



WAREMA pergola awning Perea P70

Der SonnenLicht Manager

For qualified technicians only

Valid from 14 January 2019 Document number 2023753 [Rev. 2 - en]

Table of contents

1	Safety and product information	. 3
2	Installation	.4
2.1	Unpacking the product	5
2.2	Scope of delivery	5
2.3	Product position	. 6
2.4	Installing the consoles	.7
2.5	Installing the bearing tube	. 8
2.6	Preparing the poles (optional)	. 8
2.7	Erecting the portal	. 8
2.8	Attaching the rafters	. 9
2.9	Aligning the awning	10
2.10	Attaching the pole to the mounting substructure	10
2.11	Securing the rafters permanently	12
2.12	Installing the drive shaft	12
2.13	Installing the wall connection	15
2.14	Installing the awning fabric	16
2.15	Pulling in the LED line and looping it through	17
2.16	Attaching the fabric	17
2.17	Installing the LED strip light rail	18
2.18	Installing the side cap	18
2.19	Line routing	19
2.20	Setting the motor limit positions	19
2.21	Performing a functional check (What to do when?)	19
2.22	Connecting the motor on-site	19
2.23	Troubleshooting: wrong motor limit positions	19
2.24	Finishing the installation	20

1 Safety and product information



Warnings are marked in the instructions with this symbol.

- Read through the product instructions before use.
- Observe all safety and setting instructions.



The basic safety instructions can be viewed under (www.warema.de/Sicherheitshinweise).

Target group

These instructions are intended for use by qualified specialists and fitters.

Permissible activities

Performing tasks on the product that are not described in these instructions is not permissible. No other alterations are to be carried out on the product other than as described in these instructions without the written approval of WAREMA.

Intended use

The following details apply to the following product: Pergola awning P70

The product is an external, weatherproof, large-area sun shading system that may be used for protection against heat and rain, and for glare control.

Parts description



Parts overview for Perea P70

Wind resistance

The product reaches the following wind resistance: class 3

Use up to Beaufort 7 is permitted.

Beaufort 7 corresponds to a maximum of 17.4 m/s and is defined as a stiff wind, i. e. inconvenience felt when walking against the wind, whole trees in motion.

The installed product will meet the requirements of the specified class if the following instructions are observed during installation:

- The type and number of consoles
- The fixing material used must be suitable for the mounting substructure (the fitter is responsible for the right selection).
- The screw anchor pull-out forces specified by the manufacturer must be taken into account.
- The installation specifications from the fixing material manufacturer must be adhered to (the fitter is responsible for adherence).

Depending on the mounting substructure, the wind resistance class may vary due to the variability of the building material.

Rain class

The product provides rain protection starting at an inclination angle of 7° (corresponds to the smallest possible angle that can be ordered).

Electric drive data



Observe the separate instructions for the motor.

2 Installation

The following installation steps are not described in these installation instructions and can be found in the accompanying installation note.

Installation of window awning with ZIP guidance

i) INFO

The fixation and the fixing material must be suitable for the existing mounting substructure and must be designed according to the applicable regulations.



Adhere to the application drawings.



DANGER

Electric shock!

When working in the immediate vicinity of potentially live parts, such as on-site connecting lines, contact may result in an electric shock.

- Check that the on-site connecting line is deenergised.
- Before installation, de-energise the on-site connecting line and secure it against being switched on again.



WARNING

Risk of injury from a falling product!

The product only meets the requirements of the specified wind resistance class when installed under certain conditions.

- The specified number of fixations and fixing points must be adhered to.
- Observe the information provided by the dowel manufacturer when installing the product.



INFO

The point of reference for instructions indicating a side or views is looking from the inside to the extension direction.

2.1 Unpacking the product

WARNING

Risk of suffocation from carelessness!

Plastic film, polystyrene, small parts, etc., can be very dangerous for children to play with.

