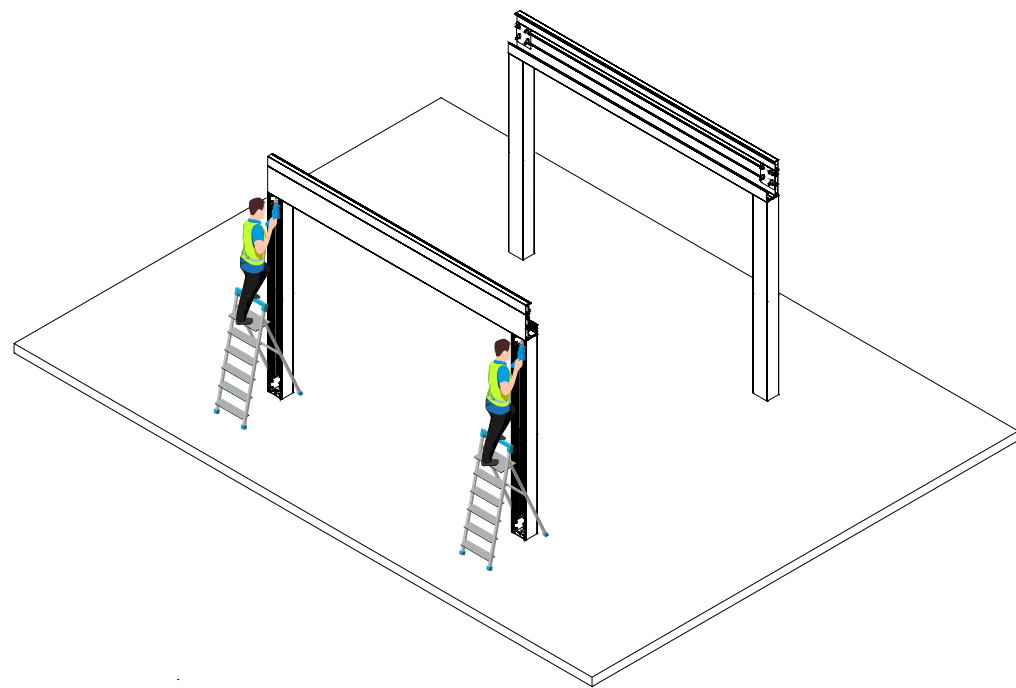
EXTRA STEP FOR INFORMATION !



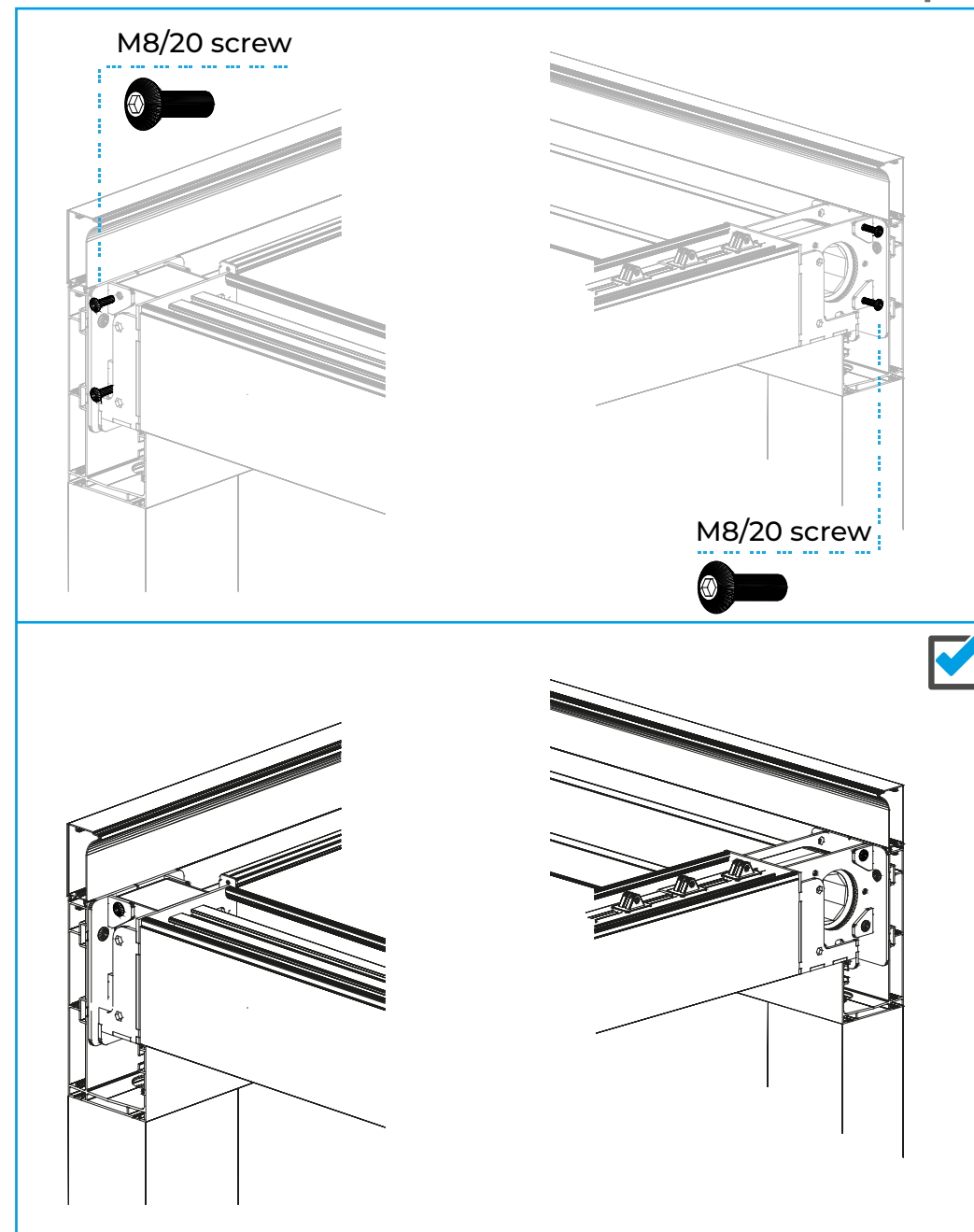
If your product choice is wall-mounted SkyBlade, this step applies. After installing the front pillars, install Back Gutter SF 21 to the wall before moving to the next stages. Use Concrete Screw - Buldex at 3 or 4 points to secure it to the wall as shown.



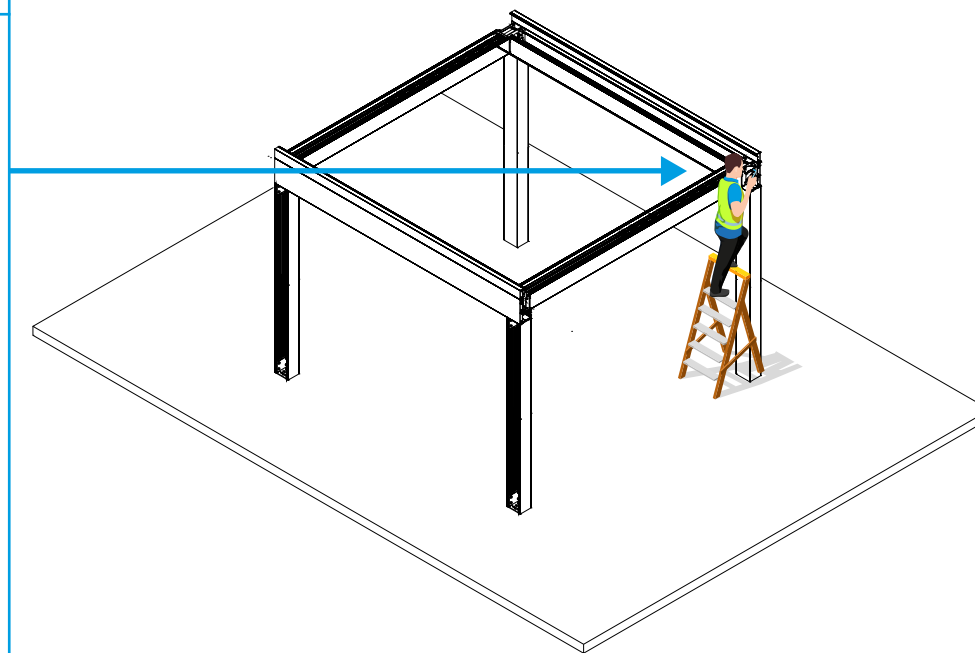
We are not sending our products with the water draining holes on the gutter profiles. For that reason, from your project plan, you have to select your water drain pillars. After pillar-gutter assembling uses a diamond drill and make your hole as shown on the picture.

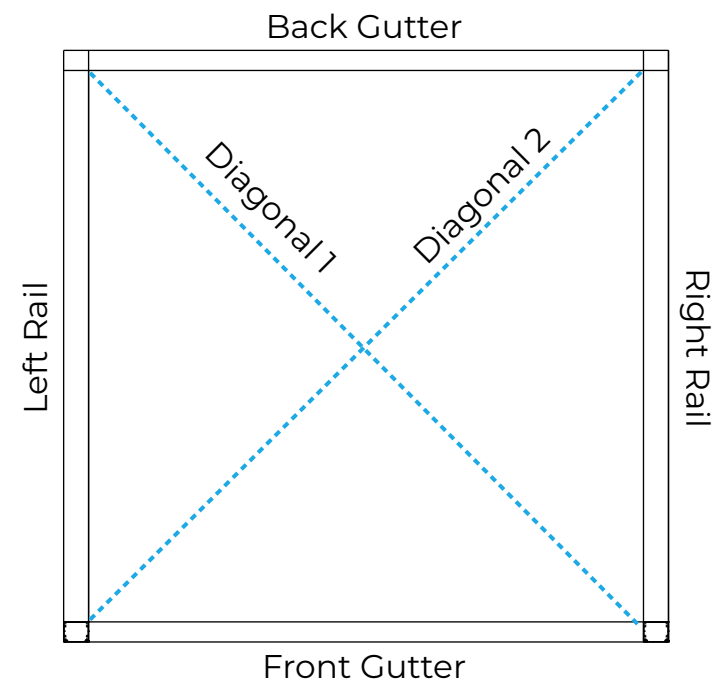


Step 2.1

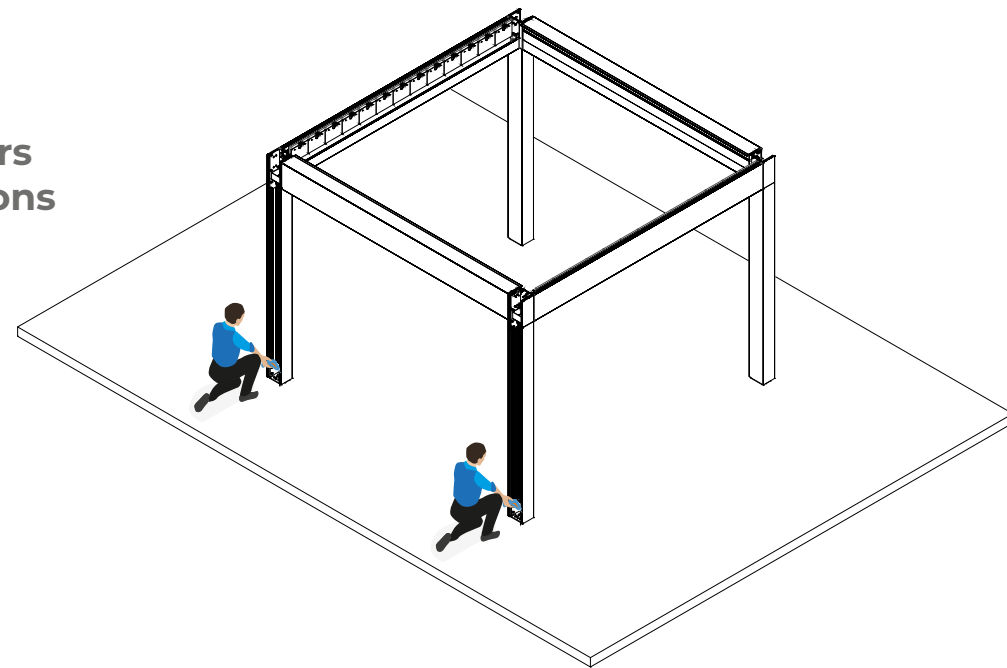


At this step, you will connect Rails **SF 31** with the Front and Back Gutter **SF 21**. Use Hex key and M8/20 connectors for assembling. Minimum of four people need for this step of installation.

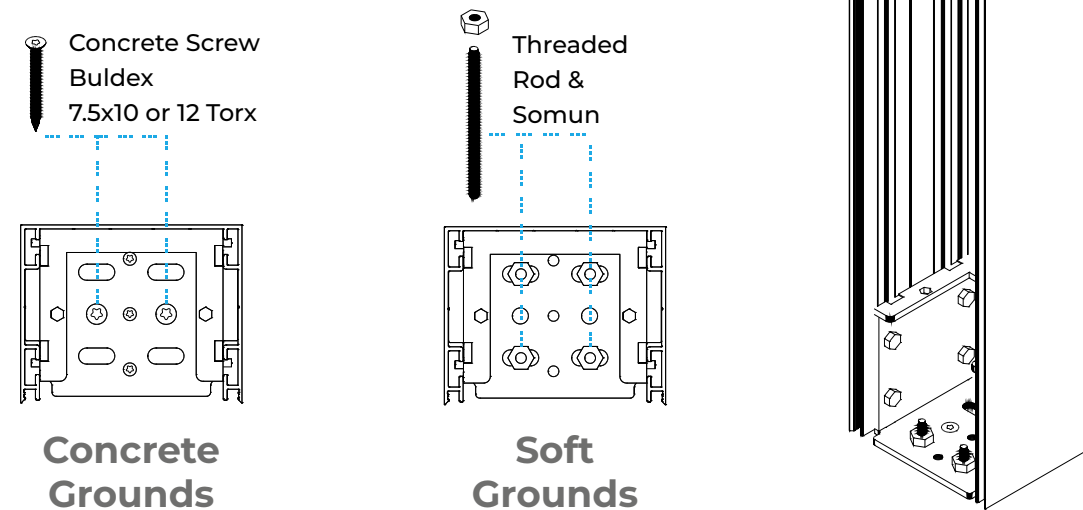




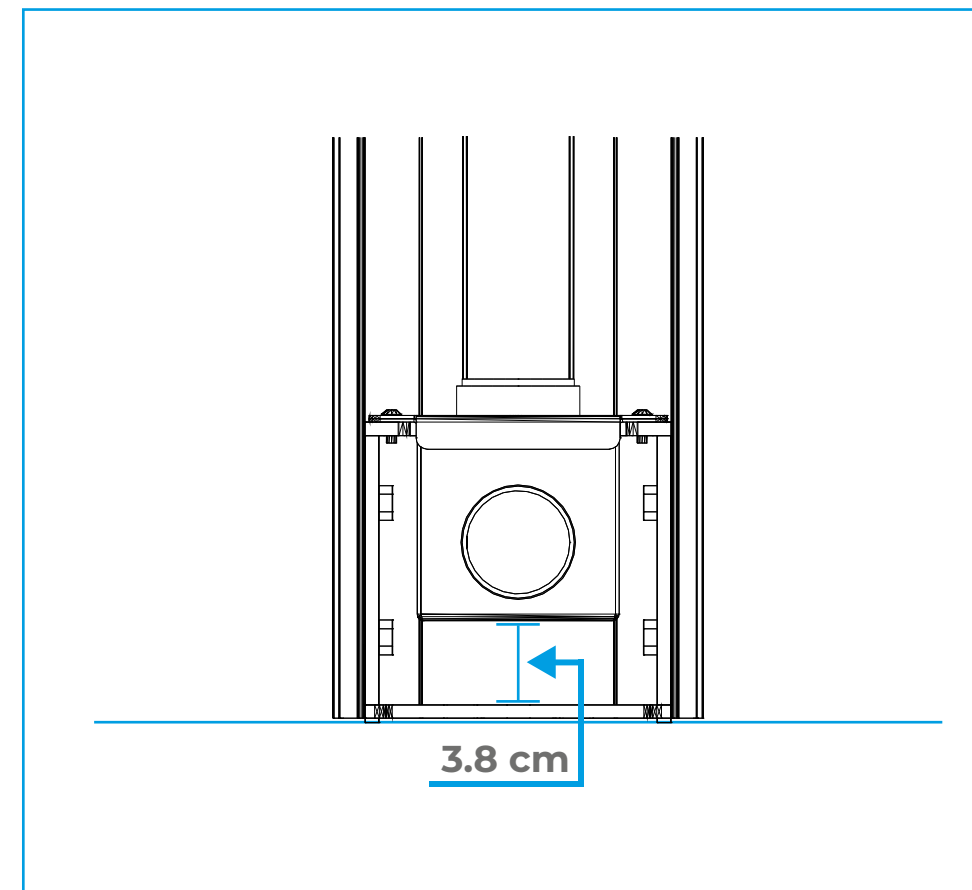
In this step check dimensions again Diagonal distance between two pillars must be equal. When every dimensions is true. You can add all screw for the pillars ground connections.



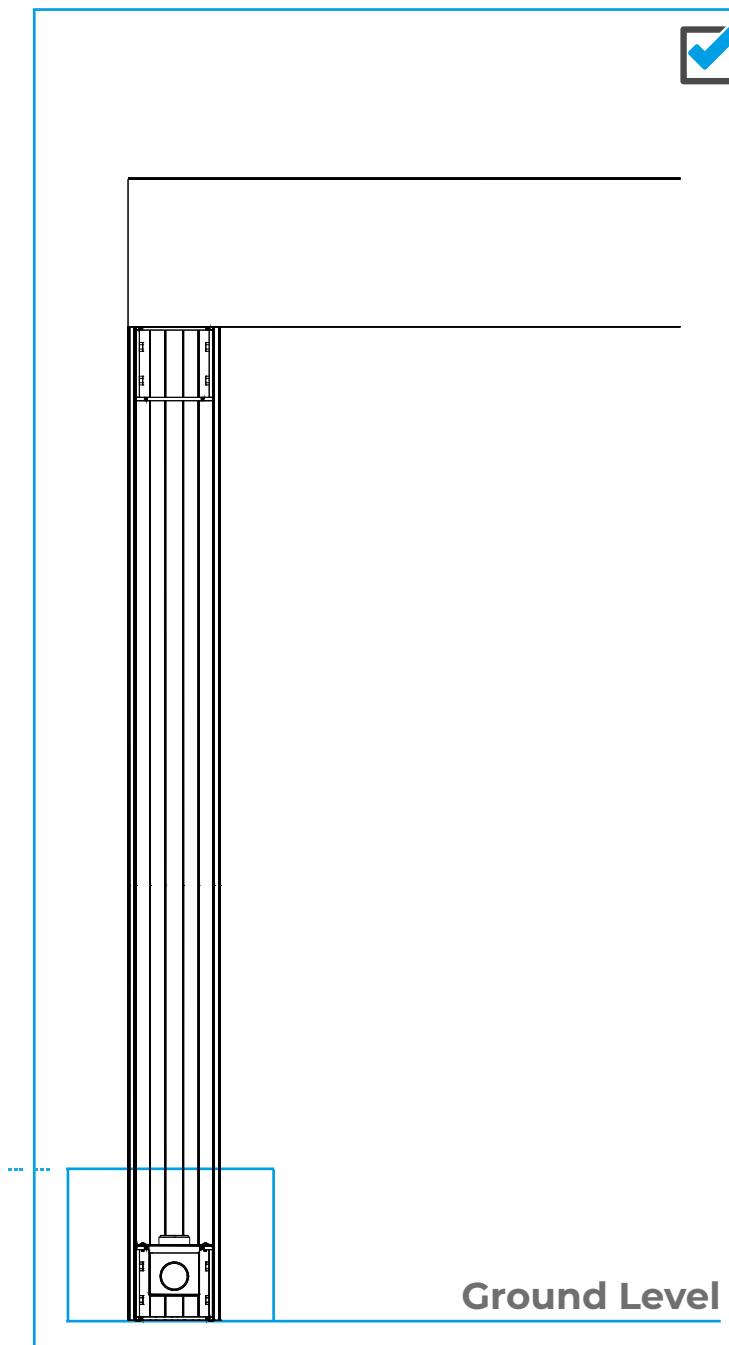
Step 1.6



Step 1.3

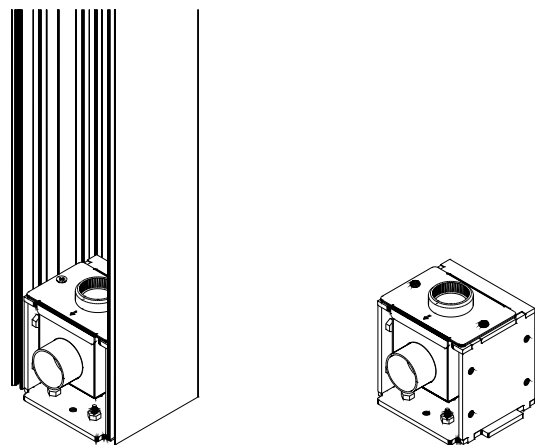
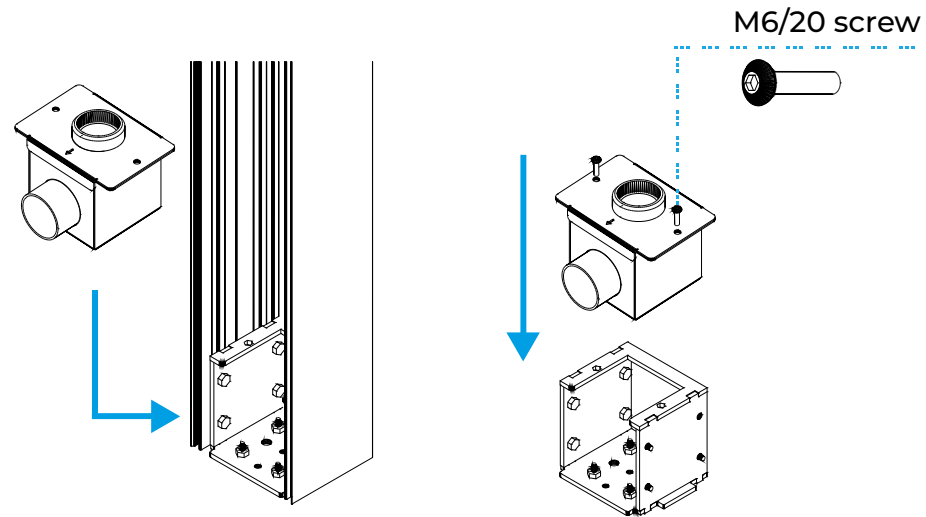


Before the next step it's important that after water drain box installation there only **3.8 cm** free heightness between bottom flange and water drain box. When every dimensions is true. You can add all screw for the pillars ground connections.

