MIRADOR

BIOCLIMATIC PERGOLA 88S

INSTRUCTION MANUAL



4 PILLARS

THANK YOU FOR PURCHASING OUR MIRADOR BIOCLIMATIC PERGOLA!



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 supervison.

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.

For parts and customer service, please call +1 (877)-506-4777 in the U.S. and Canada (English and Spanish)Monday – Friday, 6:30 am to 4:30 pm, Pacific Time. Or email: support@miradoroutdoor.com

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

TABLE OF CONTENTS

- Before Assembling Your Pergola 3
- Important Safety Advice 5
- List of Parts 7
- Installation 10
- Operating Your Pergola 26
- Problem Solving, Care & Maintenance 27
- Warranty & Complaints Procedure 29
- Disassembly and Disposal of the Product 30
- Certification Information 31

BEFORE ASSEMBLING YOUR PERGOLA

Please read all the instructions carefully before you begin, and follow the steps in the order they are presented.

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

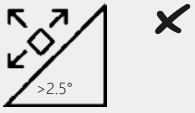

Scissors

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 refer **Warranty & Complaints Procedure** to 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 surface without such a slope is required. Small pebbles could also prevent the pergola from being safely secured on the ground.

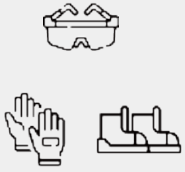
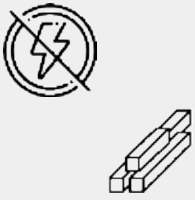
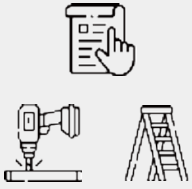
If the pergola is installed on an uneven surface, it may prevent accessory components from working correctly and may void the product warranty.

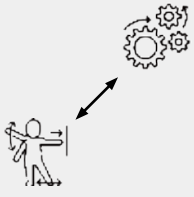
Prepare a foundation:
To prepare it, you need to:
- check for underground pipes and cables (Call 811 before you dig if you live in the USA)
- check with your local authorities regarding any building permits that may be required
- contact a reliable contractor to have concrete base if you dont have one

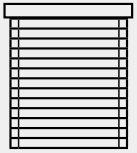
Do not assemble the pergola on sandy, muddy or loose soil, as the stakes do not have the suffcient anchorage to be installed in these types of soil.

IMPORTANT SAFETY ADVICE

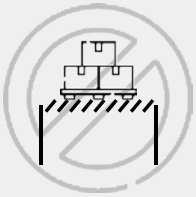
For the safety of all persons installing and using the pergola, it is important to follow the safety guidelines below.

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.
				 ✓ Approved

Put the louvers into the vertical position during snowfall or wind to avoid damage.	Installation of non-Mirador branded accessories will void the product warranty and can damage the operating mechanism.	After prolonged use we recommend you check all the fittings are tightened securely.	Please recycle packaging where possible.	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.	Hanging objects on the pergola may cause serious damage and is not permitted.	Do not climb on the roof.
				

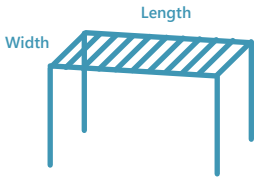
Prior to each operation, visually check the pergola for damage. If damage is visible, stop using it immediately and contact authorized personnel to repair the damage.	Do not touch moving parts during operation.	Do not place anything on the roof.	Changes to the design or configuration of equipment may not be made without consulting the manufacturer or authorized representative.	
				

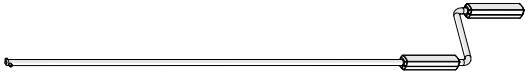
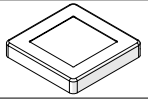
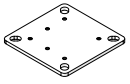
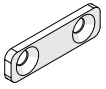
LIST OF PARTS

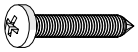
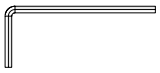
Please carefully check that the quantity of parts matches with that of the model you have purchased.

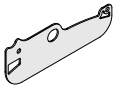
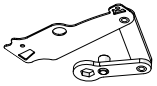
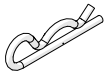
PLEASE NOTE that the anchor bolts provided may not be suitable for your chosen installation location. Please check before proceeding.

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.
A 	Corner Pillar	4 pcs	4 pcs
B1 	Side beam with gearbox	1 pcs	1 pcs
B2 	Side beam without gearbox	1 pcs	1 pcs
C 	End beam	2 pcs	2 pcs
H 	Crank	1 pcs	1 pcs
I 	Foot plate cover	4 pcs	4 pcs
J 	Foot plate	4 pcs	4 pcs
M 	Shaft support cover	38+2 pcs	46+2 pcs

REF		Part Name	3m/10ft.	3.6m/12ft.
N		Corner pillar cover	4 pcs	4 pcs
O		Screw ST5.65x45mm	24+2 pcs	24+2 pcs
P		Screw M5x12mm	76+4 pcs	92+5 pcs
Q		Screw 4.2x25mm	76+4 pcs	92+5 pcs
R		Screw 5.5x19mm	12+2 pcs	12+2 pcs
V		Crank coupler	1 pcs	1 pcs
W		Anchor bolt M8x80mm	16 pcs	16 pcs
X		Hex key (small)	1 pcs	1 pcs
Y		Hex key (large)	2 pcs	2 pcs
Z		12mm SDS Plus Drill Bit	1 pcs	1 pcs
Z10		Spare plastic pin	0+10 pcs	0+10 pcs

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

INSTALLATION

1. Set up the corner pillars A

Installation Video

1A

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

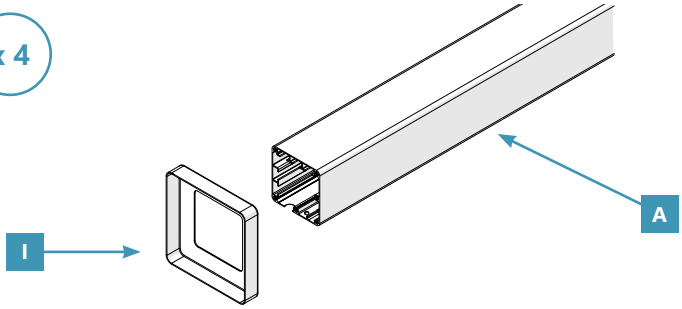
I x 4



A x 4



x 4



1B

Push the foot plate J against the straight end of the corner pillar A . 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 24

