

Installation, operating and maintenance instruction



WAREMA Design radiant heater (optionally dimmable)

Der SonnenLichtManager

To be handed over to the operator.
Please keep for future use.

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1 Introduction

1.1 Information on safety

It is important to follow these instructions in the interest of personal safety. Failure to comply with these instructions when operating the product may result in personal injury and/or property damage. Failure to comply with these instructions relieves WAREMA of liability.



Warnings are marked in the instructions with this symbol or a similar symbol.



- Read through the product instructions before installation and use.
- Read and follow all safety, setting, operating and maintenance instructions.
- Include these instructions when passing the product on to a new owner.
- Keep the instructions for use until you dispose of the product.

1.2 Information on the target group and application of these instructions

Target group

These instructions are intended for use by persons who install, operate, care for and/or maintain the product.

Activities that pertain to the electrical connection of the components are only permitted to be performed by certified electricians.

Persons installing the product must be familiar with the following areas: occupational safety, accident prevention regulations, working with ladders, usage of fixing materials, and the commissioning and operation of the product.

If the fitter lacks any one of these qualifications, the work must be carried out by a specialist fitting company.

Contents

These instructions are an integral part of the following product: Design radiant heater (optional dimmable)

The instructions contain important information on the operation, care and maintenance of this item.

Permissible activities

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

1.3 Explanation of the signal words



DANGER

Identifies an imminent danger that may result in death or serious injury.



WARNING

Identifies a potential danger that may result in death or serious injury.



CAUTION

Identifies a potential danger that may result in light injury.



NOTICE

Identifies a potential situation that may result in product or property damage.

1.4 Basic safety instructions

The safety instructions and warnings described here are intended to safeguard your health and to protect the product. These instructions must be read carefully and followed.

Damage resulting from inappropriate use or the failure to follow these instructions is not covered by the warranty. Liability will not be accepted for secondary damage.

Preparations for installation

Improper installation may impair the safety, function and service life of the product. It may result in injury to persons and/or cause damage to the product and adjacent parts.

- ▶ Comply with the specified installation steps and their sequence.
- ▶ Install the product only if it is in technically flawless condition.
- ▶ Before installation, check the mounting substructure to make sure it can bear the loads.

Installation location

If the radiant heater is being installed under awnings with a valance, valance roller blind, turning gear or crossed articulated arms (LB model), be sure to adhere to the minimum distances.

In this connection, the use of the radiant heater with awnings with a higher-level electronic control and, for example, a valance or manual valance roller blind is not recommended.

- ▶ The radiant heater must be installed under the awning on the wall under adherence to the safety distances.

Introduction

Electrical connection

Improper handling of live parts or the failure to comply with the supplied instructions may impair the safety and function of the product. Persons may come into contact with potentially live parts and become injured. The electrical installation in buildings may be affected.

- ▶ The electronic component is only permitted to be connected if the power supply on-site matches the specifications in the instructions.
- ▶ Before installation, deactivate all lines and control systems that are not essential for installation.
- ▶ All lines must be kept away from the drive and/or movable parts.

Connection to the operating voltage

The Design radiant heater with a WMS Dimmer 0-10 V is connected directly to a mains voltage of 230 V/50 Hz and is switched on and off using a hand-held transmitter.

The Design radiant heater without a WMS Dimmer 0-10 V is connected to a mains voltage of 230 V/50 Hz using an on-site switching device (e. g., switch) or via a compatible control (e. g. WMS Plug receiver power) and is switched on and off.

An on-site, all-pole disconnecting and isolating switch must be present.

The radiant heater becomes hot. If a power cable is placed on the radiant heater, its insulation may be damaged by the heat.

- ▶ Do not place the power cable on the radiant heater.

distance to danger area

It is not permissible for the minimum clearance between the heat source and the floor or another continuously accessible area to be undercut, nor may the minimum clearance to other boundaries or flammable materials be undercut. Persons may become injured from contact with hot surfaces.

- ▶ The radiant heater must be mounted at least 2100 mm above the floor. The minimum distances of 300 mm to the top and side and 1000 mm to the front toward flammable materials must be maintained.

Fixing and fixing material

Improper fixing may impair the safety, function and service life of the product. The product may detach from the wall. This may result in injury to persons and/or cause damage to the product and adjacent parts.

- ▶ The fixing material used must be suitable for the mounting substructure.
- ▶ The fitter is responsible for the correct selection of fixing materials and adhering to the installation specifications of the fixing material manufacturer.
- ▶ The specified number of fixings and their fixing points must be adhered to.

Obligation to supervise operation

If the product is not monitored during operation, objects may be damaged. Heat generation and the failure to maintain minimum distances can scorch surfaces and cause fires.

- ▶ Never leave the radiant heater unattended during operation.
- ▶ The radiant heater should not be equipped and operated with a time switch or any other device that automatically switches the heater on.

Operating note for

The radiant heater becomes hot when it is switched on. Inappropriate conduct can create a burn hazard and/or cause the product to overheat.

- ▶ Before the radiant heater is switched on, the awning with the valance and valance roller blind must be fully extended.
- ▶ Do not touch the radiant heater during operation. The radiant heater is hot.
- ▶ Do not place objects on top of the radiant heater, and do not cover the radiant heater with textiles. There is a risk of fire.
- ▶ The radiant heater must be switched off before the awning with the valance or valance roller blind is retracted.
- ▶ Do not touch the radiant heater immediately after it was operated. Wait for the radiant heater to cool down before touching it.

Access to the radiant heater

The radiant heater is not intended for children. Children are unable to recognize the danger posed by the product. Personal injury may occur as a result of careless use.

- ▶ Children must be monitored while the radiant heater is switched on.

Position of the operating element in electrically operated products

An operating element that is in the wrong position can impair the ability to operate the product. The operating element must be accessible to all operators.

- ▶ The national regulations in regard to disabled persons must be observed.
- ▶ Attach the operating element outside of the path of the product but within view (ideally at a height of less than 1300 mm).

