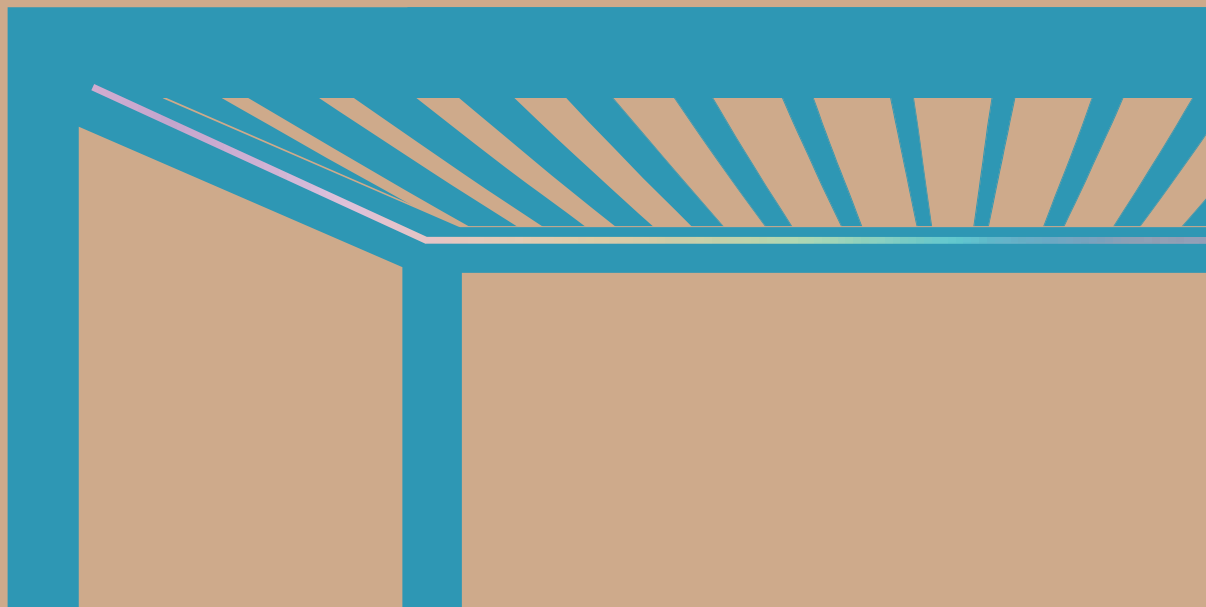


111 LED

INSTRUCTION MANUAL

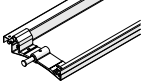
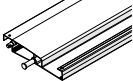
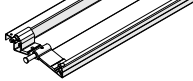
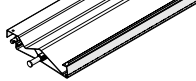


4 PILLARS



THANK YOU FOR PURCHASING OUR MIRADOR 111 LED PERGOLA!

THIS INSTRUCTION MANUAL IS FOR THE FOLLOWING MODELS:

Series \ Louver	Single Steel	Double aluminum	single Alu	SUNS double aluminum
				
111				

This manual will provide you with clear and detailed instructions on how to safely and correctly assemble and maintain your pergola, to ensure it brings you many years of use and enjoyment.

IMPORTANT

Warning: Important safety instructions. It is important for the safety of persons to follow these instructions. Please keep these instructions in a safe place.

This product can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the product in a safe way and understand the hazards involved. Children shall not play with the product. Cleaning and user maintenance shall not be made by children without supervision.

Intended use

This pergola is intended for outdoor domestic use in residential environments, and to protect users from direct sunlight, glare and heat.

Any use or modification to the pergola not included in this manual shall be considered as improper use, which may cause considerable danger to users and property and will void the product warranty.

Digital instruction manual is also available on our official website www.miradoroutdoor.com for your reference.

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- Before Assembling Your Pergola	3
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BEFORE ASSEMBLING YOUR PERGOLA

WARNING: Important safety instructions. Follow all instructions, since incorrect installation can lead to severe injury.

Make sure you have all the tools required for assembling your pergola:

In order to assemble your pergola safely and correctly, please ensure you have access to the following tools and accessories, all of which are not provided.



Hard hat



Protective gloves



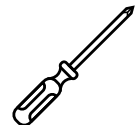
Box cutter



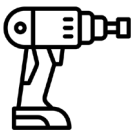
Tape measure



Spirit level



Phillips screwdriver



Cordless screwdriver



Hexagonal spanner/
wrench set



Hammer drill



Hammer



2 step ladders



Scissors

Check to ensure there are no missing parts:

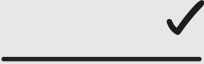
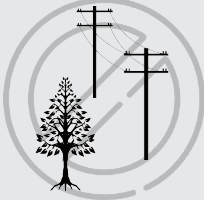
Before you begin installation, please check that you have all the parts required to assemble your pergola. Please also carefully check that the quantity of parts match with that of the model you have purchased.

If any parts are missing, please contact customer service before beginning the installation.

Prepare the parts you will need for each step:

In the **Installation** section of the manual, each step indicates the necessary parts and quantities required to complete the step. We recommend that you prepare the parts you will need for each installation step. Doing this will save you time and effort during assembly. If possible, place the parts on cardboard or other soft surface to protect from scratching the painted surfaces.

Select a suitable location:

The ground should be solid and flat	The ground should be level	Sufficient water drainage	Easy access to power	No overhanging trees and powerlines
				
				

Warning:

Most terraces or patios are designed with a slight slope to prevent (rain) water from forming pools or reaching the house or other structures. For the perfect pergola installation, a level concrete surface without such a slope is required. Small pebbles could also prevent the pergola from being safely secured on the ground.

If the pergola is installed on an uneven surface, it may prevent accessory components from working correctly and may void the product warranty.

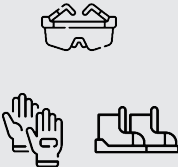
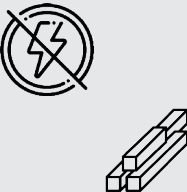
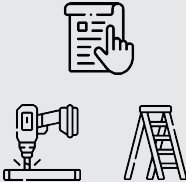
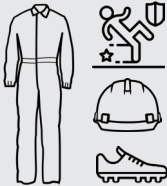
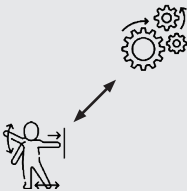
Prepare a foundation:

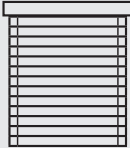
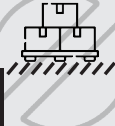
- To prepare it, you need to:
- check for underground pipes and cables (Call 811 before you dig if you live in the USA)
 - check with your local authorities regarding any building permits that may be required
 - contact a reliable contractor to have concrete base if you dont have one

Do not assemble the pergola on sandy, muddy or loose sol, as the stakes do not have the sufficient anchorage to be installed in these types of soll.

IMPORTANT SAFETY ADVICE

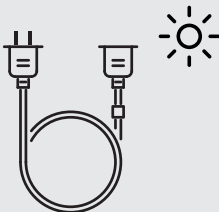
For the safety of all persons installing and using the pergola, it is important to follow the safety guidelines below.

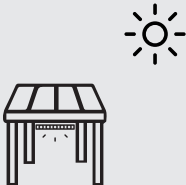
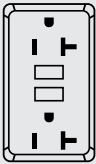
The pergola must be positioned and fixed on flat level surface.	Always wear appropriate work shoes, gloves and eye protection when working.	Work well away from power lines, particularly when handling metal parts.	If using power tools or a ladder, always follow the manufacturer's safety instructions.	Make sure the pergola complies with local building regulatory codes.
				
Working at heights can be dangerous. Always wear protective clothing to prevent injury in the event of a fall.	Only use ladders and scaffolding with a sufficiently high load bearing capacity.	Keep clothing and body parts away from the pergola to prevent them from getting caught in the moving parts.	Foliage or other foreign objects on the roof and in the guide rails should be removed regularly, to prevent damage to the pergola.	Only use replacement parts that are approved by the manufacturer.
				
Put the louvers into the vertical position during snowfall or wind to avoid damage.	Make sure all electrical connections are disconnected from the mains during installation.	Please recycle packaging where possible.	Electrical Installation may only be carried out by certified personnel according to the applicable regulation (e.g. VDE 100 for Europe).	Mirador 111 LED pergolas should only be connected to power sources that have been installed by a licensed electrical contractor.
				

After prolonged use we recommend you check all the fittings are tightened securely.	Installation of non-Mirador branded accessories will void the product warranty and can damage the operating mechanism.	Do not climb on the roof.	Do not start the roof mechanism in case of frost or ice build-up, as it may damage the drive of the louvers .	Do not attempt to assemble the product if you are tired, or after consuming alcohol.
	 Mirador®			
Dispose of all plastic bags safely. Keep them out of the reach of children.	Keep children and pets away from the assembly area until the work is completed.	Do not attempt to assemble the pergola in windy or wet conditions.	Hot items such as recently used grills, blowtorches etc. must not be stored near the power cord of the pergola.	Hanging objects on the pergola may cause serious damage and is not permitted.
				