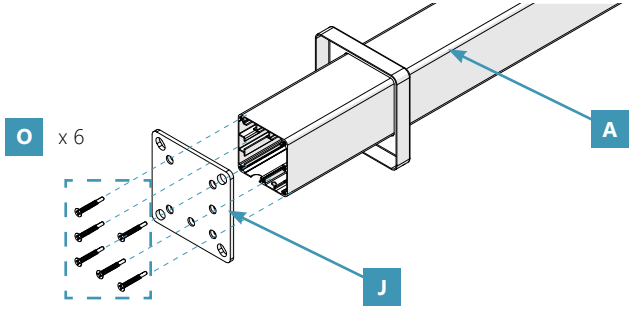


J x 4

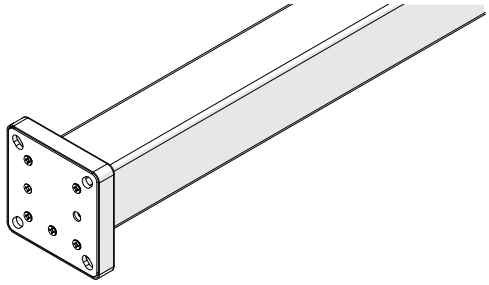


A x 4





x 4



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

2A

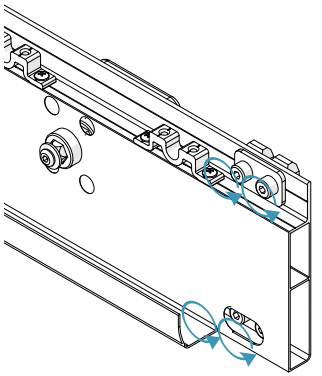
Using a hex key (large) Y , slightly loosen the 8 built-in screws at both ends of the side beam with gearbox B1 .(4 on each side)

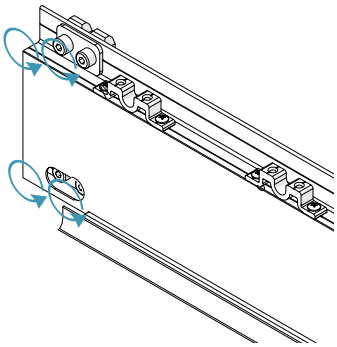
Y x 1



B1 x 1





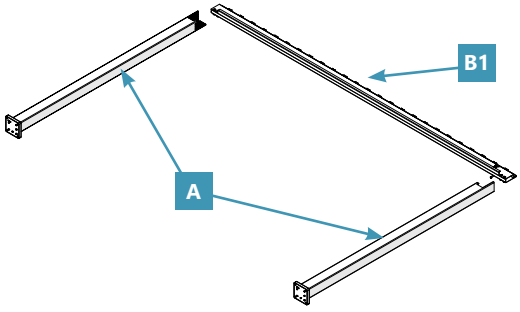


2B

Lay two corner pillars A and place the side beam with gearbox B1 on the floor, as shown in the picture.

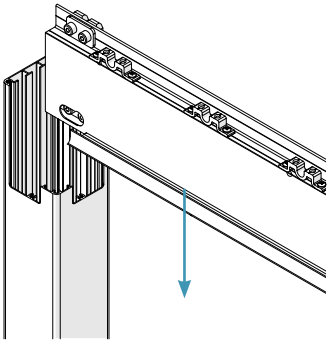
A x 2

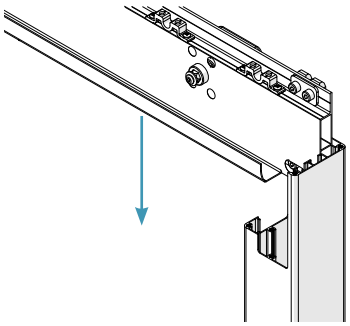




2C

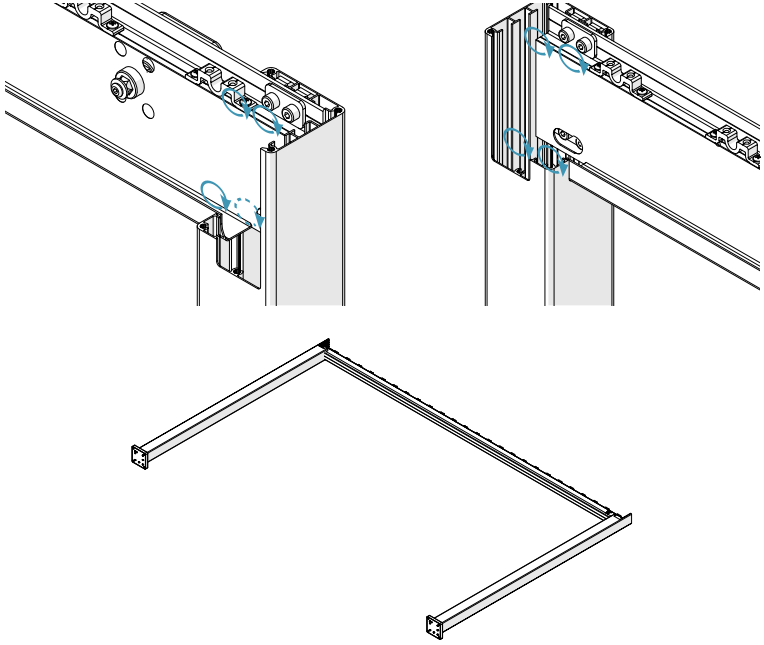
Slide the side beam with gearbox B1 into the grooves of the corner pillars A , in such a way that the slot nuts of the side beam interlock with those of the corner pillars.





2D

Tighten the screw with the hex key Y .



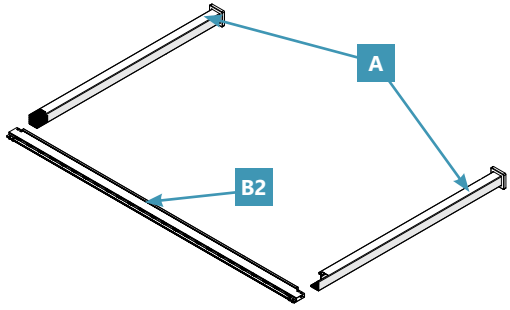
Y x 1



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

3A

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



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.

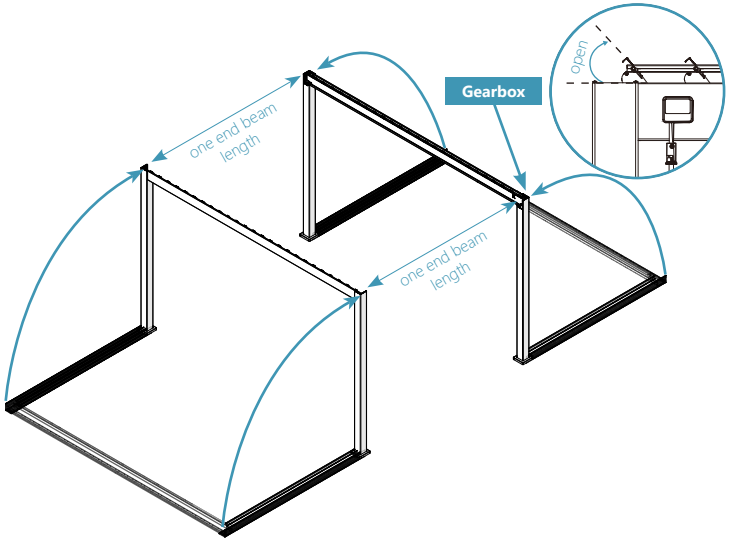


Only use ladders suitable for this kind of installation work.