- Keep children away from small parts.
- Do not leave the packaging material lying around in disorderly fashion.

i) INFO

<u>/!\</u>

Dispose of the packaging material properly after the unit is unpacked.

Carefully unpack the product and the individual parts.



CAUTION

Risk of injury from a falling product!

Use of the wrong procedure when pulling the product up to a higher level with the aid of cables may result in the product falling down.

- Take the product out of the packaging.
- Attach the cables to the product in such a way that they cannot slide off.
- The product must be horizontal while it is being raised.

2.2 Scope of delivery

(i) INFO

- Check the scope of delivery against the delivery note.
- Check the parts to make sure they are not damaged.
- Compare the situation on-site with the order data.
- If any items are damaged or not as specified in the order, stop installation and contact WAREMA.

Overview of ground connections

Base plate (standard)	Field of application
	 Installation of glass not permissible! Ground installation with ground screw Ground installation with threaded rod Ground installation directly on the foundation
Base plate (large)	Field of application
	Installation of glass permis-
	 sible. Ground installation directly on the foundation

1ab. 1.

Overview of ground connections with field of application

2.3 Product position



 Fig. 2:
 Dimensional drawing of Perea P70 (all dimensions in mm)

Fixation methods for the poles

i) INFO

Note the special features of the fixation methods of the components listed and have any necessary preparations made.

Pole



INFO

(i)

- When creating the foundation, observe DIN 1045 and make sure the foundation-laying area is free of frost. The edge distances of the fixing points must be taken into consideration.
- The foundation for mounting the base plate must be poured in accordance with the construction regulations.
- The foundation dimensions must be at least 1000x1000x1000 mm.

INFO

 The technical requirements for the screw foundation must be adhered to.

2.4 Installing the consoles



Risk of injury from a falling product!

The number of consoles and the mounting substructure have a large influence on product stability. The design is for the following substructures: full brick, concrete and wood.

- Adhere to the number of consoles.
- Check the mounting substructure.

Number of rafters	Number of consoles
2 pieces	2 pieces
3 pieces	4 pieces

Tab. 2: Number of consoles for the number of rafters

Marking and drilling the fixing points of the consoles

- (i) INFO
 - Pencil in the fixing positions centrally to permit corrections later on.



Attaching and aligning the consoles

- \hat{i} info
 - Check the mounting substructure for unevenness.
 - Correct any unevenness.



- Attach the consoles.
- Align the consoles with one another.

2.5 Installing the bearing tube

(i) INFO

Observe the tightening torque specifications (min. tightening torque = 25 Nm/max. tightening torque = 30 Nm).



- Mount the bearing tube in the opening of the console.
- Centre the bearing tube.
- Screw in the screws DIN 931 M10x60. Note the tightening torque.

2.6 Preparing the poles (optional)

וNFO ו

If the water drain in the post is too low, the connection to the high-temperature pipe (referred to as the HT pipe below) must be disassembled to be able to move the cover high up enough to permit the post to be attached.

 Unscrew the screws DIN 965 5x25. Remove the cover panel for the HT pipe. Remove the retaining plate for the HT pipe. Slide the HT pipe into the post. The HT pipe is not permitted to pro- trude.
Slide the cover over the pole (only if included).
Attach the base plate to the pole with screws DIN 7500 M8x60.

2.7 Erecting the portal

Attaching the drainage gutter to the post

(i) INFO

The post is flush with the outer edge (higher side) of the drainage gutter.



Erecting the portal



Fig. 3: Erecting, aligning and securing the portal

- Erect the portal. Centre the position (see Fig. 2/Page 6) and roughly align the portal with the bearing tube.
- Attach braces to secure the portal against falling over.

Attaching the bearing part

Attach the bearing parts with screws DIN 912 M8x25 to the slot nuts in the drainage gutter. It should still be possi- ble to move the bearing parts.
Move the outer bear- ing parts to the speci- fied position; the middle bearing part (if present) is centred.
Tighten the screws.