Risks posed by the product

- ▶ Do not gaze directly into the radiant heater while it is switched on. Extended eye contact may lead to eye damage.

Risk of damage to the product

Improper handling may damage the product.

- ▶ Do not hold onto the product or lean any objects against it.
- ▶ Never cover the radiant heater (e. g. with a towel, sheet, etc.).
- ▶ Do not touch the heating element of the radiant heater with bare hands.

2 Product information

2.1 Intended use

The following details apply to the following product:
Design radiant heater (optional dimmable)

The product is designed to generate radiant heat outdoors.

It may only be installed under the awning on the house wall.

The product without a WMS Dimmer 0-10 V can be connected to a 230 V/50 Hz mains voltage via an on-site switching device (e.g. a switch) or a compatible control (e.g. WMS Plug receiver power).

The product with a WMS Dimmer 0-10 V can be connected directly to a mains voltage of 230 V/50 Hz.

An on-site, all-pole disconnecting and isolating switch must be present.

Inappropriate use may result in serious hazards.

The intended use also includes observing these instructions and adhering to the service requirements they describe.

2.2 Parts description

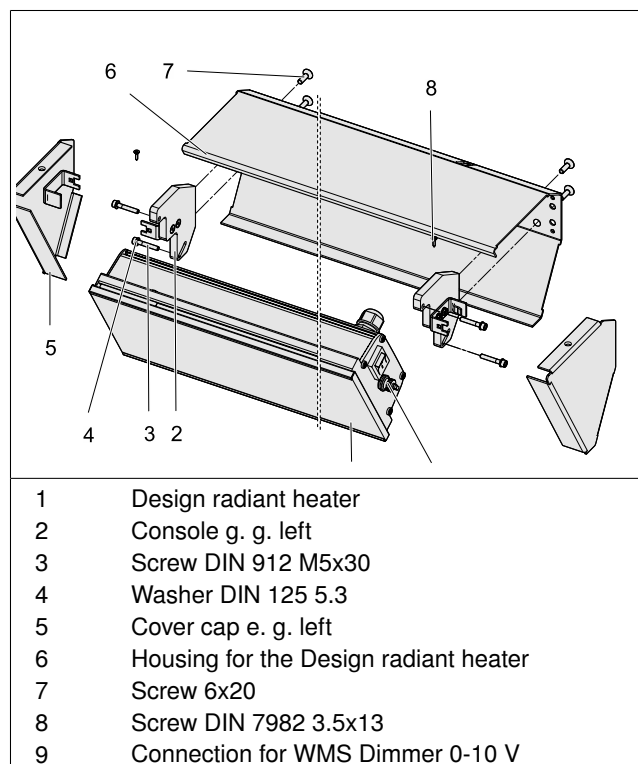


Fig. 1: Parts overview of the Design radiant heater

2.3 Technical data



INFO

For the radiant heater, an in-line circuit breaker with type C16 is **mandatory**.

Parameter	Value
Mains voltage	230 - 240 VAC/50 Hz
Power consumption [W]	2200
Power consumption in standby [W]	0.7
Degree of protection	IP 65
Safety class	I
Dimensions LxWxH [mm]	900x170x80

Tab. 1: Technical data of the Design radiant heater

Parameter	WMS Dimmer 0-10 V
Operating voltage [V DC]	12
Power consumption [W]	0.2
Frequency [GHz]	2.40 - 2.48
Degree of protection	IP54
Safety class	III
Operating and storage temperature [°C]	-20 to +55

Tab. 2: Data for WMS Dimmer 0-10 V (if present)

3 Installation



NOTICE

Inadequate technical qualifications!

Improper installation may damage the product and adjacent parts.

- In the absence of technical qualifications for installing the product, have the product installed by a qualified specialist.



INFO

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



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 de-energised.
- Before installation, de-energise the on-site connecting line and secure it against being switched on again.



CAUTION

Risk of burn injuries!

The radiation range of the radiant heater is a danger zone.

- Maintain the minimum distances/inclination angles.



INFO

The protective film and labels on the product that are only required for installation should be removed promptly thereafter.

3.1 Unpacking the product



WARNING

Risk of suffocation from carelessness!

Plastic film, polystyrene parts, 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.



INFO

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

- Use care when unpacking the product and components.

3.2 Scope of delivery



INFO

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

3.3 Installation position of radiant heater



NOTICE

Product damage from incorrect installation location!

Unprotected installation of the product outdoors can lead to product damage.



INFO

The radiant heater must be installed on a vertical mounting substructure.

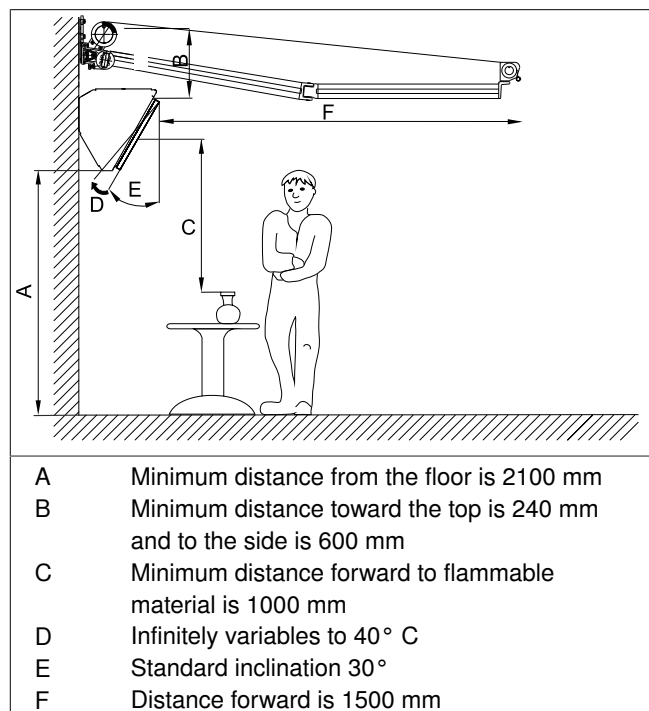


Fig. 2: Minimum distances/inclination angles

If the specified minimum distances/inclination angles are adhered to, special safety measures are not required.