4A

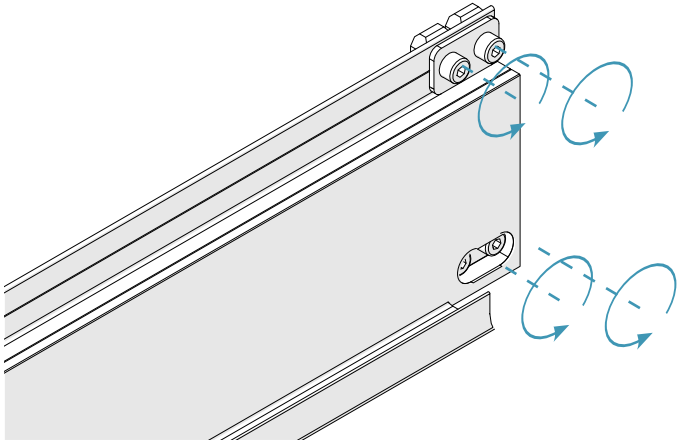
Stand the two structures built during steps 2 and 3 in an upright position, and place them at one end beam length away from one another. Make sure that one person is supporting each corner leg A to prevent the structures from falling.

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

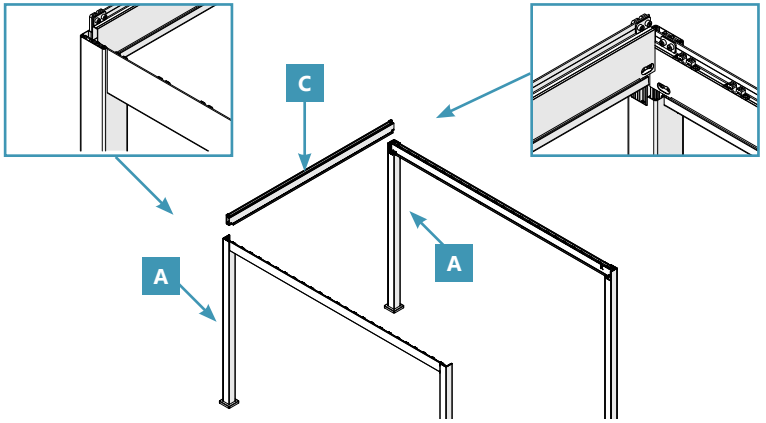


4C

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

C x 1



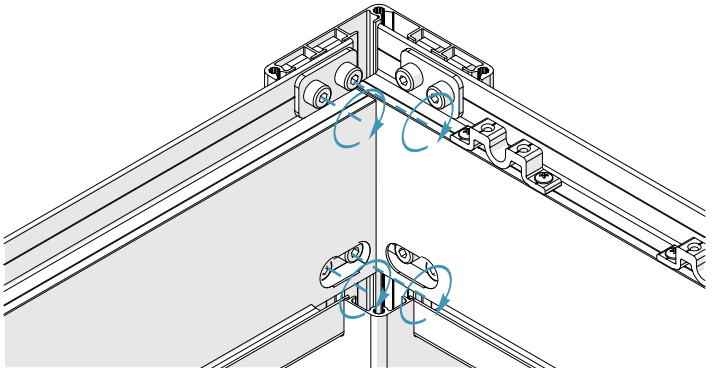


4D

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

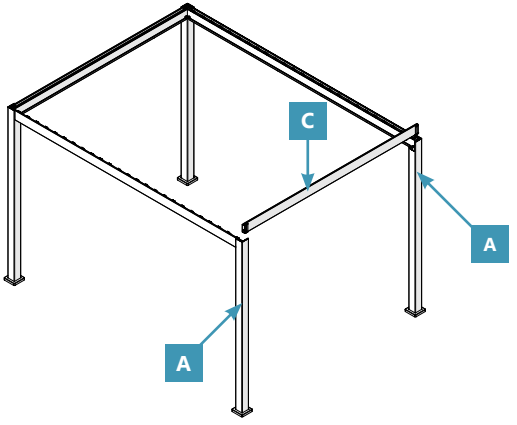
Install the other end beam **C** by following steps **4B** - **4D** .

Y x 1



C x 1





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

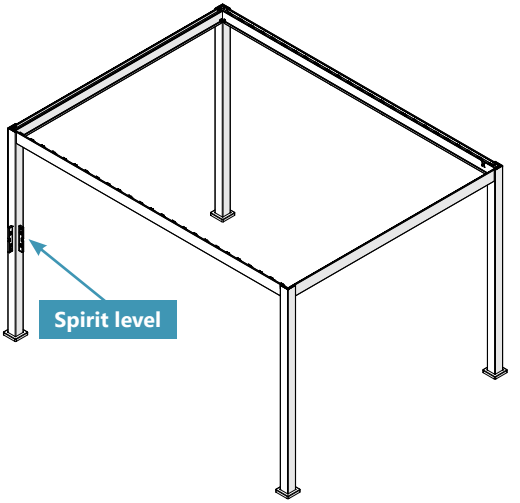
You are now almost done installing the main frame of the pergola. Please double check to ensure all beams and pillars have been installed and fitted correctly. You may have to unscrew certain bolts during this step.
You will also need a tape measure and a spirit level to complete this step.

5A

Choose one of the corner pillars **A** 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.

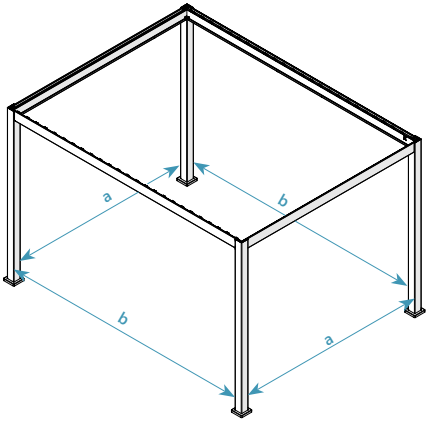
Make sure this corner pillar does not move position during the remaining installation steps.