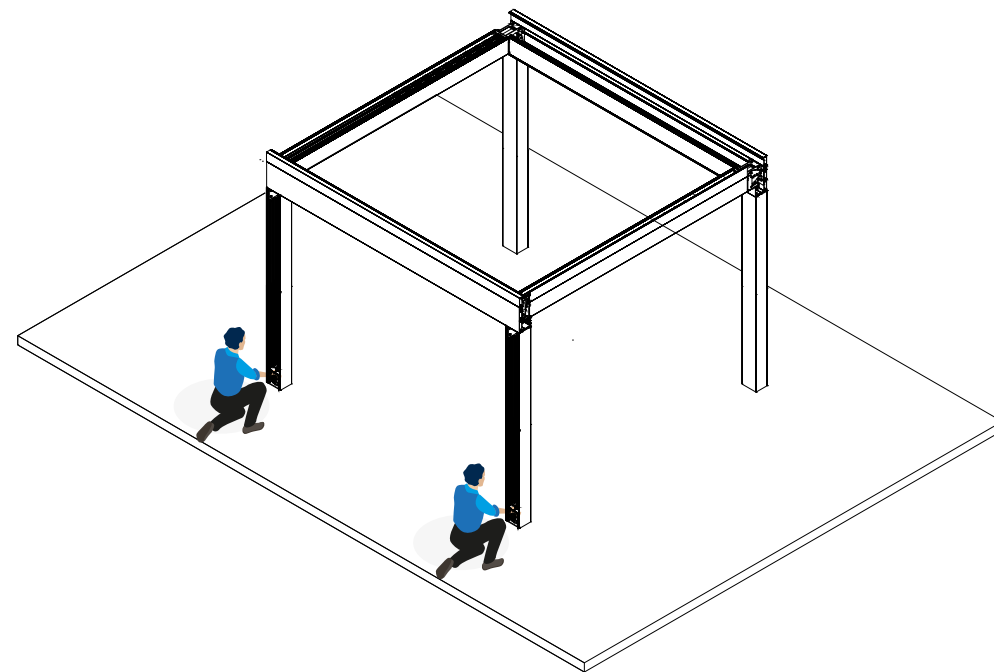


Ground Level

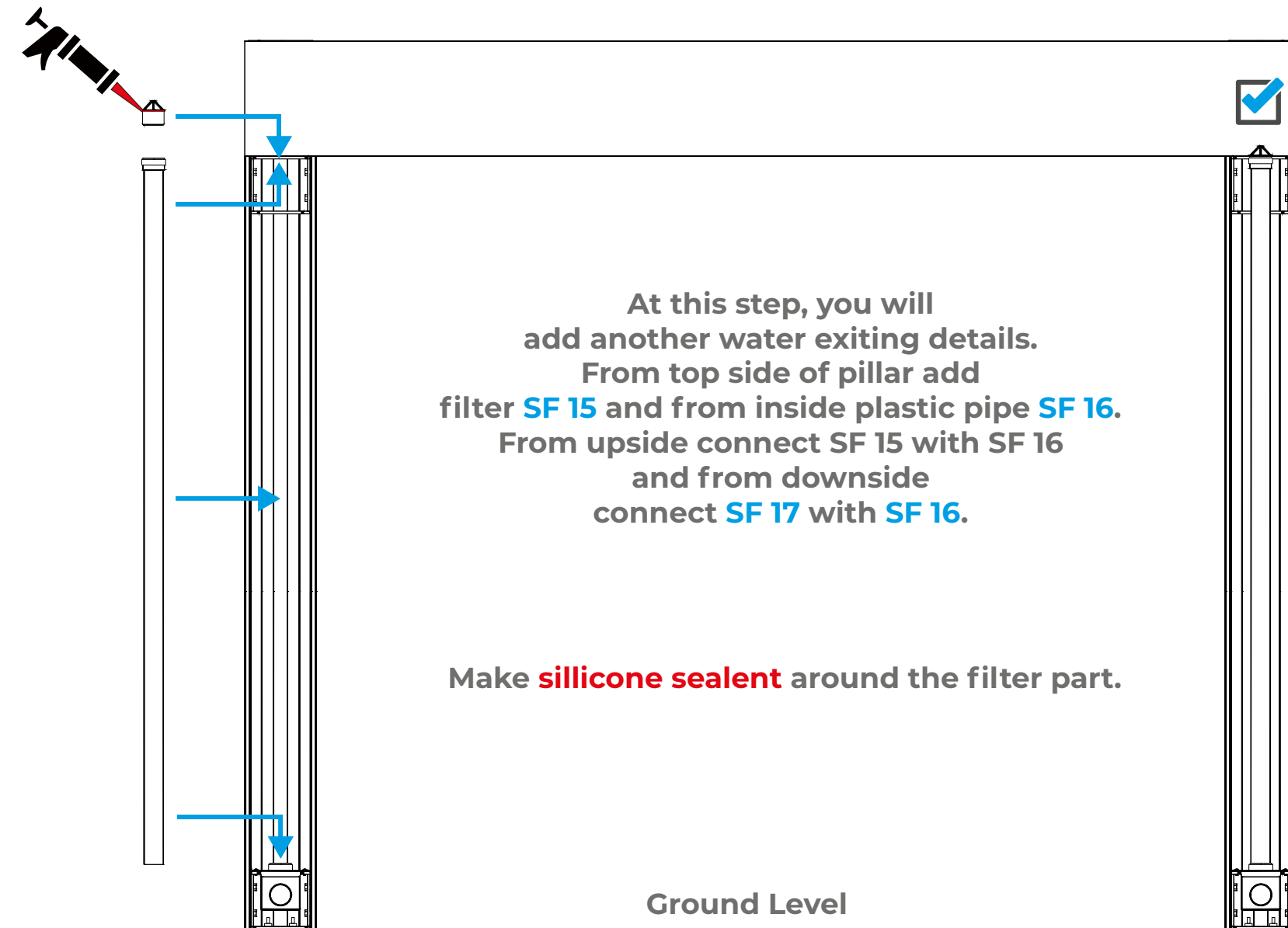
Step 5.1



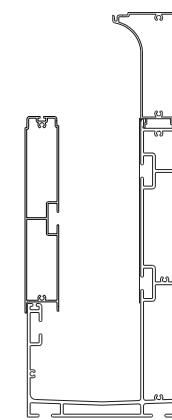
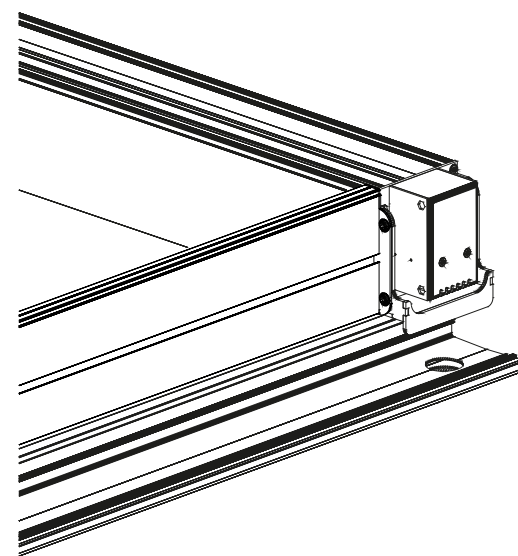
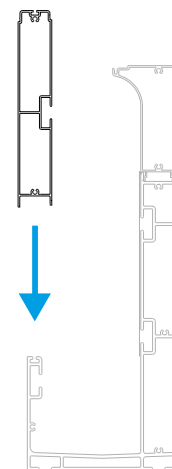
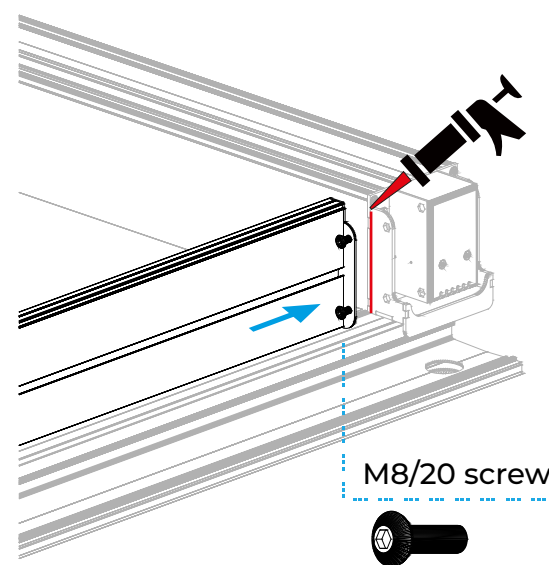
At this step, you will add water exiting details. This is the small **SF 14** box include its own cap with the hole. Install this water exiting box with M8x12 Allen Head with Hex Key.



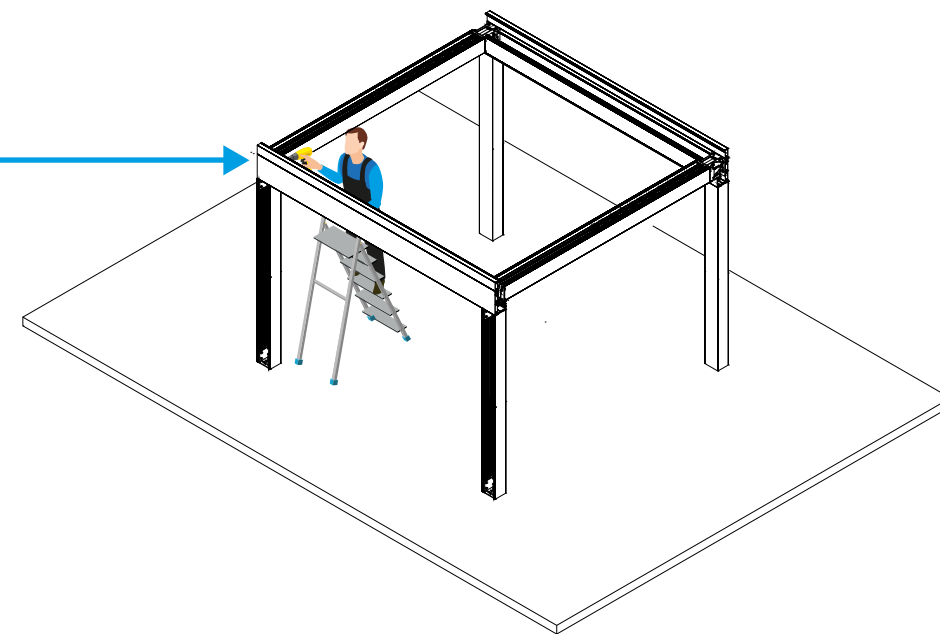
Step 1.3



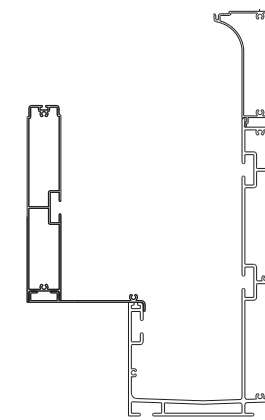
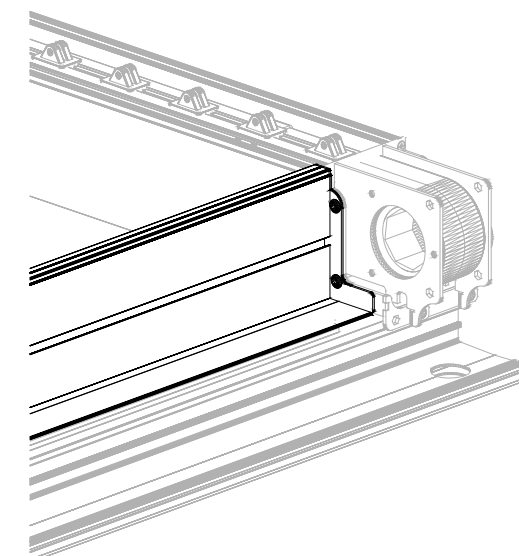
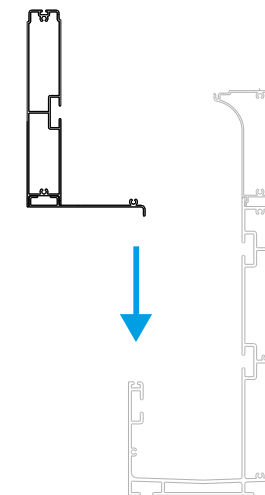
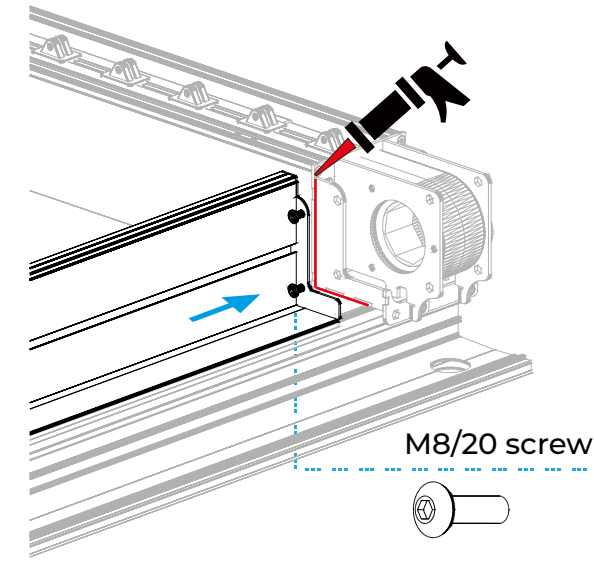
Step 3.1



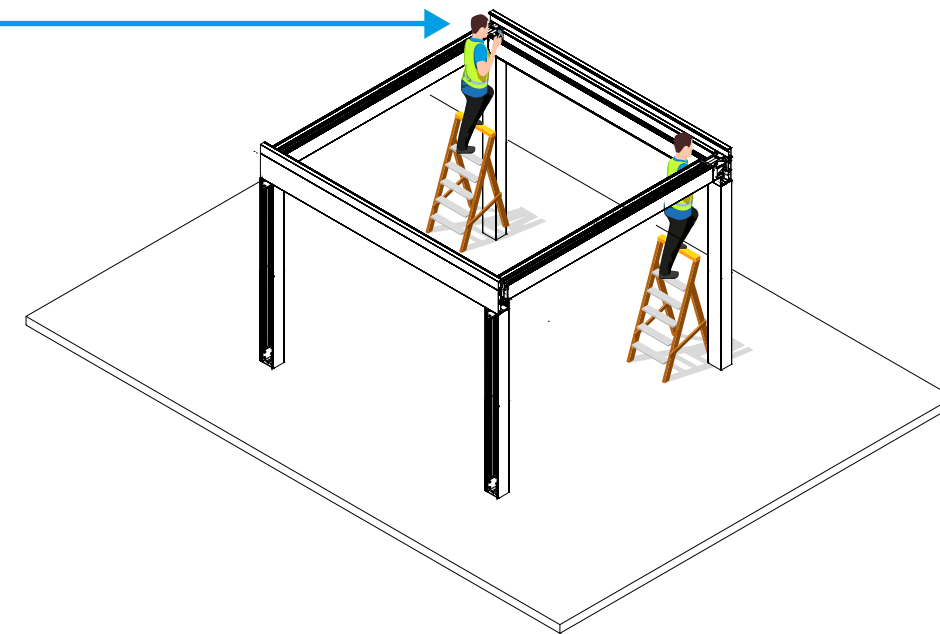
At this step, you will attach Front Gutter Inside Profile **SF 61**. The picture on the left side shows us attaching for the front side and the right picture shows the back side profile. And use M8/20 connectors with Hex Key for assembling.

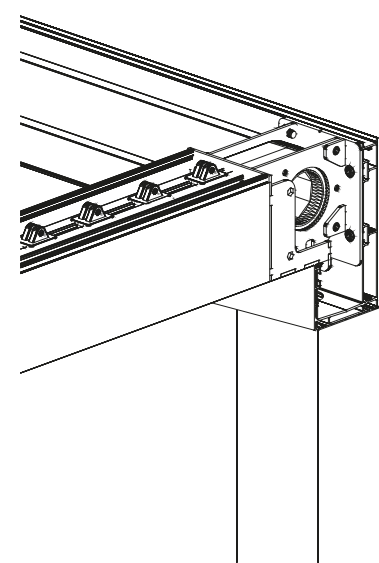
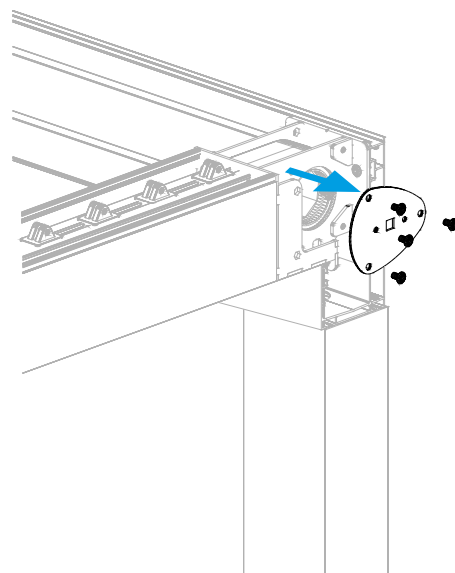


Step 3.2

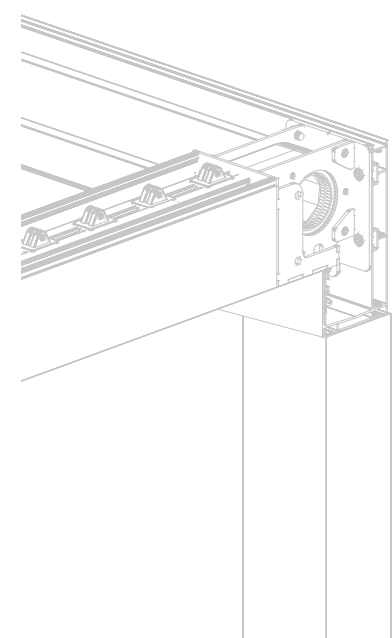


At this step, you will attach Back Inside Profile **SF 62**. The picture on the left side shows us attaching for the front side and the right picture shows the back side profile. And use M8/20 connectors with Hex Key for assembling.

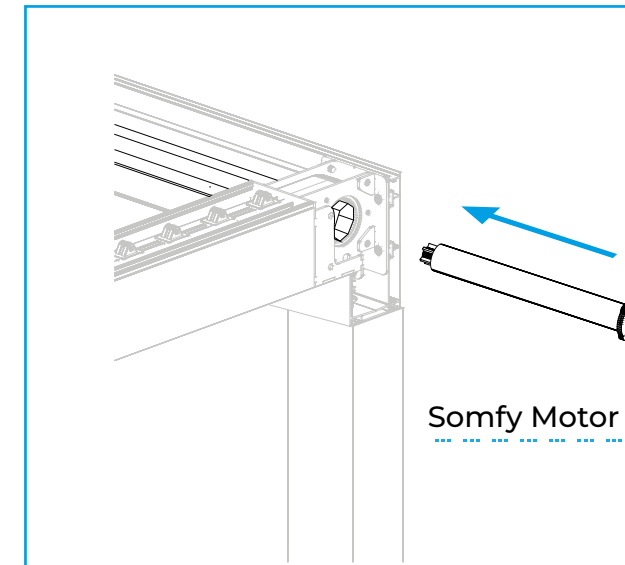
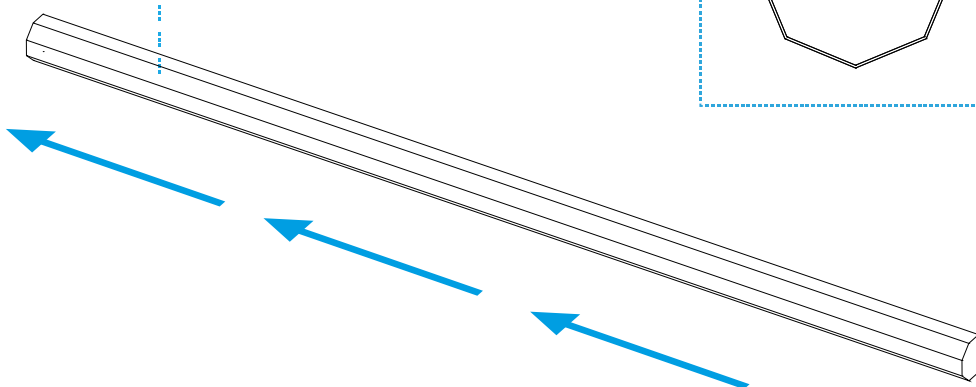
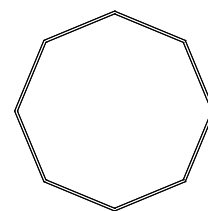




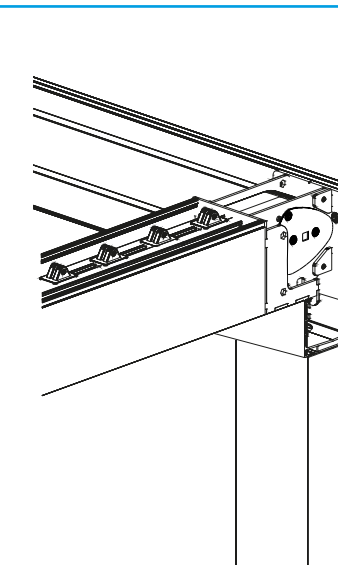
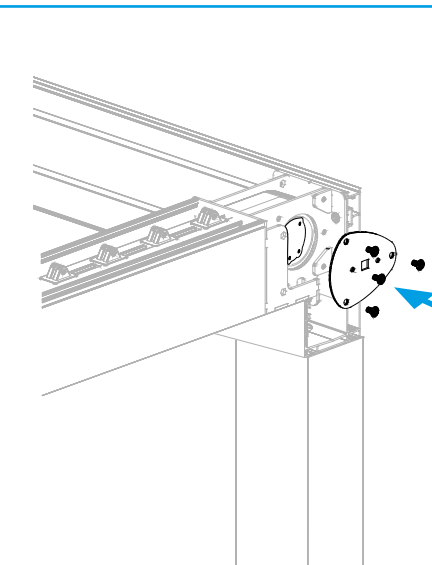
At this step, you will assemble the SkyBlade motor. First, remove the rail side cover. Open the screws with a Hex Key and install the 70 mm diameter motor tube first.