Prior to each operation, visually check the pergola for damage. If damage is visible, stop using it immediately and contact authorized personnel to repair the damage.	If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.	Do not touch moving parts during operation.	Do not place anything on the roof.	Changes to the design or configuration of equipment may not be made without consulting the manufacturer or authorized representative.
				

WARNING:

When using outdoor use portable lighting products, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury, including the following:

WARNING	WARNING	WARNING	WARNING
Do not mount or support flexible light in a manner that can damage the outer jacket or cord insulation.	Risk of Fire and Electric Shock. Uncoil flexible light prior to plugging in. Do not install near flammable liquids.	Material may become brittle when cold. Do not install where it may be stepped on or subject to physical damage.	Use only outdoor extension cords, such as type SW, SOW, STW, STOW, SJW, SJOW, SJTW, or SJTOW. This designation is marked on the wire of the extension cord.
			

CAUTION	CAUTION	CAUTION
Suitable for outdoor use.	Risk of Electric Shock. Do not use with extension cord near water or where water may accumulate.	For use only on GFCI protected circuits.
		

TECHNICAL DATA

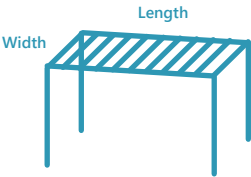
Pergola	Resistance to wind loads	Class 6 (Claimed Beaufort Wind Force Scale 12)
	Resistance to water pocket	Class 1
	Mechanical endurance	Class 1
Control Box	IP Rating	IP54
	Input Voltage	24V DC
	Output Voltage	24V DC
Light LED Strip	Input Voltage	24V DC
	IP Rating	IP68
Power supply	Input Voltage	100 to 240V
	IP Rating	IP67
	Maximum Power	250W
Control	Control Method	Remote Control
	Operate Frequency	600-2700MHz
	Radio Output Power	10W

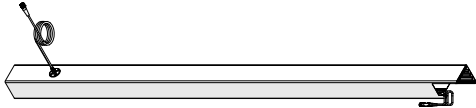
LIST OF PARTS

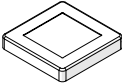
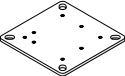
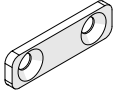
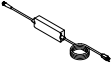
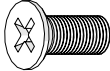
Please carefully check that the quantity of parts matches with that of the model you have purchased.

PLEASE NOTE that the anchor bolts provided may not be suitable for your chosen installation location. Please check before proceeding.

DO NOT USE AN IMPACT CORDLESS SCREW DRIVER TO ASSEMBLE THE PERGOLA. USE A STANDARD CORDLESS SCREW DRIVER ON THE BASE SETTING. ALL HOLES HAVE BEEN PREDRILLED OR FITTED FOR ASSEMBLY



REF	Part Name	Length		
		3m/10ft.	3.6m/12ft.	4m/13ft.
A	 Corner Pillar	3	3	3
A2	 Cabled corner pillar	1	1	1
B1	 Side beam with gearbox	1	1	1
B2	 Side beam without gearbox	1	1	1
C	 End beam	2	2	2
H	 Crank	1	1	1

	REF	Part Name	3m/10ft.	3.6m/12ft.	4m/13ft.		REF	Part Name	3m/10ft.	3.6m/12ft.	4m/13ft.
I		Foot plate cover	4	4	4	X		Hex key (small)	1	1	1
J		Foot plate	4	4	4	Y		Hex key (large)	2	2	2
M		Shaft support cover	38+2	46+2	50+2	Z		12mm SDS Plus Drill Bit	1	1	1
N		Corner pillar cover	4	4	4	Z4		Power supply	1	1	1
O		Screw ST5.65x 45mm	24+2	24+2	24+2	Z5		LED light strip	2	2	2
P		Screw M5x12mm	76+4	92+5	100+5	Z6		Remote control	1	1	1
Q		Screw 4.2x25mm	76+4	92+5	100+5	Z7		Antenna	1	1	1
R		Screw 5.5x19mm	12+2	12+2	12+2	Z8		Waterproof tape	1	1	1
V		Crank coupler	1	1	1	Z9		Screw ST4.8x 13mm	4	4	4
W		Anchor bolt M8x80mm	16	16	16	Z10		Spare plastic pin	0+10	0+10	0+10

LOUVER RELATED VARIATIONS

The type of louver provided depends on the model of pergola you have purchased:

Model	111 LED DA	111 LED S
Louver type	Double aluminum	Single Steel

Double aluminum

	REF	Part Name	3m/10ft.	3.6m/12ft.	4m/13ft.
D	 	Louver	19	23	25
K		Louver end cap	37+2	45+2	49+1
L		Louver end cap with control arm	1	1	1
G		Connecting strip	1	1	1
S		Cotter pin	19+3	23+3	25+4

Single Steel

	REF	Part Name	3m/10ft.	3.6m/12ft.	4m/13ft.
D	 	Louver	19	23	25
K		Louver end cap	37+2	45+2	49+1
L		Louver end cap with control arm	1	1	1
G		Connecting strip	2	2	2
S		Cotter pin	38+6	46+7	50+8

INSTALLATION



4 PERSONNEL REQUIRED

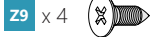


Installation Video

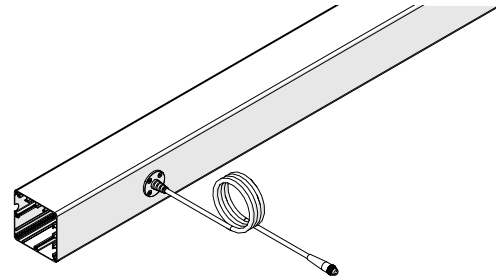
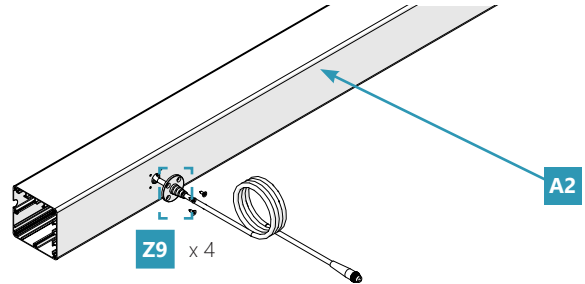
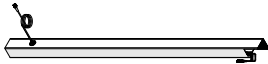
1. Set up the corner pillars **A**

1A

Fix the cable flange with screws **Z9** onto the cabled corner pillar **A2**, and make sure the cable is hanging outside.



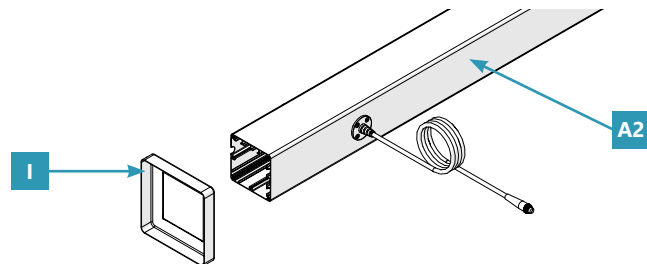
A2 x 1



1B

Slide the foot plate cover **I** with its wide opening facing outwards on the straight end of the corner pillar **A2**.

I x 1



1C

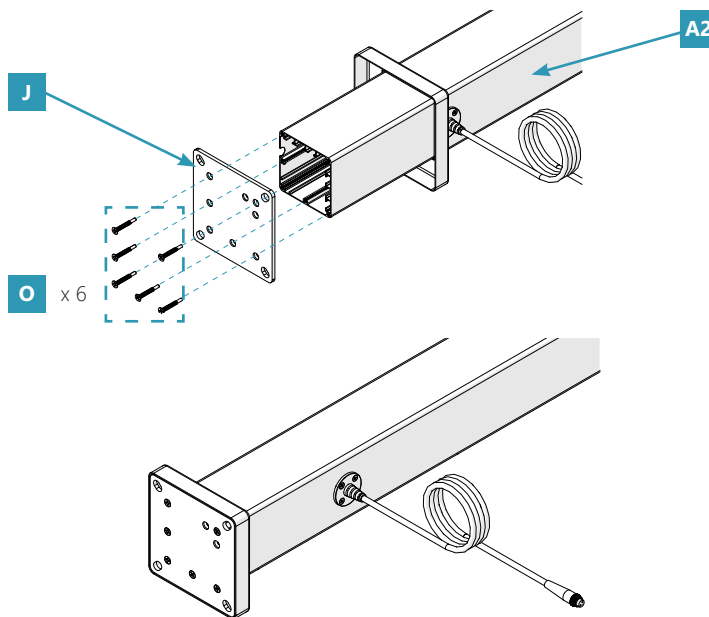
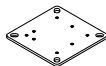
Push the foot plate **J** against the straight end of the cabled corner pillar **A2**. It only fits in one direction and in one position. If in doubt, rotate it until it fits easily.

Screw in the foot plate **J** with 6 screws **O** using a cordless screwdriver.

O x 6



J x 1



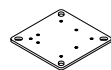
1D

Repeat steps **1B** – **1C** to assemble the foot plates **J** of the 3 standard corner pillar **A**.

