

Installation and Instruction Manual

- S1 Infrared Radiator 1400 W, IP44 (IR 05001)
- S1 Infrared Radiator 2000 W, IP44 (IR 05002)
- S3 Infrared Radiator 2500 W, IP44 (IR 05008)
- S3 Ceiling heater 2500 W, IP44 (IR 05028)
- D3 Infrared Radiator 2000 W, IP44 (DS 05002)
- D3 Infrared Radiator 2000 W, IP45 (DS 05006)
- D3 Ceiling heater 2000 W, IP44 (DS 05028)

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Safety and operating instructions

Please observe the following instructions:

- Carefully read through the instruction manual prior to installation and store the manual safely.
- This heater is intended for outdoor installation, either attached to a building wall or some other solid construction. It is not intended to be used indoors to provide heating up to a pleasant temperature level.
- The heater must only be used by adults. Children must not play with the heater. Children younger than 3 years old must be kept away from the heater unless they are continuously monitored.

Caution - Some parts of this product can become very hot and cause burns. Special care is required when children and vulnerable persons are present.

- Installation tasks must be properly carried out by a qualified person in accordance with VDE 0100 installation instructions (if applicable, also including Parts 559 and 701).
- When carrying out any work, always switch the system to a zero-volt state (disconnect mains plug; circuit-breaker off). Switch on the heater only after all the cables have been completely connected.
- The heater must be connected to a switched domestic electrical supply protected by a fuse of rating at least 16A slow (type C16A).
- Do not install directly under sockets, junction boxes, switches or electrical cabling.
- Electrical sockets may only be located in the positions specified in Appendix 2.
- Do not mount the radiant heater close to curtains or combustible materials in accordance with VDE 0100, Part 559.
- The heater is as a minimum compliant to an IP 24 degree of protection, provided all connectors (heater plug, plugs for expansion components) are plugged in, and is approved for outdoor use.
- Never leave the heater unattended.
- Do not cover the heater when it is switched on or still hot; there is a risk of fire.
- To adjust the radiation direction, switch the heater off and allow to cool.
- Do not look directly at an operating IR halogen lamp for a long period and from a short distance.
- IR halogen lamps are sensitive to direct skin contact (do not touch with bare fingers). Grease or other contamination can be removed with an alcohol-soaked cloth.

- To maintain the service life of the IR halogen lamp, it must be protected against vibrations, impacts and contaminants such as acids, ammonia, cement dust, etc.
- The IR halogen lamp must be protected against mechanical loading. It must be replaced, if changes (dark spots, deformation) become apparent or the rated lifetime is reached.
- Damaged equipment elements such as lead, rocker switch, sealing collar or heating tube must always be replaced. The unit must be immediately dismantled and stored dry.
- Repair work (replacement of a defective power lead, a defective heating tube or similar) must only be carried out by the customer service of the manufacturer or an authorised dealer.
- Cleaning and maintenance work must only be carried out by adults with sufficient expertise.

Scope of supply

IR radiant heater

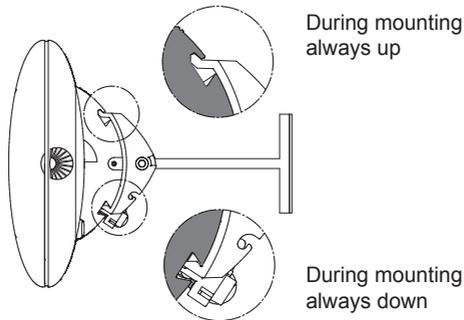
Mains connection lead (supplied with heaters that do not come with a fixed lead)

Mounting bracket including fastenings (supplied)

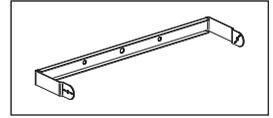
Manual

Installation instructions

- The radiator must only be installed using suitable fastenings (e.g. use M6x60 bolts with steel anchors in a stone or concrete substrate) on firm, load-bearing, normally combustible, flame-resistant or non-combustible substrate.
- If radiator and socket are not installed on the same surface, it must be ensured that the field of radiation cannot be directed towards the socket. Failing this, it must be ensured that the socket cannot heat up to more than 70°C during heater operation.
- The safety distances given in Appendix 2 must be observed.
- The area in which the heat acts can be estimated from the radiation diagram (Appendix 3). The diagram shows the sizes of the irradiated areas at various distances from the radiant heater and in each case the maximum radiation intensity.
- Installation height: at least 1.80 m above the ground
- The radiator must be installed with the hammer groove upwards.