3.4 Attaching the consoles in the housing for the Design radiant heater

Installing the snaplock connector

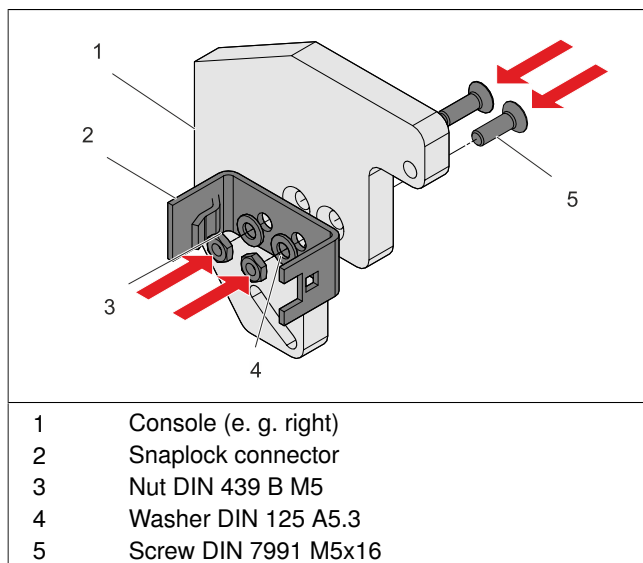


Fig. 3: Installing the snaplock connector

- Attach the snaplock connector [2] to the consoles [1] using the screws [5], washers [4] and nuts [3].

Installing the console

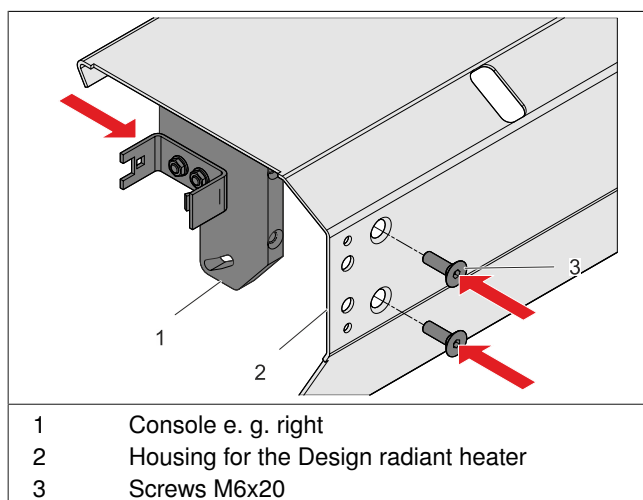


Fig. 4: Installing the consoles

- Attach the consoles [1] in the housing for the Design radiant heater [2] using the screws [3]. Ensure you are using the correct side.

3.5 Attaching the housing to the mounting substructure



INFO

The supplied tapping screws DIN 7981 4.2x9.5 and washers DIN 125 5.3 are designed for attaching to the slat roof.

If the radiant heater is not attached to a slat roof, the fixing and the fixing material must be suitable for the existing mounting substructure and designed in according with the applicable regulations. Fixing material is not included in the scope of delivery.

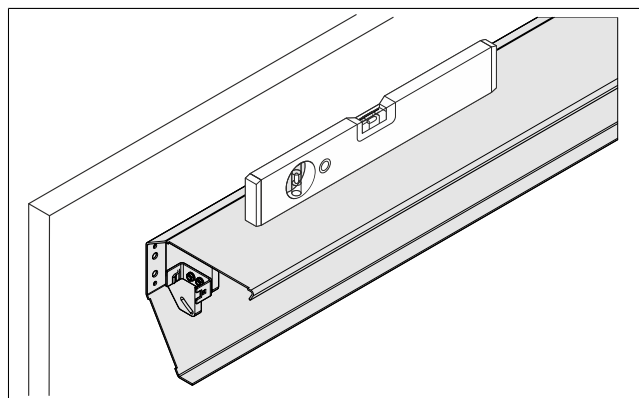


Fig. 5: Attaching the housing to the mounting substructure

- Position the housing on the mounting substructure, adhering to the minimum distances ([see Fig. 2](#)).
- Align the housing horizontally.
- Transfer the fixing template.
- Drill the fixing holes.
- Attach the housing to the mounting substructure.

3.6 Installing the radiant heater on the housing

Preparing the radiant heater

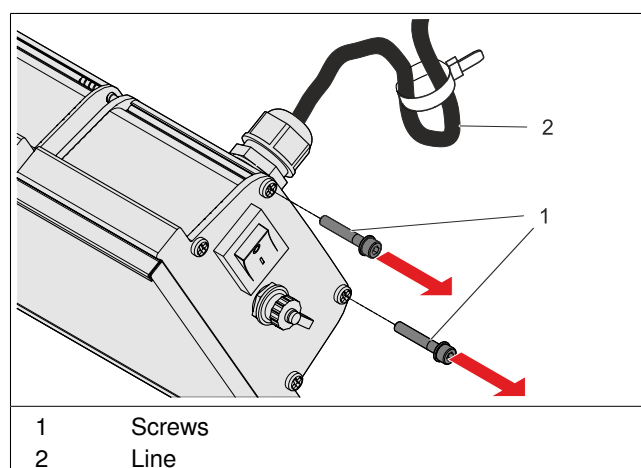


Fig. 6: Preparing the radiant heater

- Unscrew the two screws [1] from the radiant heater on both sides. This is necessary to attach the radiant heater to the consoles later on.

Installation



INFO

The line must be routed with a so-called "water run-off loop". This will prevent water from entering the product.

- Route the line [2] of the radiant heater as a loop and secure with a cable tie.

