TECHNOTHERM
LUCHT LHZ® INTERNATIONAL

Installation and technical manual

ISP-W / R / B / Motive frameless – with receiver RF

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ErP
READY

APPLIES TO
EUROPEAN
DIRECTIVE
FOR ENERGY
RELATED
PRODUCTS

ISP-W 350 - 1200
ISP-R 350 - 1200
ISP-B 350 - 1200

ISP-Motive 350 – 1200

ISP-W 351 - 851
ISP-R 351 - 851
ISP-B 351 - 851

ISP-Motive 351 till 851

with receiver RF

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1. Important Safety instructions

- People (including children) who are limited in their physical, sensory, or mental capacities should not use this device at any time. Furthermore do not handle this instrument if you do not possess the necessary experience and knowledge to do so. This device should only be handled under the supervision of a qualified person and after a thorough introduction.
- Do not leave children alone with the device, and supervise them at all times to keep them from getting harmed.
- **WARNING: Do not cover! Otherwise this instrument will overheat.**
- Do not place the heater underneath a socket, drainage or the like.
- To keep from getting burned, do not touch heater´s surface whenever it is turned on.
- Please use the handle whenever you have to move the heater.
- Do not put the cord underneath the carpet or a rug and make sure that it is not a tripping hazard
- Plug the heater into properly grounded sockets only.
- Do not use the heater in any other way than described in the user manual. Any other way of use may lead to fire, electrocution, and may cause serious harm to the person.
- Do not use this device near bathtubs, showers or swimming pools.
- In case the connection cable is damaged it has to be replaced by the manufacturer or someone commissioned by the manufacturer.

WARNING: Do not use a switching-oriented device, like a timekeeper, when operating this heater. This could cause a change in the thermal adjustment which is potentially hazardous!

- To keep the device from overheating do not put towels or clothing on top.
- When using the heater, make sure it is in an upright position and positioned on an even and dry place.

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- Do not put any foreign objects into the vent. This may cause electrocution, fire or damage to the heater.
- Do not use an extension cord unless approved by an electrician.
- This device is for private use only, do not use in any other way than intended by the manufacturer.
- Do not use the device near curtains, highly combustible, extremely explosive or malleable materials.
- Keep a distance of a at least 1.0 m between combustible materials- like furniture, cushions, bedding, paper, clothing, curtains-and the heating device.
- Do not use the device in rooms were petrol, paint or any other flammable liquids are stored.
- Do not use the device outside.

Warning! This device has to be grounded

This device may only be operated using alternating current and the operating voltage indicated on the power rating plate

- Nominal Voltage   230V AC, 50 Hz
- Protection class I

ISP-W (white front panel, powder-coated)

ISP-R (red front panel, powder-coated)

ISP-B (black front plate, powder coated)

ISP-Motive (front plate with motifs)

Prior to commissioning, please inform yourself about proper installation, commissioning, operation and maintenance.

Below we give the necessary information:

The installation and electrical connection must be carried out by a qualified electrician. The panels are designed for wall and ceiling mounting.

Wall mounting model ISP W / R / B / Motive

The plate can be mounted horizontally or vertically. Drill mounting holes as indicated in Fig.1 (horizontally) or as in Fig.2 (vertically). The pack contains 4 (6 for the Models ISP 1200 and ISP 851) fixing screws 6 x 70 mm.

To mounting the unit using all 4 (6 anchors for the Models ISP 1200 and ISP 851. The recommended dowel size is 10 mm (not included).

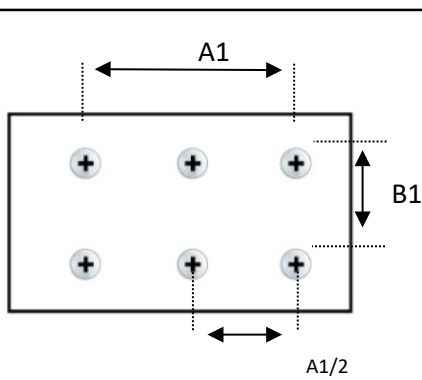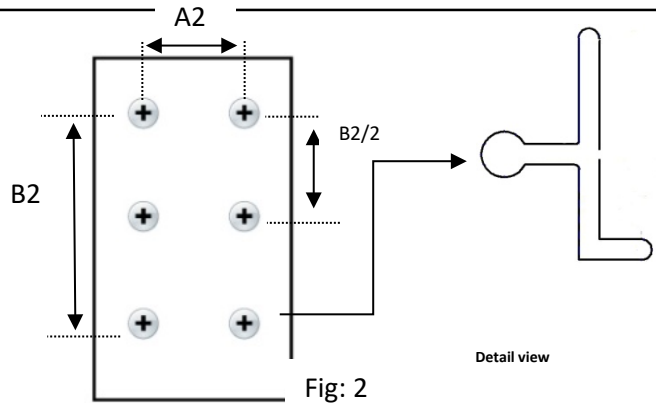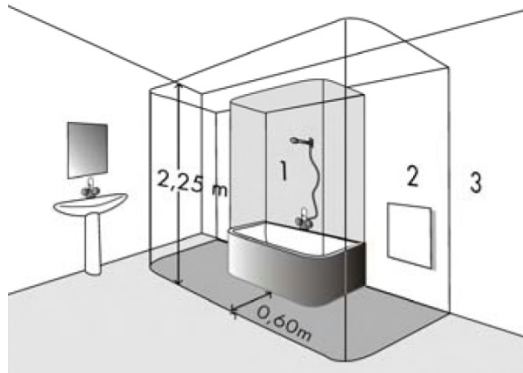The dimensions A and B are pitches of the holes to be drilled.