2.8 Attaching the rafters

INFO

(i)

Beads are inserted in the outer rafters.

The bead must face inwards.



Order width	Number of rafters
Up to 4000 mm	2 pieces
From 4001 mm	3 pieces

Tab. 3: Number of rafters for various order widths

Attaching the middle console in the bearing tube



INFO Begin with the middle rafter, if present.



Attach the console in the bearing tube.



Rest the rafters on the portal.

Attaching the outer consoles to the bearing tube.

INFO The bead on the rafter must face inward.

 Attach the console in the bearing tube.
Move the rafter to position. Note the order data (Fig. 2).
 Screw in the screw DIN 912 M8x30. The console is now secured against detachment. Secure the console against becoming de- tached.

Rest the rafters on the portal.

Connecting the rafter with the drainage gutter



Installing the front trim panel



Fig. 4: Installing the trim panel

INFO

(1)

Position the trim panel above the last runner. It will be aligned to the final position later on.

Slide the slot nuts to the correct position and se- cure them. Slot nuts are not clamped and may slide off.
Screw in the screws DIN 7984 M6x16 into the slot nuts through the trim panel.

2.9 Aligning the awning



Fig. 5: Measuring the diagonals (Perea P70)

- Measure the diagonals D1 and D2 or D3 and D4 (depending on the number of rafters). If D1/D3 = D2/D4, the rafters are parallel and at right angles.
- Move the portal if necessary and check the diagonals again.

2.10 Attaching the pole to the mounting substructure

(i) INFO

7 The edge distances of the fixing points must be adhered to.

Drilling the fixing holes

INFO

 \dot{U} Applies to screw foundation



Transfer the position of the posts to the mounting substructure.

- Raise the rafter and move the portal toward the bearing tube.
- Mount the ground screw into the mounting substructure.



Applies to ground installation directly on the foundation or ground installation with a threaded rod.

Pencil in the fixing holes centrally in the oblong holes. This will make it possible to adjust the position later on.		Hold the base plate against the screw foun- dation. If the holes do not align, the base plate must be turned.
Drill Ø 8-mm fixing holes. When using the cover for the base plate, drill 10 mm deeper.		Fit the base plate with screws DIN 933 M8x80, washers DIN 125 8.4 and nuts DIN 934 M8.
INFO Standard ground in- stallation directly on the foundation: dow- el FAZ II 8/30 I = long dowel (95 mm) td = borehole depth		Attach the base plate to the screw founda- tion using washers DIN 9021 8.4 and screws DIN 933 M8x14.
(95 mm + 10 mm) $h_{ef} = \text{min. anchor}$ depth (45 mm)	Attaching the posts INFO Applies to screw foun	dation
t _{fix} = usable length (30 mm)		Insert washers DIN 9021 8.4.Position the pole or
INFO Standard ground installation with threaded rod When using the cov- er for the base plate, the threaded rods/ threads of the screw		 guide rail over the screws. Secure the pole or guide rail with washers DIN 9021 8.4 and nuts DIN 934 M8. Tighten the fixing to the point where it can still be adjusted later on.
may protrude max. 14 mm above the base plate.	INFO Applies to ground inst foundation or ground	tallation directly on the

Installing the base plate



INFO Applies to screw foundation



- Position the pole or guide rail over the fixing points.
- Drive the fixing material (e. g. FAZ screw anchors) into the mounting substructure.



Aligning the pole to the substructure



NFO ا

ĺ

Installation directly on the mounting substructure: Correct any unevenness in the substructure by shimming with suitable material.

Installation on the threaded rod/screw foundation: Adjust the nuts to correct any unevenness.

Tighten the post fixations.

Shortening the protrusion of the screw thread



INFO Applies to screw foundation



2.11 Securing the rafters permanently

Retightening the rafters on the bearing tube



Retightening the inclination angle adjustment on the rafters



2.12 Installing the drive shaft

(i) INFO

The drive unit with motor is always on the **right** (as viewed from the inside in the extension direction).