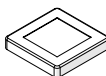
O x 18



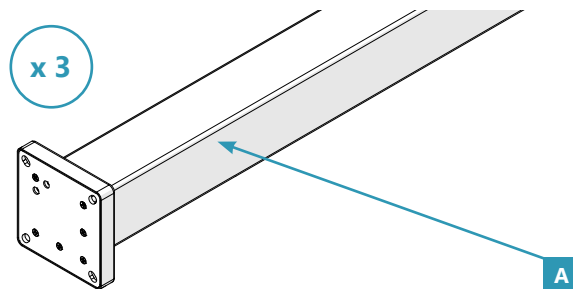
J x 3



I x 3



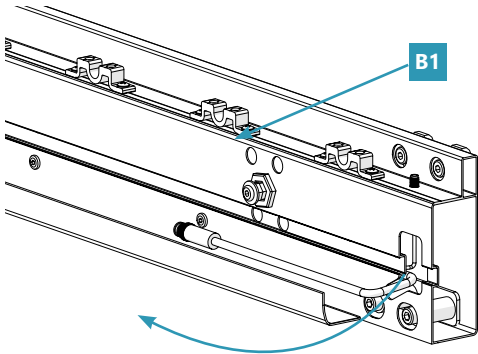
A x 3



2. Connect the side beam with gearbox B1 to the corner pillars A and A2

2A

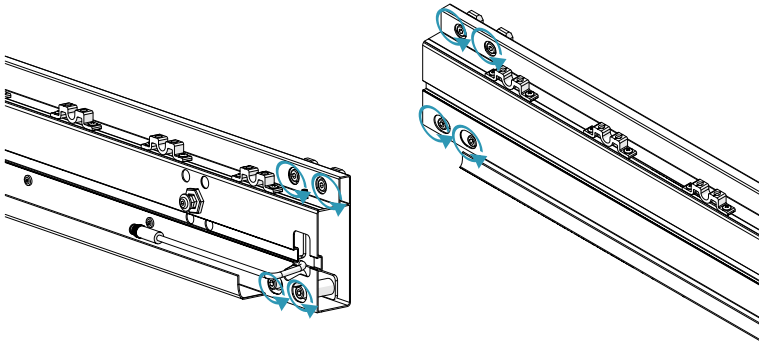
Pull out the cable at the end of the with gearbox B1 through the small cut-out.



B1 x 1 

2B

Using a hex key (large) Y, slightly loosen the 8 built-in screws at the both ends of the with gearbox B1 (4 on each side).

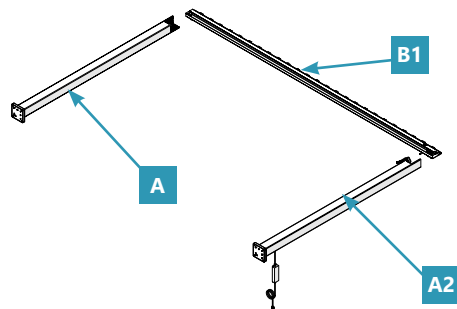
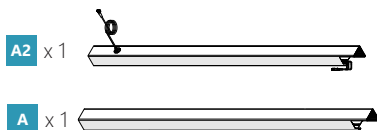


Y x 1 

B1 x 1 

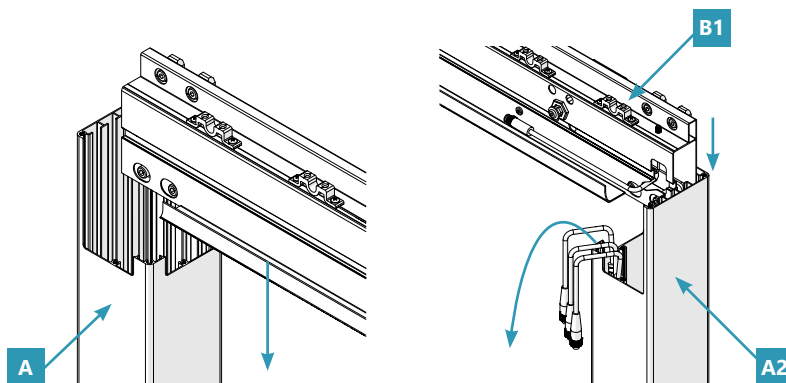
2C

Lay two corner pillars (**A** & **A2**) and place the side beam with gearbox **B1** on the floor as shown in the picture.



2D

Slide beam with gearbox **B1** into the grooves of the corner pillar **A** and **A2** in such a way that the slot nuts of the side beam with gearbox **B1** interlock with the slots in the corner pillar **A** and **A2**.

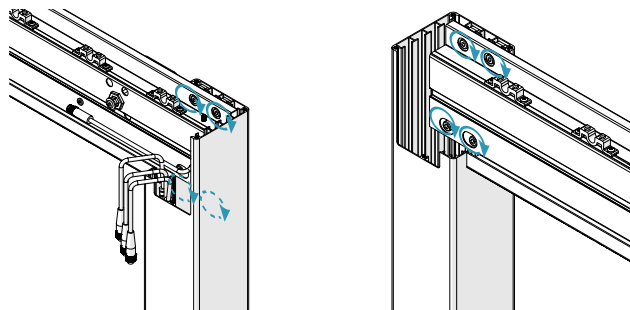


Warning:

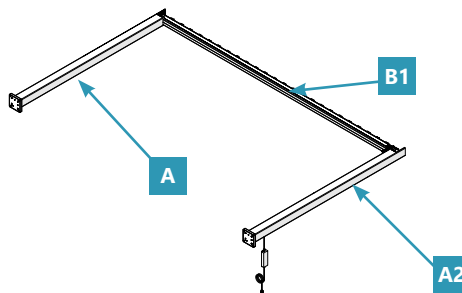
Pull the cables out of the cabled corner pillar. Take care not to crush or squeeze the cables.

2E

Tighten the 8 screws (4 on each side) with the hex key **Y** .



Y x 1



3. Connect the side beam without gearbox **B2** to the remaining two regular corner pillars **A**

3A

Repeat steps **2A** - **2E** to connect the beam without gearbox **B2** with the remaining two corner pillars **A** .

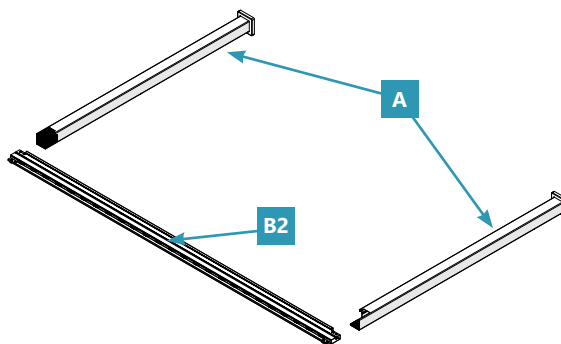
Y x 1



B2 x 1



A x 2



4. Slide in the two end beams **C**

This phase requires four persons and at least two stepladders.
Make sure that the stepladders are standing securely to avoid falling.



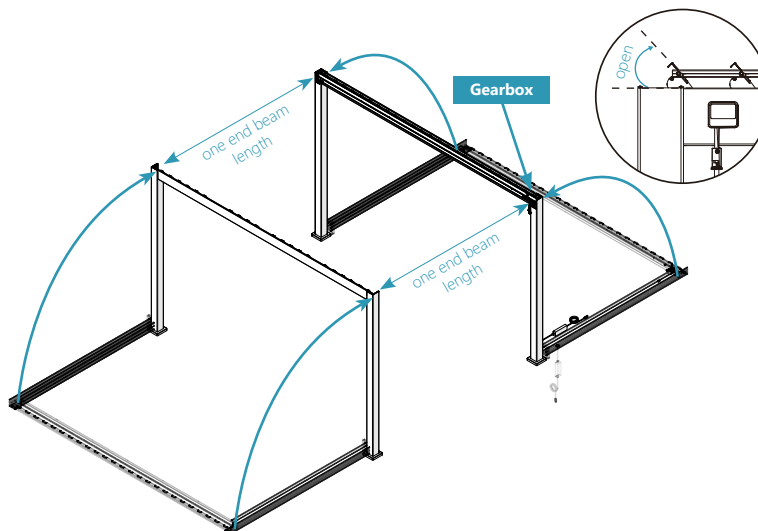
Only use ladders suitable for this kind of installation work.

4A

Stand the two structures built during steps 2 and 3 in an upright position, and place them at one end beam length away from one another. Make sure that one person is supporting each corner leg (**A** & **A2**) to prevent the structures from falling.

Reminder:

When determining the installation direction of the product, please consider the opening direction of the louvers as well as the desired sunshade effect.