Fig: 1

Fig: 2

Detail view

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All models with the width of **600 mm** incl. RF	drill spacing holes				
	A1 [mm]		B1 [mm]	A2 [mm]	B2 [mm]
ISP 350	324		360	360	324
ISP 450	624		360	360	624
ISP 600	624		360	360	624
ISP 750	924		360	360	924
ISP 950	1224		360	360	1224
ISP 1200	1524	A1/2 = 762	360	360	1524	B2/2=762

All models with the width of **400 mm** incl. RF	drill spacing holes				
	A1 [mm]		B1 [mm]	A2 [mm]	B2 [mm]
ISP 351	624		240	240	624
ISP 501	924		240	240	924
ISP 651	1224		240	240	1224
ISP 851	1524	A1/2=762	240	240	1524	B2/2=762

Distances

The distance between the lower edge of the heater from the floor must be at least 50 mm, 150 mm are recommended. Side distance, for example, to furniture must be at least 100 mm and the distance up at least 100 mm (see Abb. 2). In
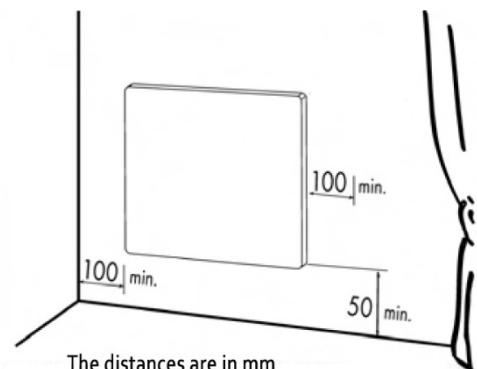
The distances are in mm

bathrooms, the heating plate is in compliance with the standard VDE 100 / T701 to install. It can be mounted as shown in Abb. 1 from field 2 (range 1 is not allowed!)

The ISP heater is a product of protection class II, protection IP 44. The plate shall be affixed directly to the junction box.

Edition: 08/18

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Electrical Connection

The ISP heating panel is equipped with a three-wire cable for 1 / N 230 V / 50 Hz
Color coding of conductors:

Phase - brown
Neutral - blue

Connection is made to a wall socket.
It is always a residual current circuit breaker for use with an operating current of 30 mA maximum. If the supply cord of this appliance consumption is damaged, it must be replaced by the manufacturer or a service technician.

Operation of the ISP heating panels

It is recommended that the control of the ISP heating panels by an external room thermostat from TECHNOTHERM (eg. radio receiver TPF or with the digital radio transmitter TBF. In addition, the ISP heating panels are equipped with a limiting thermostat to ensure their safe usage.

WARNING

Do not install this device in areas that present an explosion hazard like a garage. Remove all protective coverage before turning on the device. When using the device for the first time you might detect a strong odor. This is no reason for concern; it is caused by residues of production and will disappear shortly.

The rising heat may cause stains on the ceiling, however this phenomena can be caused by any other heating device as well. Only a qualified electrician may open or remove the device from the power supply.

4. Maintenance

Before cleaning the device be sure to turn it off. To clean use a damp towel and a mild detergent.

5. Assembly instruction

This Manual is very important and has to be kept at a safe place at all times. Be sure to hand this manual to any other succeeding owner of the device.

The device is an electrical heater that was designed and intended to be mounted to walls. The device comes with a power plug that has to be plugged into an outlet.

The device is designed to be connected to 230V (nominal) alternating current (AC).