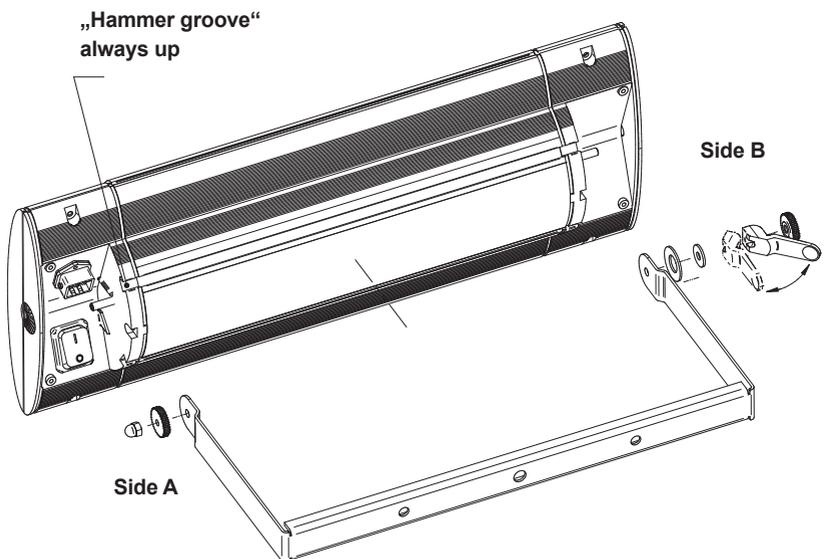
- The S3 und D3 (IR 05008, IR 05028, DS 05002, DS 05006, DS 05028) radiators must be fitted and operated in a horizontal position.
- Only for types IR 05001 and IR 05002: If mounted on a sloping ceiling or vertical wall, the heater must be fitted with the power lead assembly facing „down“.

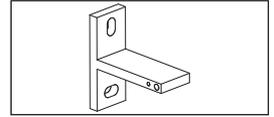


1. Installation, radiant heater with bracket

Heater type	Power	Wall installation		Ceiling installation	
		Horizontal	Vertical	Horizontal	Inclined
IR 05001	1400 W	✓	✓	✓	✓
IR 05002	2000 W	✓	✓	✓	✓

- Secure the bracket while observing the safety distances and safety and operating instructions (see Appendix 2)
- Fit the bracket with 2 screws at a separation of 200 mm on the fastening surface.
- Where expansion components are used, the outer fastening points of the bracket must be used when installing on the wall (separation 350 mm)
- Attach the heater starting on side B and when doing so slightly bend the bracket (Note! „Hammer groove“ always up)
- Side A: Fit knurled M6 nut and M6/10 mm cap nut.
- Tighten knurled nut by hand and tighten the cap nut with an open-ended 10 mm (AF) spanner.
- Side B: Fit spring washer, flat washer, cam lever and M6 knurled nut. Hand-tighten the M6 knurled nut up to the pressure point on the cam lever. Clamp the cam lever in the bracket direction.





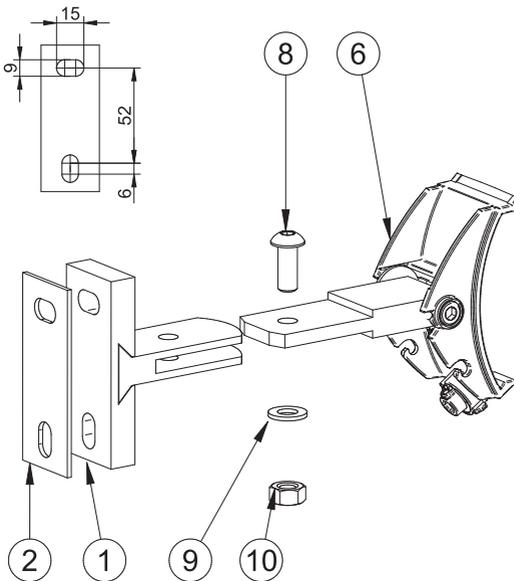
2a. Installation, radiant heater S1 with T-bracket

Heater type	Power	Wall installation		Ceiling installation	
		Horizontal	Vertical	Horizontal	Inclined
IR 05001	1400 W	✓	✓		
IR 05002	2000 W	✓	✓		

Only approved for wall mounting!