If there are 3 rafters, the longer square shaft must be inserted in the middle rafter.



Function problems through incorrect positioning of

the runners when installing the drive shaft.

The position of the runners when installing the drive shaft influences the running behaviour of the projection profile. The front runner is connected to the drive shaft via a toothed belt. If the runners are not at the same position when the drive shaft is installed, the unit may run asymmetrical.

Move all runners together toward the bearing tube before the pins are inserted.

Overview



Preparing the couplings

Release the screws DIN912 M6x30 on the installed coupling. The square shaft must be in- serted slightly.
 Unscrew the screws DIN912 M6x30 on the mounted coupling.
Remove the coupling from the square shaft.

Installing the short square shaft [1] in the console

Slide the square shaft into the console.
 Adjust the distance between the screw head and the console to 60 mm. Tighten the screw DIN 933 M8x140. The square shaft is tensioned.

Installing and coupling the motor unit [2]

	Attach the motor unit to the bearing tube.
	Screw in the screws DIN 912 M8x40 slightly. The motor unit must be secured against becom- ing detached, but must still be movable.
5.70 ×	Slide the motor unit into the console to the right position relative to the square shaft; the dis- tance is 5-10 mm.
	Position the coupling jaws above both square shafts.
	Tighten the screw DIN 912 M6x30. Tight- en the screws diagonal- ly instead of circularly to prevent formation of a gap.

Installing and coupling the square shaft [3] (only necessary in case of 3 rafters)

Slide the square shaft into the console.
Slide the square shaft into the coupling of the motor unit.
 Adjust the distance between the screw head and the console to 60 mm. Tighten the screw DIN 933 M8x140. The square shaft is tensioned.
Tighten the screw DIN 912 M6x30. Tight- en the screws diagonal- ly instead of circularly to prevent formation of a gap.

Installing the short square shaft [5] in the console

Slide the square shaft into the console.
 Adjust the distance between the screw head and the console to 60 mm. Tighten the screw DIN 933 M8x140. The square shaft is tensioned.

Coupling the long square shaft [4]

5.70	Place the square shaft between the mounted square shafts.
	On both sides:
	Position the coupling jaws above both square shafts.
	On both sides:
	Tighten the screw DIN 912 M6x30. Tight- en the screws diagonal- ly instead of circularly to prevent formation of a gap.

2.13 Installing the wall connection

INFO The wall connection cannot be installed after the horizontal profile is installed.

Place the wall connection on the rafter, centre between the rafters and slide against the mounting substructure.



NFO ا

The remaining parts of the rain hood will be mounted later on.

2.14 Installing the awning fabric

(i) INFO

During the entire installation process, rest the awning fabric on mounting stands, for example.

The awning fabric is installed from the rear to the front and with the projection and horizontal profiles at the same time.

The operations must be executed simultaneously on both sides.

Installing the rear projection profile

 Pull the loop of the awning fabric with the bead into the beading channel of the projection profile. Center the awning fabric.
Place the seal between the projection profile and the block and hold the projection profile against the block.
Press the bushing into the projection profile.
Screw in the screw DIN 912 M8x80.

Installing the travelling horizontal profiles (moving, not driven)





Installing the front projection profile (moving, driven)

 Pull the loop of the awning fabric with the bead into the beading channel of the projection profile. Center the awning fabric.
Slide the seal and pro- jection profile over the pin.



Slide the front trim panel to the proper position.

Position the trim panel (<u>see Page 10</u>) above the front projection profile.

2.15 Pulling in the LED line and looping it through

Extend the awning.



INFO

1

Loop through from the front to the rear.

Only one line is shown here, but there are two LED lines.

Front travelling horizontal profile with LED	
J.	Pull the line ends through the opening in the fabric.
	 Push the fabric up and push the lines through the drilled holes in the projection profile. Pull the lines out of the projection profile.