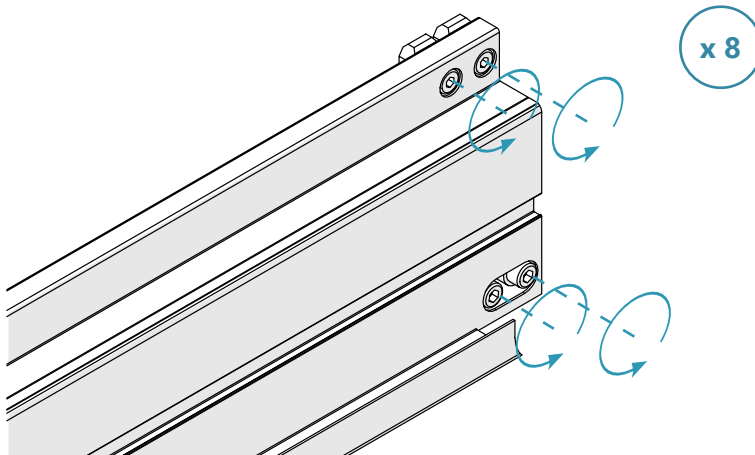
4B

Slightly loosen the 8 built-in screws at both ends of the end beam **C**.

Y x 1

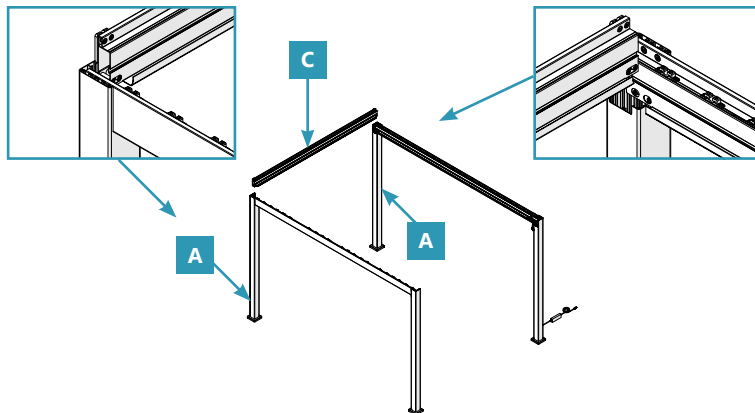


C x 1



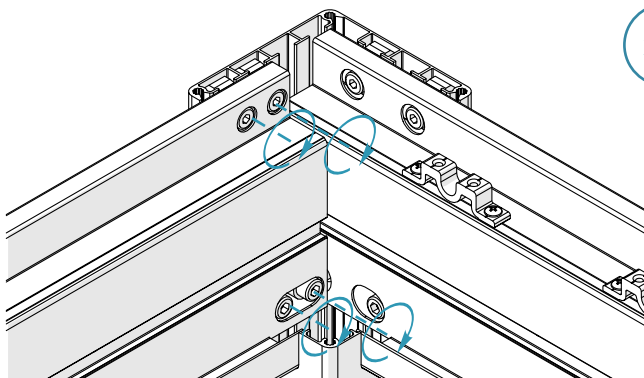
4C

Slide the slot nuts of the end beams **C** from above into the slots of the corner pillars **A**.



4D

Once the beam is in the correct position, tighten the 8 built-in screws on both ends using the hex key **Y** provided.



Y x 1



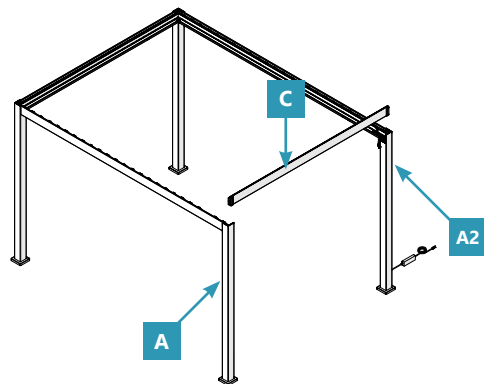
4E

Install the other end beam **C** by repeating steps **4B** - **4D**.

Y x 1



C x 1



5. Install the LED strip lights

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

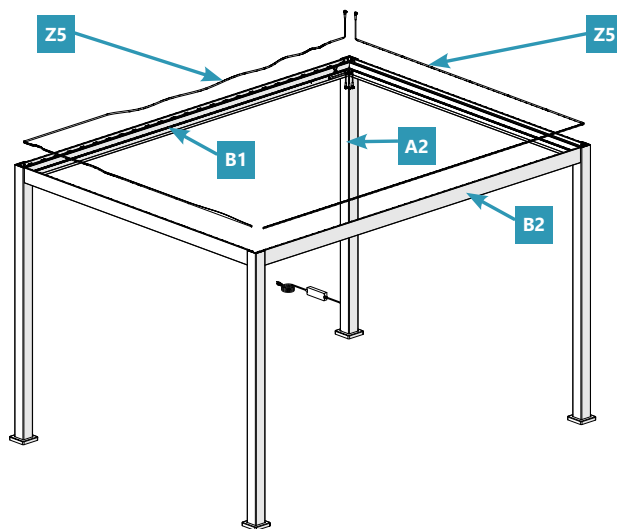
- Do not cover this product as the covering may cause the flexible light to overheat and melt or ignite"
- Do not operate with the flexible light tightly coiled.
- Do not puncture, cut, shorten, or splice the flexible lighting.
- Do not route the cord or flexible lighting through walls, doors, windows or any like part of the building structure.
- Do not use if there is any damage to the light or cord insulation. Inspect periodically.
- Do not submerge flexible light in liquids, or use the product in the vicinity of standing water or other liquids."
- Secure this flexible light using only the hangers or clips provided. Do not secure this product or its cord with staples, nails, or like means that may damage the insulation or permanently attach to the building structure.
- Do not subject flexible lighting to continuous flexing.
- (For extendible units)" Do Not Exceed The Length in Feet Permitted By The Marking

SAVE THESE INSTRUCTIONS

5A

Place both LED light strips **Z5** along the grooves on the side beams (**B1** & **B2**) and end beams **C** , as shown in the figure. Put the connection socket of the LED light strip **Z5** close to the cabled corner pillar **A2** , and put the tail of the LED light strip **Z5** into the top of the corresponding corner pillar if needed.

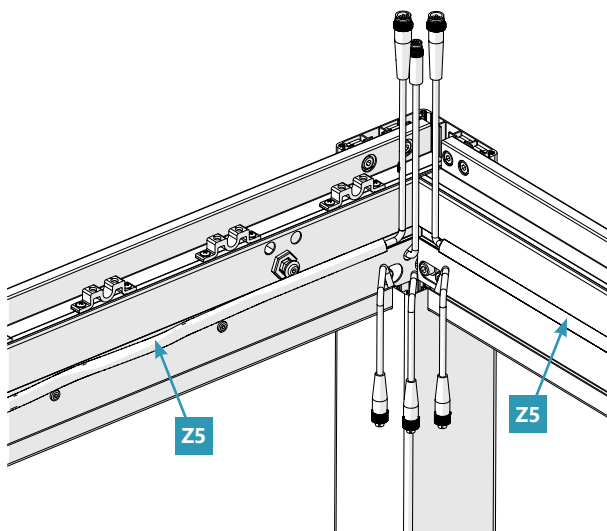
Z5 x 2



5B

As shown in the figure, press both LED light strips **Z5** firmly into the light strip slots one by one to ensure they are fitted evenly.

Z5 x 2



6. Connect the power cables of the LED strip lights Z5

6A

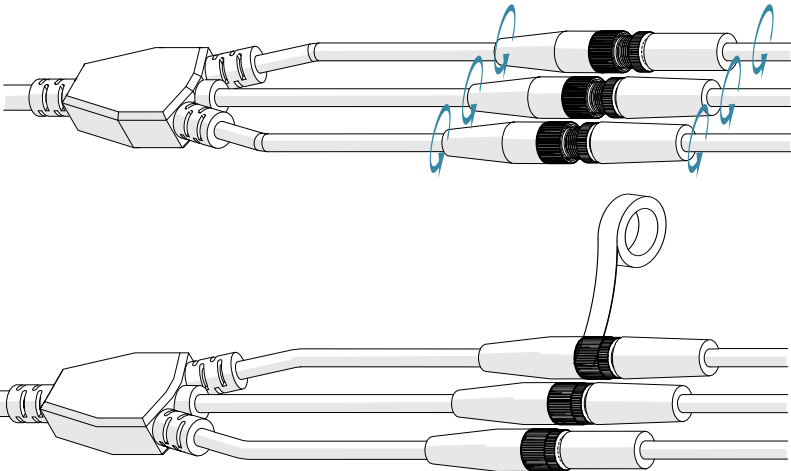
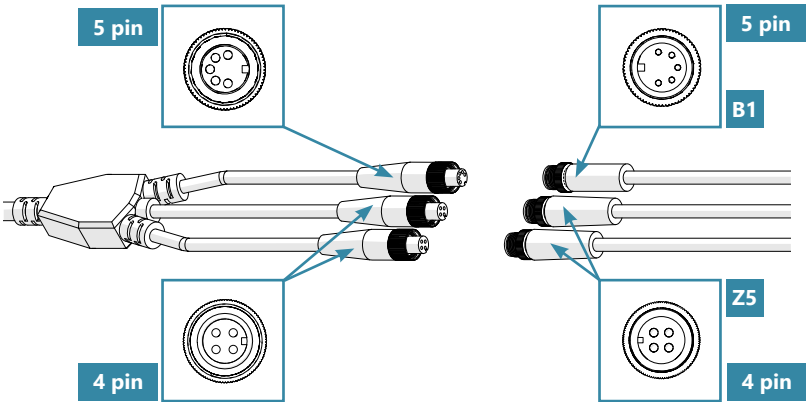
Connect the cable connector (5-pin) of the side beam with gearbox **B1** into the corresponding connector socket on the top of the cabled corner pillar **A2**. Then tighten the waterproof connector

Connect the cable connector (4-pin) of the LED light strip **Z5** into the corresponding connector socket on the top of the cabled corner pillar **A2**. Then tighten the waterproof connector (there is no need to differentiate the plug sockets of the two light strips as they are the same).