Step 1: Installing the T-brackets

- Secure the T-bracket (1) with the silicone plate (2) below it on the fastening surface with 2 screws each according to the following figure.

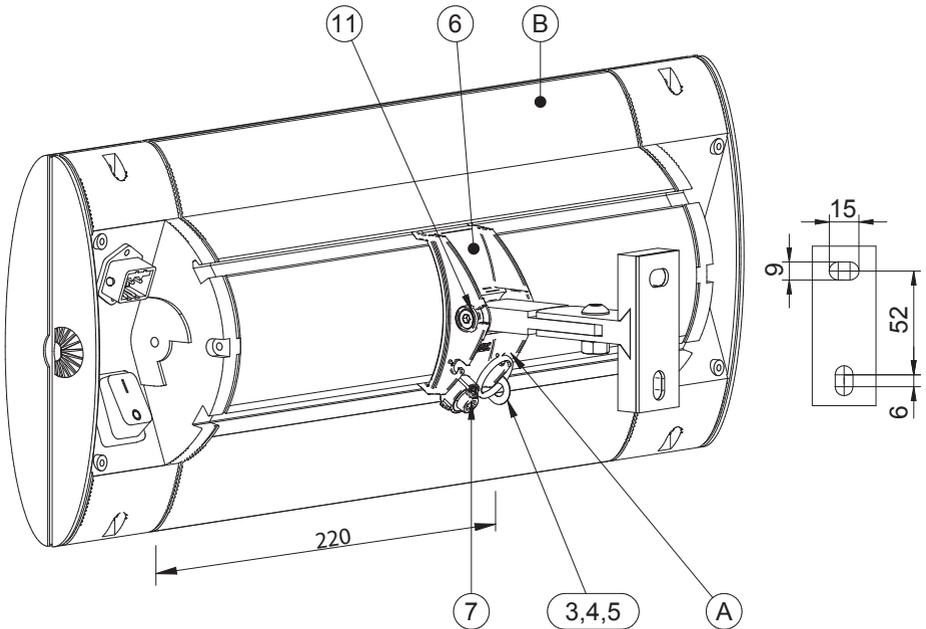


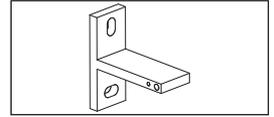
Step 2: Installing adapter claws on the T-bracket

- Push the adapter claw (6) into the T-bracket (1) mounted on the fastening surface. Insert the M8x20/5 mm AF screw (8) into the hole. Insert washer (9) and tighten M8/13 mm AF nut (10).

Step 3: Installing the heater on the wall mounting

- Push the securing lugs (3) with the ring (4) from the left side into the dovetail groove for approx. 170 mm
- Tighten the 3.5 x 6.5 screws (5).
- Mount the heater (B) in the adapter claws (6).
- Use a 5 mm Allen key to tighten the eccentric tensioner (7) in a clockwise direction; the radiant heater must be firmly connected to the adapter claws without any play.
- Hang each retaining ring (4) in the adapter claw (A).
- To set or adjust the direction of radiation, use a 5 mm Allen key to loosen the screws (11), shift the heater into the required direction and re-tighten the screws (11).
- If the heater cannot be aligned facing downwards, screws (8) to (10) must be undone and the device pulled out from the bracket. Then remove screws (11) and refit the middle part with the cloth disc rotated through 180°. Then refit the device at the wall bracket.