5B

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

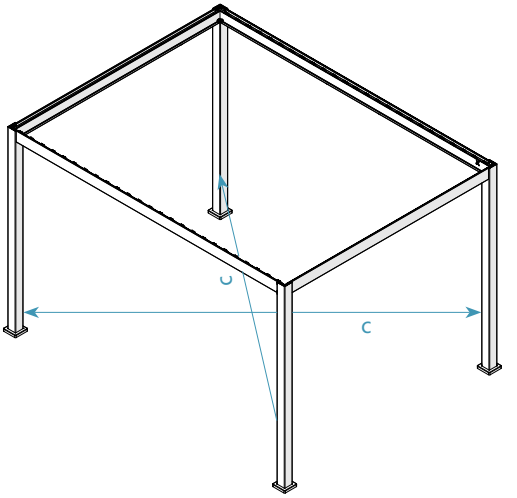
Size	a		b	
(m/ft)	(mm)	(inch)	(mm)	(inch)
3x3/10x10	2795.8	110.1	2806.2	110.5
3x3.6/10x12	2795.8	110.1	3415.4	134.5



5C

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.

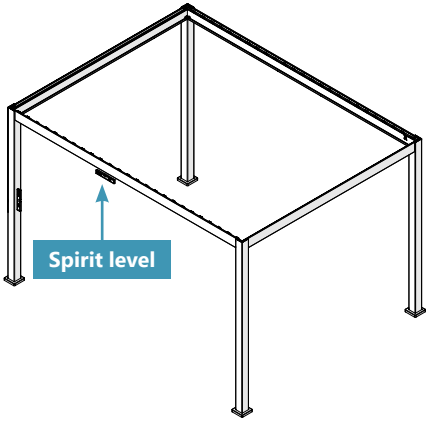
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(m/ft)	(mm)	(inch)
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3x3.6/10x12	4418.7	173.9

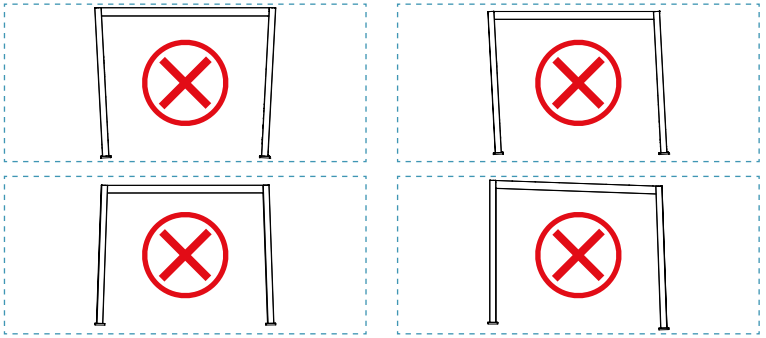


5D

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.

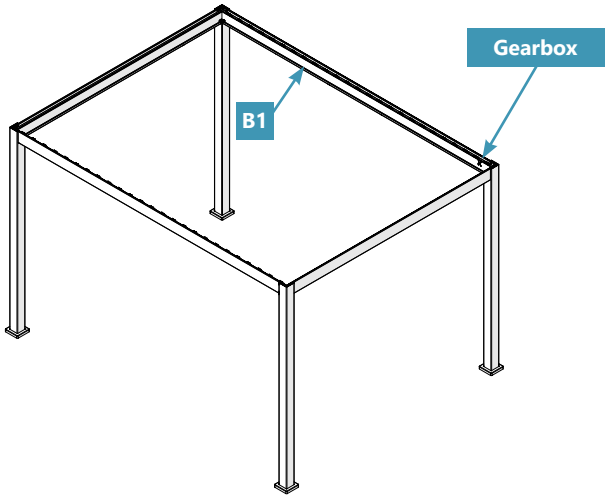




6. Install Crank H

6A

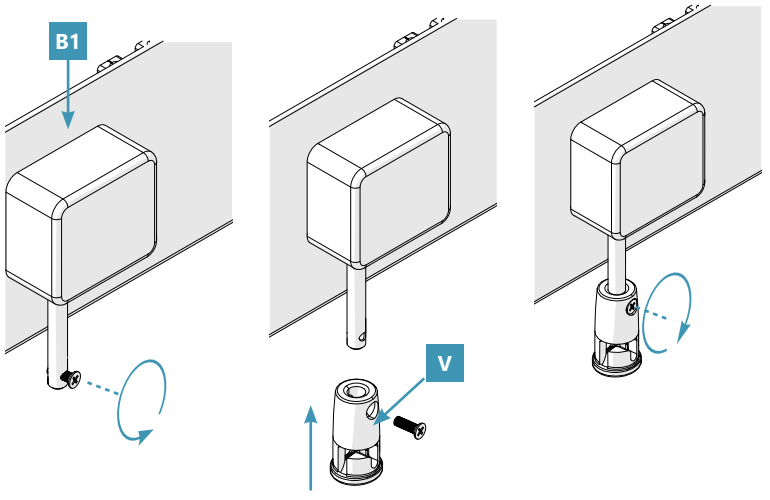
Locate the gearbox on the side beam with gearbox B1 .



6B

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.

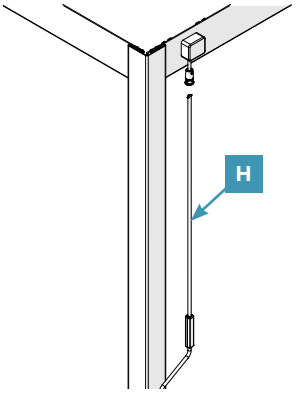


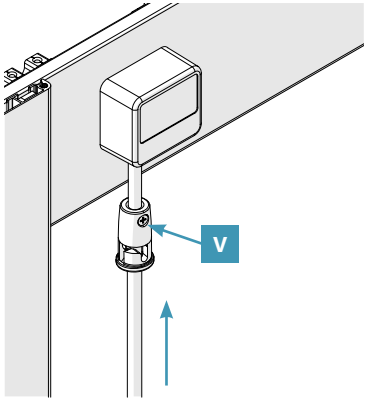
V x 1

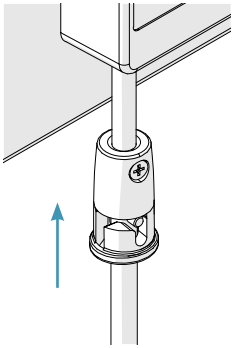


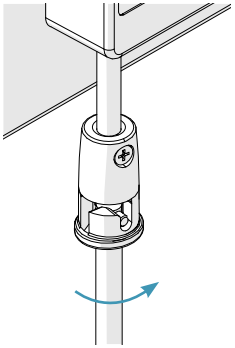
6C

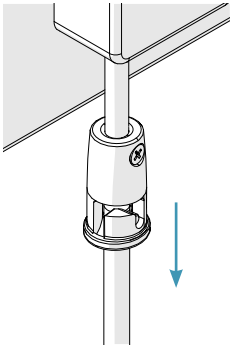
Insert the end of the crank **H** into the crank coupler **V** , and turn until the crank locks firmly in place.