Tip:

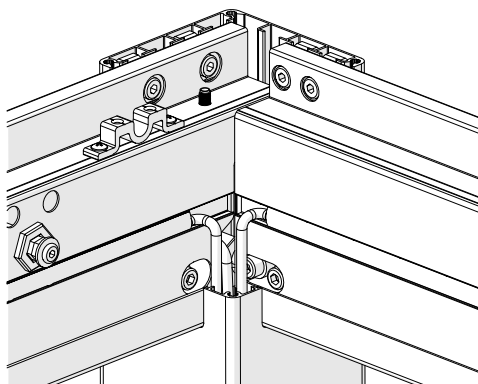
It is recommended to wrap waterproof adhesive tape on the waterproof connectors to prolong their service life.

- Z5** x 2 
- Z8** x 1 
- B1** x 1 
- A2** x 1 



6B

Carefully tuck all connected cables and connectors at the top of the structure back into the corner pillar.



7. Check the alignment of the frame and the distance between the corner pillars

You are now almost done installing the main frame of the pergola. Please double check to ensure all beams and pillars have been installed and fitted correctly. You may have to unscrew certain bolts during this step.

You will also need a tape measure and a spirit level to complete this step.

7A

Choose one of the corner pillars (**A** &

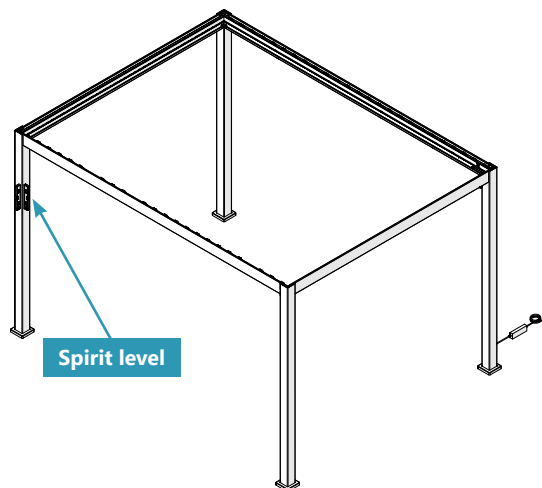
A2) and work from this pillar.

Choose this pillar carefully as it will define the final installation location of the pergola.

Use a spirit level to measure against both of the inner sides to ensure that the corner pillar is straight and level.



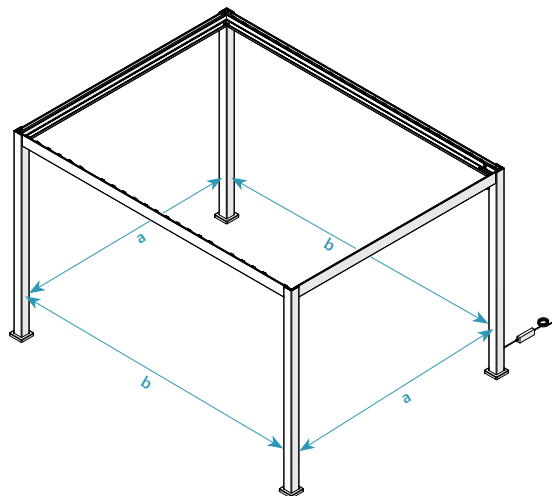
Make sure this corner pillar does not move position during the remaining installation steps.



7B

Measure the distances between the adjacent corner pillars. Adjust accordingly and ensure the distances match those shown in the opposite figure.

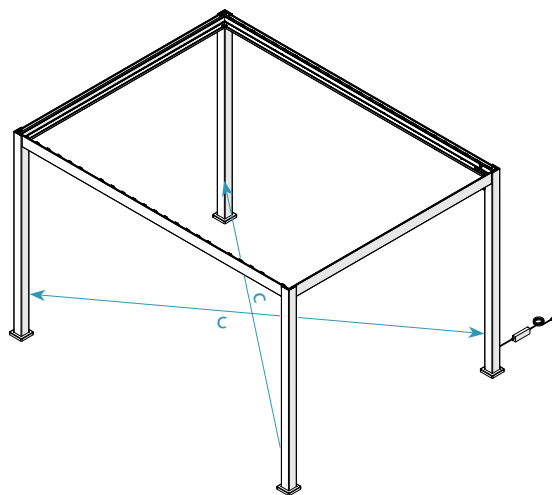
Size (m/ft)	a (mm)	(inch)	b (mm)	(inch)
3x3/10x10	2790.4	109.8	2790.4	109.8
3x3.6/10x12	2790.4	109.8	3400	133.9
3.6x3.6/12x12	3400	133.9	3400	133.9
3x4/10x13	2790.4	109.8	3705	145.9
3.6x4/12x13	3400	133.9	3705	145.9



7C

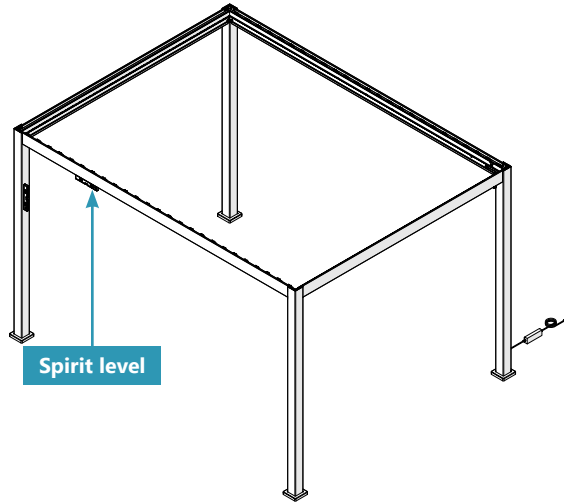
Measure the diagonal distance between the opposite corner pillars. Adjust the other corner pillars accordingly until both diagonal distances are equal. You may have to repeat the above steps after completing the remaining steps.

Size (m/ft)	c (mm)	(inch)
3x3/10x10	3951.3	155.6
3x3.6/10x12	4403.4	173.4
3.6x3.6/12x12	4813.3	189.5
3x4/10x13	4643	182.8
3.6x4/12x13	5033.4	198.2



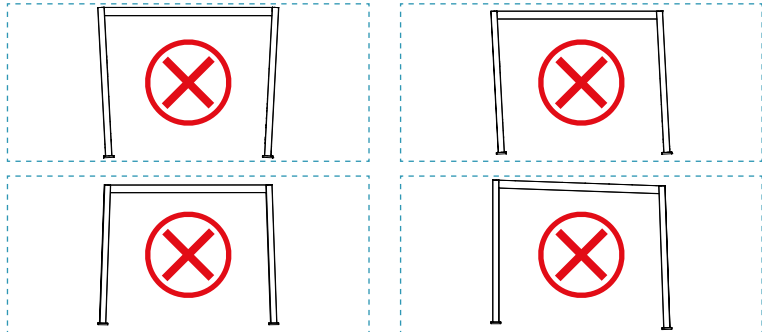
7D

Check that all corner pillars are straight and level using a spirit level. If the corner pillars or beams are still not level, this means that your main building surface isn't sufficiently level, and that you will need to raise the corner pillars that are positioned lower than the others. (Contact qualified workers if needed.)



Warning:

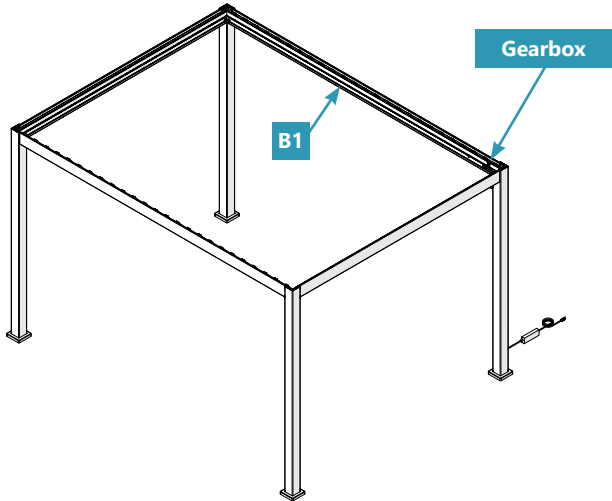
If you do not adjust the main structure at this point, you may encounter problems when fitting the roof deck and/or accessories to the frame.