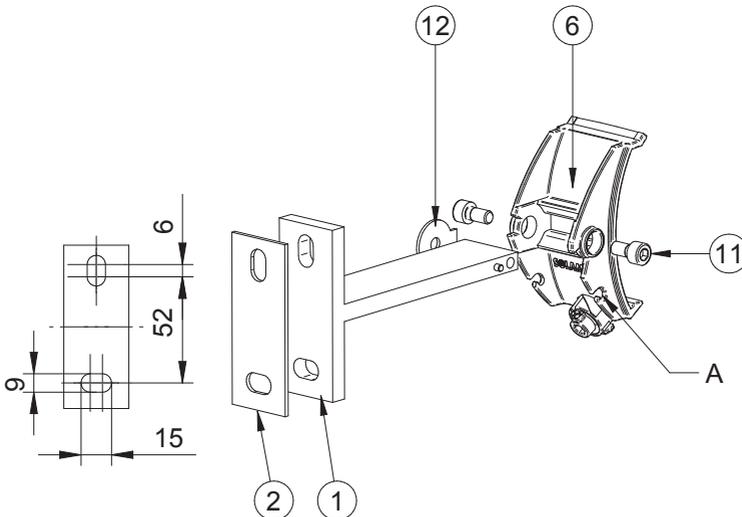


2b. Installation, radiant heater S3 and D3 with T-brackets

Heater type	Power	Wall installation		Ceiling installation	
		Horizontal	Vertical	Horizontal	Inclined
IR 05008	2500 W	✓	✗	✓	✗
DS 05002	2000 W	✓	✗	✓	✗
DS 05006	2000 W	✓	✗	✓	✗

Step 1: Installing the T-brackets

- Install the S3 or D3 radiant heater using 2 T brackets at a separation of 400 mm while observing the safety distances and safety instructions (see Appendix 2).
- Secure the T-bracket (1) with the silicone plate (2) below it on the fastening surface with 2 screws each according to the following figure. When wall-mounted the heater swivels to the horizontal, lower longitudinal hole side. When mounting on the ceiling/roof, the swivel range must be aligned for optimum heating effect towards the opposing longitudinal hole side (in contrast to the image below, swivel range 30°).

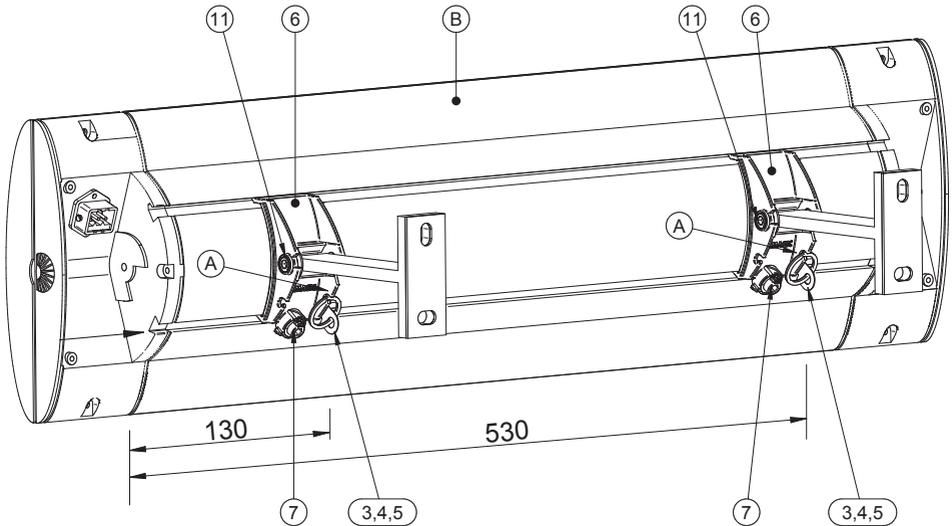


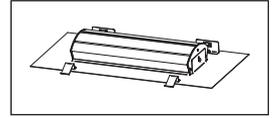
Step 2: Installing adapter claws on the T-brackets

- Fit adapter claws (6) at both of the T-brackets installed on the mounting surface, fit safety washer (12) between the T-bracket and adapter claw and screw in hex socket head screws (11) from outside into the T-bracket.

Step 3: Installing the heater on the T-brackets

- Push the securing lugs (3) with the ring (4) from the left side into the dovetail groove for approx. 530 mm and 130 mm.
- Tighten the 3.5 x 6.5 screws (5).
- Mount the heater (B) in the adapter claws (6). The securing lugs must now be located directly alongside the adapter claws (6).
- Use a 5 mm Allen key to tighten the eccentric tensioner (7) in a clockwise direction; the radiant heater must be firmly connected to the adapter claws without any play. Attention: no screwing stop – do not over-tighten the eccentric tensioner!
- Hang each retaining ring (4) in the adapter claw (A).
- To set or adjust the direction of radiation, use a 5 mm Allen key to loosen the screws (11), shift the heater into the required direction and re-tighten the screws (11).