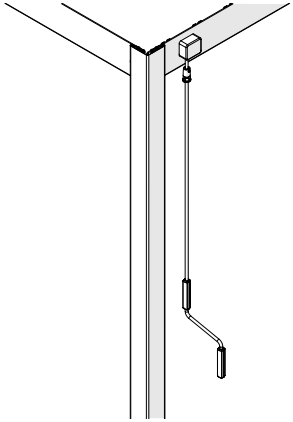












H x 1



7. Install the louvers, and connecting strips

7A

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

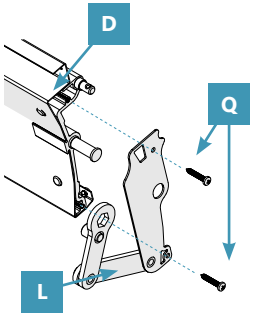
Attach the louver end cap with control arm **L** to one end of the driving louver, and attach an louver end cap **K** to the other end of the driving louver. Use two screws **Q** on each side, and fix them firmly using a cordless screwdriver.

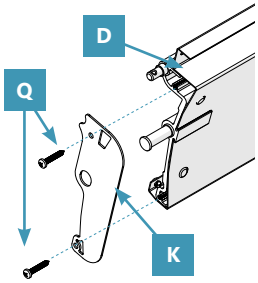
K x 1 

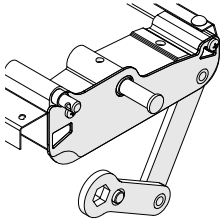
Q x 4 

L x 1 

D x 1 



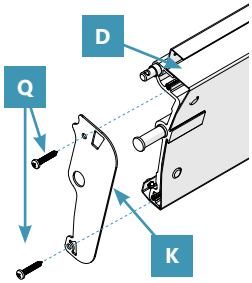


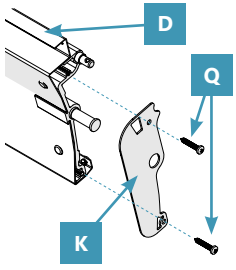


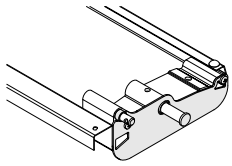
7B

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.
Q 	72	88
K 	36	44
D	18	22



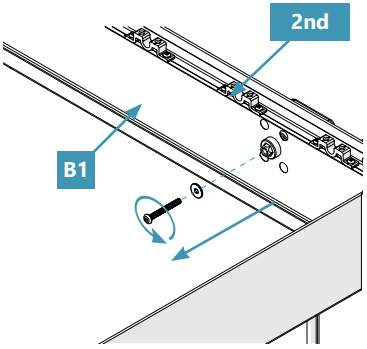


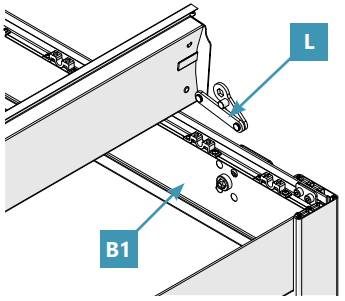


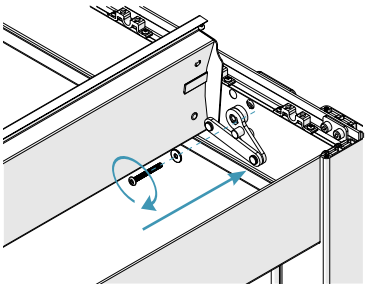
7C

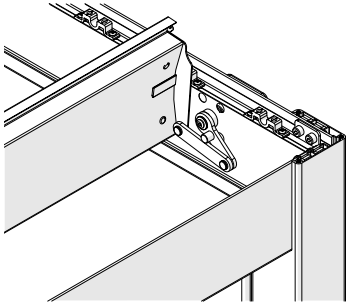
Loosen the screw and washer already attached to the beam. Then fix the connecting rod **L** of the driving louver to the side beam with gearbox **B1** , by firmly tightening the same screw and washer, using the hexagon socket key **X** .

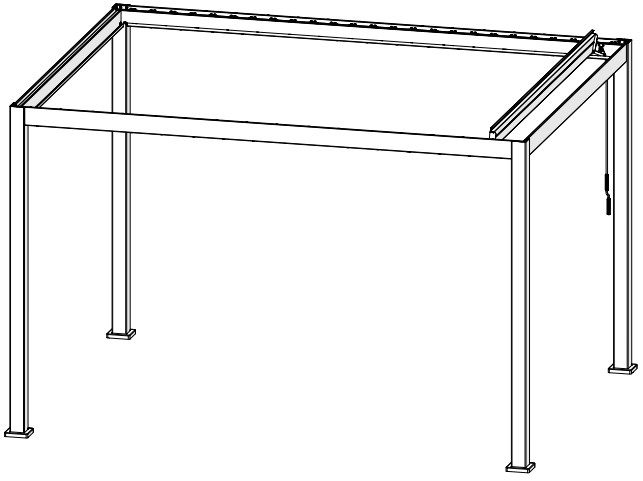
Place the louvers **D** on the corresponding louver shaft support on both side beams (**B1** & **B2**), with each louver overlapping the next, and **make sure that the driving louver is placed 2nd from the right**.