8. Install Crank **H**

8A

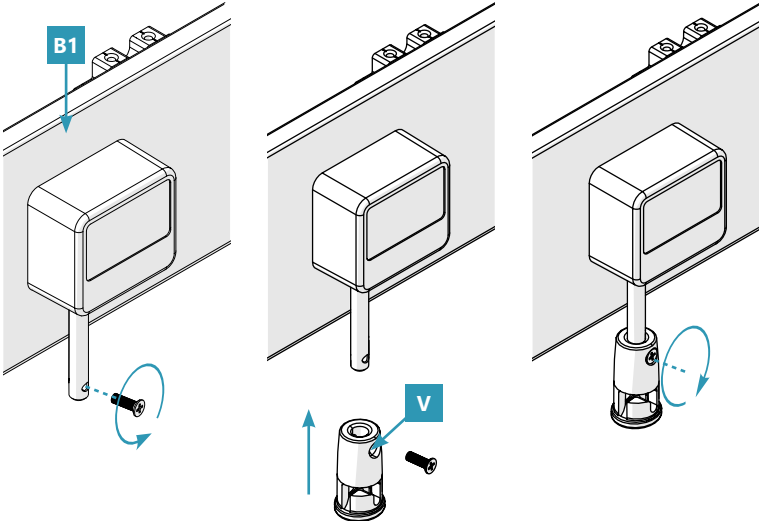
Locate the gearbox on the side beam with gearbox **B1**.



8B

Unscrew and remove the small screw from the crank connector.

Insert the crank coupler into the crank connector and re-insert and tighten the small screw.

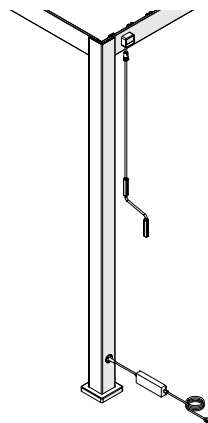
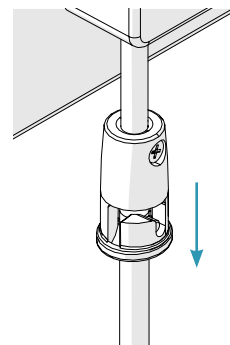
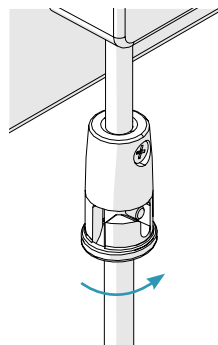
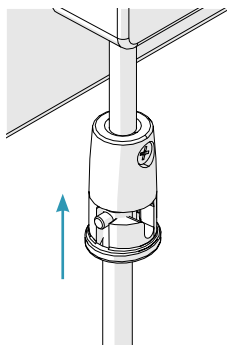
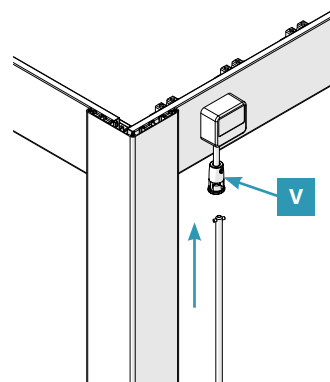
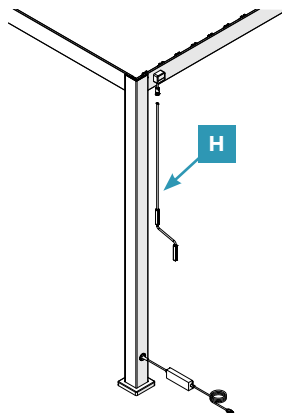


v x 1



8C

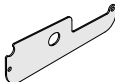
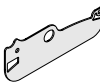
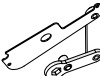
Insert the end of the crank **H** into the crank coupler **V**, and turn until the crank locks firmly in place.



H x 1



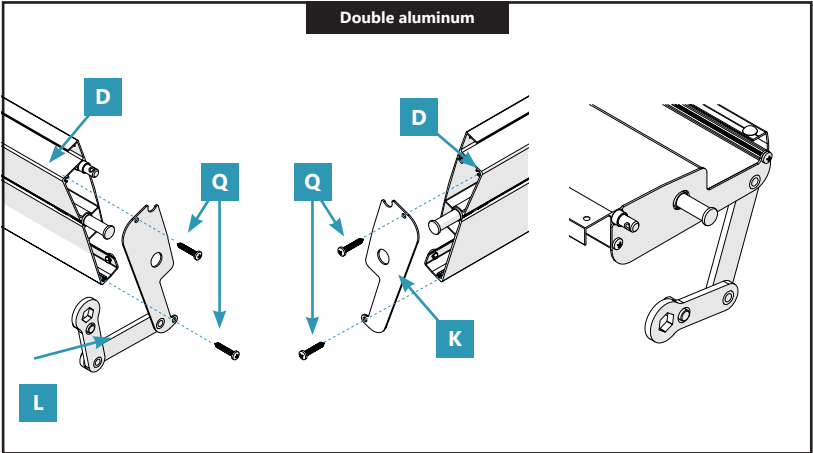
9. Install Louvers

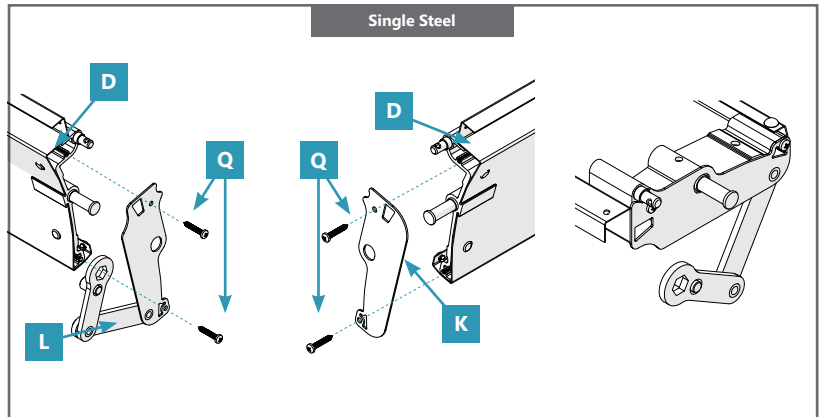
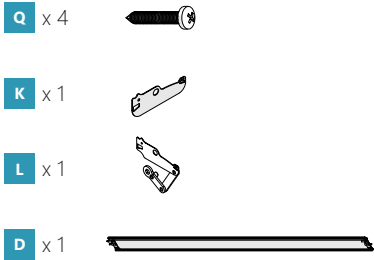
	Double aluminum	Single Steel
D		
K		
L		

9A

Prepare the driving louver: select one of the louvers **D** to be the driving louver.

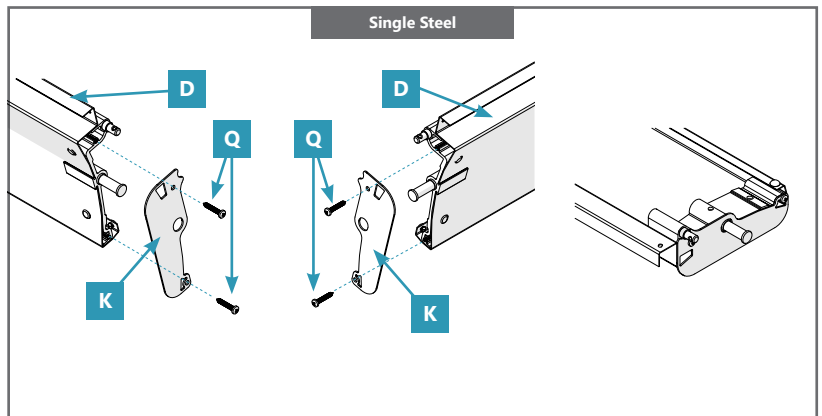
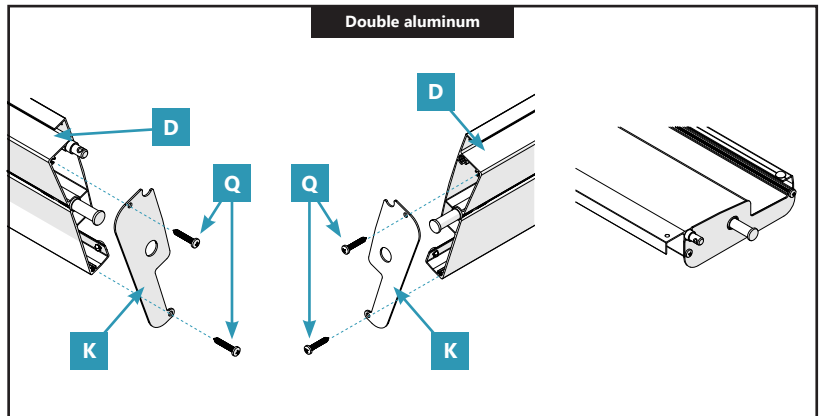
Attach the louver end cap with control arm **L** to one end of the driving louver, and attach an louver end cap **K** to the other end of the driving louver. Use two screws **Q** on each side, and fix them firmly using a cordless screwdriver.





9B

Prepare the regular louvers: attach the louver end caps **K** to each end of the rest of the louvers **D** with two screws **Q** using a cordless screwdriver. Repeat this step for all louvers.