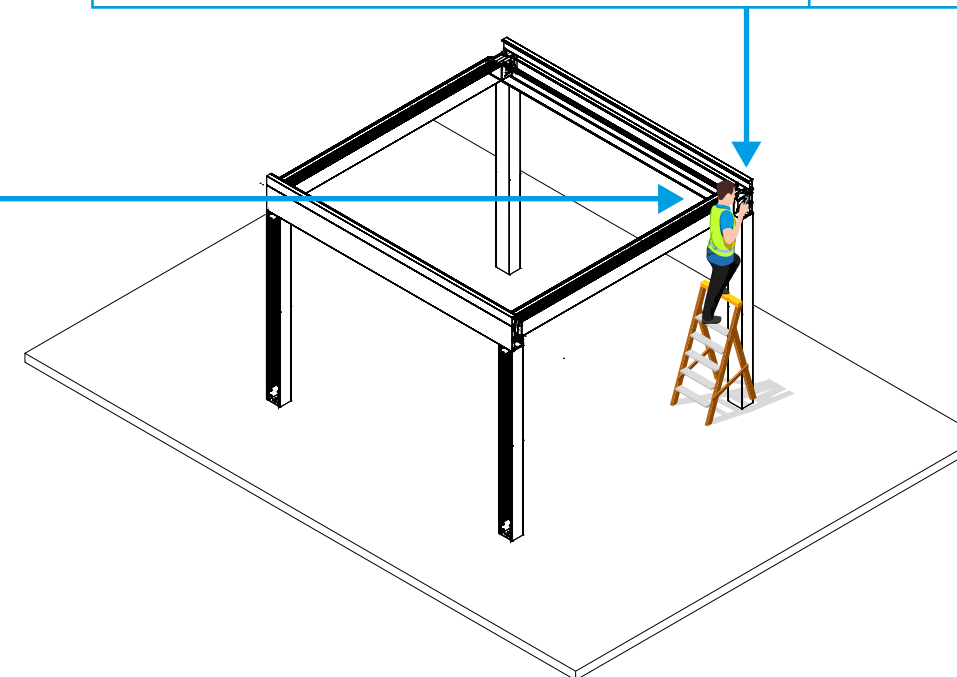
Motor Tube



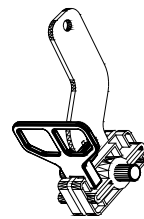
Somfy Motor



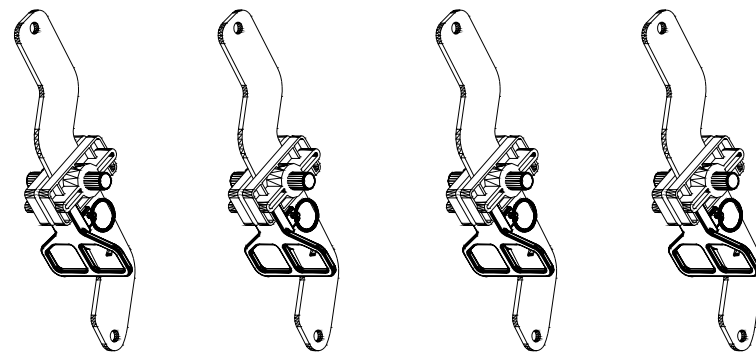
And after motor tube installation, install Somfy Motor **SF 52** inside to the Motor Tube **SF 51** and install Motor Tube inside the Gutter as shown on the right picture and close the cover removed first.



Front Connector



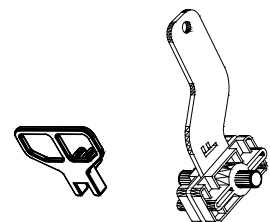
Middle Connector



Back Connector



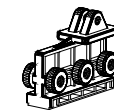
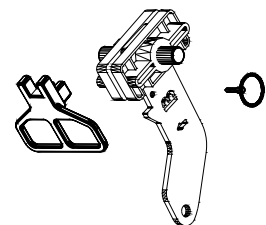
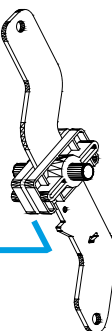
Remove pin and brown plastic part as shown above



2. Pull out the plastic part



1. Pull out the pin



1. Front Main Car

Is the main car already installed to the rail belt. Other cars will connect to this and will move together front and back.



2. Standart Middle Car

Small type of the car. Not installed to the anything. Can easily moving front and back during installation.



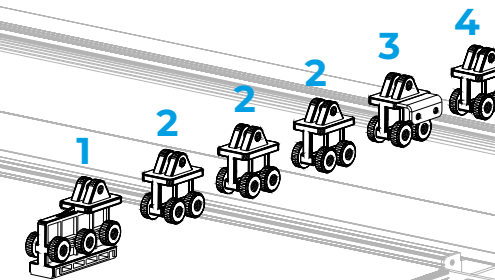
3. Back Fixed Car

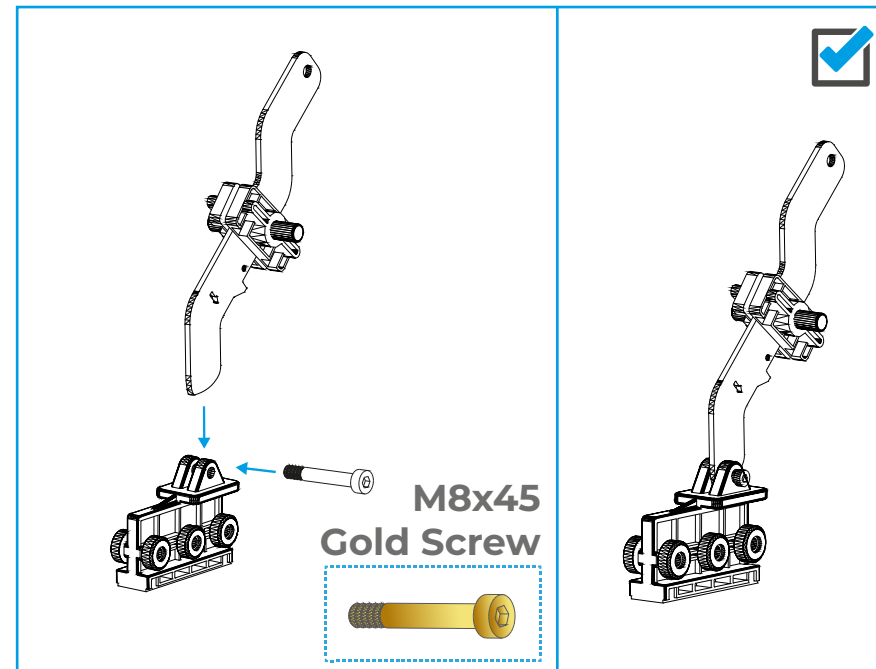
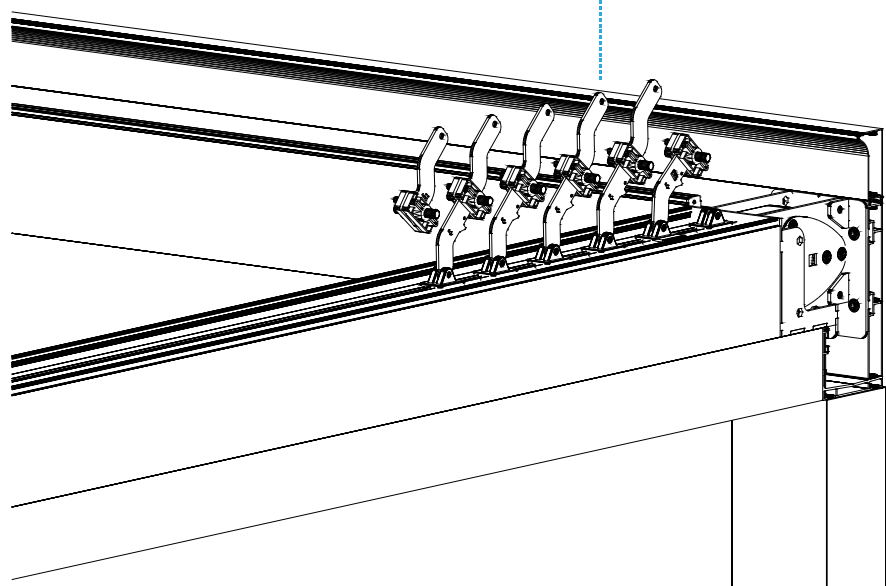
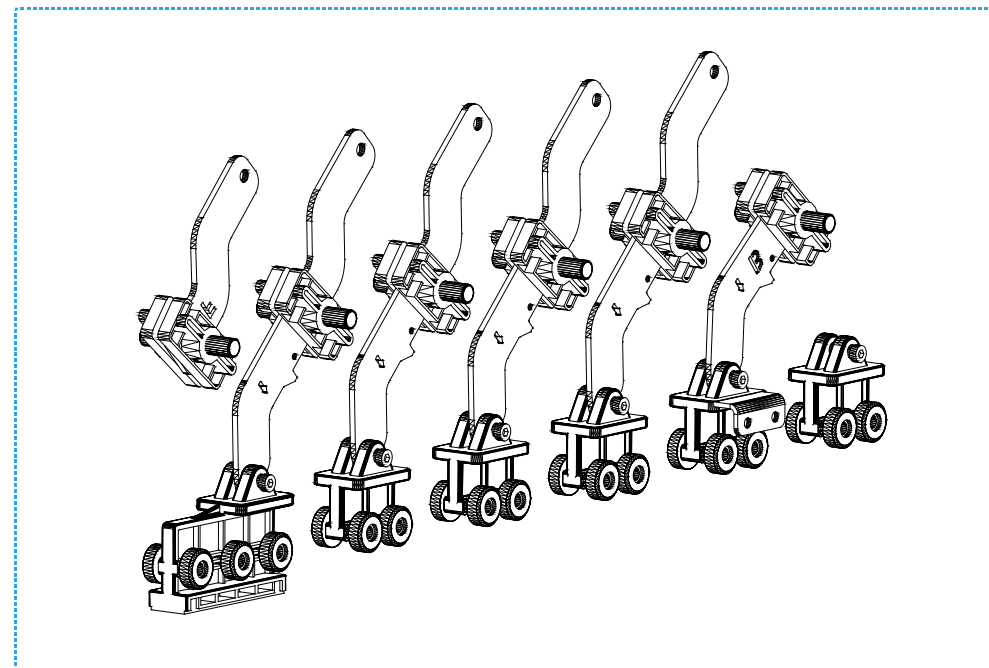
General type is the same like middle cars. But with the additional side part and screws fixed to the rail. Cannot move front or back.



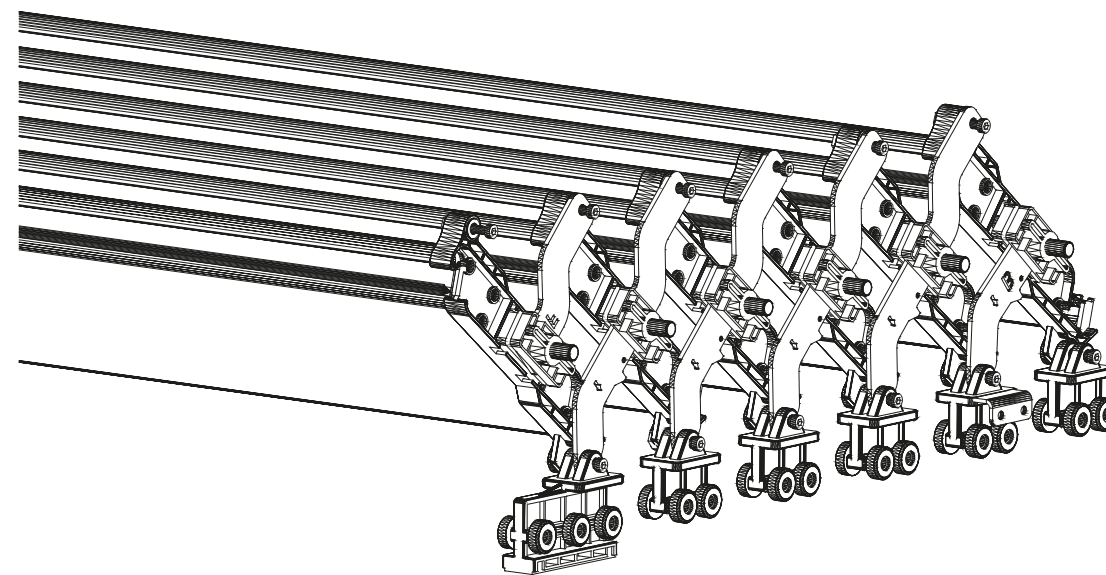
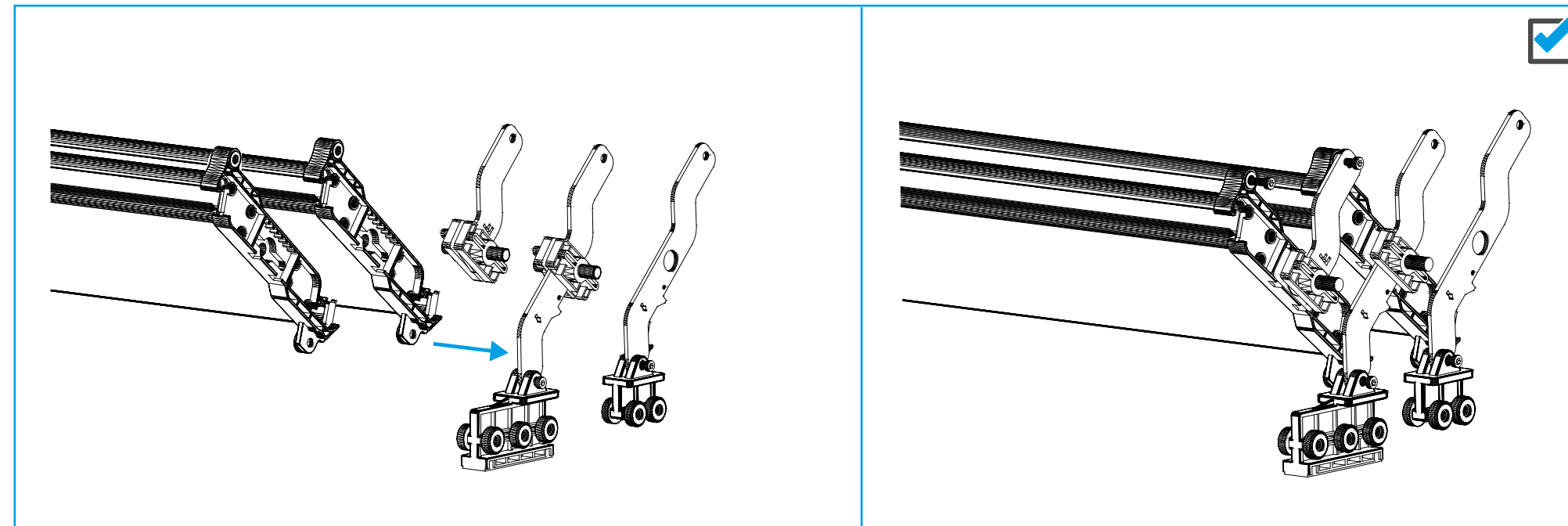
4. Standart Back Car

General type is the same like middle cars. Can move only backside area of the Back Fixed Car.

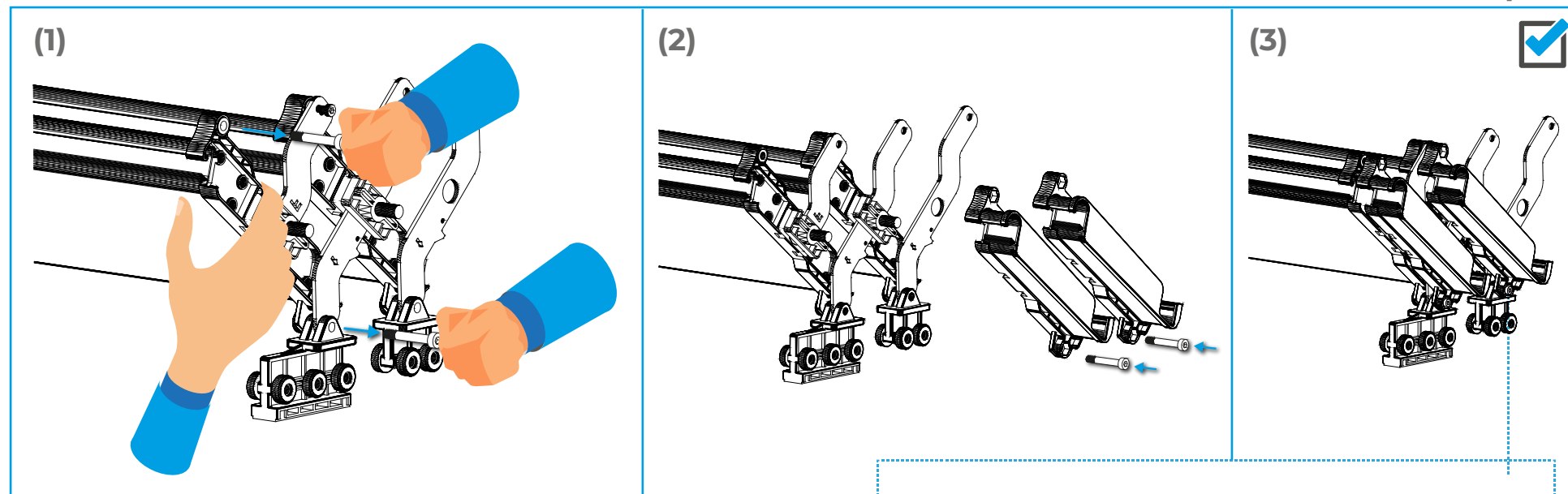




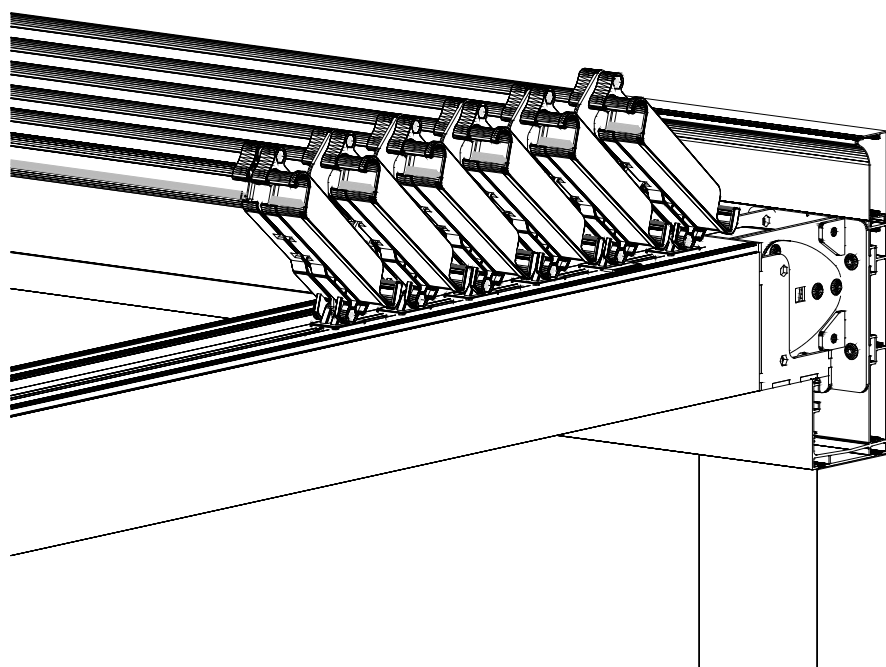
In this step, you will add roof panels.
This step explanation based on totally **6 panel** system. Panels cars delivering to our customer installed on the rail. Second car from back is fixed (not moving). On the last and first car don't need to add panel connectors. Middle connectors is the same shaped. On the first connector you will see letter F, on the last connector you will see letter B.



Connect panels (**SF 41**) from the inside of the metal connectors as shown on the picture.