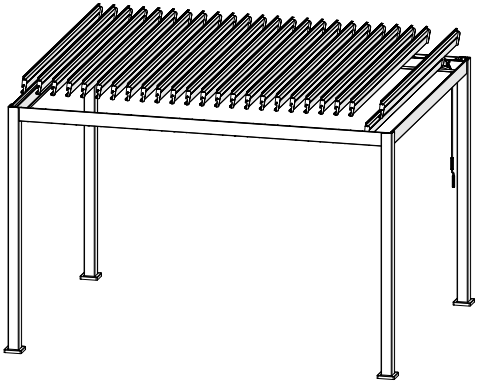


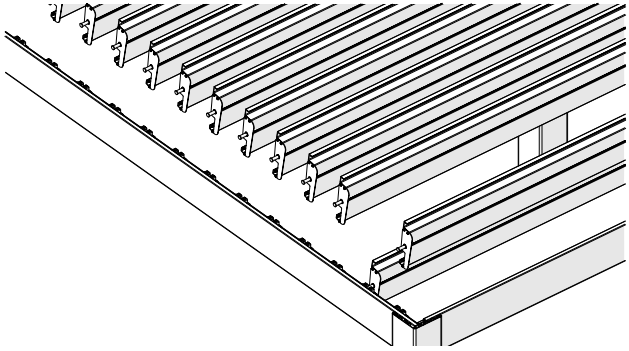
X x 1

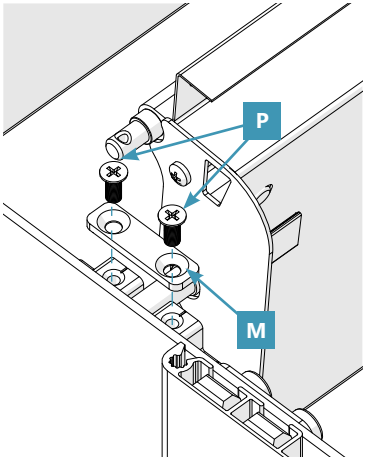


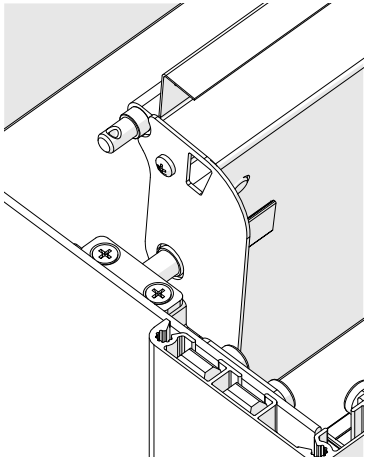
7D

Place the rest of the louvers into the remaining shaft support brackets. 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.









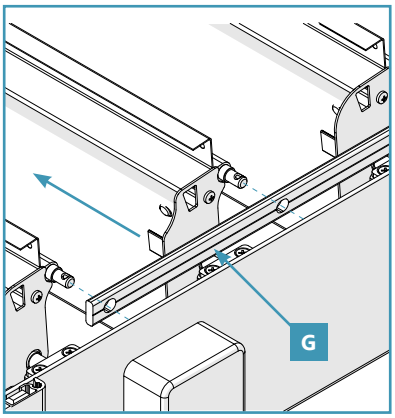


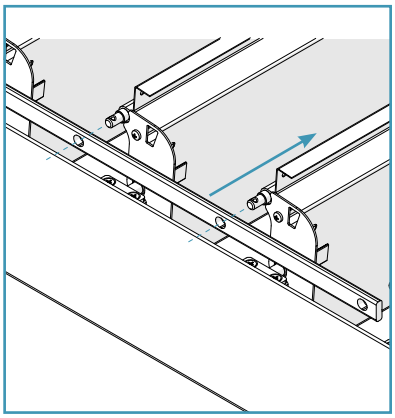
Part \ Length		3m/10ft.	3.6m/12ft.
M		38	46
P		76	92

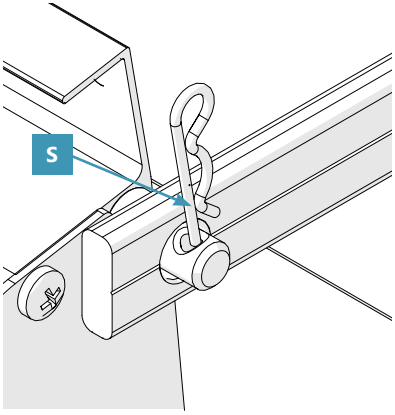
7E

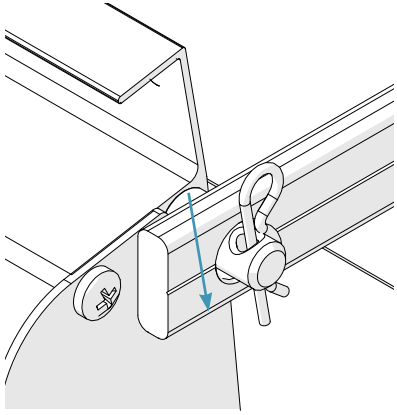
Take the connecting strip **G**. Attach it to each louver fitting each of the holes onto the corresponding bolts of the louvers. Secure every bolt with a cotter pin **S**, inserting it through the small bolt hole. Repeat this step for all cotter pins.

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







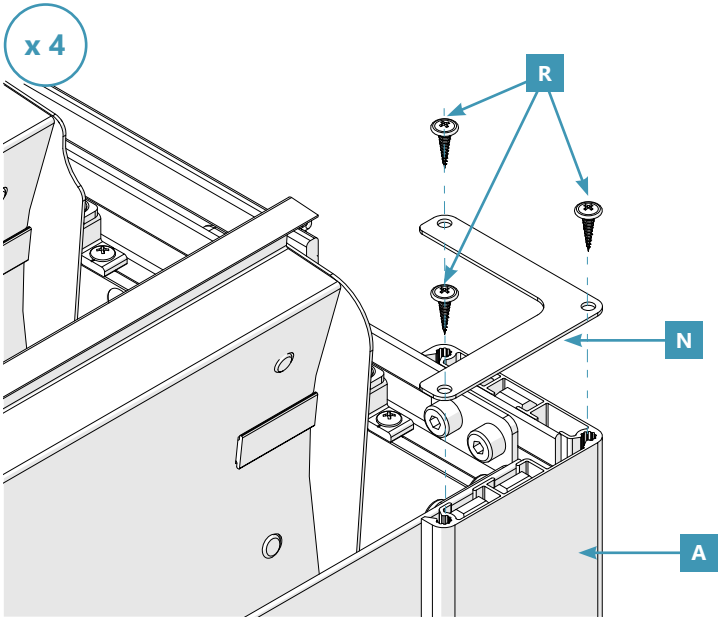


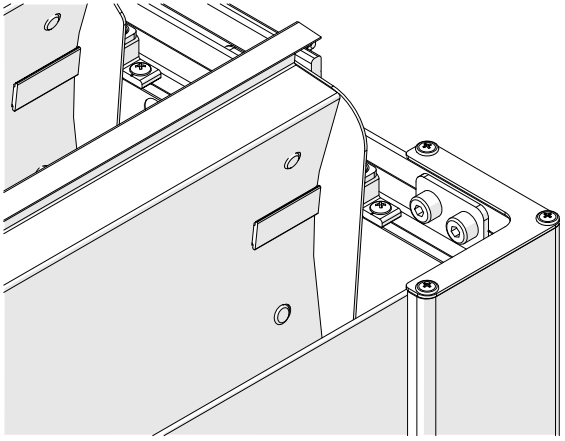
Part \ Length	3m/10ft.	3.6m/12ft.
G	2	2
S	38	46

8. Secure the corner pillar covers N

8A

To install the pillar cover, 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 

9. Secure the corner pillars to the ground

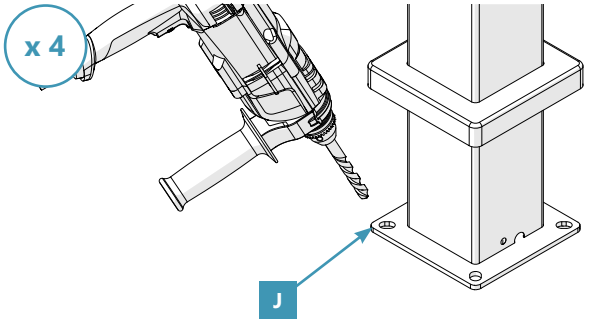
The pergola must be firmly and permanently secured to the ground. If the ground is not level or suitable, please refer to the section “Before assembling your pergola”.