WARNING: DO NOT COVER THE HEATER

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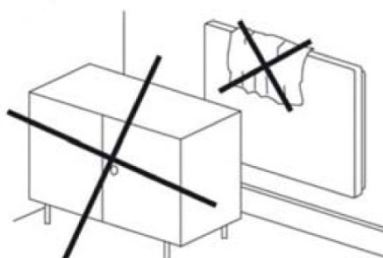
Technical datas of the 600 mm models

Model	Power [Watt]	W x H x D [mm]	Weight	Model	Power [Watt]	W x H x D [mm]	Weight
ISP-W 350	300	600x600x15	8,7	ISP-W 350 RF	300	600x600x15	8,7
ISP-W 450	450	900x600x15	9,5	ISP-W 450 RF	450	900x600x15	9,5
ISP-W 600	600	1200x600x15	12,7	ISP-W 600 RF	600	1200x600x15	12,7
ISP-W 750	750	1200x600x15	12,7	ISP-W 750 RF	750	1200x600x15	12,7
ISP-W 950	950	1500x600x15	15,8	ISP-W 950 RF	950	1500x600x15	15,8
ISP-W 1200	1200	1800x600x15	19,1	ISP-W 1200 RF	1200	1800x600x15	19,1
ISP-R 350	300	600x600x15	8,7	ISP-R 350 RF	300	600x600x15	8,7
ISP-R 450	450	900x600x15	9,5	ISP-R 450 RF	450	900x600x15	9,5
ISP-R 600	600	1200x600x15	12,7	ISP-R 600 RF	600	1200x600x15	12,7
ISP-R 750	750	1200x600x15	12,7	ISP-R 750 RF	750	1200x600x15	12,7
ISP-R 950	950	1500x600x15	15,8	ISP-R 950 RF	950	1500x600x15	15,8
ISP-R 1200	1200	1800x600x15	19,1	ISP-R 1200 RF	1200	1800x600x15	19,1
ISP-B 350	300	600x600x15	8,7	ISP-B 350 RF	300	600x600x15	8,7
ISP-B 450	450	900x600x15	9,5	ISP-B 450 RF	450	900x600x15	9,5
ISP-B 600	600	1200x 600x15	12,7	ISP-B 600 RF	600	1200x600x15	12,7
ISP-B 750	750	1200x600x15	12,7	ISP-B 750 RF	750	1200x600x15	12,7
ISP-B 950	950	1500x600x15	15,8	ISP-B 950 RF	950	1500x600x15	15,8
ISP-W 1200	1200	1800x600x15	19,1	ISP-W 1200 RF	1200	1800c600x15	19,1
ISP-Motiv 450	450	900x600x15	9,5	ISP-Motiv 450 RF	450	900x600x15	9,5
ISP-Motiv 750	750	1200x600x15	12,7	ISP-Motiv 750 RF	750	1200x600x15	12,7
ISP-Motiv 950	950	1500x600x15	15,8	ISP-Motiv 950 RF	950	1500x600x15	15,8

„**RF**": Units are supplied with preassembled radio receiver

Model	Power [Watt]	W x H x D [mm]	Weight	Model	Power [Watt]	W x H x D [mm]	Weight
ISP-W 351	350	900x400x15	8,7	ISP-W 351 RF	350	900x 400x15	8,7
ISP-W 501	500	1200x400x15	11,6	ISP-W 501 RF	500	1200x400x15	11,6
ISP-W 651	650	1500x400x15	14,5	ISP-W 650 RF	650	1500x400x15	14,5
ISP-W 851	850	1800x400x15	17,4	ISP-W 851 RF	850	1800x400x15	17,4
ISP-R 351	350	900x400x15	8,7	ISP-R 351 RF	350	900x 400x15	8,7
ISP-R 501	500	1200x400x15	11,6	ISP-R 501 RF	500	1200x400x15	11,6
ISP-R 651	650	1500x400x15	14,5	ISP-R 650 RF	650	1500x400x15	14,5
ISP-R 851	850	1800x400x15	17,4	ISP-R 851 RF	850	1800x400x15	17,4
ISP-B 351	350	900x400x15	8,7	ISP-B 351 RF	350	900x 400x15	8,7
ISP-B 501	500	1200x400x15	11,6	ISP-B 501 RF	500	1200x400x15	11,6
ISP-B 651	650	1500x400x15	14,5	ISP-B 650 RF	650	1500x400x15	14,5
ISP-B 851	850	1800x400x15	17,4	ISP-B 851 RF	850	1800x400x15	17,4

**Connecting the recipient (only with the "RF" models)**

Press on the receiver for more than 3 seconds the button until the indicator light begins to flash. Then attach the transmitter in configuration mode (see manual transmitter). If the indicator light on the receiver stops flashing, the two products are assigned.