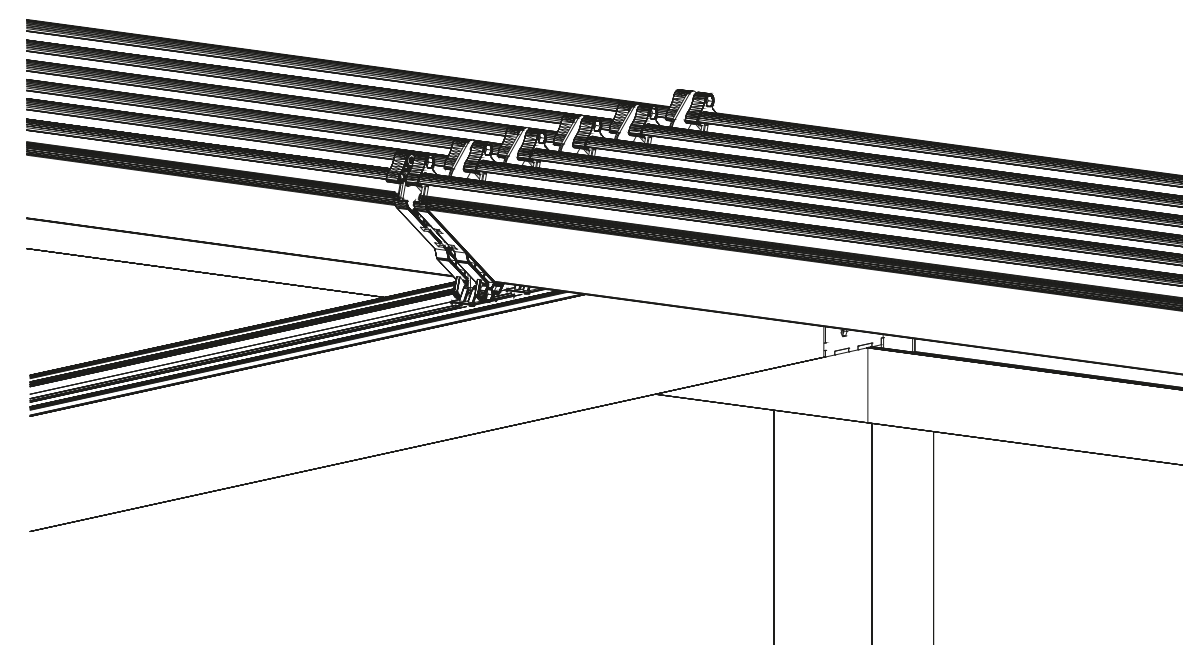
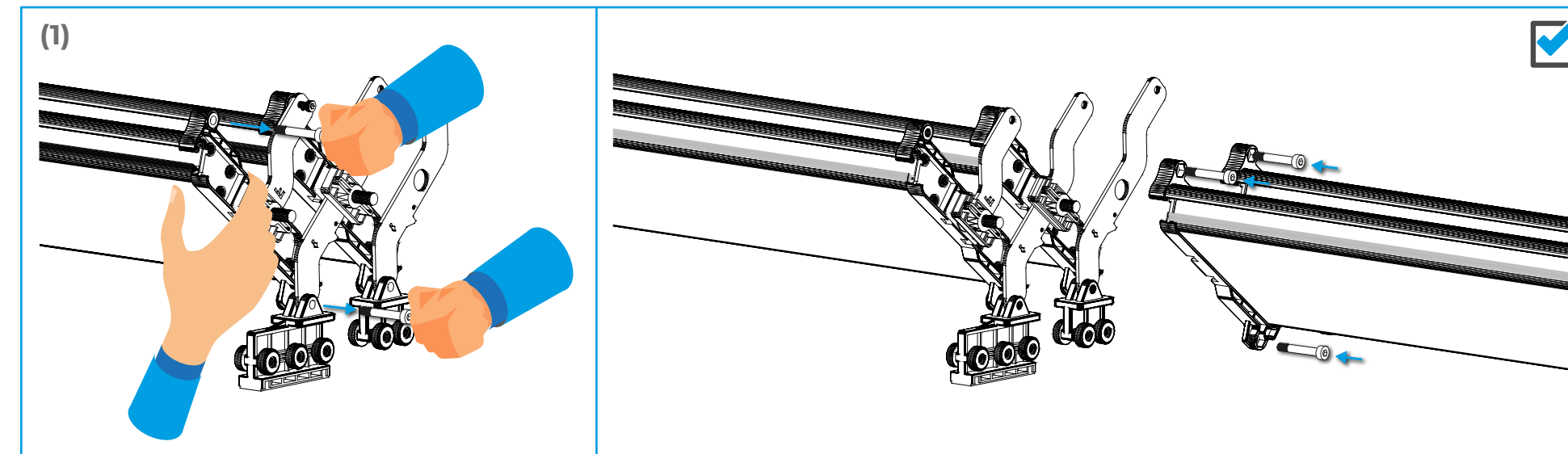


Step 3.5



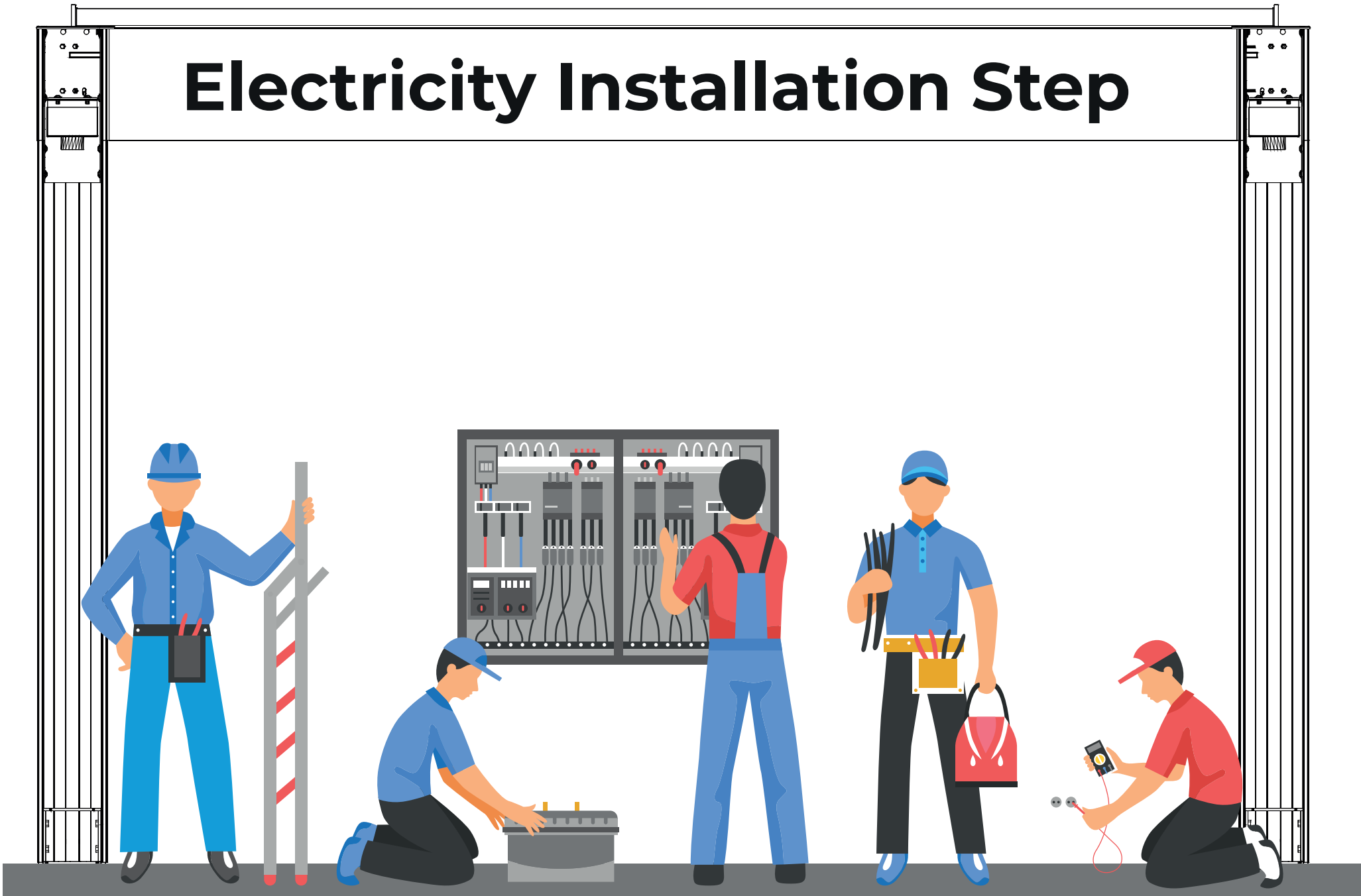
- (1) Keep connectors and panels together with your hand. Remove 8-45 gold screw already installed previous step.
- (2) Bring side caps of every caps (SF 73). After that add 8x45 gold again its own place.
- (3) At last add 8x45 screw's nuts.

EXTRA STEP !



For the system with great width, there are middle rails. For the middle rail connectors you will attach panels for both sides, as shown in the picture.

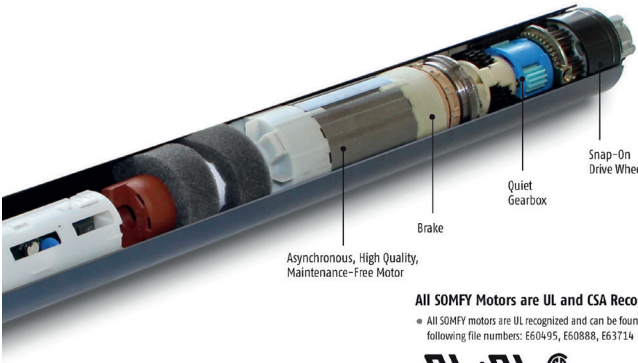
Electricity Installation Step



Motor Details & Installation

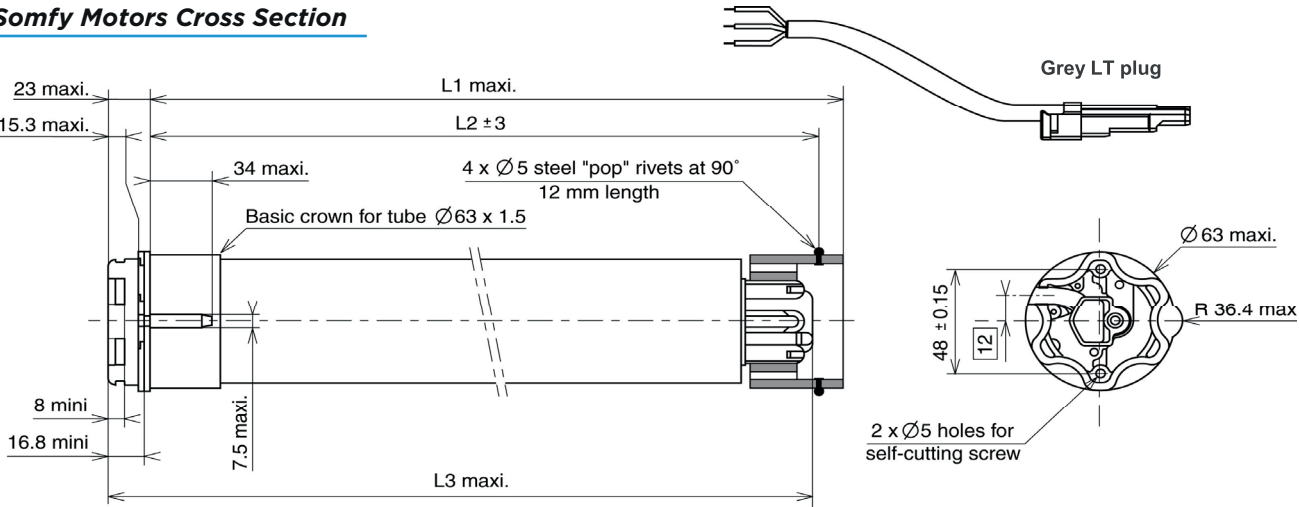
Somfy Control Details

- Reversal of the direction : by pushing the stop button of the transmitter during 5" during the factory mode
- Get control : Push the UP and DOWN button of the control in order to get control of the motor after the first power on during the factory mode
- Reset of the memory : 1- double cut-off with making alive from 5" to 10".
2- push briefly the programming button of a new transmitter until the motor moves UP and DOWN briefly



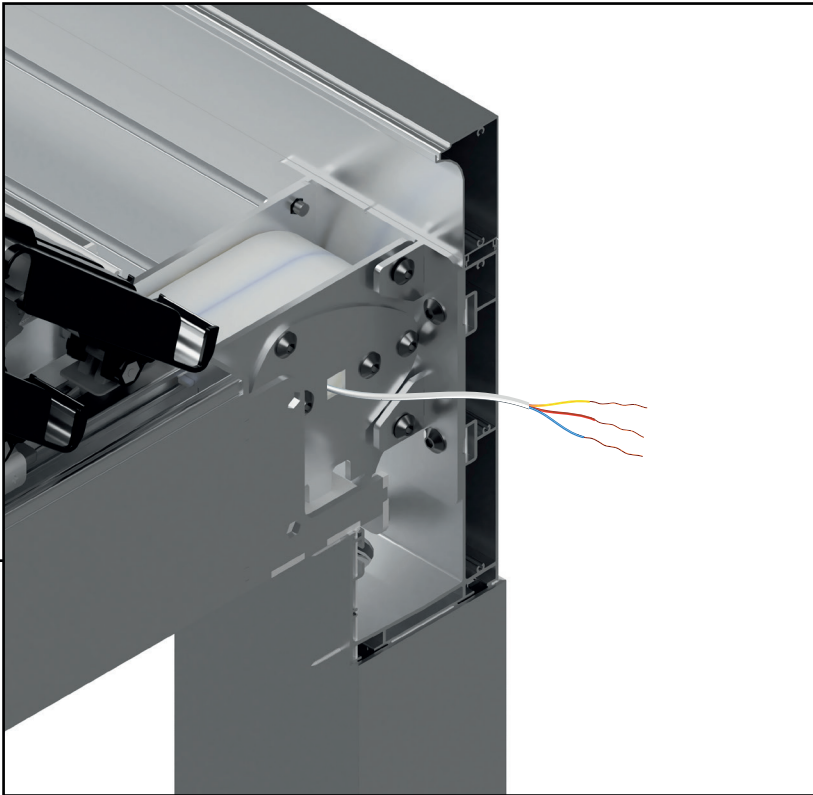
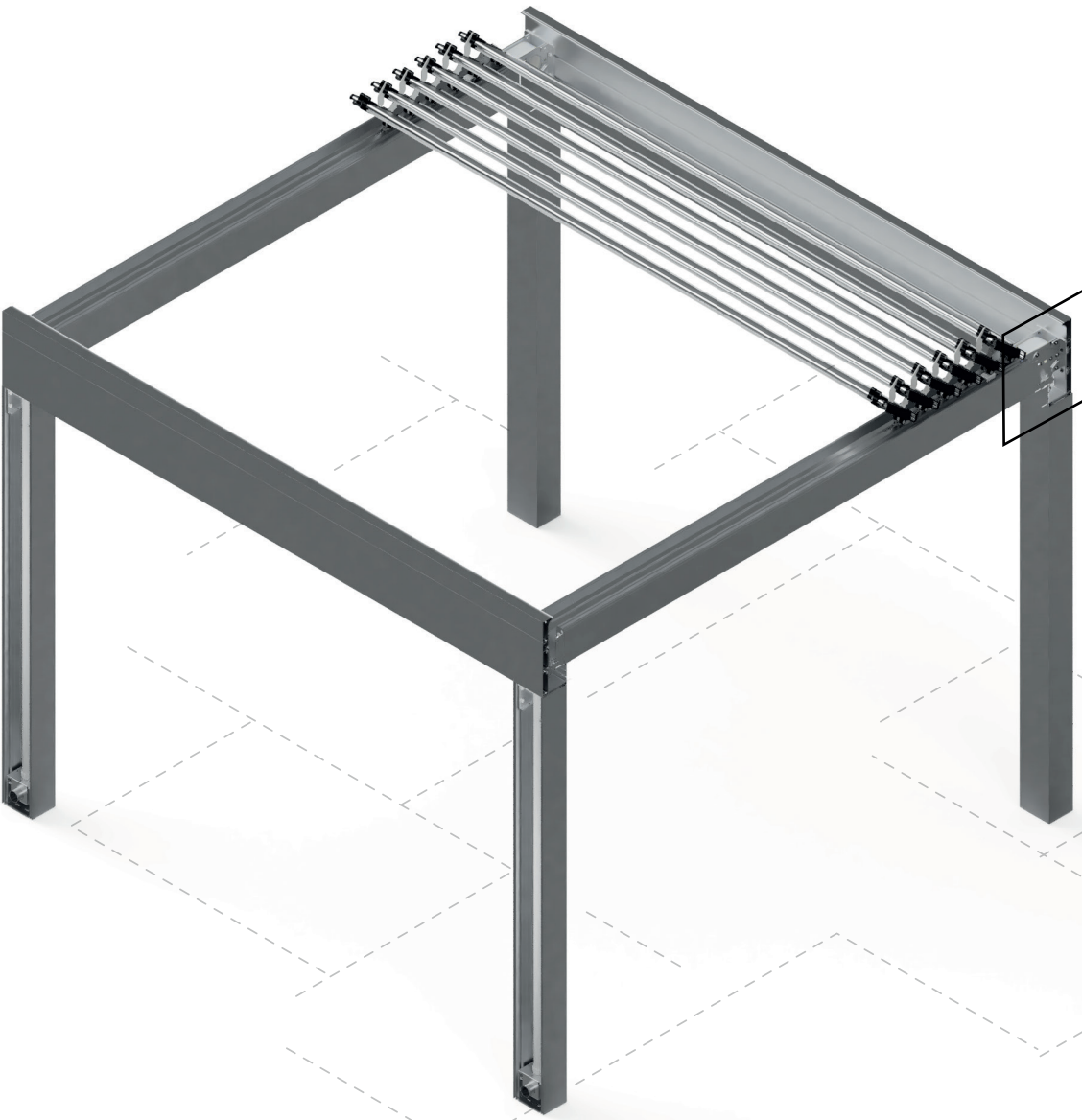
All SOMFY Motors are UL and CSA Recognized
• All SOMFY motors are UL recognized and can be found in the following file numbers: E60495, E60888, E63714

Somfy Motors Cross Section



Type of head	Star Head
Nominal voltage	230 V 50 Hz
Power supply tolerances	207 - 253 V AC
Thermal time	4 minutes
Number of wires of the cable	3
Wire section	0,75 mm²
Type of limit switch unit	Electronic
Capacity of the LSU	200 turns
Repeatability	< ± 3°
System of protection	IP 44
Interface drawings	Wheel interface LT60 206801-Crown interface LT60, LT60ADF, FTS60 & LT60CSI 206802-Interface drawing star head LT60 206803-Interface drawing LT50&60 buttons 206817.
Radio frequency	433,42 MHz
Coding	Rolling code 16million of possibilities
Capacity of memory	12 different transmitters plus 3 wireless sensors
Antenna	Integrated
Range	20 m with 2 reinforced concrete walls to be passed through
R&TTE (Radio Equipment and Telecommunications Terminal Equipement Directive)	Dir 1999/5/CE
Safety Security	EN 60335 - 2 - 97
Electromagnetic compatibility	EN 301489 - 3
Radio frequency	EN 300 - 220 - 3
Application	
Principle	
Basic crown for tube Ø	63 x 1,5 mm
Temperature working range	Normal use: -10°C to +40°C Exceptional use (20% of the life time not simultaneous): -20°C to +70°C
Noise level	According to SOMFY measures (for information only). Worse value: in load up direction during 10 seconds.

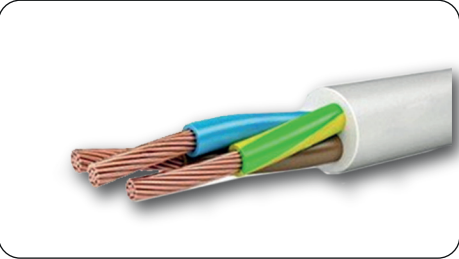
PANEL OPENED POSITION



Bring motor output cable from the side cap. At last step don't forget to make a hole on the system side cover. And bring cable to the outside from this hole. And make silicone sealent around this hole.

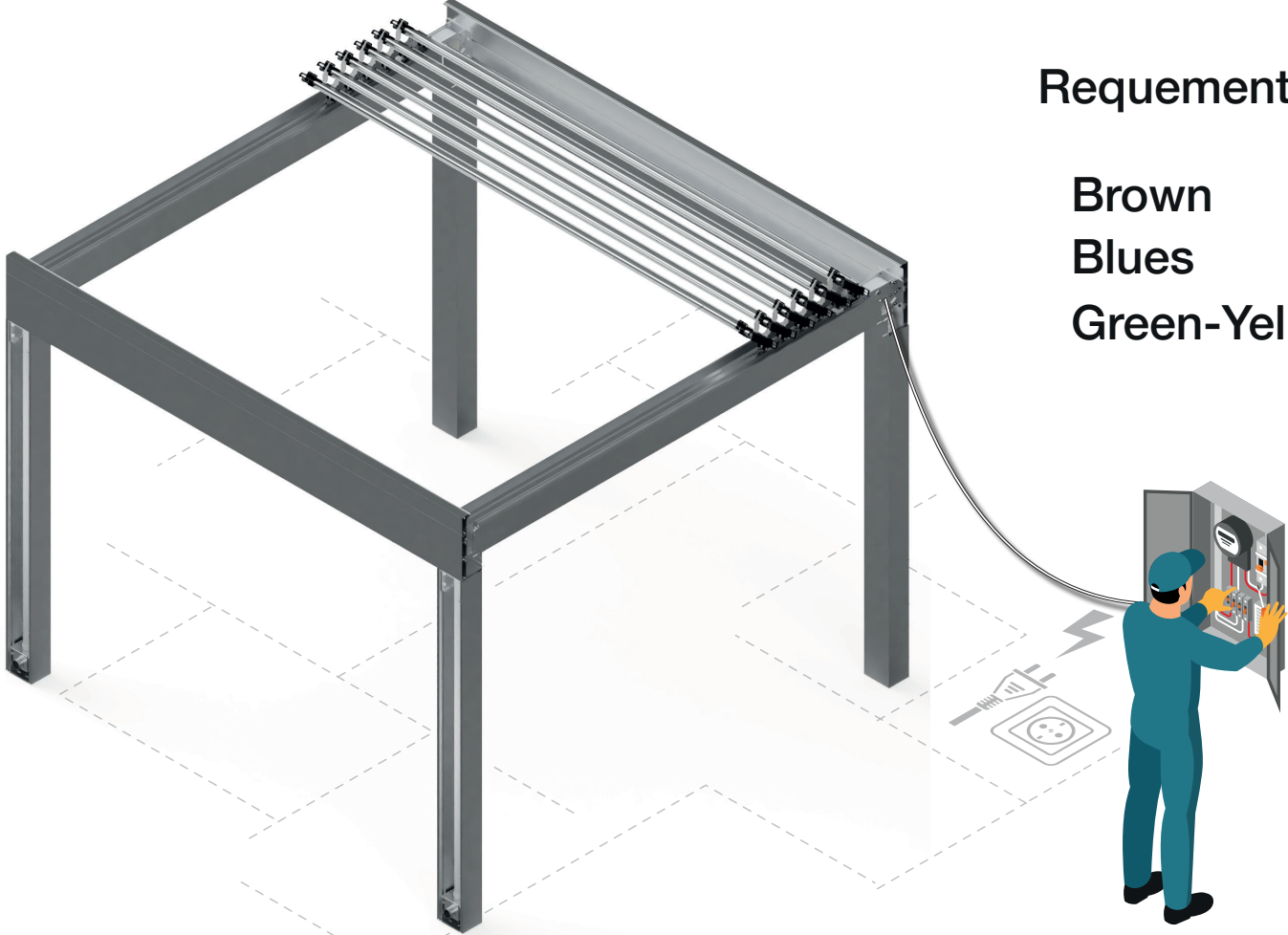
* For tube motor you will put your cable into the connector which is coming from tube motor and colored as **blue / brown / green-yellow**

* We always recommended isolated cables cause if cable **take damage** isolated cable protect cooper for safety.