9A



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

Z x 1 

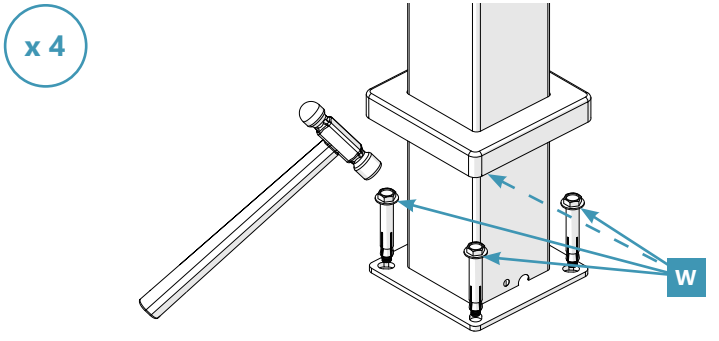


9B



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

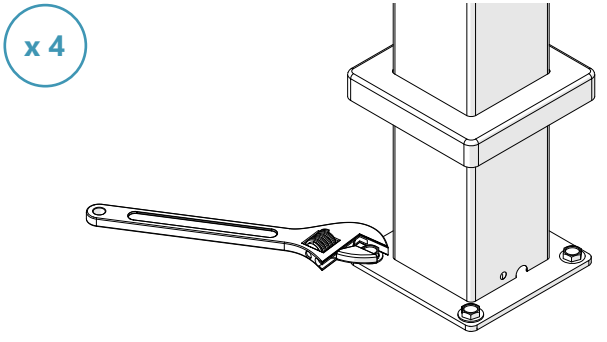
W x 16 



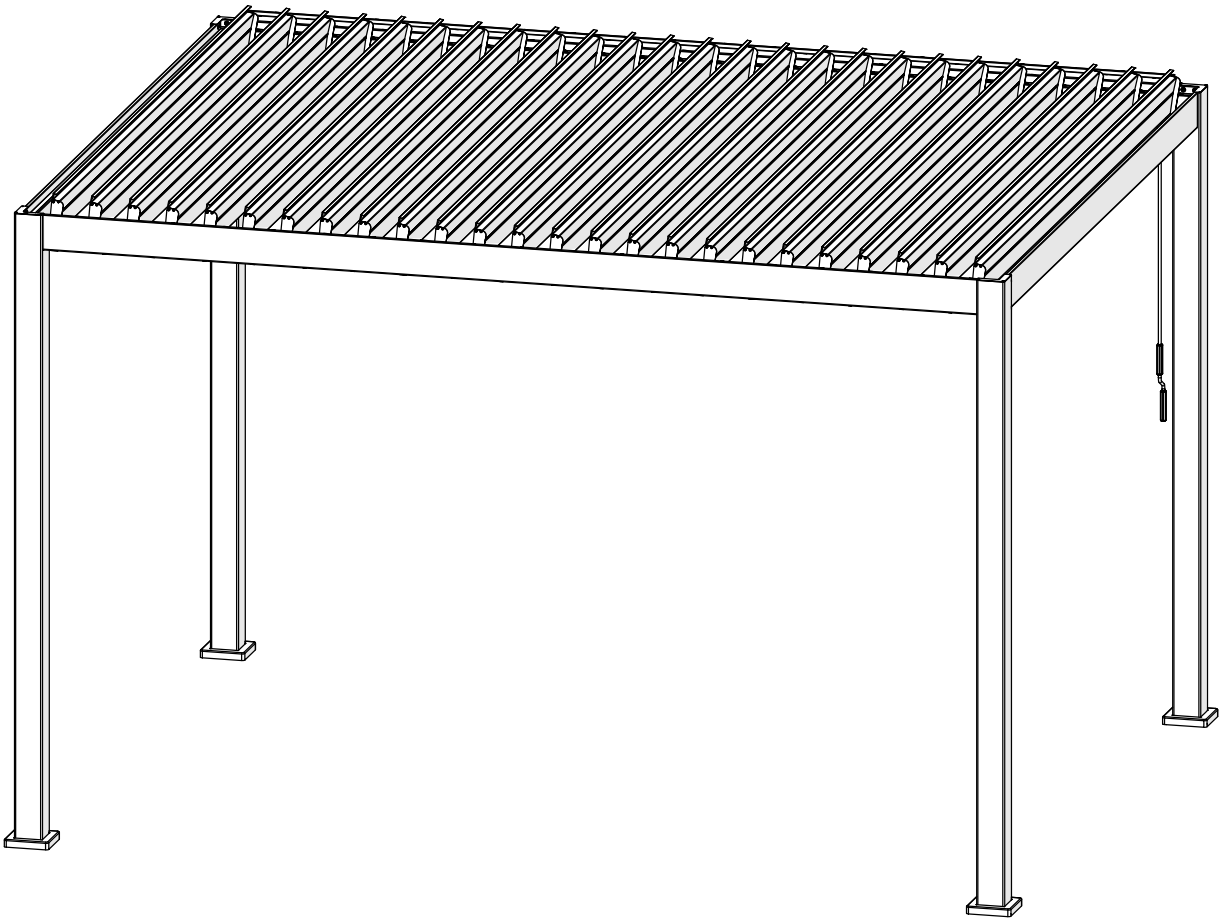
9C

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



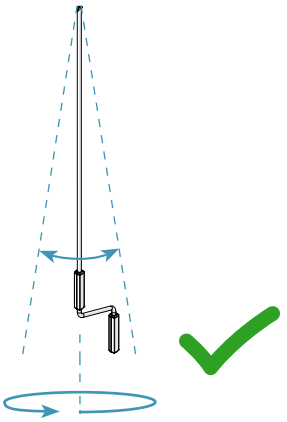


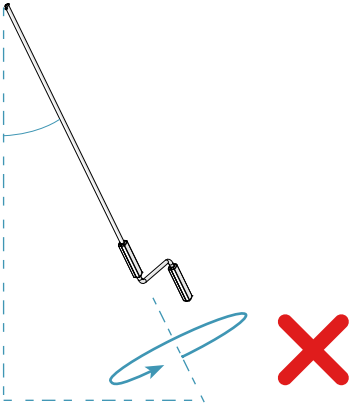
10. End of installation



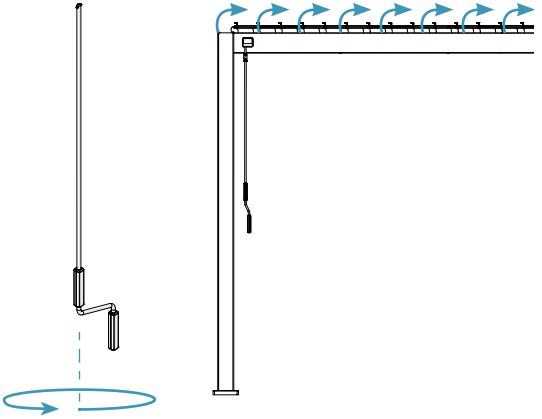
OPERATING YOUR PERGOLA

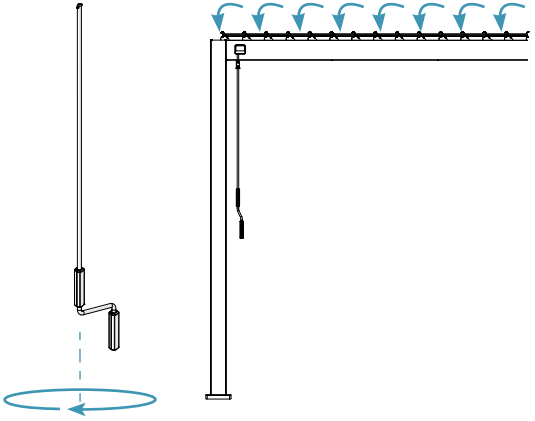
When opening/closing the louvers, please ensure the crank remains in a vertical position next to the pillar.
Do not move the crank too far away from the pillar.





To open the louvers, turn the crank handle clockwise;
To close the louvers, turn the crank handle counter clockwise.





PROBLEM SOLVING, CARE & MAINTENANCE

Issue	Explanation or action to take
Abnormal noise occurs during the rotation of the louver(s).	Check if any of the louvers are deformed. If this is the case, replace them. If the louvers are not deformed but they are colliding with one another, replace the beam.
The flatness of the louver is damaged due to weather conditions.	Replace the affected louvers.
The drain is blocked by leaves or debris.	Clean the ducts and guttering of the pergola regularly.
The Resistance to wind loads.	Class 6 (Claimed Beaufort Wind Force Scale 10).
The Resistance to water pocket.	Class 1.
The Mechanical endurance.	Class 1.

GENERAL CARE & MAINTENANCE

Dust and dirt will collect on the pergola and will require periodic cleaning.	Use a water/detergent mixture and a soft clean cloth to clean the pergola.	Air dry or wipe with a soft clean cloth.	For more soiled areas, rinse the surface with clean water from top to bottom.
			
In coastal areas, it is recommended that you frequently spray the pergola with water to reduce accumulation of salt and dirt.	When the temperature is below 0°C/32°F , it is recommended to use the product less frequently to prolong the product's service life.	Do not use any petroleum based spray lubricant.	In most situations it should not be necessary to lubricate the moving components of the pergola. However, when squeaking occurs, using a silicone spray lubricant is recommended.
	 < 0°C / 32°F	 Petroleum based	 Silicone based

PERIODIC INSPECTION

- Check the pergola is fixed firmly to the ground.
- Check that the driving parts are sufficiently lubricated,
- Check the screws and rivet joints on the pergola.

WARRANTY & COMPLAINTS PROCEDURE

For terms and conditions of our limited warranty, please visit www.miradoroutdoor.com or contact your local Mirador sales representative.

Complaints procedure:

- The complaint must include an order number or transaction number. Goods without an order number or transaction number are not covered under the warranty.
- The complaint must include a detailed description of the defect, the name of the company which installed the product and the date when the defect was discovered.
- At Sorara outdoor Living USA's discretion, customer must offer supplier the photos/videos of the issue/damaged parts. Otherwise, supplier reserves the right to refuse replacement parts or credit.
- Please save a copy of your purchase receipt.

Contact:
Customer Service: support@miradoroutdoor.com
Need Assistance? Call +1 (877)-506-4777

Hours of Operation:
Phone Support: Monday - Friday: 6:30 am - 4:30 pm PST
Email Support: We are available 24 hours a day, M-F. Please allow up to 24 hours for a response.
Chat With Us Online: Monday - Friday: 5:30 am - 2:00 pm PST

Note: Our team is available to assist you during these hours. If you have any inquiries or require support outside of these hours, please leave a voicemail, send an email, or use our online contact form. We will get back to you promptly during the next available support hours. Thank you for choosing Mirador Outdoor!

DISASSEMBLY AND DISPOSAL OF THE PRODUCT

Incorrect disassembly of the pergola may lead to serious injury and product damage.

Disassembly should be assigned to qualified personnel with adequate training within the scope of occupational health and safety and knowledge within the scope of recycling.

When the service life of the pergola is over, it is necessary to disassemble it for disposal and to sort the individual materials and components in compliance with the local regulations of your country.

CERTIFICATION INFORMATION

Declaration of performance (DOP)

Reference no. DOP0002

Product name and type
Mirador Pergola and Mirador Wall Pergola/ pergola awning

Model name/ Unique identification code of the product:
80 Solid AxBm, 80 AxBm,
AxB:
3x2, 3x2.4, 3x3, 3x4, 3x5 ,3x6

88 Solid AxBm,
AxB:
3x2.4, 3x3

88 Basic AxBm, 88 S AxBm,
AxB:
3x3, 3x3.6, 3x6

88 Basic A AxBm, 88 A AxBm,
AxB:
3x3, 3x3.6, 3x6

Purpose of Usage:
External use in buildings and other construction works

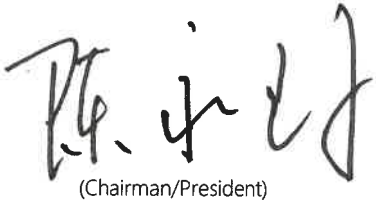
Manufacturer:
Zhejiang Zhengte Co., Ltd.
811 Dongfang Ave, Zhejiang, PRC

Documentation officer:
Stefan Baricik
Sorara Outdoor Living B.V.
Cockeveld 3, 5672 AE Nuenen, The Netherlands

System for assessing and verifying the constancy of performance according to Annex V of the Construction Products Directive 305/2011/EC
System 4

Declared performance (Excluding the structural part):
Wind resistance = Class 6
Standard: EN 13561:2004+A1:2008

Zhejiang
20.07.23



(Chairman/President)

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