Guiding the radiant heater line through the opening in the housing

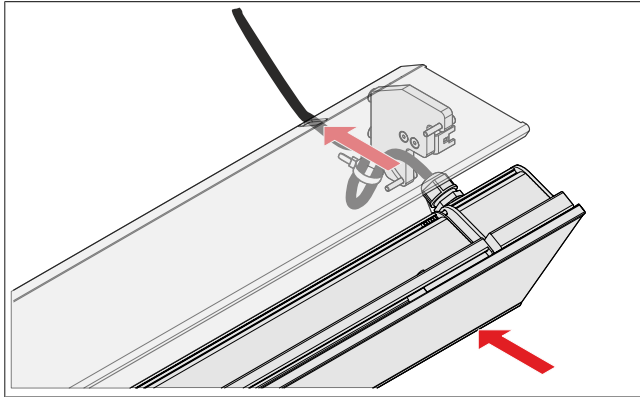
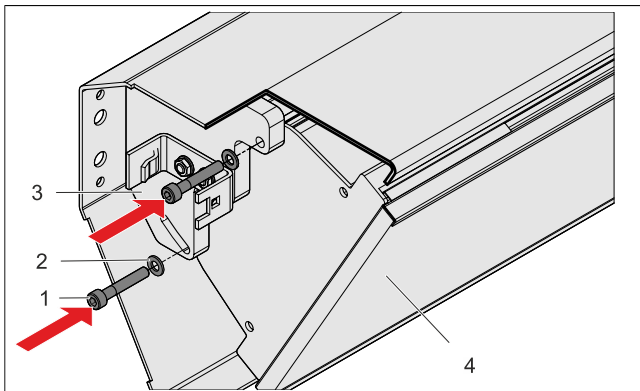


Fig. 7: Guiding the radiant heater line through the opening in the housing

- Position the radiant heater in front of the housing.
- Pass the radiant heater line through the opening in the housing to the outside.

Attaching the radiant heater to the consoles



- | | |
|---|---------------------|
| 1 | Screw DIN 912 M5x30 |
| 2 | Washer DIN 125 5.3 |
| 3 | Console |
| 4 | Radiant heater |

Fig. 8: Attaching the radiant heater to the consoles

- Position the radiant heater [4] between the consoles [3].
- Attach the radiant heater [4] to the consoles using the screws [1] and washers [2].

3.7 Adjust the inclination angle



INFO

The standard inclination is 30°. The inclination angle can be continuously adjusted to a maximum angle of 40°.

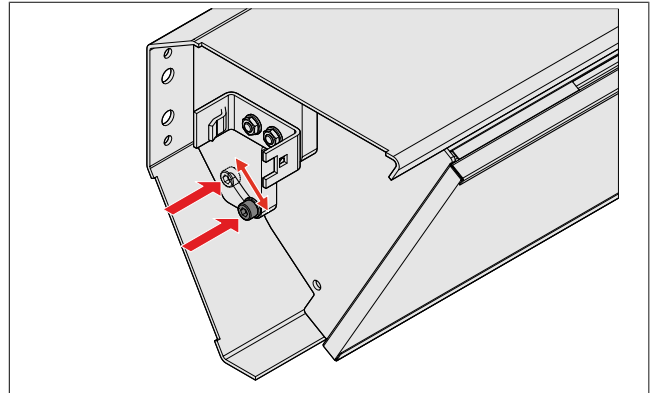


Fig. 9: Adjust the inclination angle

- Release the lower screws on both sides.
- Adjust the radiant heater in the oblong hole to the desired angle.
- Tighten the lower screws on both sides.

3.8 Installing the WMS Dimmer 0-10 V (if present)

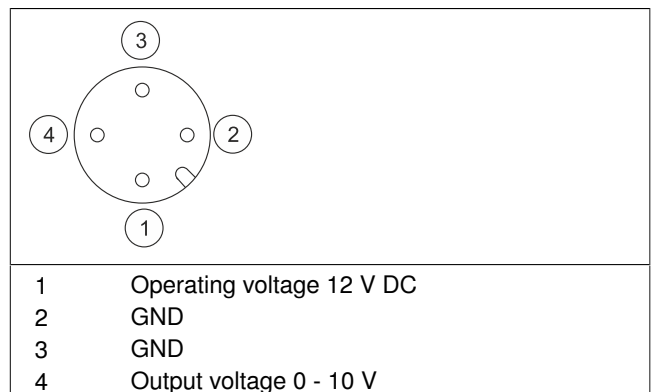


Fig. 10: Connection for WMS Dimmer 0-10 V (for information purposes only)

- Switch off the 230 V AC voltage supply of the radiant heater.

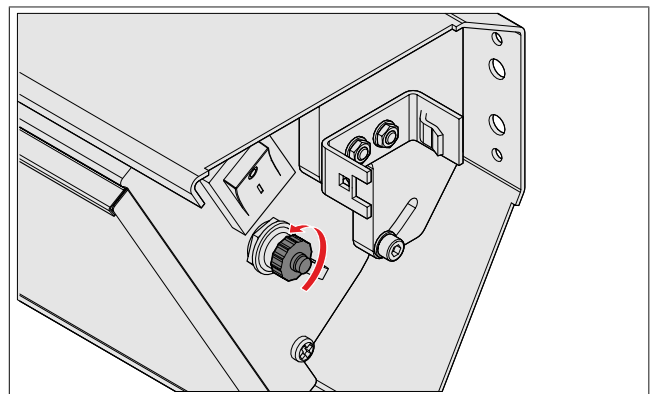


Fig. 11: Unscrewing the protective cap

- Unscrew the protective cap.