Min. cable cross section
3x1.5 isolated TTR
Requement cable for your cables.

Brown		Live
Blues		Neutral
Green-Yellow		Earthing



Programming Mode

Before you begin Motors are shipped without limit settings and transmitter ID's. Steps 1 to 7 must be completed to ensure proper shade programming and functionality. Power should ONLY be connected to current shade being programmed. All other shades should be disconnected from their respective power while programming.

STEP 1: CONNECT POWER

Connect power With the motor installed in shade, connect power to the motor (220VOLT AC)



STEP 2: INITIATE PROGRAMING

Press both  and  at the same time until the shade jogs.
In Programming Mode, the shade will move only when the  or  is held initiate programming



STEP 3: CHECK FOR DIRECTIONS

Press  or  When pressing  product should go down or out. To change direction press and hold  until the shade jogs. Check directions A jog is a brief up and down motion.

STEP 4: LIMIT SETTINGS



This is limit setting step. (Note: for that step we will accept that up button is opening button and down button is closing button. Also if you have sun,rain or wind sensor before that step please read the step 6 first) Open the pergola with holding  button and when it comese nearly opening position press  to stop pergola and make sensitivity setting with little pushes to up and down buttons. When it comes to exact position of opening : *JUST PUSH* the  and  button at same time than pergola start to close. (Opening limit is done).



When pergola comes nearly closing limit, push  button to stop pergola and make sensitivity setting with little pushes to up and down buttons. When it comes exact position of closing, JUST push the  and  buttons at same time. And it start to open. (Closing limit is done)
Opening and cloing limits are done now.



STEP 5 CONFIRM LIMITS

Press and hold  my button and program button on the back side until the shade jogs to confirm the limit settings.
A jog is a brief up and down motion.



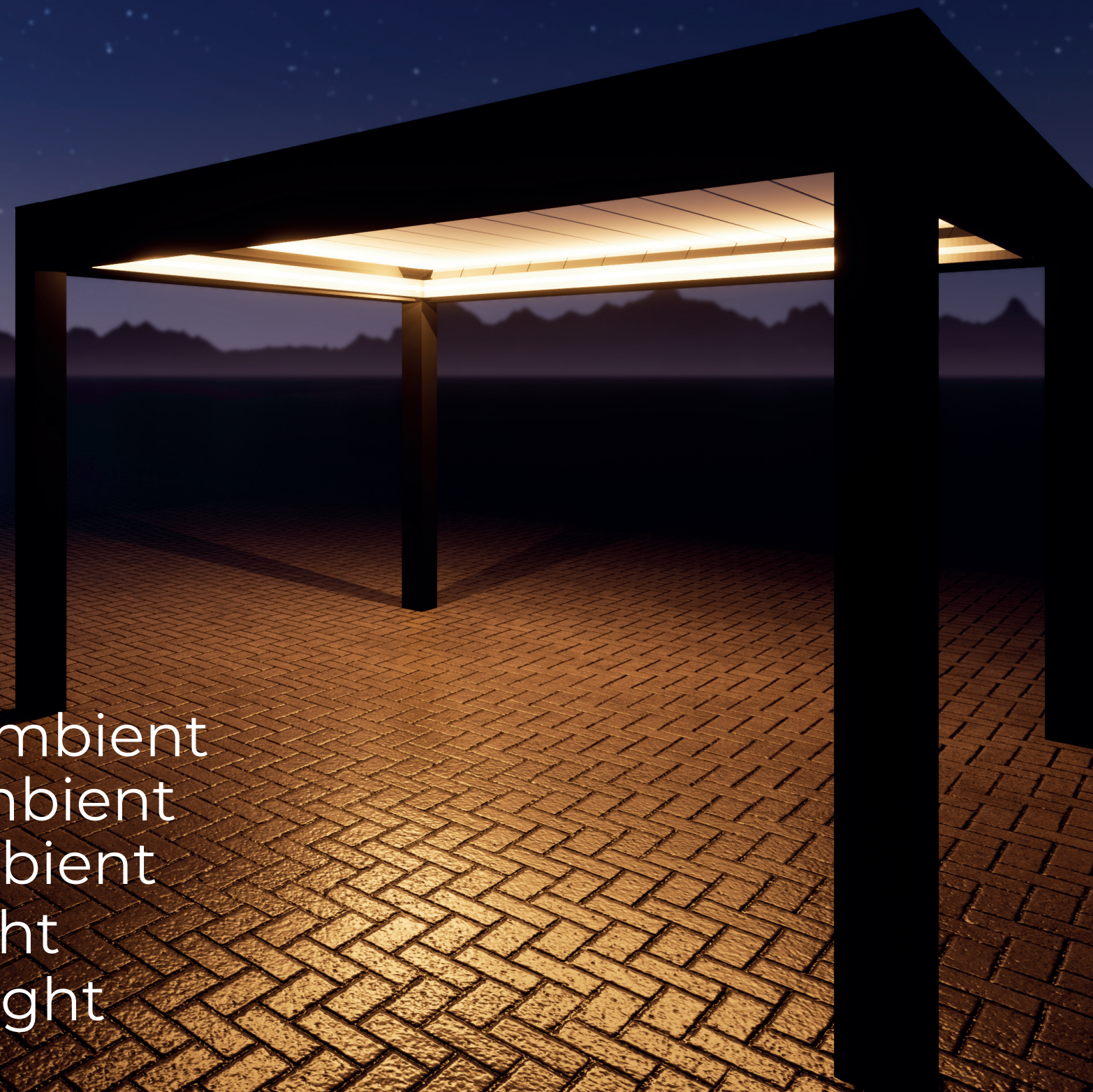
STEP 6 : SET USER MODE

Press and hold the programming button on the back of the transmitter until the shade jogs. The shade is now in User Mode.
In User Mode, the shade will operate with a brief press on  or 
Double check limit settings as a precaution.

STEP 7: FAVORITE POSITION

When you are in user mode,
Pergola for your favorite position and push and hold the  until motor response you..

Lighting Types & Installation



LED Single Ambient
LED Multi Ambient
LED RGB Ambient
LED Downlight
Panel Downlight

LED Single Ambient

Plan view

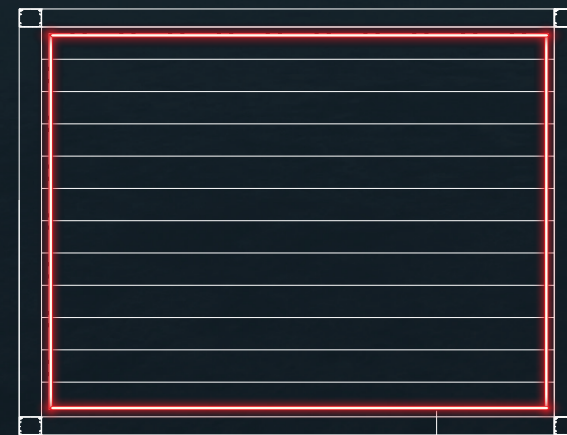


LED Multi Ambient

LED RGB Ambient

Plan view

Plan view



Led
Linear

Led
Linear

2200 K

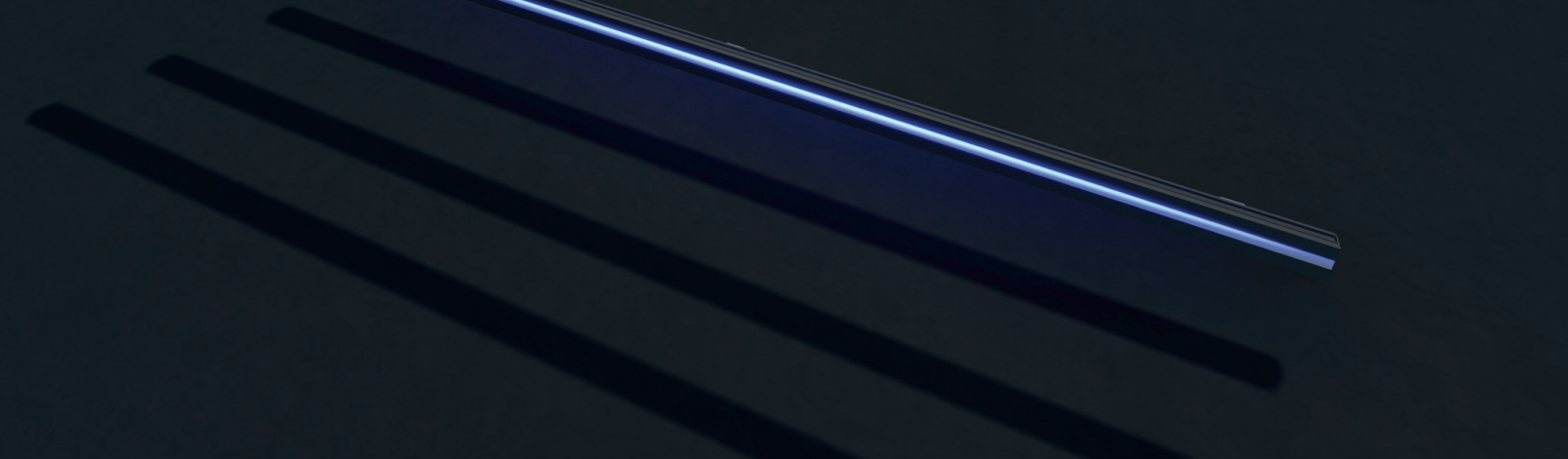
3500 K

6000 K

RED

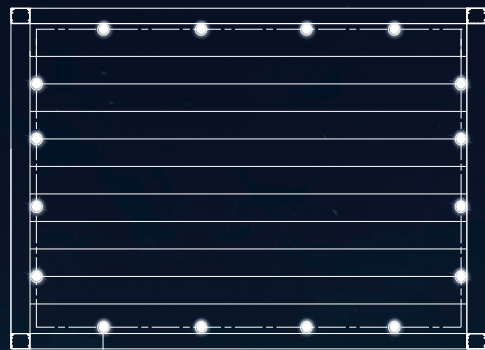
GREEN

BLUE



LED Downlight

Plan view

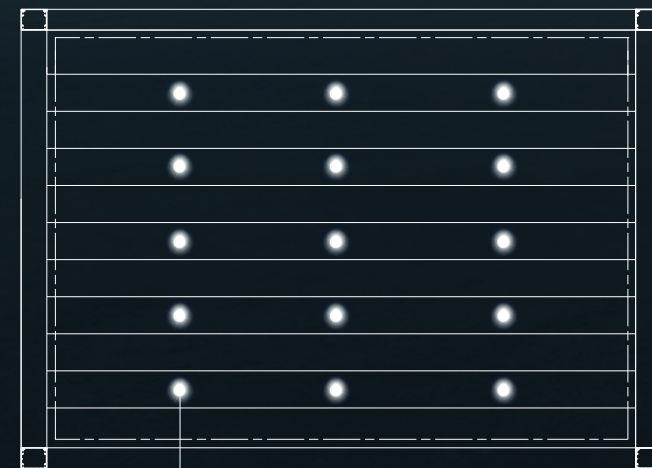


Linear Downlight



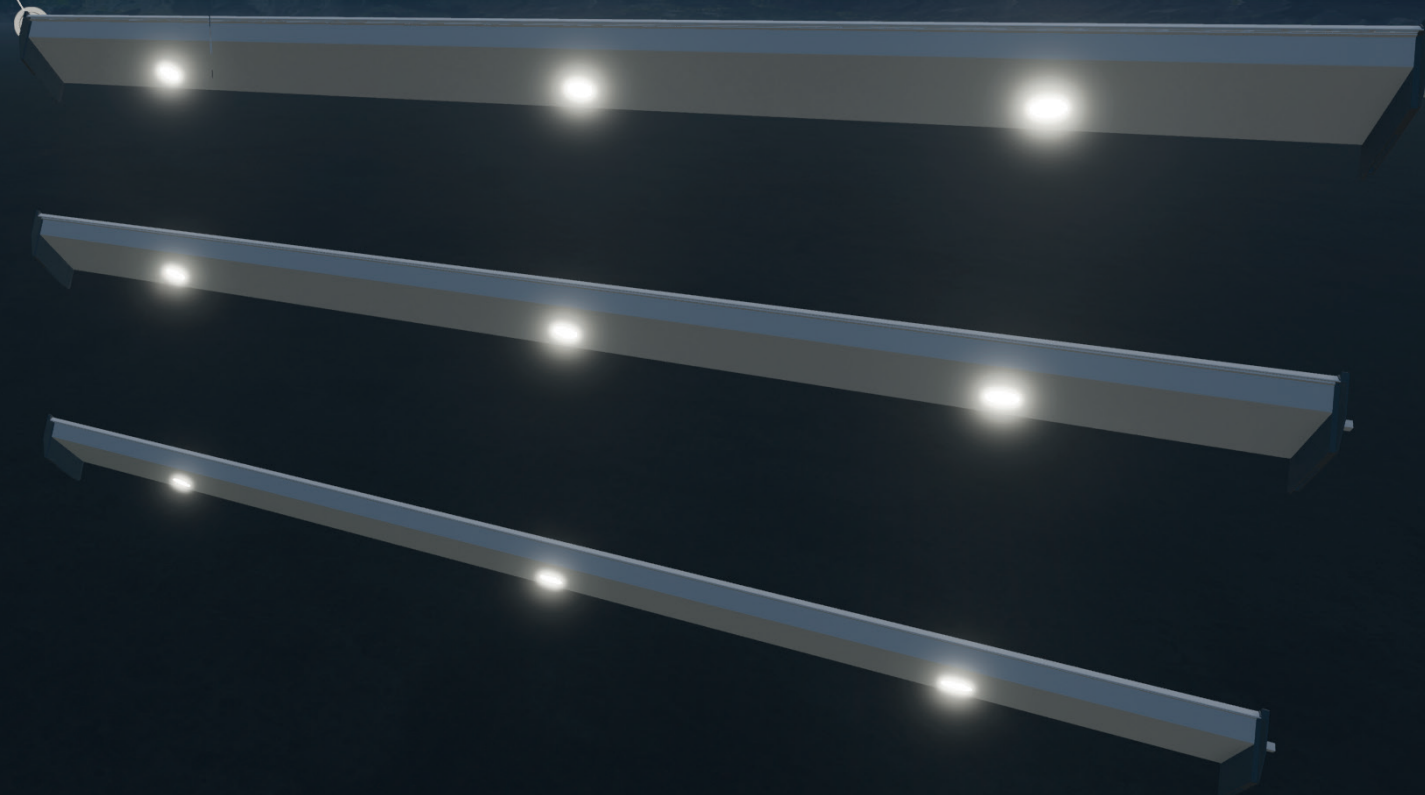
Panel Downlight

Plan view



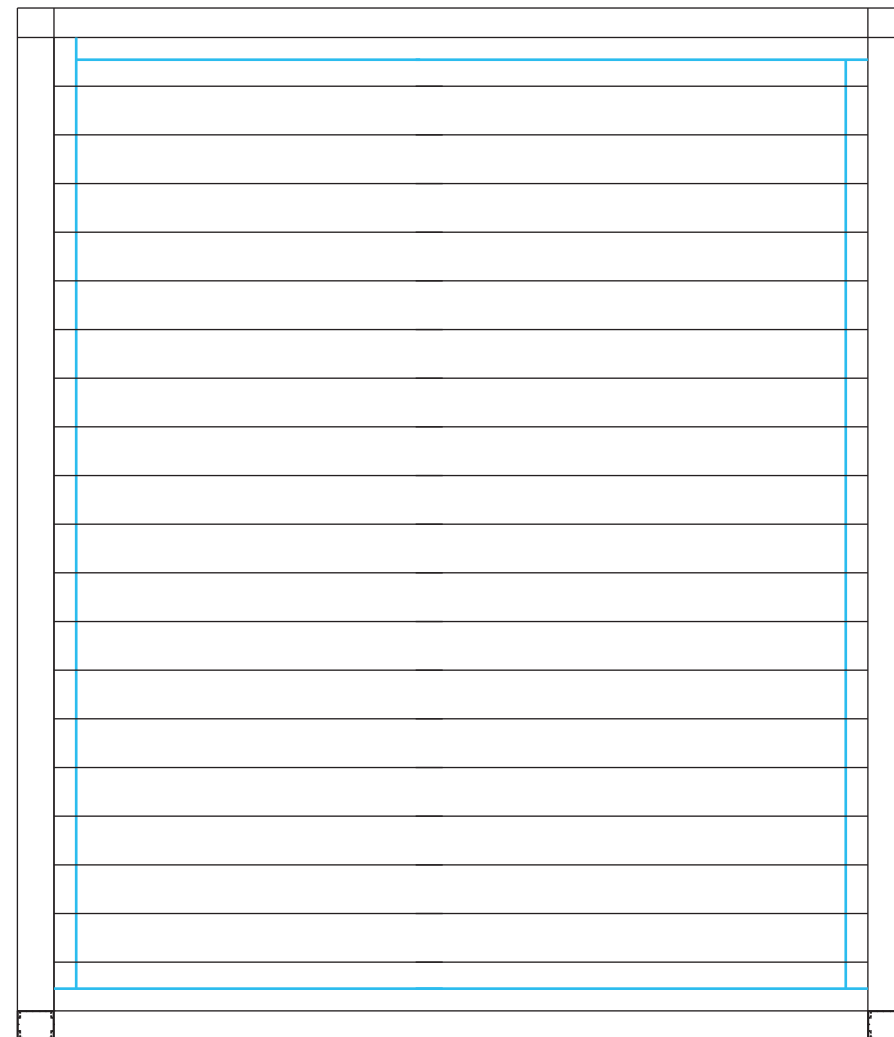
Panel Downlight

3000 K



Back
A-1

A-4

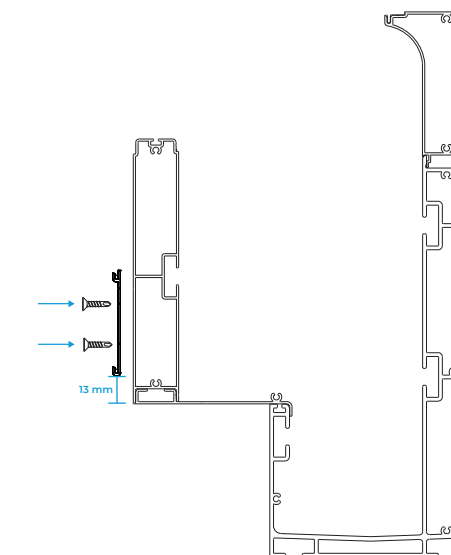
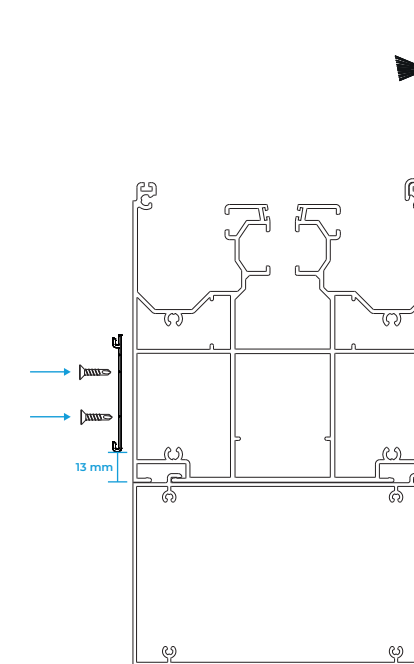


A-3
Front

Project Lighting Plan

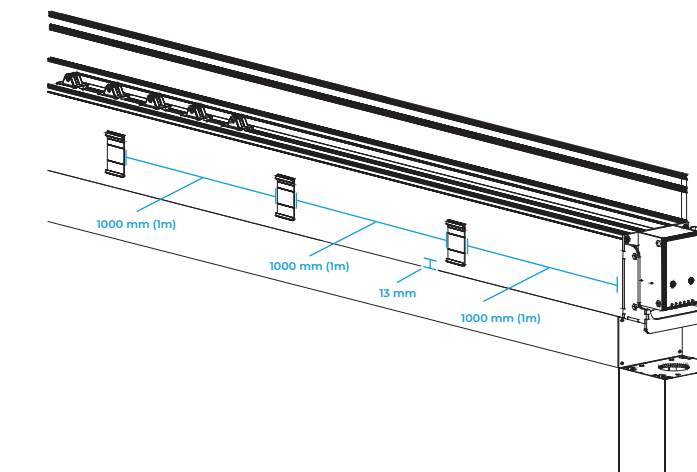
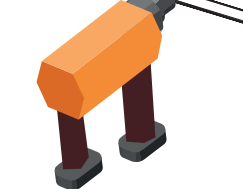
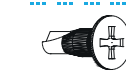
You can see the SkyCloud plan example left side of the page. This is an example with 4 pillars type. Lighting Box profiles numbered A-1, A-2, A-3, A4 clockwise.

Install small aparatus first. Use 3.9x13 self drill screws for installation. Leave **13 mm** gap at the bottom. Install inside surface of the Gutter and Rail profiles every **1 meter** as show below.