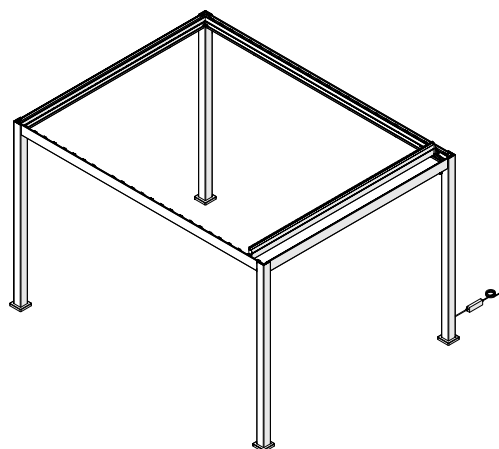
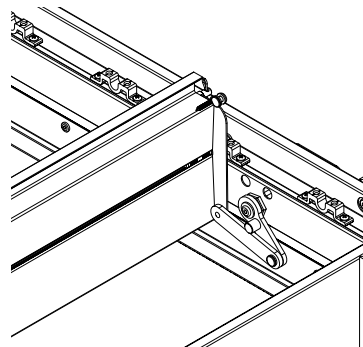
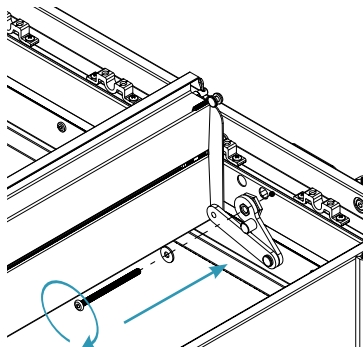
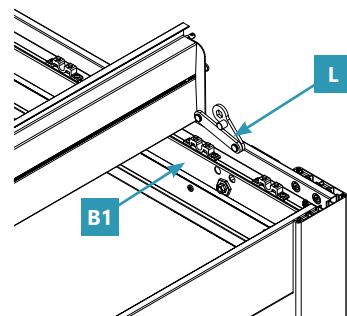
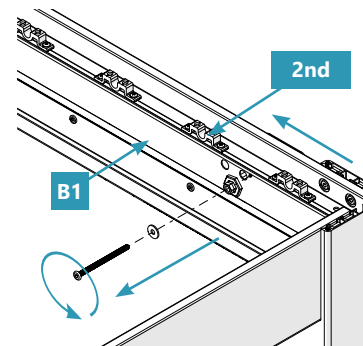


Part \ Length		3m/10ft.	3.6m/12ft.	4m/13ft.
Q		72	88	96
K		36	44	48
D		18	22	24

9C

Loosen the screw and washer already attached to the beam. Then fix the connecting rod **L** of the driving louver to the side beam with gearbox **B1**, by firmly tightening the same screw and washer, using the hexagon socket key **X**.

Place the louvers **D** on the corresponding louver shaft support on both side beams (**B1** & **B2**), with each louver overlapping the next, and **make sure that the driving louver is placed 2nd from the right**.

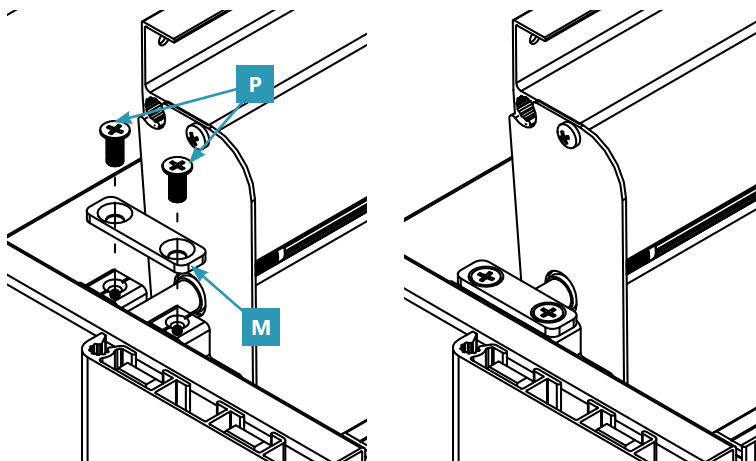
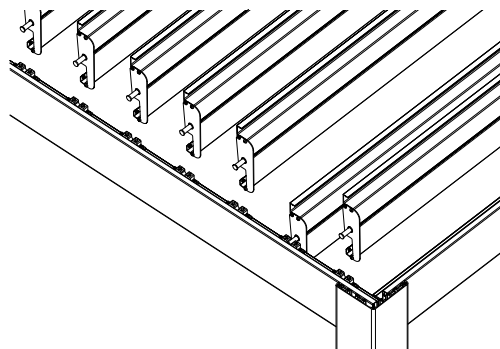
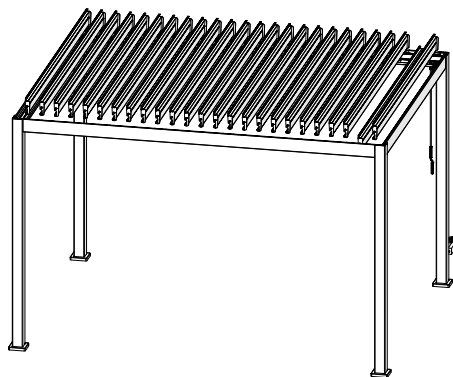


X x 1



9D

Secure the louvers **D** in the shaft support brackets by fixing a shaft support cover **M** onto the shaft support brackets on both ends of each louver **D**. Use two screws **P** each and secure them with a cordless screwdriver. Repeat this step for all louvers.

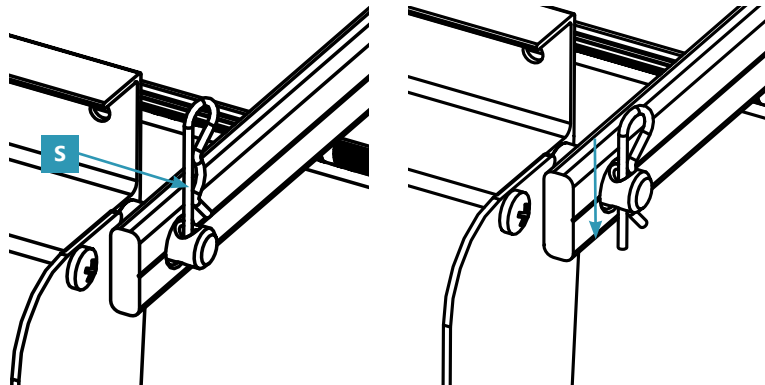
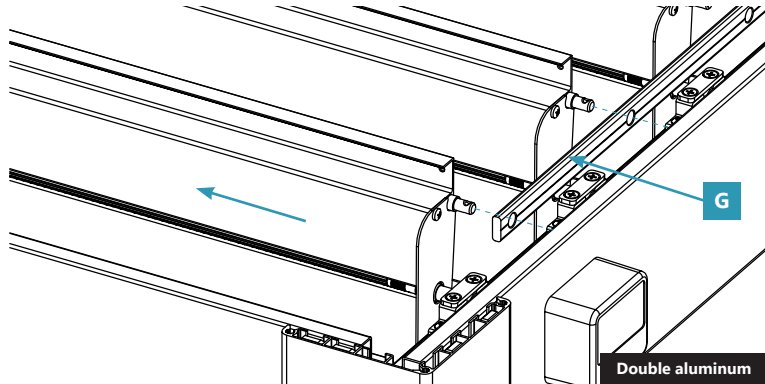


Part \ Length	3m/10ft.	3.6m/12ft.	4m/13ft.
M	38	46	50
P	76	92	100

9E

Take the connecting strip **G**. Attach it to each louver fitting each of the holes onto the corresponding bolts of the louvers. Secure every bolt with a cotter pin **S**, inserting it through the small bolt hole. Repeat this step for all cotter pins.

Reminder: For the single louver model, the connecting strips are on both sides.

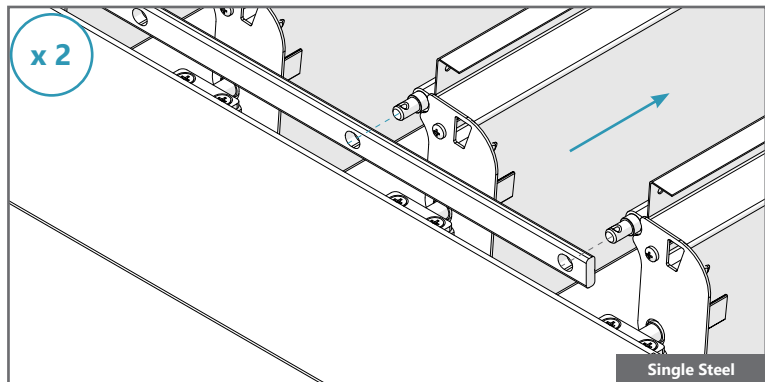


Double aluminum

Part \ Length	3m/10ft.	3.6m/12ft.	4m/13ft.
G 	1	1	1
S 	19	23	25

Single Steel

Part \ Length	3m/10ft.	3.6m/12ft.	4m/13ft.
G 	2	2	2
S 	38	46	50

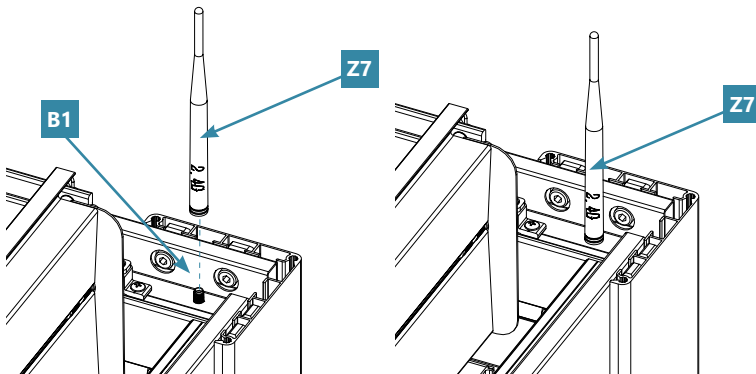


10. Finalize the electric connection and install the pillar cover

10A

Install the antenna **Z7**, and make sure they correspond to the label on the side beam with **B1**.