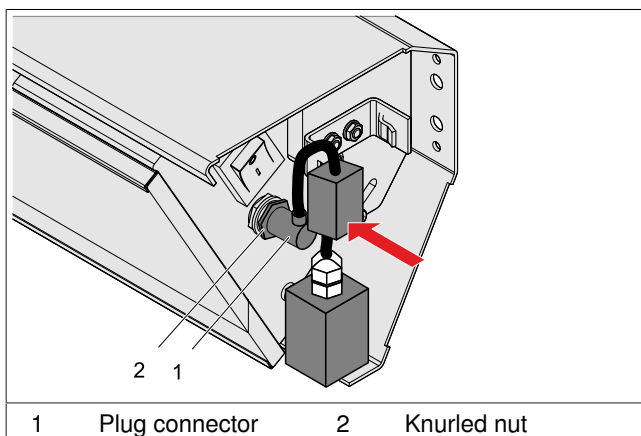


Fig. 12: Installing the WMS Dimmer 0-10 V

- Plug the WMS Dimmer 0-10 V into the socket. Ensure that the plug connector has the right orientation.
- Manually tighten the knurled nut [2] of the plug connector [1].
- Lay the connecting line in a loop. Position the connecting line and the WMS Dimmer 0-10 V outside of the snaplock connection.

3.9 Radiant heater connection



INFO

- An on-site all-pole disconnecting and isolating switch must be provided.

Without WMS Dimmer 0-10 V

- The product without a WMS Dimmer 0-10 V can be connected to a 230 V/50 Hz mains voltage via an on-site switching device (e.g. a switch) or a compatible control (e.g. WMS Plug receiver power). If applicable, follow the instructions for the WMS Plug receiver power.

With WMS Dimmer 0-10 V

- The product with a WMS Dimmer 0-10 V can be connected directly to a mains voltage of 230 V/50 Hz.

With WMS Dimmer 0-10 V

- Pair the WMS Hand-held transmitter with the WMS Dimmer 0-10 V.

With WMS Plug receiver power

- Pair the WMS Hand-held transmitter with the WMS Plug receiver power.



CAUTION

Risk of injury on hot surface!

During installation, the rocker switch could be set to ON by mistake. In this case, the radiant heater would immediately start heating when connected.

- Before connecting, ensure that the rocker switch is set to OFF.

3 Not assigned 2 Phase L (brown) 1 Neutral conductor (blue) PE conductor (green-yellow)	Without WMS Plug receiver power ■ Connect the terminal (e.g. screw terminals, not included) on the radiant heater. ■ Connect the on-site connecting line to the terminal. ■ WMS Dimmer 0-10 V: Proceed as described in the instructions for this product.
3 Not assigned 2 Phase L (brown) 1 Neutral conductor (blue) PE conductor (green-yellow)	With WMS Plug receiver power ■ Connect the STAS 3 coupling to the radiant heater. ■ Proceed as described in the instructions for the WMS Plug receiver power.

3.10 Performing a functional check



CAUTION

Risk of burns on hot surfaces!

The surfaces of the product are a burn hazard while the product is in use and after it has been switched off.

- Wait for the radiant heater to cool down before touching it.

- Switch on the operating voltage.

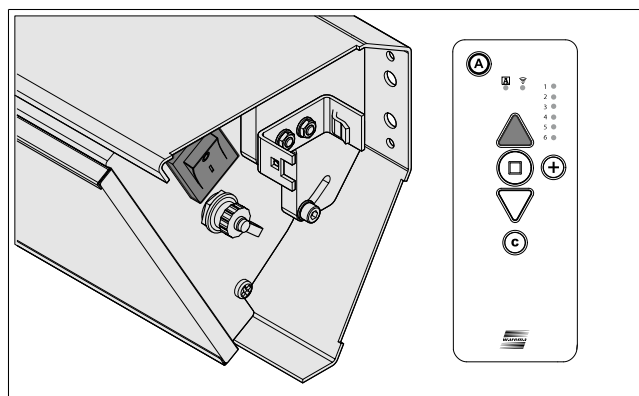
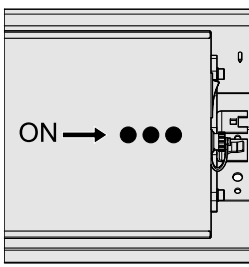
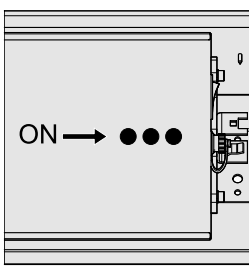
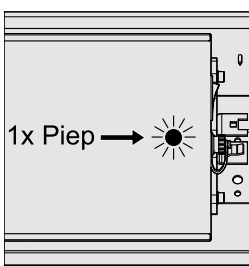
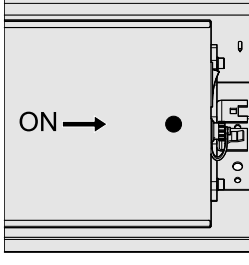


Fig. 13: Functional check of radiant heater, using the hand-held transmitter as an example

Switch on

- Switch the radiant heater on at the rocker switch.

	Without WMS Dimmer 0-10 V/Without WMS Plug receiver power The radiant heater begins heating at the maximum level (100%). The ceramic glass disk lights up red after a short time and radiates heat.
	Without WMS Dimmer 0-10 V/With WMS Plug receiver power Switch the radiant heater on with the learned WMS hand-held transmitter. The radiant heater begins heating at the maximum level (100%). The ceramic glass disk lights up red after a short time and radiates heat.
	With WMS Dimmer 0-10 V (without/with WMS Plug receiver power) The radiant heater emits a beep. The radiant heater is in standby mode and the heating status LED flashes.
	With WMS Dimmer 0-10 V (without/with WMS Plug receiver power) Switch the radiant heater on with the learned WMS hand-held transmitter. The radiant heater begins heating up. The heating status LED lights up red. The product starts at the lowest level (1 LED) with a short press of the button and at the highest level (3 LEDs) with a long press of the button. The ceramic glass disk lights up red after a short time and radiates heat.

Switch off

- Switch off the radiant heater again using the switch or WMS hand-held transmitter and let it cool down.
- Switch off the radiant heater at the rocker switch.
- De-energise the on-site connecting line and secure it against being switched on again.