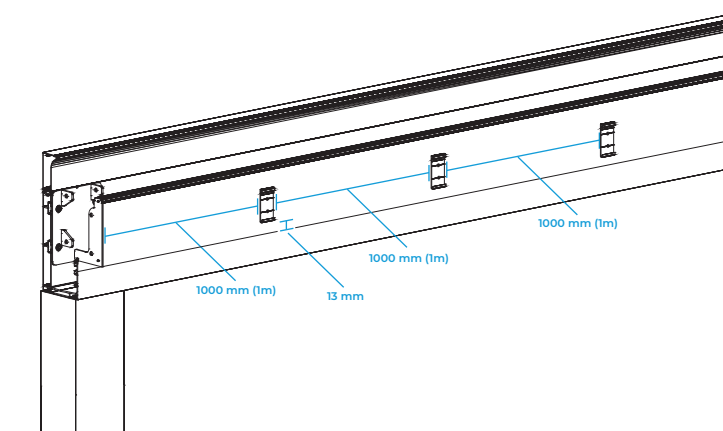
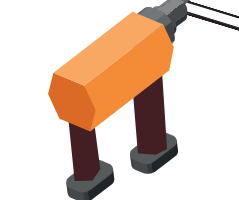
Rail

3.9x13 screw



Gutter

3.9x13 screw



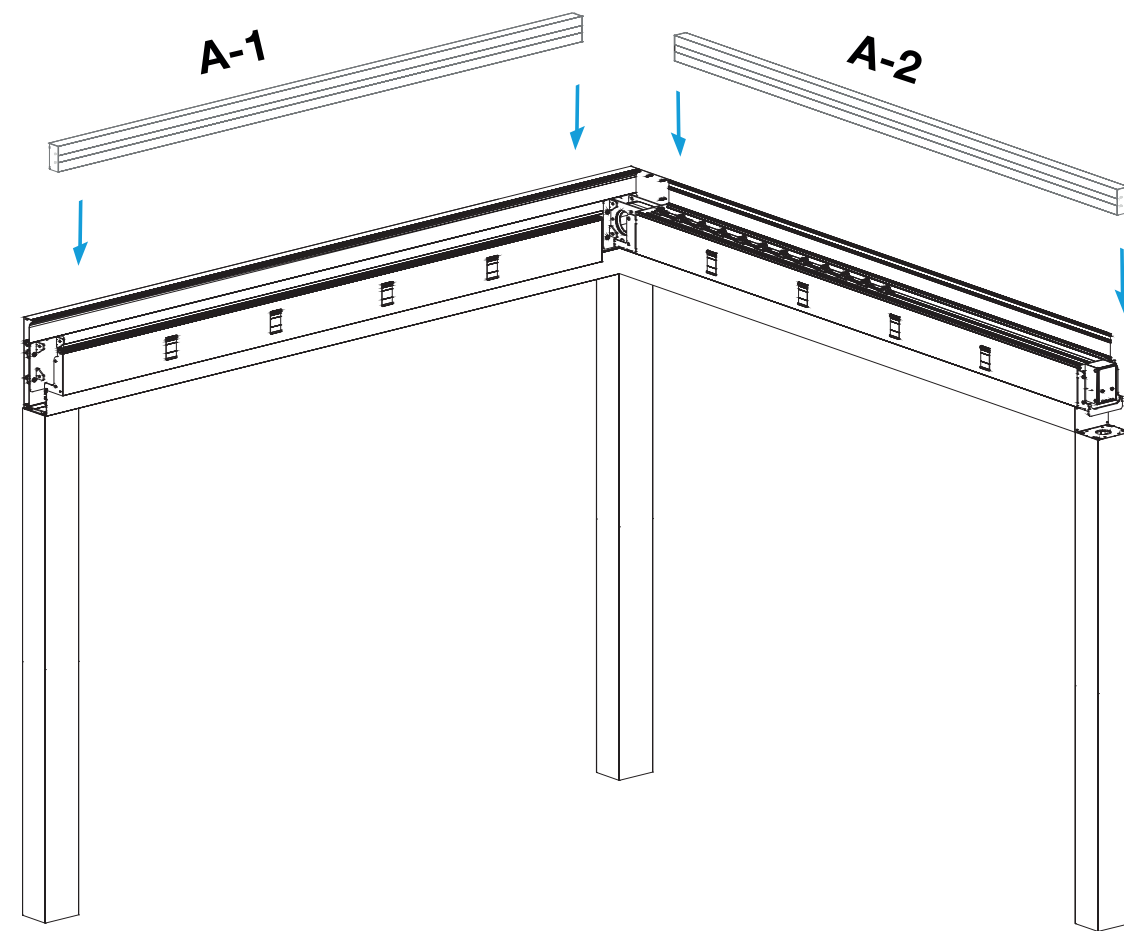
Electrical Steps



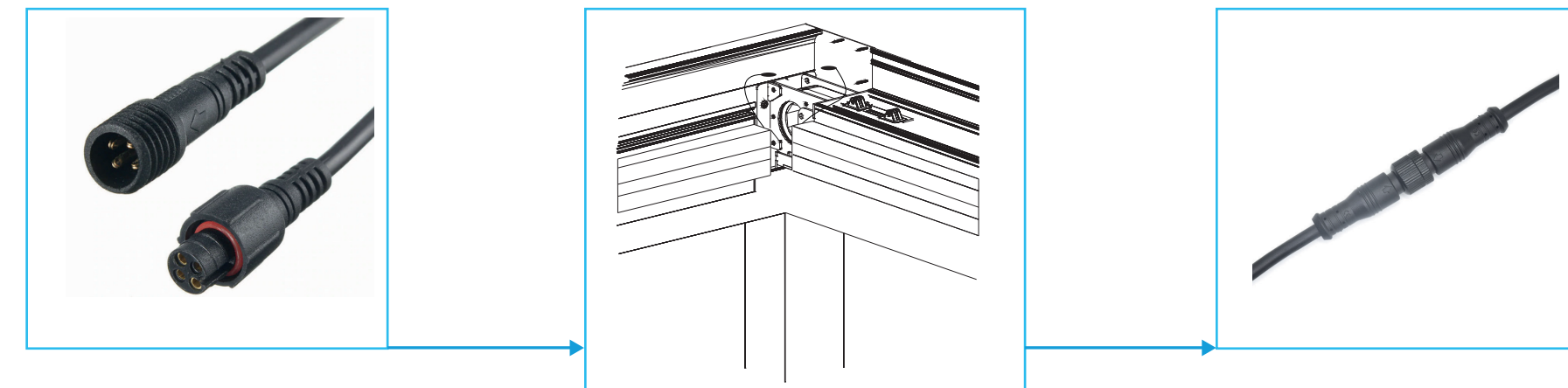
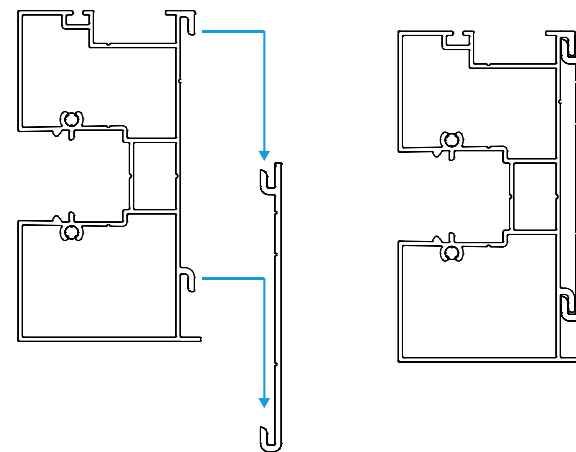
Electrical Steps

After finishing apparatus, connect Lighting Box on these as shown on the plan. Check placement from plan twice.

Project Lighting Plan



A-1 / A-2

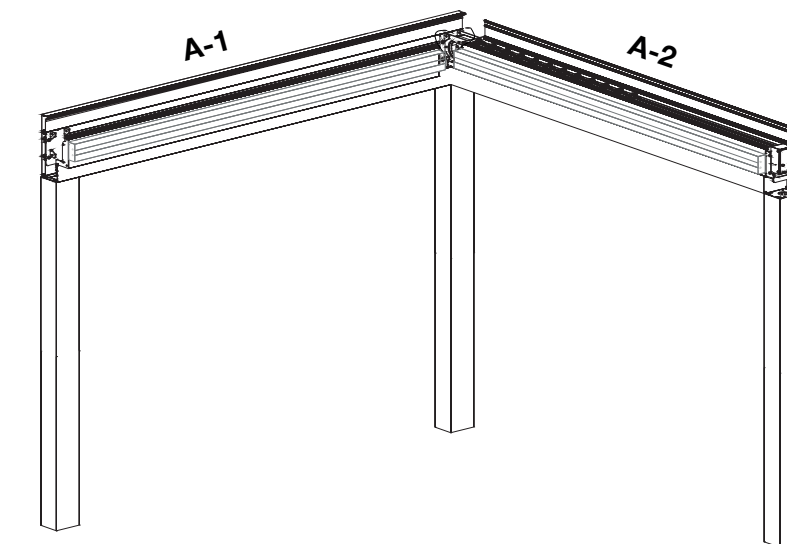


Back
A-1

A-4

A-2

A-3
Front



Connect Lighting Box profiles of electricity connection from the corners with using Socket Cables. (like an L)



Electrical Steps



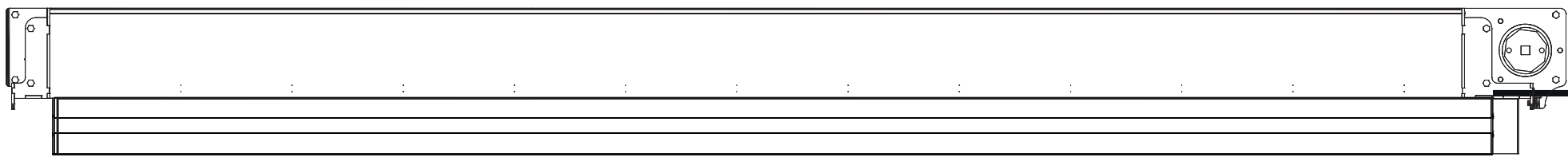
Electrical Steps

Led Linear Ambient + Downlight (SpotLight) Connections Plan

2. LED Ambiance



When you get your pergola system.
You will see 2 isolated cable.
* **Black 2x0,75 / 3x0,75 / 4x,75 Isolated Cable**
depends on your lighting system.
For both cable connections explained
detailed below.



Rail

Led - Ambient

Led Linear Ambient Connections Plan

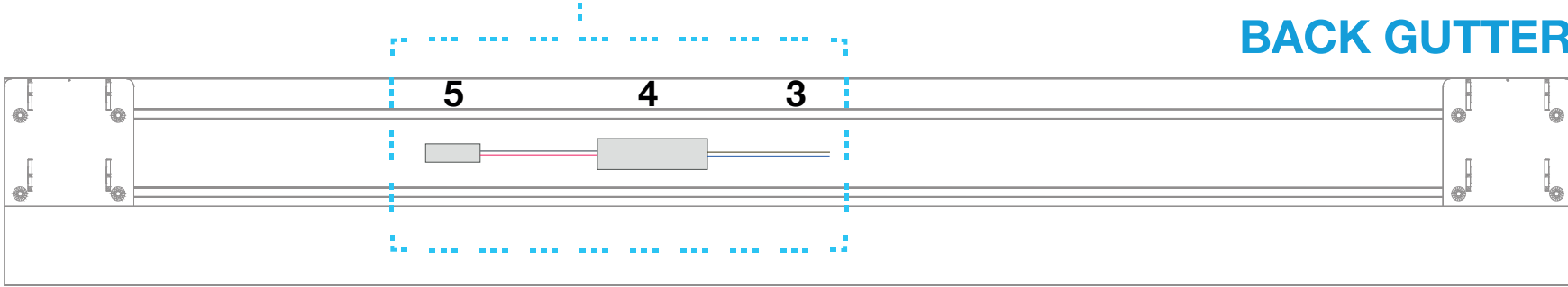
5. Receiver

4. Led Driver

3. Local Electricity
(220 V - 50Hz)



Collect Recevier and Led Driver inside of the back gutter



BACK GUTTER

Led Linear Ambient + Downlight (SpotLight) Connections Plan

2. LED Ambiance



When you get your pergola system.
You will see 2 isolated cable.
* Black 2x0,75 / 3x0,75 / 4x,75 Isolated Cable
depends on your lighting system.
For both cable connections explained
detailed below.

Rail

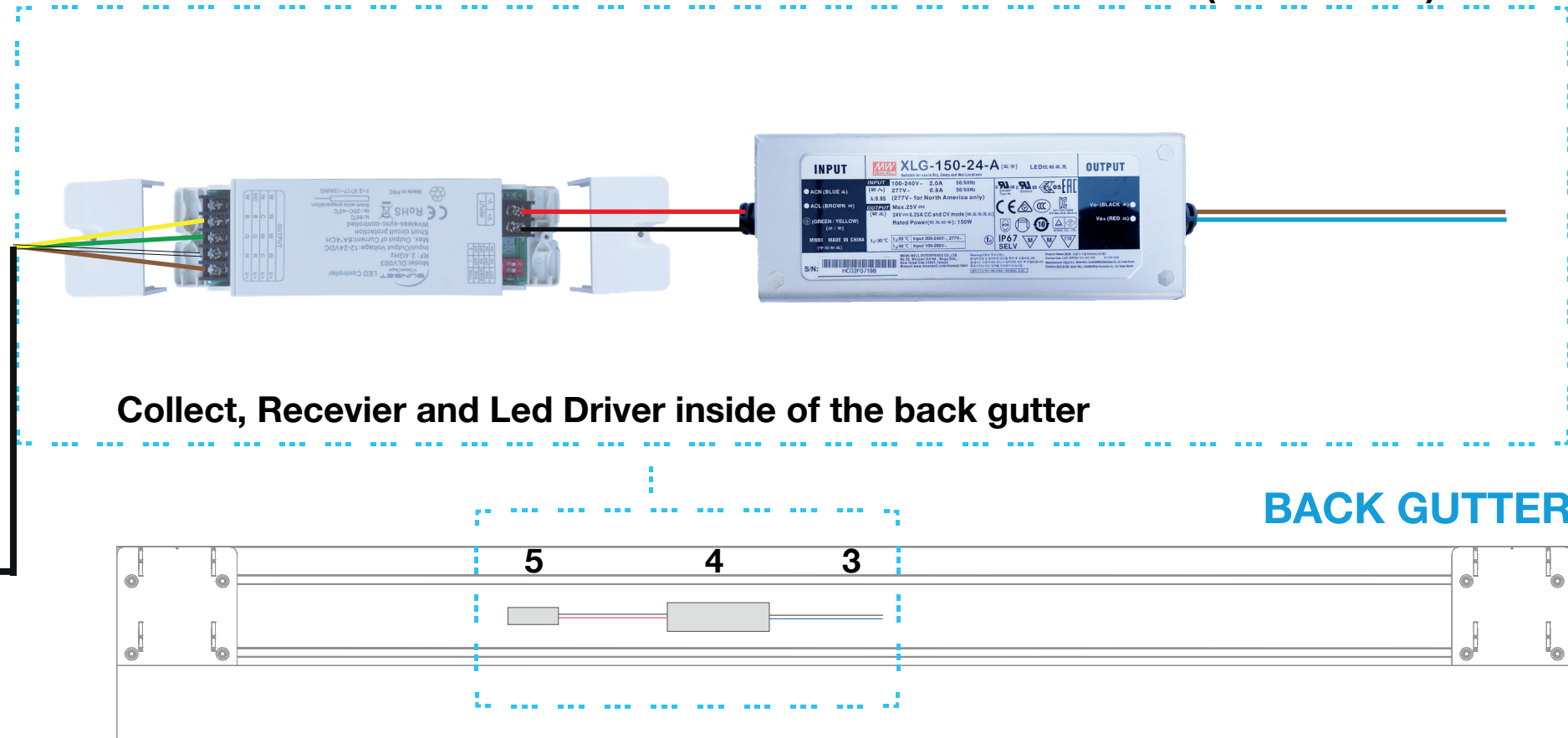
Led -RGB

Led RGB Ambient Connections Plan

5. Receiver

4. Led Driver

3. Local Electricity
(220 V - 50Hz)



LED lights electrycity and connections

For LED lights electrycity and connections;

We are working with a team in our factory
who are professional at research and development.
So that we are always one step front in world.

LED system seperate 6 varieties as below:

- | | |
|----------------------------------|---------------------------------|
| 1 Single System and single color | 4 Multi System and single color |
| 2 Single System and multi color | 5 Multi System and multi color |
| 3 Single System and RGB color | 6 Multi System and RGB color |

* For AC INPUT , cable recomended as 3x1.5 isolated TTR cable
for your safety.

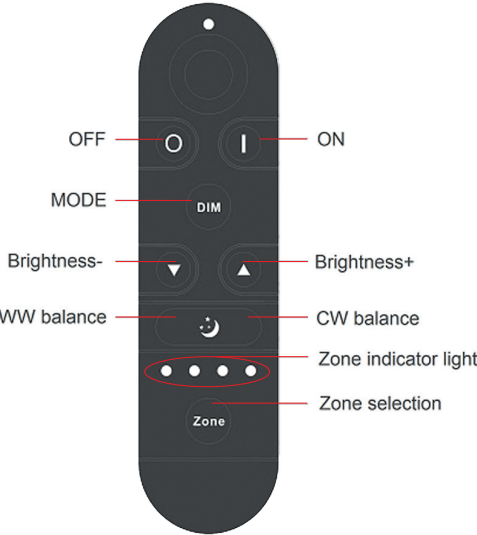
* The black 2x0.75 / 3x0.75 / 4 x0.75 isolated TTR cable
is belong to the LED.

Remote controller Types

Single Color



Multi Color



RGB Color

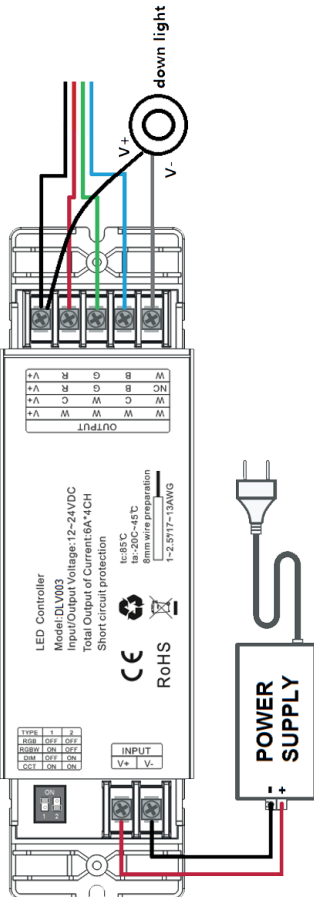


Receiver Types

Single / Multi Color



RGB Color



Matching Zone operation for MULTI color remote controller



SET

- Step 1: Turn off the local electricity.
- Step 2: Press and hold CCT button.
- Step 3: While pressing CCT button turn on the electricity.
- Step 4: Press ON button 3 times.

CLEAR

- Step 1: Turn off the local electricity.
- Step 2: Press and hold CCT button.
- Step 3: While pressing CCT button turn on the electricity.
- Step 4: Press DOWN button 3 times.

Matching Zone operation for RGB color remote controller

SET



Step 1: Connection to load to the receiver and power on it.
(If the receiver was coded before, clear the code first.)

Step 2: Select area (Select the area with the ZONE key and the corresponding indicator lights up)

Step 3: Press and hold ON on the remote control for 5 seconds, the indicator of the remote control will flash quickly, means it enters the pairing code transmission.
(Will automatically exit code transmission status after 60 second, or pressing any key to exit.)

Step 4: See the load light flashes 3 times and return to the initial state.
(Pairing coding is finished successfully)

Matching Zone operation for RGB color remote controller

CLEAR

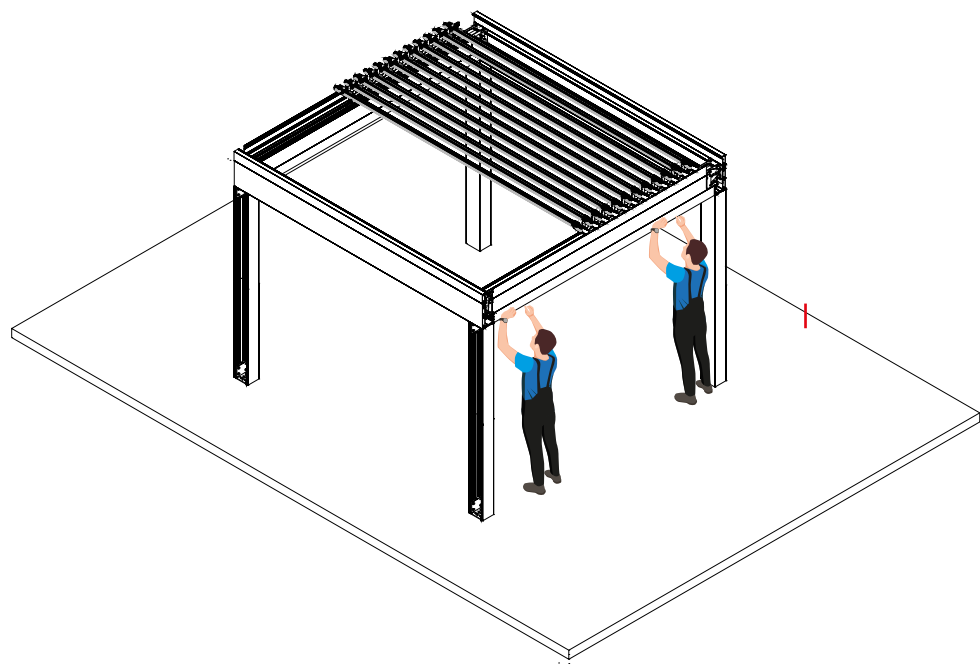


Step 1: Connection to load to the receiver and power on it.
(The clearing operation should be finished within 1 minute after the receiver is powered on.
If exceeds the time, can be powered on again.)