3. Installation, radiant heater S3 and D3 with ceiling installation frame (device type IR 05028, DS 05028)

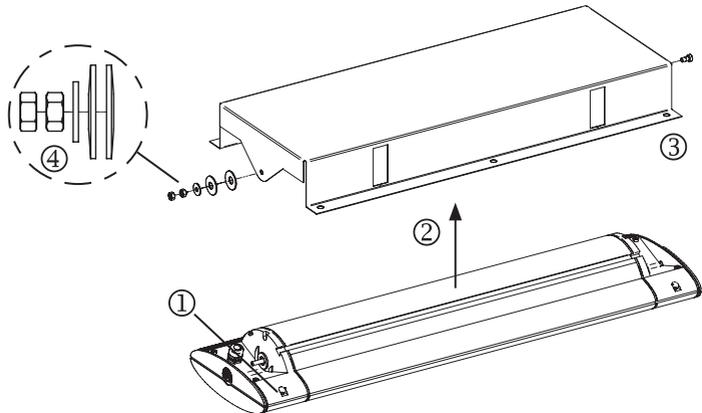
General instructions

- The ceiling installation frame is suitable for installation fastening in ceiling panels of min. thickness 10 mm and max. thickness 30 mm (Blind frame-Version max. 25 mm).
- The installation must not change or impair the existing ceiling stand.
- Two people are required for the installation.
- The electrical connection must be made outside the installation frame (inspection access).
- The minimum distances given in appendix 2 indicate the free space for air circulation. These must not be reduced or covered by insulation or similar.

3a. Variant Direct Fitting:

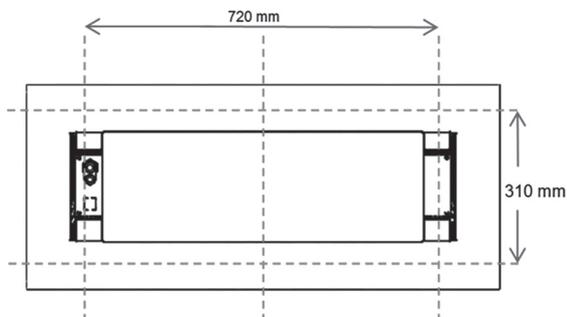
Step 1: Screwing the heater to the cover

- ① Push the large U-washer on to the bolt on the radiant heater.
- ② Insert the heater at an angle into the cover, until the bolt enters the hole in the cover.
- ③ Swivel the heater fully into the cover and using a tool tighten the bolt until it is fully home, applying a torque of 0.5 Nm.
- ④ Thread on two disc springs; the first with the arch towards the cover, the second with the arch facing outwards. Push the small U-washer onto the bolt, screw on the hexagon nut and lock with a second hexagon nut. It must be possible to easily swivel/tilt the heater into the cover with minimum friction.



Step 2: Preparing the installation space

- Create a ceiling cut-out with the dimensions 280 mm x 850 mm.
- Drill fastening holes in the ceiling panel.



Step 3: Mounting the heater in the installation space

- Connect the device to the electricity, but do not switch on.
- Position the device in the ceiling cut-out.

Warning:

The connecting cable must be led away directly from the device. It must be routed in the installation space away from the cut-out area.

- From the outside screw the installation frame to the ceiling panel using six 4 mm diameter screws.

Warning:

Ensure the screw joint is secure and permanent.

If necessary, use additional mounting frames (accessories)!

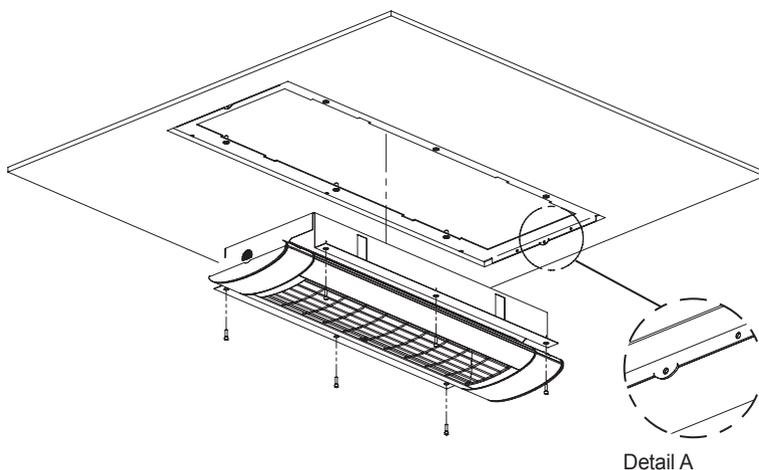
3b. Blind frame variant:

Step 1: Preparing the installation space

- Make a cut-out in the ceiling with dimension 315 mm x 850 mm.
- Place the mounting frame behind the ceiling so that the inner lugs are inserted into the cut-out.
- Centre the mounting frame over the cut-out and on the front side screw to the ceiling plate using the inner lugs.
- Center the mounting frame in the cutout and screw it to the front panel with the ceiling plate. For thin ceiling panels (<15mm), bend or remove the mounting tabs if necessary. (Detail A)

Step 2: Mounting the heater in the installation space

- Make the electrical connection to the device, but do not switch on.
- Screw the heater to the mounting frame using 6 M 4 x18 screws and U-washers
- Tighten the screws



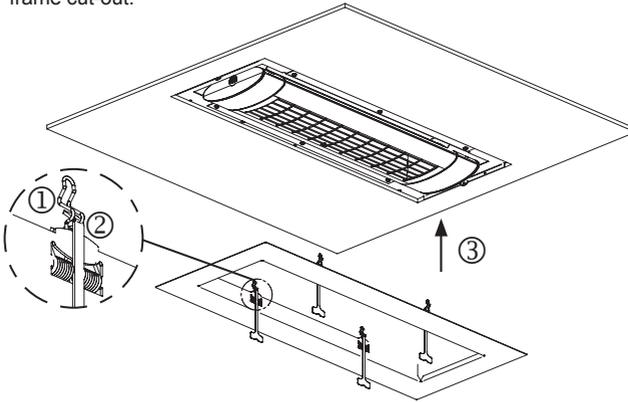
Step 3: Installing the blind frame

Warning: Risk of injury!
Always wear safety gloves!

- ① Apply pressure to the springs, until they engage in the retainer.

Warning: Risk of crushing due to springs jumping back. Do not reach into the clamping area of the springs!

- ② Fit an unlocking device at the kink in each spring and allow to hang out of the frame cut-out.



- ③ Positioning the frame: Position the pre-tensioned spring tips in the gap of the heater cover.
- ④ Press the blind frame against the cut-out in the ceiling
- ⑤ Pull the unlocking devices down and allow each of the springs to snap against the mounting frame.

Note: Store the unlocking devices carefully somewhere for subsequent removal and re-installation.

Removal:

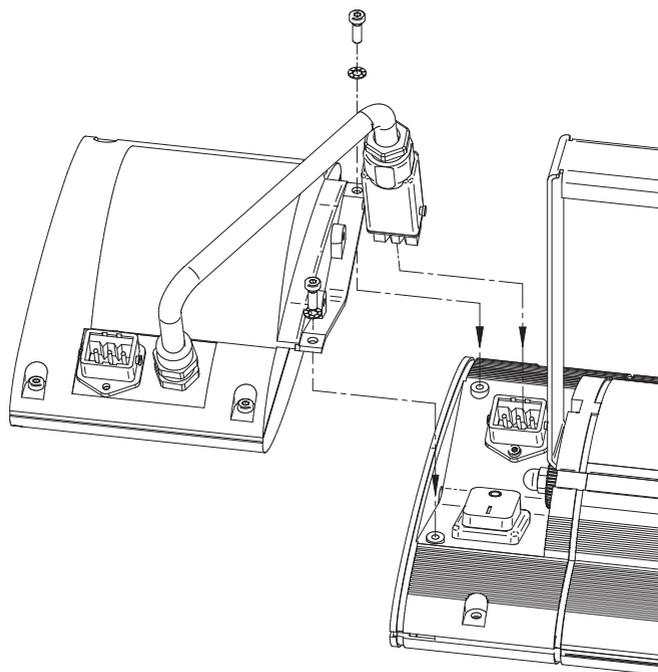
- Pull the blind frame at the outer edge from the ceiling until the clamping springs can be reached in the gap.

Warning: Risk of injury!
Always wear safety gloves!