Disconnect the receiver

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To delete all associated products you press the receiver button for about 30 seconds until the indicator light flashes briefly. All channels are now deleted!

Technical data's oft the receiver „RF"

• power supply 230 V, 50 Hz +/-10%
• protection class II
• consumption: 0,5 V
• switching capacity max.: 16 A 230 V_{eff} Cos φ = 1
• radio frequency 868 MHz (Norm EN 300 220),
• radio range up to 300 m (outdoor), indoor up to 30 m, depending of structural factors and electromagnetic interference.
• maximum number of recipients: 8 units
• temperature range: -5°C to +50°C
• dimensions: 120 x 54 x 25 mm
• IP 44 - IK 04
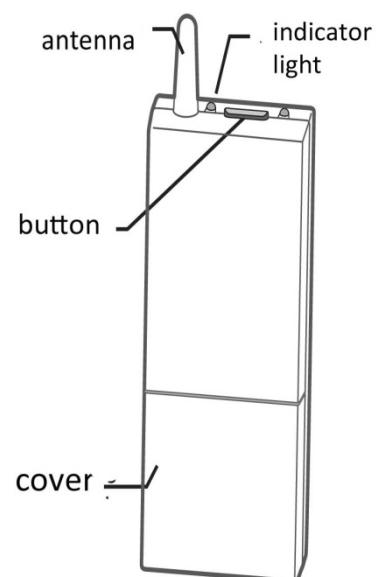
Switching from X3D to X2D and vice versa:
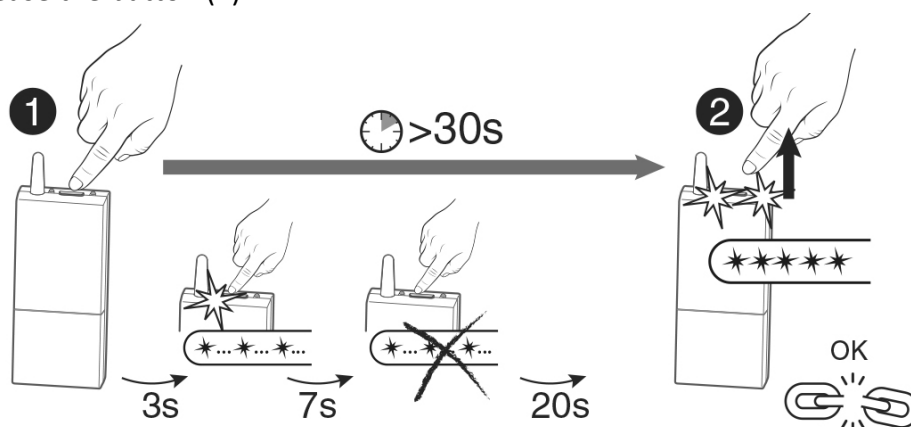
X2D for TPF/TBF
X3D for TPF-Eco

1) **Before the changeover, the assignment to the thermostat must be cleared.**
Press and hold for 30 seconds (1):
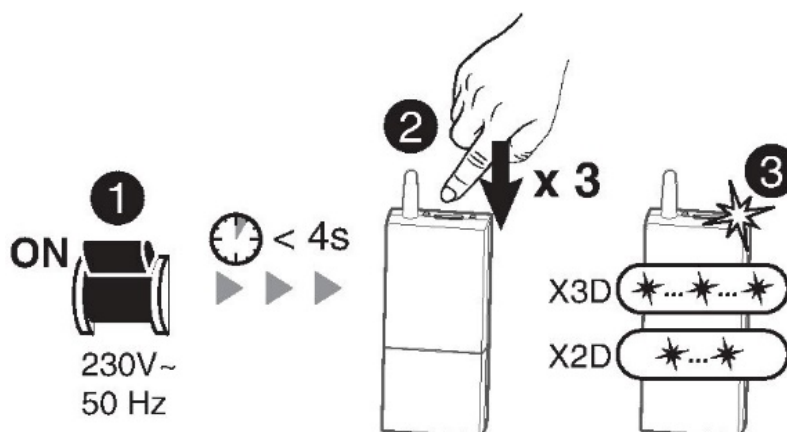after 3 seconds, the LED flashes slowly.
after 7 seconds, the LED flashes quickly. Keep the receiver button pressed until both
LEDs flash.
Release the button (2).

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2) **Changeover**
When switching on the installation (1), you have 4 seconds to press 3 times the receiver
button (2). The LED flashes (3): 2 times for X2D, 3 times for X3D.