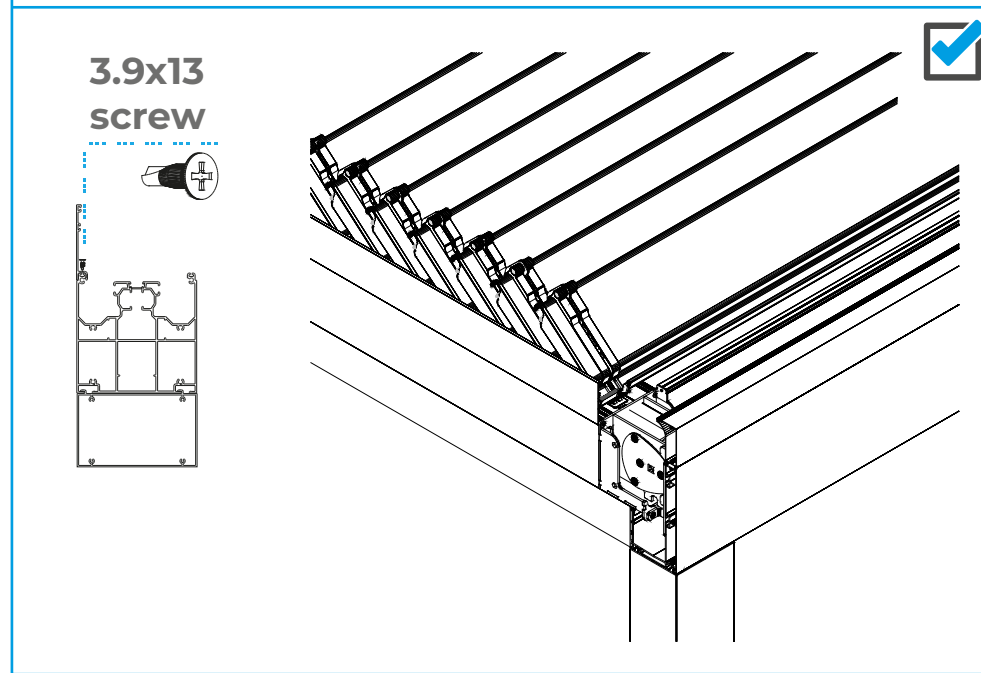
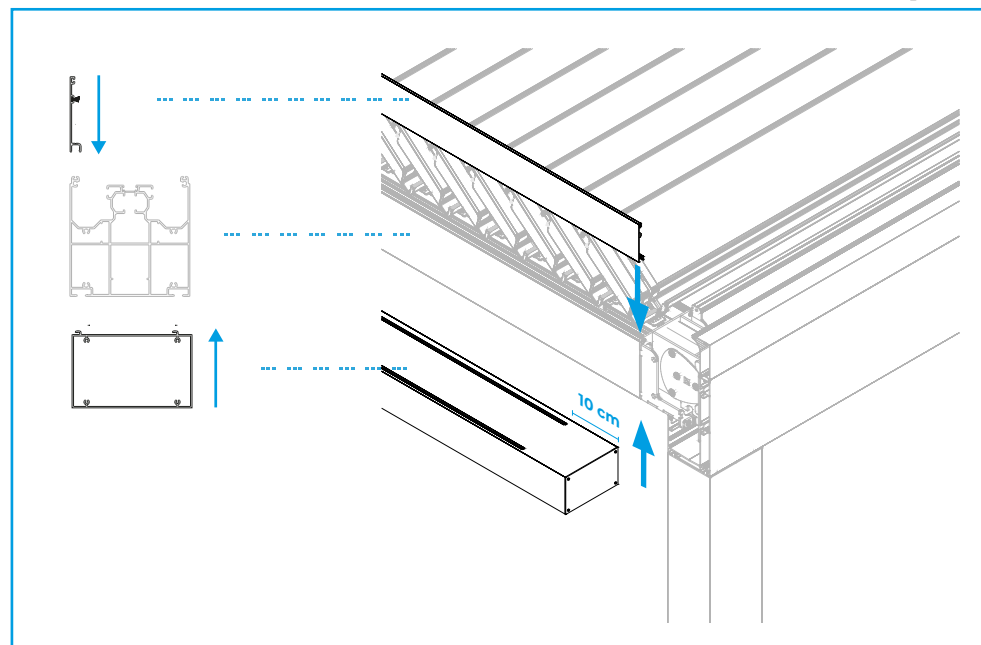
Step 2: Press and hold the remote control 'OFF' for 5 seconds. The indicator of the remote control flashes quickly, means it enters the clearing code transmission status. There is no need to select the corresponding area when clearing code.
(Will automatically exit code transmission status after 60 seconds of pressing any key to exit. If the original remote controller is lost, the new remote controller can be used for clearing operations.)

Step 3: See the load light flashes 3 times return to the initial state.
(Clearing coding is finished successfully)

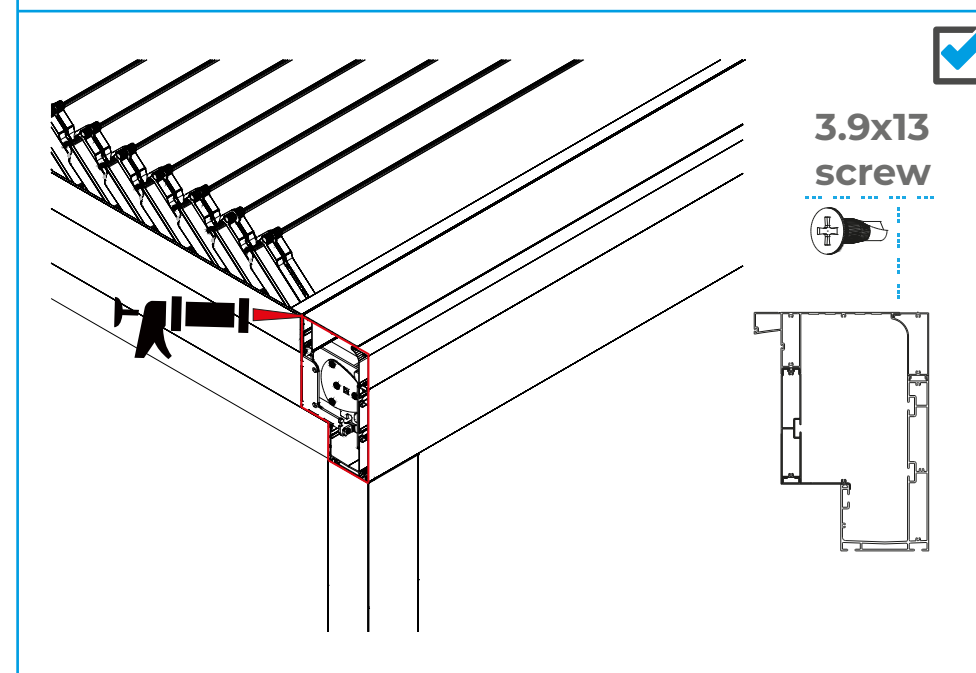
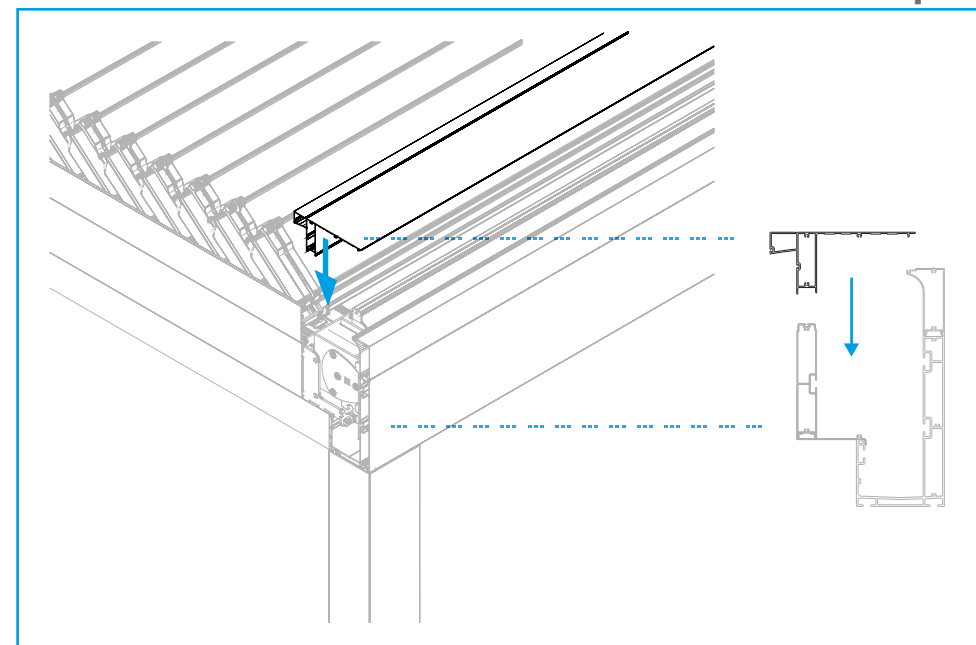
At this step, you will attach rail supporting box profile, rail upper side urofile **SF 64**, and gutter back side upper cover **SF 65**. You can add these profiles easily by attaching as shown in the picture. Don't need any connectors.



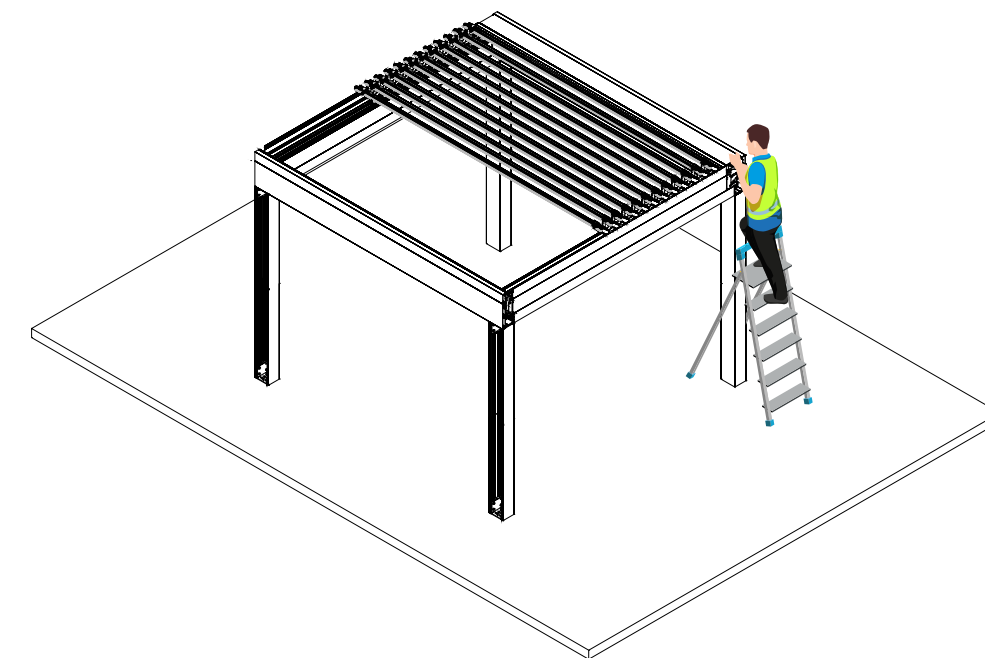
Step 3.5



Step 3.6



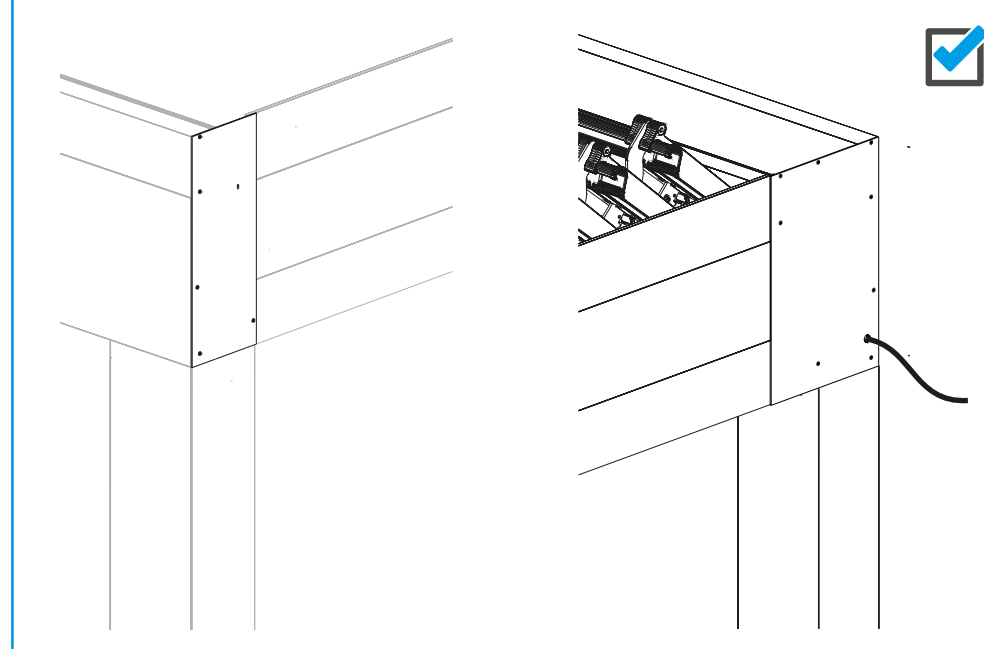
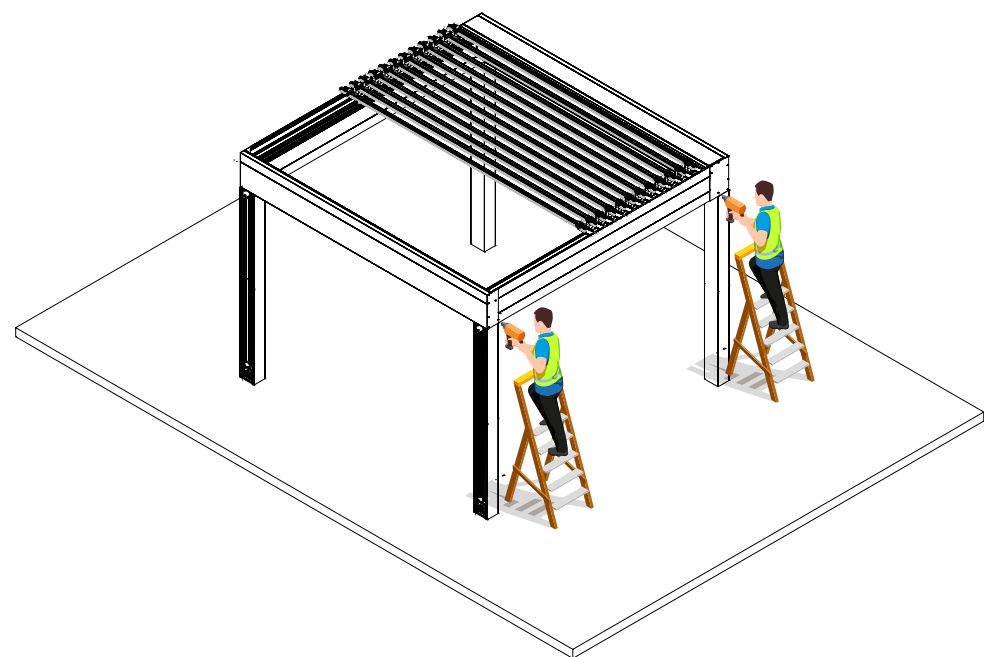
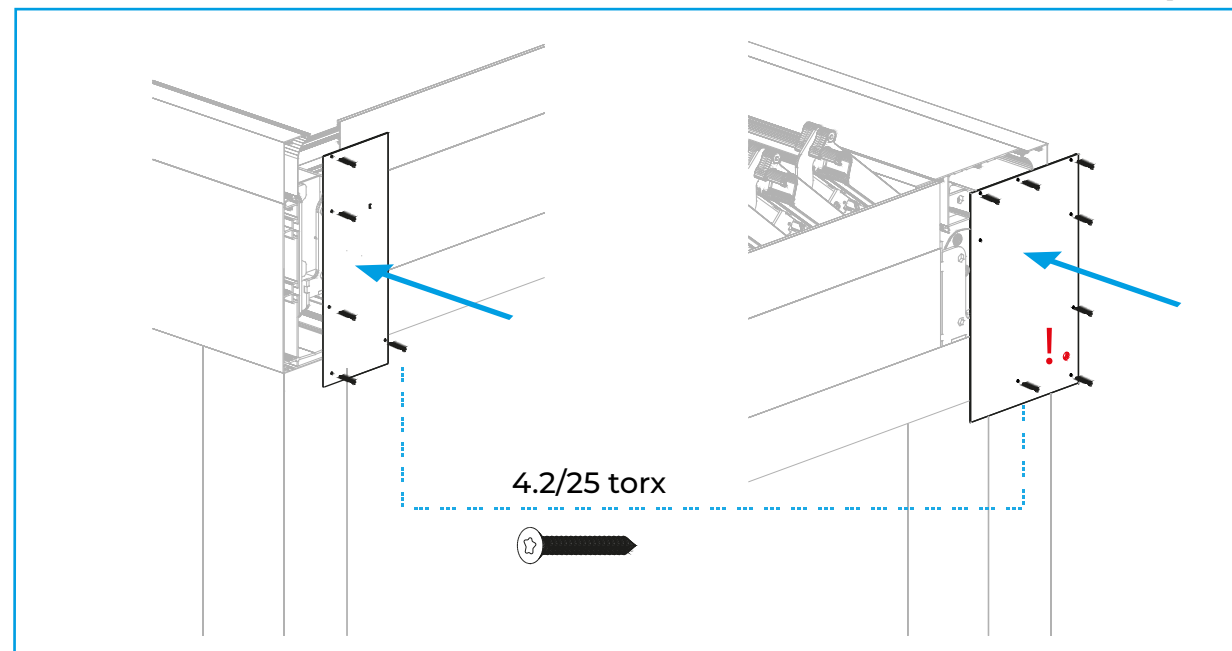
At this step, you will attach gutter back side upper cover **SE 63**. You can add these profiles easily by attaching as shown in the picture. Don't need any connectors.



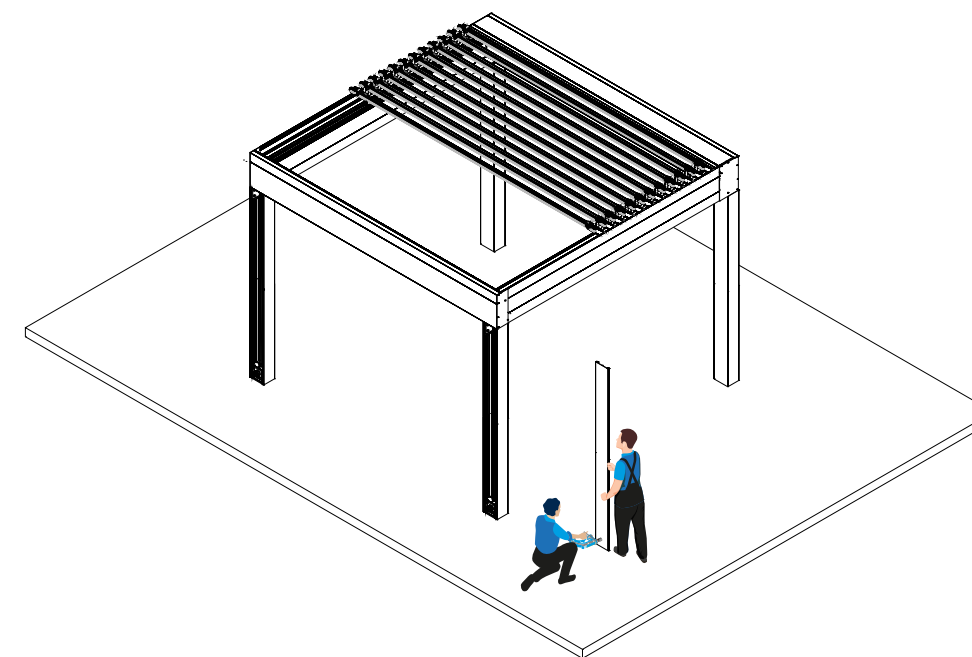
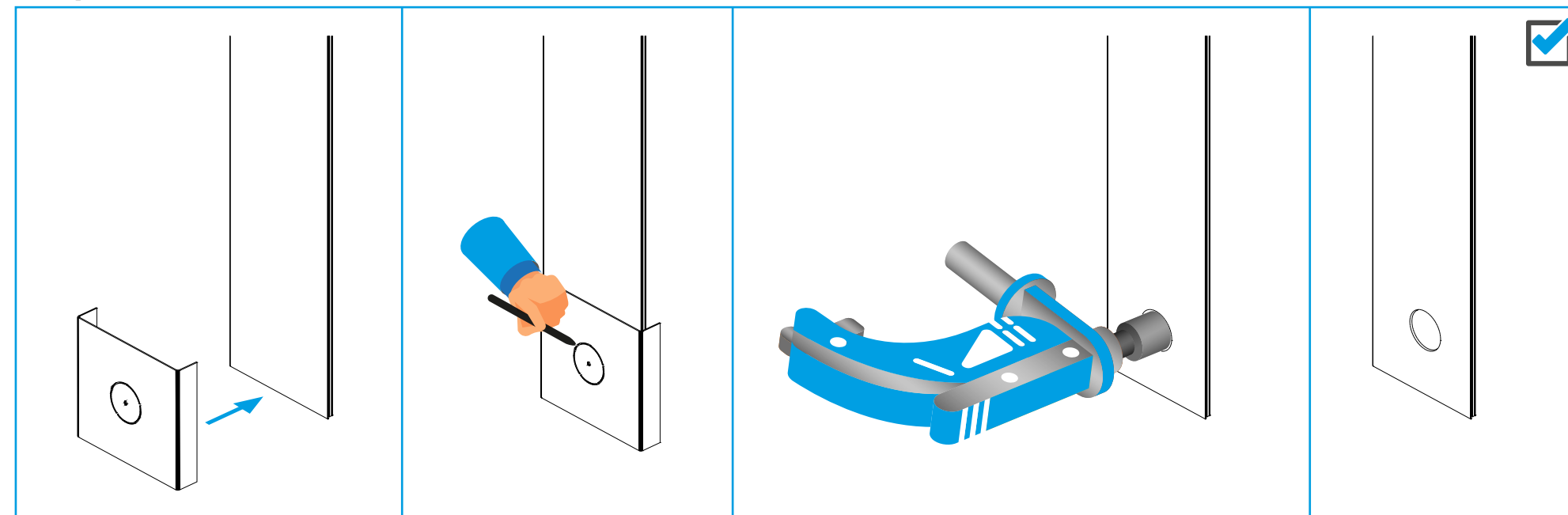
At this step, you will connect your systems Side Covers **SF 12**. Small ones are for the front side, big ones are for the front side. Use 4.2 x25 Torx screws and Drill for connection.