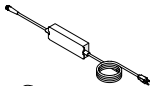
Z7 x 1



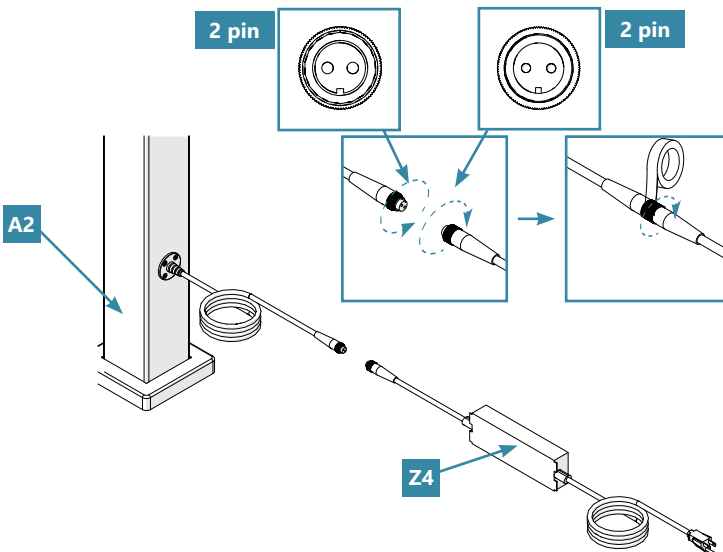
10B

Connect the cable on the base of the cabled corner pillar **A2** to the cable of the power supply adapter **Z4**. Tighten firmly.

Z4 x 1



Z8 x 1



Tip:

It is recommended to wrap waterproof adhesive tape on the waterproof connectors to prolong their service life.

10C

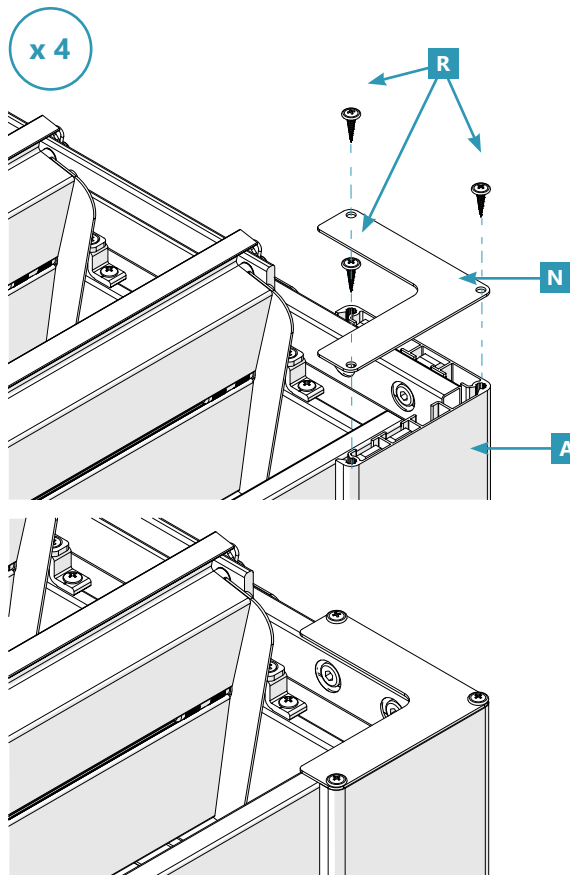
Fix a pillar cover **N** to the top of each corner with three screws each **R**. Fix them using a cordless screwdriver.



R x 12



N x 4

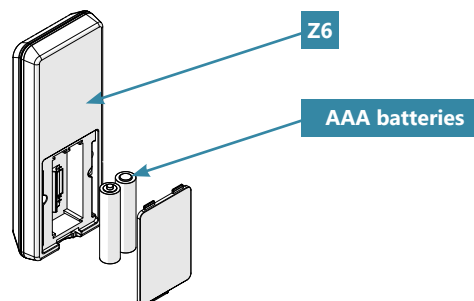


11. Pair the remote control

11A

Insert the AAA batteries into the remote control **Z6**.

Z6 x 1

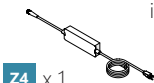


11B

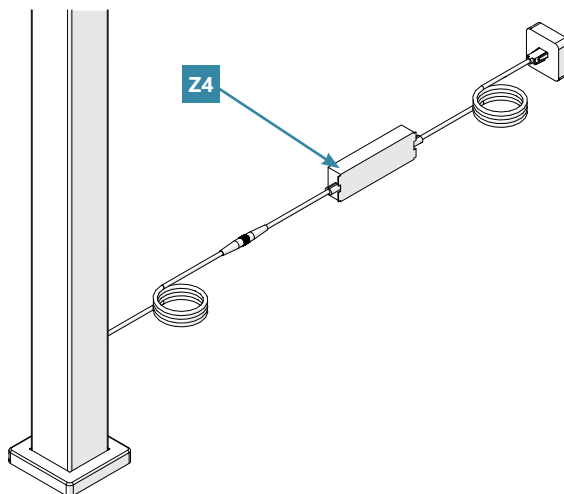
Plug the power supply adapter **Z4** into the mains.

Warning:

This product has a polarized plug (one blade is wider than the other) as a feature to reduce the risk of electric shock. This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician. Do not use with an extension cord unless plug can be fully inserted. Do not alter or replace the plug." This item may be omitted if the product does not employ a polarized plug.

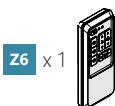


Z4 x 1

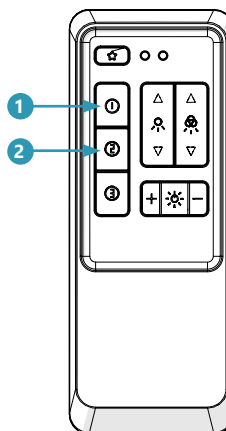


11A

Press button **1** and button **2** at the same time and the light strip will flash. This means the remote control has been successfully connected.



Z6 x 1



Within the first 5 minutes of the gazebo being powered on, press and hold both open **1** and close **2** buttons for 3 seconds to pair the remote control with the gazebo. The LED light will then blink twice to indicate that the device has been successfully paired.

For full remote control instructions, please see **Light strip remote control guide**.

12. Secure the corner pillars to the ground

The pergola must be firmly and permanently secured to the ground. If the ground is not level or suitable, please refer to the section “Before assembling your pergola”.

12A

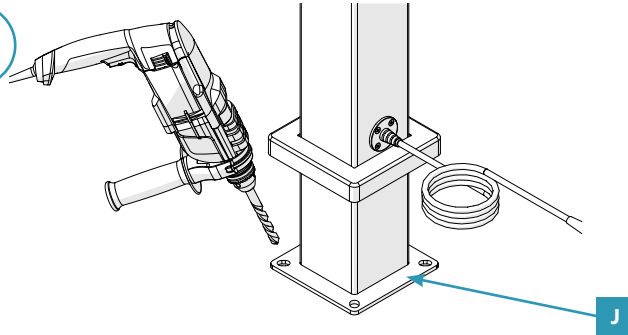


To fix the corner pillars (**A** & **A2**) with the four foot plates **J** , drill through each hole with a hammer drill.

Z x 1



x 4



12B

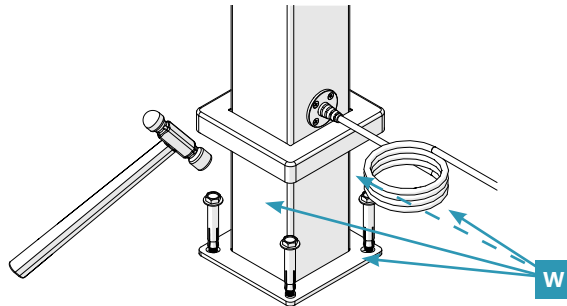


Remove all the debris and dirt. Then firmly insert an anchor bolt **W** into each hole, using a hammer.

W x 16



x 4



12C

Tighten the hexagonal ends of each bolt with a spanner/wrench.



x 4