3.11 Setting the rocker switch to ON



INFO

On the on-site switching device (e.g. switch) or on the hand-held transmitter (e.g. Plug receiver power as a compatible control), the radiant heater must be switched off on the hand-held transmitter before the rocker switch is actuated.

The rocker switch on the radiant heater is not used for switching the unit on and off because it is not accessible.

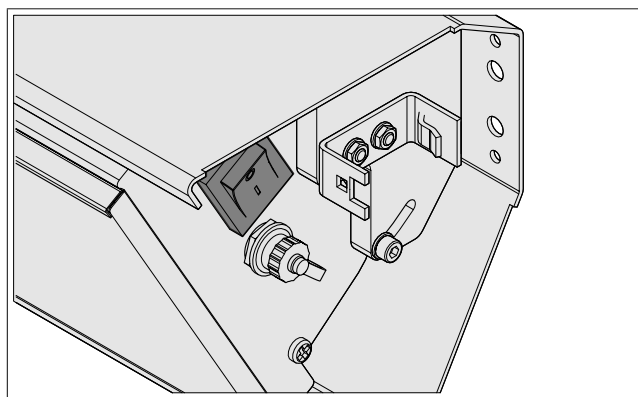
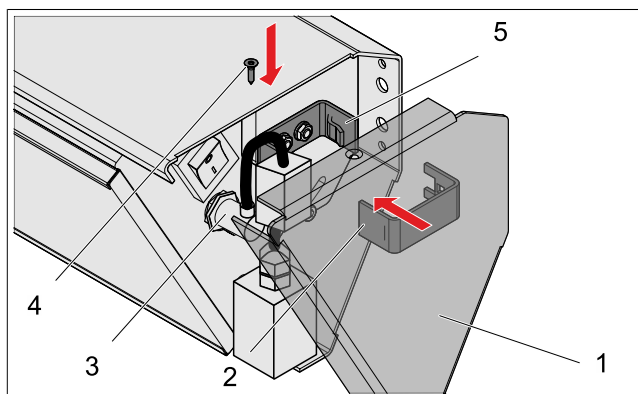


Fig. 14: Checking the position of the rocker switch

- Set the rocker switch to ON.

3.12 Installing the cover caps



- | | |
|---|---|
| 1 | Cover cap |
| 2 | Snaplock in the cover cap (permanently installed) |
| 3 | WMS Dimmer 0-10 V (if present) |
| 4 | Snaplock on the console (permanently installed) |
| 5 | Screw DIN 7982 3.5x13 |

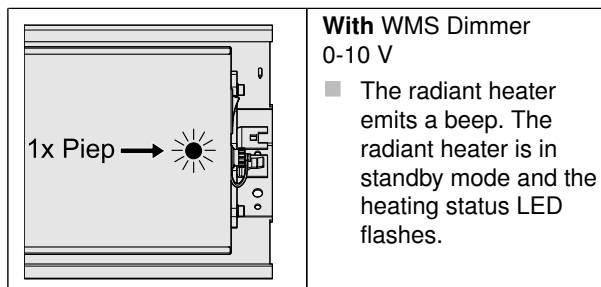
Fig. 15: Installing the cover cap

- Slide the cover caps [1] on both sides laterally onto the housing until the two snaplock parts [2 and 4] are engaged with each other.
- Secure each cover cap [1] using one screw [5].

3.13 Finishing the installation

Switch on the operating voltage

- Switch on the operating voltage.
- Ensure that the radiant heater does not begin heating.



General Information

- Hand the documentation over to the operator.
- Instruct the operator on how to use this product.

4 Operation



DANGER

Electric shock from faulty power cable!

A faulty power cable can cause an electric shock.

- Make sure that the power cable is undamaged.
- Do not use a faulty power cable.



CAUTION

Risk of burn injuries!

The radiation range of the radiant heater is a danger zone.

- Maintain the minimum distances/inclination angles.



CAUTION

Risk of burns on hot surfaces!

The surfaces of the product are a burn hazard while the product is in use and after it has been switched off.

- Wait for the radiant heater to cool down before touching it.



NOTICE

Property damage from incorrect operation!

The radiant heater is only permitted to be operated with a fully extended awning.

- Extend the awning before switching on the radiant heater.
- Switch off the radiant heater and let it cool before retracting the awning.



INFO

Soft crackling noises can be heard while the heater is heating and cooling. These are normal operating noises and are not grounds for a complaint.

After the heater is switched on for the first time and after having been in disuse for an extended period, the radiant heater will emit an odour for a short period. This does not restrict use of the radiant heater. To prevent this effect, it is advisable to clean the device to remove dust deposits.

WMS Hand-held transmitter (if available)



INFO

Select the right channel for the product on the hand-held transmitter.

The exact description of the hand-held transmitter can be found in the accompanying instructions for the hand-held transmitter.

Operation

Without dimming function (using the WMS Plug receiver power as an example)

Operating the radiant heater	Switch on	 Press the UP button .	→  The radiant heater is switched on. The heating status LEDs light up. The radiant heater begins heating at the maximum level (100%).
	Switch off	 Press the DOWN button .	→  The radiant heater is switched off. The heating status LEDs go out.

With dimmer function (using the hand-held transmitter as an example)



INFO

The WMS dimmer 0-10 V changes the power of the connected radiant heater in 3 dimming levels.

OFF/standby	Level 1	Level 2	Level 3
0 %	33 %	66 %	100 %

Tab. 3: Radiant heater power at each dimming level

The WMS dimmer 0-10 V switches the radiant heater power to 0% after 4 hours. The 4 hours restart every time the unit is operated. This value can be changed to between 1 and 7 hours on WMS studio pro or homee.