! Don't forget to open the hole on the backside caps for motor output cable. And add silicone sealant around this hole.

Step 5.1

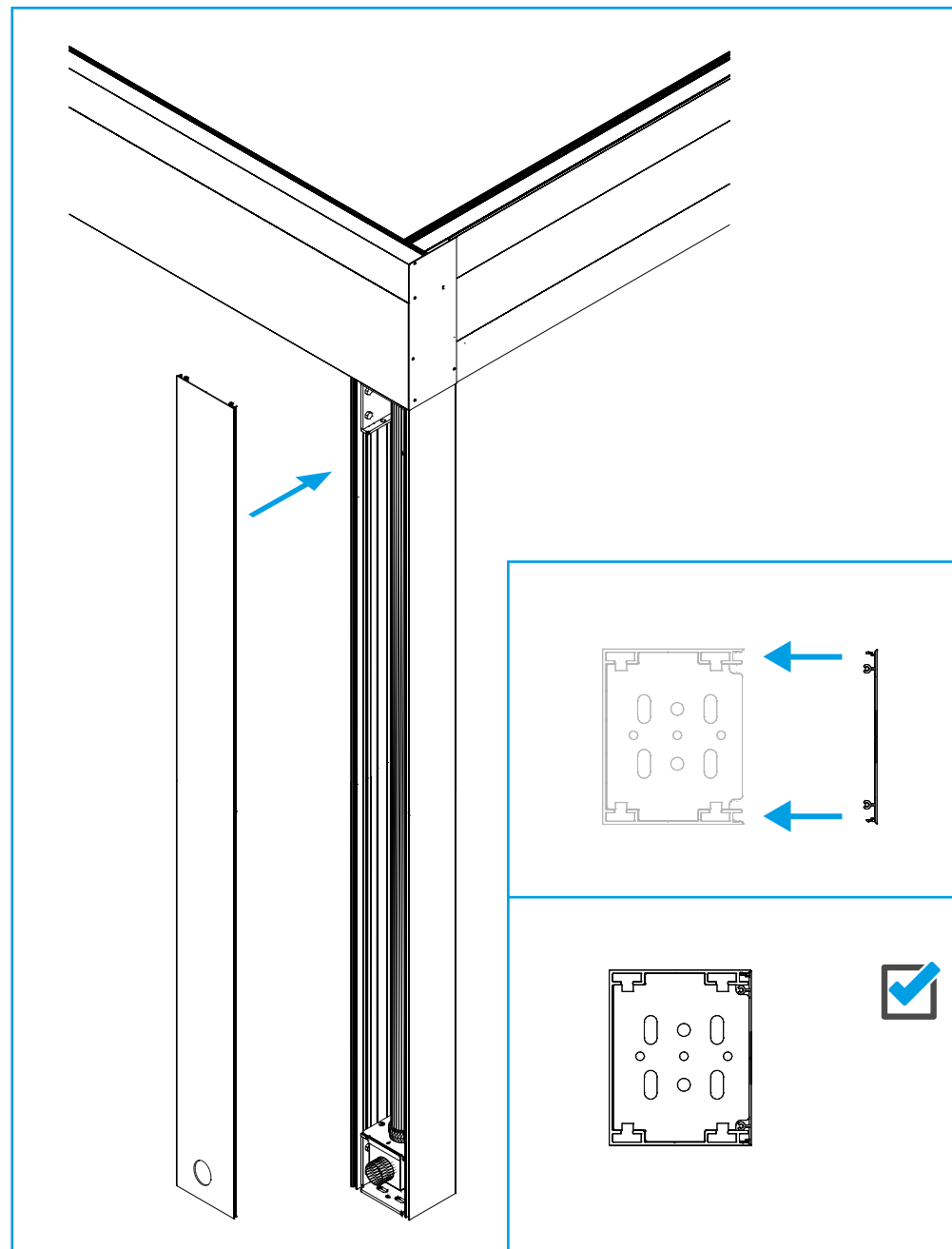


Step 5.2

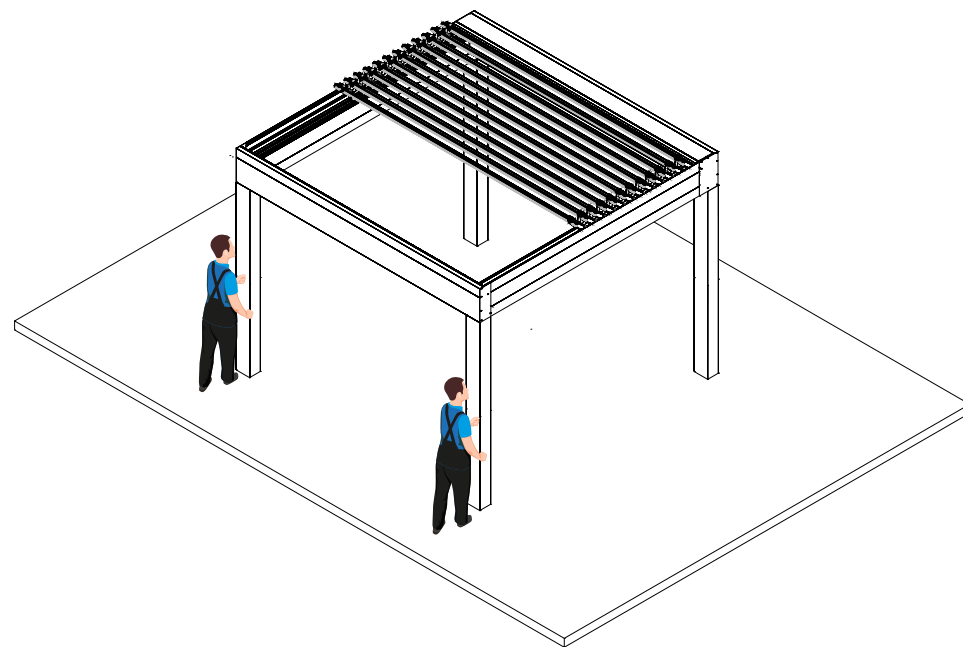


At this step, you will attach the covers **SF 13** of the pillars. In your order, pillar covers are sent in the same amount as a pillar. Attach pillar covers to the outside of the posts of the system as shown. No need extra screw or connector for this connection. Replay this attaching process for each pillar of your system.

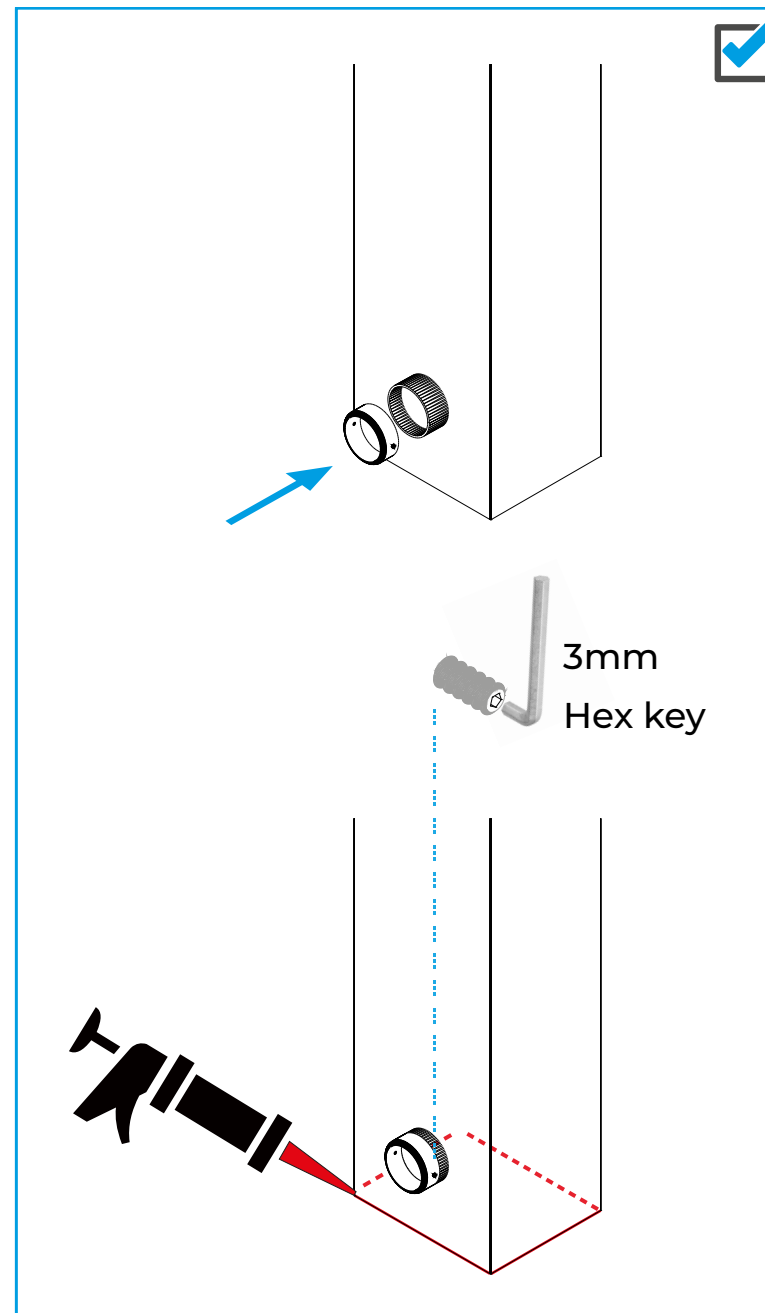
Step 5.2



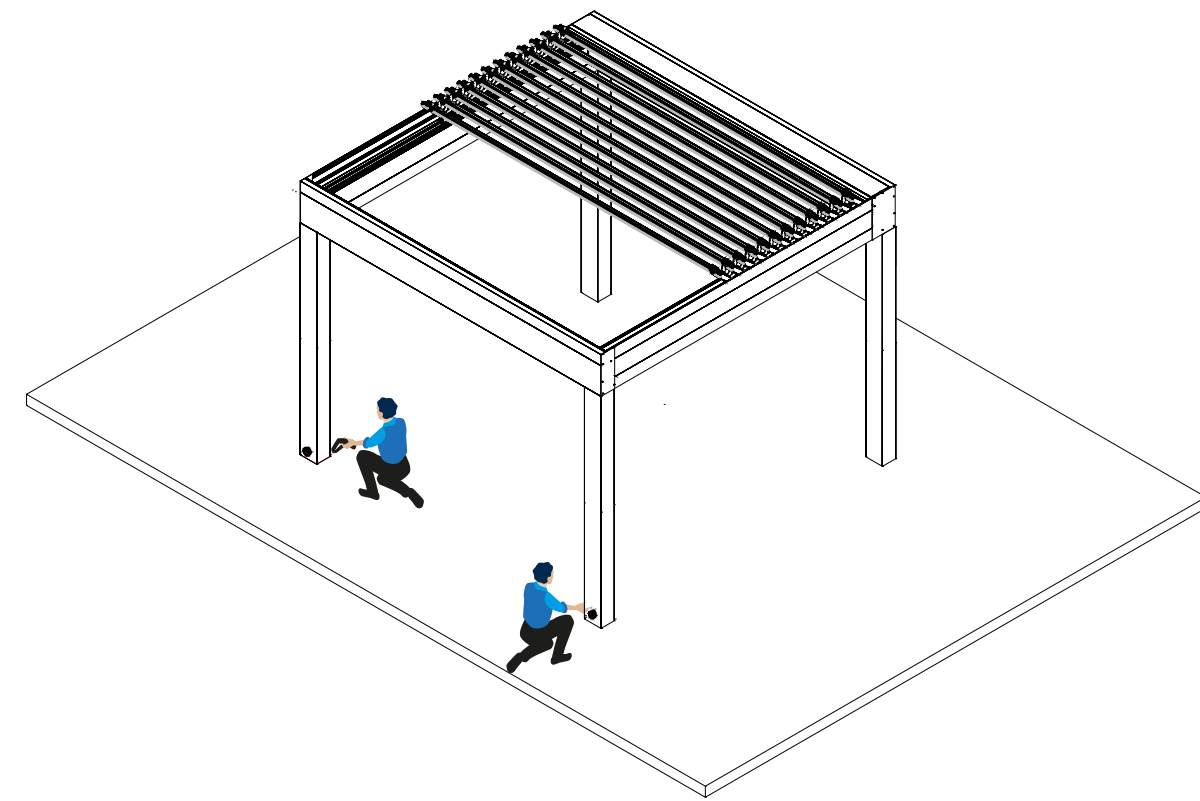
At this step, you will attach the covers **SF 13** of the pillars. In your order, pillar covers are sent in the same amount as a pillar. Attach pillar covers to the outside of the posts of the system as shown. No need extra screw or connector for this connection. Replay this attaching process for each pillar of your system.



Step 5.5



At this step, you will add outside ring cap **SF 17** of the water drainage system. Install this part as shown in the picture and use 3mm Hex Key to secure in place.

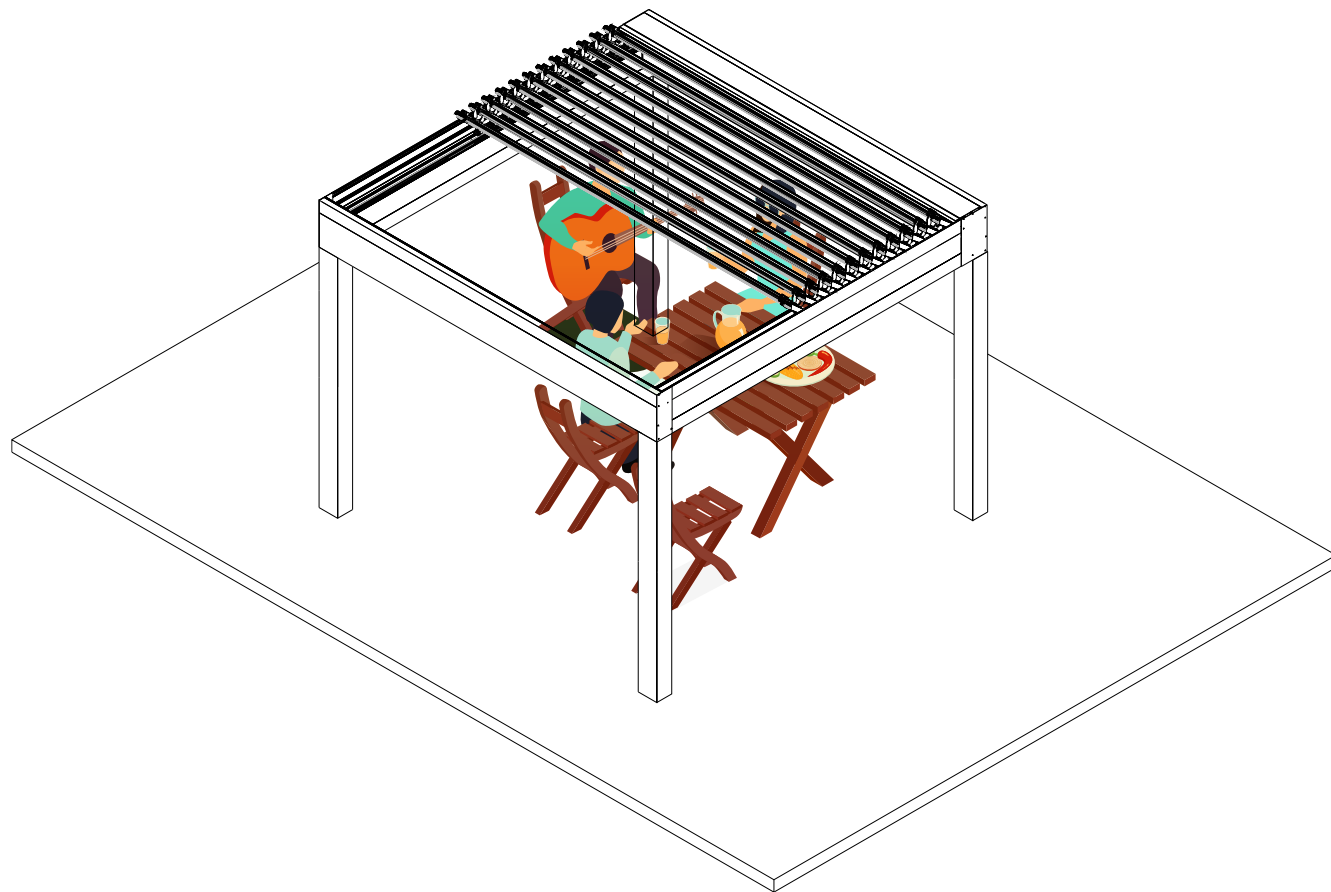


Your SKYBLADE is ready to use!

SkyBlade is a folding bioclimatic pergola system from Vision Art Aluminium. Its integrated motor and spring mechanism moves the aluminum roof panels backward and forward, allowing open, closed, or partially open configurations.

Adjustable panel angles provide ventilation, shading, heat control, and light control. SkyBlade can also fully open for an open-air configuration.

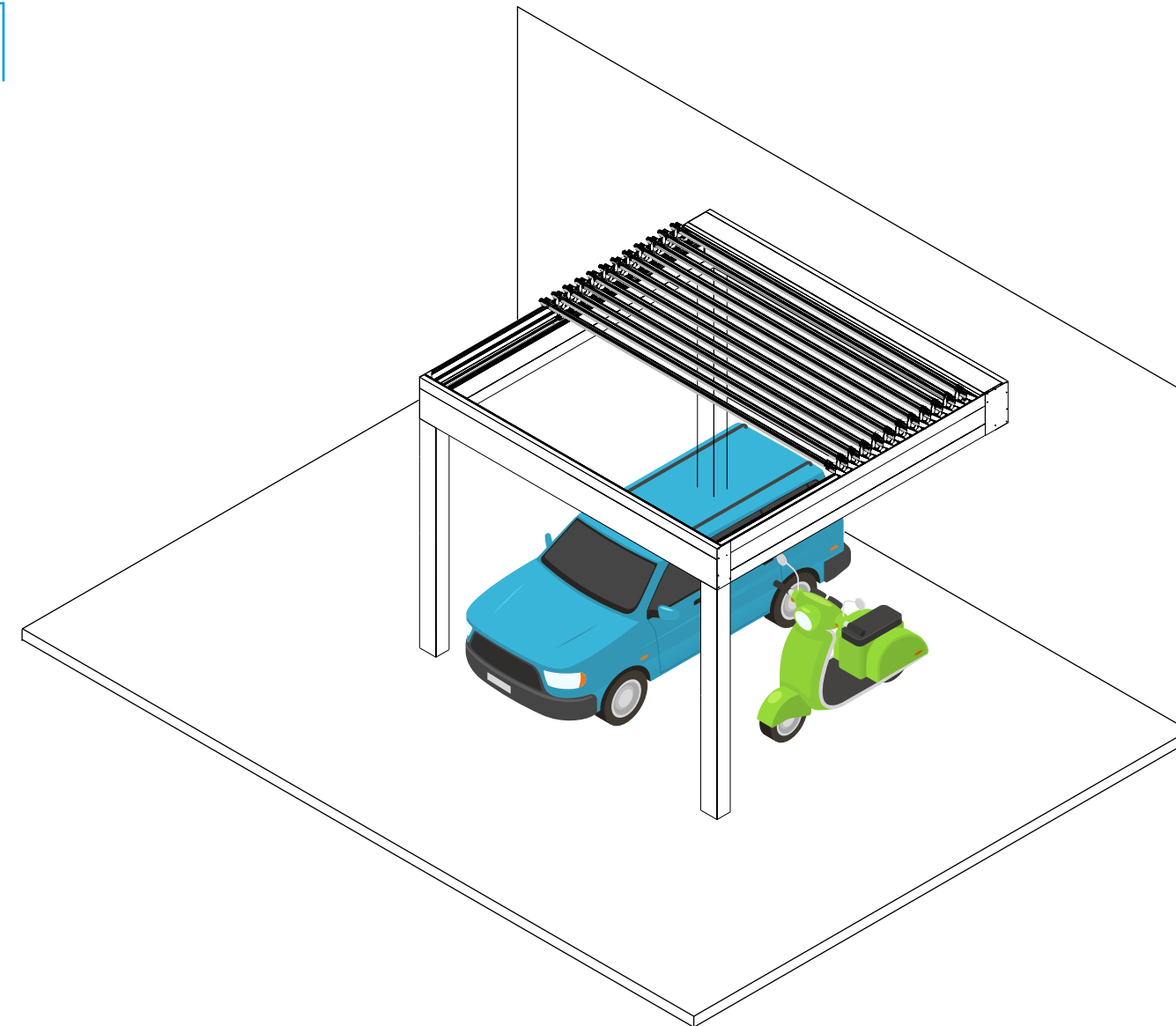
Optional polystyrene profiles may be added to improve thermal and acoustic insulation at the roof panels.



Advantages of Use

SkyBlade provides closed, semi-closed, and open configurations for flexible outdoor comfort. Aluminum roof panels open from 0 to 55 degrees for ventilation, shading, and light control.

The system may be installed freestanding or connected at walls or under ceilings with project-specific support. Multiple units can be installed side by side to cover larger areas.



SKYBLADE

BIOCLIMATIC PERGOLA SYSTEM

VISION ART ALUMINIUM

More Glass. Less Frame.

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