- Press the springs back and swivel the frame out of the installation space. Slowly release the springs.

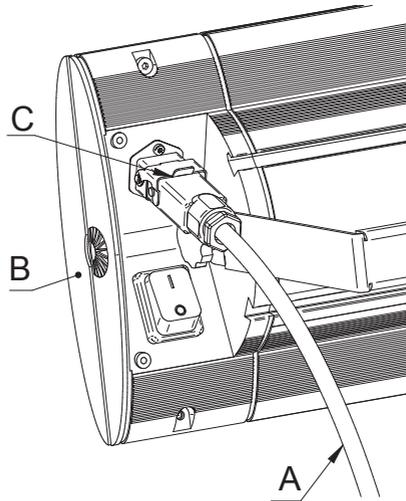
4. For expansion components for the radiant heater

- Expansion components can only be used for the intended device types.
- When using expansion components, the corresponding installation and instruction manual must be used without fail.
- If expansion components (e.g. wireless module) are used, the technical data in Appendix 1 changes.



Initial operation

1. Where fitted, completely remove the transport protection on the reflector.
2. Connect the enclosed power lead (A) to the heater (B) and secure using the retaining clip (C).
3. Make the connection to the power supply (Schuko/mains plug)



For those models without a switch, heating starts immediately upon plugging of the plug into the socket. For models with a switch or radio receiver, heating starts upon switching of the switch or via remote control.

Cleaning instructions

- Disconnect the device from the mains.
- Allow the casing to cool.
- Wipe the casing clean with a moist, soft cloth. Do not use any detergent.

Never immerse the device in liquids nor spray-wash it.
Possible discolouration of the protective grille due to heat effects results from normal physical processes and is not a defect.

Guarantee conditions for S1, S3 and D3 heaters

We guarantee this heater in accordance with the following conditions:

1. We will repair, free of charge, in accordance with the following provisions, damage or defects to the heater, which can be proven to be due to a factory defect, if they are reported to us immediately upon discovery on the heater and within 5 years of delivery to the end user. The duration of the guarantee for the heating tube is 12 months up to a maximum 5000 operating hours within this period. The guarantee does not cover minor deviations from the design properties that are irrelevant for the value and usability of the heater or damage caused by abnormal environmental conditions or unsuitable operating conditions. Likewise the guarantee does not cover damage caused by exceptional climatic conditions, abnormal environmental conditions or unsuitable operating conditions. Your dealer will be happy to advise about heater versions for use in such cases.
No guarantee can be given if the damage or defects on the heater arise from faulty installation or failure to observe the operating instructions.
2. The guarantee is fulfilled in that defective heaters will be repaired, or replaced by flawless heaters, at our discretion, and free of charge. Heaters, for which a performance of guarantee is claimed with reference to this guarantee, must be handed over or sent to the manufacturer or an authorised service centre. The sender is liable for the transport risk associated with the sending. The shipping, transport, travel and labour costs of the end user are not refunded. Proof of purchase with the date of purchase and/or delivery date plus a detailed description of the fault must always be presented. Replaced heaters become our property.
3. Any guarantee claim becomes void if repairs or adjustments are made by persons who are not authorised by us or if our heaters are provided with spare parts, supplementary parts or accessories that are not original parts, and have caused a defect. The same applies if the name plate or the device number has been removed or rendered illegible.
4. Excluded from this guarantee are damages or defects from incorrect connection, improper handling, mechanical damage, particularly to the heating tube, and failure to observe the installation and operating instructions. We accept no liability for consequential damage.
5. Guarantee performances do not extend the guarantee period nor do they initiate a new guarantee period. The guarantee period for any fitted spare parts ends with the guarantee period for the device as a whole. If a defect or deficiency cannot be eliminated or the rectification of defects is declined by us or unreasonably delayed, an equivalent replacement will be delivered, free of charge, upon request of the customer. In case of replacement, we reserve the right to enforce a reasonable usage charge for time of use up until the time of replacement.

6. The guarantee only comes into force when the customer has registered their device with the manufacturer by means of the guarantee card.

These guarantee conditions apply from 01/01/2014 for heaters purchased in a country of the European Union, even if you use it in a foreign country. The guarantee conditions have no effects on the statutory guarantee claim.

Additional instructions

Subject to technical changes.

This product is „Made in Germany“.

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