Operating the radiant heater	Switch on at dimming level 1		Press the UP button briefly.	→		The radiant heater is switched on at dimming level 1. The heating status LED lights up.
	Switch on at dimming level 3		Press and hold the UP button.	→		The radiant heater is switched on at dimming level 3. The heating status LEDs light up.
	Increase the dimming levels		Press the UP button briefly.	→		The dimming level is increased (e.g., level 2). The heating status LEDs light up.
	Decrease the dimming levels		Press the DOWN button briefly.	→		The dimming level is decreased (e.g. level 2). The heating status LEDs light up.
	Switch off		Press and hold the DOWN button.	→		The radiant heater is set to standby mode. The heating status LED flashes.
			Press the stop button briefly or for a longer period.	→		The radiant heater is set to standby mode. The heating status LED flashes.

Operation

4.1 Adjust the inclination angle



De-energise the radiant heater before performing any work on it.

- Disconnect the product from the power supply.
- Secure the product against being switched on again and verify that it is de-energised.



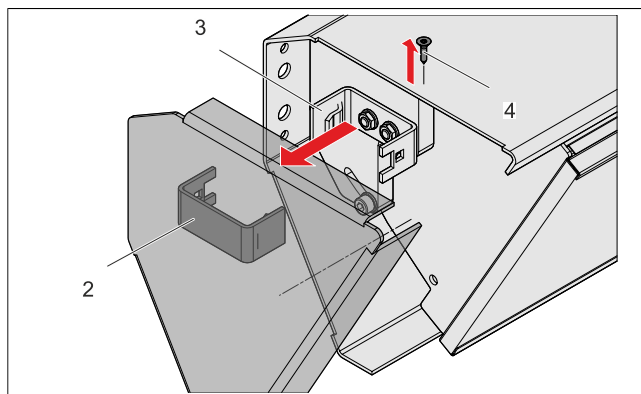
CAUTION

Risk of burns on hot surfaces!

The surfaces of the product are a burn hazard while the product is in use and after it has been switched off.

- Wait for the radiant heater to cool down before touching it.

Removing the cover cap



- | | |
|---|---|
| 1 | Cover cap |
| 2 | Snaplock in the cover cap (permanently installed) |
| 3 | Snaplock on the console (permanently installed) |
| 4 | Screw DIN 7982 3.5x13 |

Fig. 16: Removing the cover cap

- Unscrew the screw [4].
- Pull the cover cap [1] off of the housing. The holding force of the snaplock parts [2 and 3] must be bypassed.
- After adjusting the inclination angle, mount the cover caps again.

Adjust the inclination angle



INFO

The standard inclination is 30°. The inclination angle can be continuously adjusted to a maximum angle of 40°.

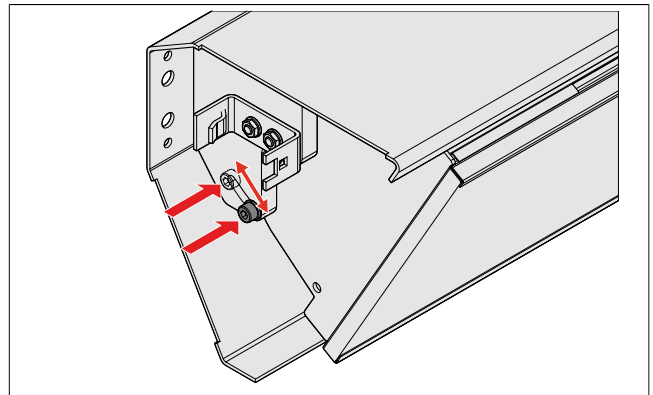


Fig. 17: Adjust the inclination angle

- Release the lower screws on both sides.
- Adjust the radiant heater in the oblong hole to the desired angle.
- Tighten the lower screws on both sides.

5 Service

Use of the product in a manner that is not intended or failure to care for and check the product improperly render the product warranty from WAREMA void.

Proper and regular maintenance and the exclusive use of original spare parts are essential for trouble-free operation and a long product service life.



WARNING

Risk of injury during product cleaning and maintenance!



- De-energise the product and secure it against being switched on again.



CAUTION

Risk of burns on hot surfaces!

The surfaces of the product are a burn hazard while the product is in use and after it has been switched off.

- Wait for the radiant heater to cool down before touching it.



CAUTION

Risk of injury from falling off the climbing aid!

Climbing aids (e. g. ladders, scaffolding, etc.) may tip over if improperly erected.

- Position climbing aids on level and firm ground.
- Do not lean climbing aids against the product.



CAUTION

Risk of injury from falling!

There is a risk of falling during maintenance work.

- Take suitable safety precautions to prevent or arrest falls.

5.1 Cleaning, care and inspection activities

Over time, a film of dirt will form on the surfaces of sun shading products due to ambient conditions.

Due to the effects of solar radiation, this soiling can become permanently burnt into or stuck to the surface coating. These factors reduce the value and may impair the proper functioning of the product.

To enhance the durability of the product, its surfaces should be cleaned regularly or **at least once a year**.

In certain ambient conditions, such as those found near industrial zones and close to heavy road traffic, the sea (salty air) or swimming pools (air with chlorine), more frequent cleaning may help to protect against surface damage caused by these conditions and against the heightened risk of corrosion.



INFO

The activities described in this section can be performed by the operator. It is important to abide by the interval of one year.

Purpose of cleaning and care

The benefit provided by regular and proper cleaning and care is that the value of the product is preserved and its service life extended. The purpose of repeatedly cleaning the product is to preserve the well-maintained appearance of both the building and the product.

Results of cleaning



NOTICE

Product damage from incorrect cleaning!

Incorrect cleaning procedures may result in damage to the product or product parts. Surfaces and textures may be permanently altered (e. g. scratches).

- Do not use high pressure washers, steam washers, abrasive sponges, abrasive cleansers, or aggressive cleaning agents or solvents such as alcohol or naphtha.
- Do not use chlorinated cleaning agents on or near the product.

Under no circumstances will claims for damages arising from these cleaning instructions be honoured, since the effectiveness of these measures depends on a large number of factors that vary widely from case to case.