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6. Regulation

From 01.01.2018, the EU conformity of these devices is additionally linked to the fulfillment of the Ecodesign requirements 2015/1188.
The installation and commissioning of the devices is only permitted in conjunction with external room temperature controllers that fulfill the following functions:

- electronic room temperature control plus week timer

and has at least one of the following properties:

- room temperature control, with presence detection
- room temperature control, with open window detection
- with distance control option
- with adaptive start control

The following room temperature controller systems

- RF Receiver together with the TPF-Eco Thermostat (Art.Nr.: 750 000 641) and the Eco-Interface (Art.Nr.750 000 640)

from Technotherm meet the following requirements and therefore the ErP Directive:

- electronic room temperature control plus week timer (RF)
- with distance control option (RF)

Use of the ISP Standard range (without external thermostat control) is not permitted

Installation of the receiver and the interfaces see separate instructions. For customer service - see last page.

Failure to comply with these requirements will result in the loss of the CE mark.

Model: ISP RF (These devices may only be used with a corresponding approved thermostat - e.g. TPF-Eco and the ECO interface)

Item	Symbol	Heat output								Value		Value	Item	Value
													Type of heat input, for electric storage local space heaters only (select one)	
Nominal heat output	P_{nom}	350	450	500	600	650	750	950	1200	Watt			manual heat charge control, with integrated thermostat	No
Minimum heat output (indicative)	P_{min}	350	450	500	600	650	750	950	1200	Watt			manual heat charge control with room and/or outdoor temperature feedback	No
Maximum continuous heat output	$P_{max,c}$	350	450	500	600	650	750	950	1200	Watt			electronic heat charge control with room and/or outdoor temperature feedback	No
Auxiliary electricity consumption													fan assisted heat output	No
At nominal heat output	el_{max}	350	450	500	600	650	750	950	1200	Watt			**Type of heat output/room temperature control (select one)**	
At minimum heat output	el_{min}	<0,5	<0,5	<0,5	<0,5	<0,5	<0,5	<0,5	<0,5	Watt			single stage heat output and no room temperature control	No
In standby mode	el_{SB}	<0,5	<0,5	<0,5	<0,5	<0,5	<0,5	<0,5	<0,5	Watt			Two or more manual stages, no room temperature control	No
													with mechanic thermostat room temperature control	No
													with electronic room temperature control	No
													electronic room temperature control plus day timer	No
													electronic room temperature control plus week timer	Yes
													Other control options (multiple selections possible)	
													room temperature control, with presence detection	No
													room temperature control, with open window detection	No
													with distance control option	Yes
													with adaptive start control	No
													with working time limitation	No
													with black bulb sensor	No
Contact:	Lucht LHZ Elektroheizung GmbH, Reinhard-Schmidt-Str. 1, 09217 Burgstädt													

Manual ISP W / R / B / Motive- frameless

Model: ISP   (These devices may only be used with a corresponding approved thermostat - e.g. TPF-Eco, the RF receiver and the ECO interface)

Item	Symbol					Value				Value		Item	Value	
	Heat output											**Type of heat input, for electric storage local space heaters only (select one)**		
Nominal heat output	P_{nom}	350	450	500	600	650	750	950	1200	Watt		manual heat charge control, with integrated thermostat		No
Minimum heat output (indicative)	P_{min}	350	450	500	600	650	750	950	1200	Watt		manual heat charge control with room and/or outdoor temperature feedback		No
Maximum continuous heat output	$P_{max,c}$	350	450	500	600	650	750	950	1200	Watt		fan assisted heat output		No
Auxiliary electricity consumption												**Type of heat output/room temperature control (select one)**		No
At nominal heat output	el_{max}	350	450	500	600	650	750	950	1200	Watt		single stage heat output and no room temperature control		
At minimum heat output	el_{min}	<0,5	<0,5	<0,5	<0,5	<0,5	<0,5	<0,5	<0,5	Watt		Two or more manual stages, no room temperature control		No
In standby mode	el_{SB}	<0,5	<0,5	<0,5	<0,5	<0,5	<0,5	<0,5	<0,5	Watt		with mechanic thermostat room temperature control		No
												with electronic room temperature control		No
												electronic room temperature control plus day timer		No
												electronic room temperature control plus week timer		No
												Other control options (multiple selections possible)		No
												room temperature control, with presence detection		
												room temperature control, with open window detection		No
												with distance control option		No
												with adaptive start control		No
												with working time limitation		No
												with black bulb sensor		No
												with black bulb sensor		No
Contact details:	Lucht LHZ Elektroheizung GmbH, Reinhard-Schmidt-Str. 1, 09217 Burgstädt													

TECHNOTHERM support:

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