2.16 Attaching the fabric

- Align the awning fabric. Remove creases in the awning fabric by pulling on it.
- Tighten nuts DIN 985 M8.
- Lift the awning fabric.



- Lower the awning fabric onto the horizontal profiles.
- Retract the awning.



Press the awning fabric onto the adhesive tape.

2.17 Installing the LED strip light rail

Parts description



Installing the clip holder



Clipping on the LED strip light rail



Connecting the LED strip light rail



Installing the cover of the travelling horizontal profiles



2.18 Installing the side cap





2.19 Line routing

Integrated control

Connection assignment of the control line



Inserting the control components in the profile

Insert the control in the trim panel.

Connecting the LED strip light rail to the control

- Route the LED lines on the inside along the rafter to the trim panel.
- Connect the LED lines with the control (<u>Integrated</u> <u>control</u>).

Connecting the on-site line to the control

- Route the on-site line on the inside along the rafter to the trim panel.
- Connect the on-site line with the control.

Connecting the motor line to the control

- Route the motor line on the inside along the rafter to the trim panel.
- Connect the motor line with the control.

Securing the line

Secure the lines on the rafter to prevent them from resting on the awning fabric.

2.20 Setting the motor limit positions

INFO

ĺ

- Follow the setting instructions and wiring diagram.
- When using a control: follow the separate instructions.

2.21 Performing a functional check (What to do when?)



CAUTION

Risk of crushing from failure to exercise care during operation.

Persons who are located within the projection area may be injured.

- Keep the projection area clear of persons.
- Keep children away from the operating elements.
- Connect the motor line with the programming cable/ test cable. If necessary, an adapter can be connected between them.
- Connect the programming cable/test cable with the power supply.



) INFO

of the motors used are not intended for continuous operation.

The integrated thermal protection switches the motor off after approx. 4 minutes. The product will be ready again for use after 10 to 15 minutes.

When using the product, avoid operating the motor continuously over a lengthy period.

General procedure

Retract and extend the product multiple times. Check the front and rear limit positions of the product. Adjusting the motor limit positions <u>see Chapter 2.23/</u> <u>Page 19</u>.

2.22 Connecting the motor on-site

\hat{i} info

- Follow the setting instructions and wiring diagram.
- When using a control: follow the separate instructions.
- Connect the motor line with the on-site connection.

WARNING

Risk of electric shock from insufficient care!

The line can be damaged by moving parts!

Keep the line away from all moving parts.

2.23 Troubleshooting: wrong motor limit positions

Cause	Remedy
The motor has not been	Learn in the motor (see
learned in or has not been	separate instructions for
operated three times	the motor).

2.24 Finishing the installation

Installing the rain hood

Depending on the order depth, the rain hood consists of 2 or more parts. The middle parts are installed in the same way.



Slide the front trim panel (<u>see Fig. 4</u>) to the folded edge of the rain hood and tighten the fixing.

Installing the side covers

Slide the cover over the console. The two drilled holes must be aligned vertically.
Attach the cover to the console using screw DIN 7981 3.5x9.5.
Slide the front cover in the installed cover. Place the tab in the notch for the wall con- nection.
 Attach the cover to the rafter using screws 4.8x16 (with AW25).

Installing the lower cover



Installing the pipe piece (optional)



INFO

If the drainage from the pole is to be connected to a further drainage.



Inserting the leaf guard



Roll up the leaf guard and insert it directly over the water drain in the drainage gutter.

Special feature of Perea P70

- Extend the awning and keep it extended for approx. 1-2 days so that the adhesive of the awning fabric can harden properly. Retract the awning in the event of bad weather and extend it again at the next opportunity, leaving it extended.
- Hand the documentation over to the operator.
- Instruct the operator on how to use this product.
- Complete and issue the handover report.

WAREMA Renkhoff SE • Hans-Wilhelm-Renkhoff-Straße 2 • 97828 Marktheidenfeld • Germany www.warema.com • info@warema.com