The effort required for cleaning and the cleaning results themselves depend on the degree of soiling. Surfaces that have been exposed to the influences of weather over many years but have not been cleaned are difficult, if not impossible, to restore to their original condition.

General information on cleaning



WARNING

Risk of injury from electric shock on a motorized product!

If a live component (e. g. motor) comes into contact with water, a short circuit may occur or electricity may flow.

- Keep water away from all live components.



Tip/recommendation

Using the WAREMA cleaning glove together with WAREMA cleaning agent concentrate for sun shading products is an ideal way to properly clean product surfaces.

The WAREMA cleaning agent for sun shading products can be used for metal and plastic surfaces and is certified by the GRM (Gütegemeinschaft Reinigung von Fassaden e.V.) (certification no. 142, 242, 342, 442, 542).



To order, contact your WAREMA dealer.



For further advice and technical questions regarding cleaning, please contact the Association of German Sun Shading Product Cleaners (Verband Deutscher Sonnenschutzreiniger e.V., www.vds-sonnenschutz.de).

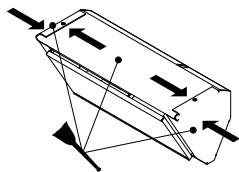
Preparing for cleaning

- When cleaning the product, protect adjacent areas against soiling.

Aids required for cleaning:

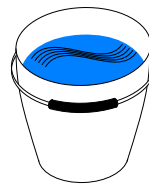
- ▶ Soft brush/duster (soft bristles)
- ▶ Bucket
- ▶ Low-calcium water (recommendation)
- ▶ WAREMA cleaning agent for sun shading products
- ▶ WAREMA cleaning glove
- ▶ Cotton cloth/microfibre cloth

Performing preliminary cleaning

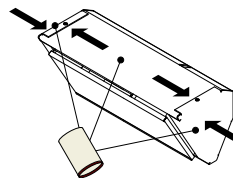


- Remove any loose soiling from the complete product (e. g. dust). A soft brush or duster (with soft bristles) can be used for this. Alternatively, a damp microfibre cloth or a damp sponge can be used.

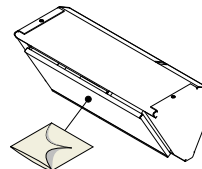
Performing detailed cleaning



- Prepare a bucket with water and WAREMA cleaning agent for sun shading products. Note the dosing quantities specified by the cleaning agent manufacturer.
- Wet the WAREMA cleaning glove.



- Clean the metal product components with a wiping motion. Repeat the procedure as needed based on the degree of soiling.



- Clean the ceramic glass disk using a micro fibre cloth with a wiping motion. Repeat the procedure as needed based on the degree of soiling.

Inspection activities/examine the product during cleaning

- Check the product for visible wear and damage (visual check).
- Check the charge status of the batteries of supplementary accessories, such as the hand-held transmitter, and replace if necessary.



INFO

Wear and damage to the product may lead to functional impairment.

If you should notice any irregularities during the visual check of the product, proceed as described below.

- Take the product out of service.
- Have any damage repaired by a qualified specialist.

5.2 Maintenance



The maintenance tasks must only be performed by a qualified specialist. We recommend signing a service agreement.

Service is a preventative maintenance and contributes to keeping a product functional as long as possible.

It is recommended to service the product at least once a year.

**WARNING**

Risk of injury caused by irregular maintenance!

Operating safety may be seriously diminished, and the product may fail. People can be injured from contact with damaged parts.

**CAUTION**

Risk of injury from inadequate product knowledge!

Familiarity with the functions and design of the product is required to ensure that it can be worked on safely. Insufficient product knowledge can result in dangerous situations.

- Have service tasks performed by a qualified specialist.

- Check the product for visible wear and damage. If necessary, make a recommendation to the owner.

5.3 Spare parts

**INFO**

To ensure that your product continues to function properly, and to prevent the loss of its approved status, only use original spare parts.

To order, contact your WAREMA dealer.

Should the product no longer be required, ensure that it is disposed of correctly in accordance with the relevant regulations.



Components identified in this manner should not be disposed of with the household waste.

Products marked with the symbol must be handled as follows according to legal regulations:

- The electric and electronic components removed from the electrically operated product and other electrical devices belonging to the product must be disposed of separately from unsorted household waste.
- This electrical device must be disposed of by the owner separately from unsorted residential waste for recycling.
- Used batteries that are not enclosed in the used device and lamps that can be removed from the used device without destroying it are to be disposed of separately.
- Distributors of electric devices or disposal operations are required to take back the devices at no charge.
- Deletion of personal data contained in the electric device before disposal is the responsibility of the owner/operator.

6 Dismantling/disposal

Dismantling of the product must be undertaken by a qualified specialist. Ask WAREMA for any missing documents before commencing maintenance.

**WARNING**

Electric shock!



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

- De-energise the product and secure it against being switched on again.

7 Troubleshooting



INFO

- Problems described here without reference to a qualified specialist may be resolved independently.
- All other problems listed must be handled by a qualified specialist.

Fault: No heat generation			
	Cause	Remedy	Note
	The radiant heater is switched off.	Operate using the WMS Hand-held transmitter.	
	The in-line circuit breaker or earth leakage circuit breaker was triggered	Check the in-line circuit breaker. Ensure that no further devices with a high current draw are connected to the in-line circuit breaker.	Have checked by certified electrician
	The radiant heater is faulty.	Change the radiant heater.	Replacement by qualified specialist

Fault: Odour during commissioning			
	Cause	Remedy	Note
	Oil or dust that remained on the product during the manufacturing process.	No action necessary. This will stop shortly.	

Fault: Odour shortly after the product is switched on.			
	Cause	Remedy	Note
	The radiant heater becomes hot.	Normal process. This will stop shortly.	

Fault: Odour after extended periods of disuse.			
	Cause	Remedy	Note
	Dirt and dust that may have collected on the radiant heater.	Switch off the radiant heater and let it cool down. Clean the radiant heater.	