

Keep children away from the control units.

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- The control unit must be installed so that it is not exposed to rain.
- Check the system regularly for wear or damage.

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# **General information**

The Combio-868 HE radio receiver enables you to turn heating systems of up to 2 kW output on and off by remote control.

It is also possible to switch the heating system down to 75 % of its output.



The Combio-868 HE is **only** suitable for use with heating systems with a nominal power of max. 2 kW.

Do not connect other consumers to the device!

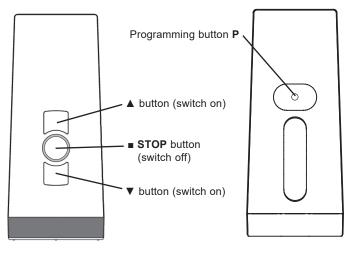
Read the operating instructions of the heating system.

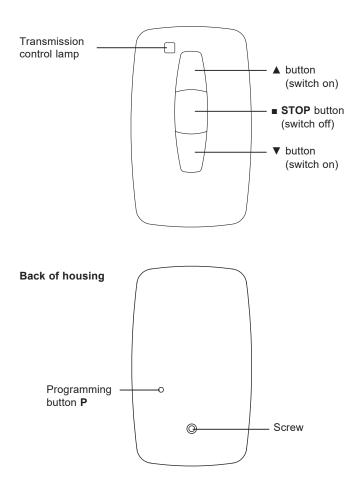
# Optimal use of the radio signal

- · Do not bend the antenna.
- · Do not shorten or extend the antenna.
- · If reception is poor, adjust the antenna.
- · Install the antenna so that it is as exposed as possible.
- · Antenna is not to rest on metal.
- Using a number of receivers may cause interference.
- **Note:** Radio systems, which operate on the same frequency, can lead to reception of interferences.

Please note, that the range of the radio signal is limited by the government and the built environment.

## **Explanation of buttons**





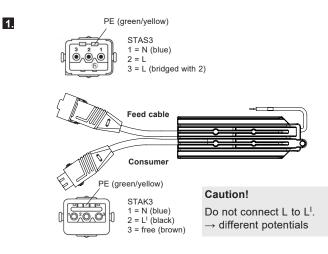
# Initial operation



# Device becomes hot in use! Risk of burning!

• Ensure that the Combio-868 HE is sufficiently well-ventilated.

• Do not use any highly inflammable or inflammable materials near to the Combio-868 HE.



# 2. Switch off/on mains.

#### The Combio-868 HE is now ready to program for 5 minutes.

Briefly press 3. the programming button P.



4. ▲ button immediately when 100% heat output appears.

Press the

Press the 5. ▼ button immediately when 50% heat output appears.

Heating switches off.

Heating system

100% and 50%

Heating goes off

for a short time

alternates between

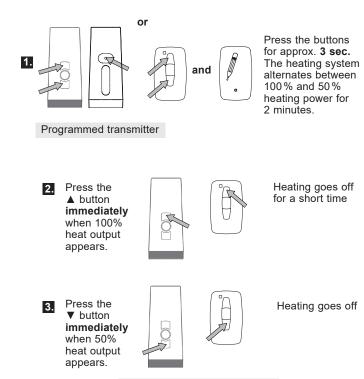
output for 2 minutes.

The transmitter is programmed.

## Programming additional transmitters

Programming possible for max. 16 transmitters.

To program further transmitters, proceed as follows:



The transmitter is programmed.

Note: If several receivers are connected to the same feed line, then all are simultaneously ready to program.

> The heating system begins to briefly light up "randomly". The longer you wait with the programming the greater will be the offset.

> Individual channels/transmitters can now be assigned to the respective receiver.

You can stop the flashing if you briefly push the STOP button of a transmitter which has already been programmed.

The channel assignment/change can now be made without you having to disconnect the individual receivers.

#### Switching on the heating system:

**Precondition:** The transmitter is programmed.

Press the  $\blacktriangle$  or  $\blacktriangledown$  button.

#### Switching off the heating system:

Press the STOP button.

Note: The Combio-868 HE switches off the heating to which it is connected automatically after 12 hours.

#### Switching on the intermediate stag

**Precondition:** The transmitter is programmed.

- 1. Press the ▼ button or the ▲ button twice in rapid succession.
- 2. The heating system operates at 75 % capacity.

#### **Deleting individual transmitters**

- 1. Press simultaneously:
  - Programming button P
  - **f** on the programmed transmitter. • STOP button
- 2. Hold down this button combination for approx. 6 sec. until the LED goes out briefly.

### **Deleting all transmitters**

- 1. Press simultaneously:
  - Programming button P • **▲** button
- STOP button
- ▼ button

on the programmed transmitter.

- 2. Hold down this button combination for approx. 6 sec. until the LED goes out briefly 3 times.

# **Overtemperature warning**

At heat sink temperatures of approx. 90 °C and above, the Combio-868 HE automatically reduces the heating power to 50%. If the  $\blacktriangle$  or  $\checkmark$  button is pressed while the heating power is reduced, the Combio-868 HE switches to 100% heating power for 2 seconds, but then drops back to 50%.

Once the heat sink temperature falls below 80  $^\circ\text{C},$  the Combio-868 HE can be operated normally again.

# **Overtemperature shutdown**

At a heat sink temperature of approx.  $100 \degree C$  and above, the radiant heater is switched off by the Combio-868 HE. If the  $\blacktriangle$  or  $\blacktriangledown$  button is pressed while the radiant heater is switched off, the Combio-868 HE switches to 100% heating power for 2 seconds, but then switches the radiant heater off again.

Once the cooling temperature drops below 90  $^{\circ}$ C, the Combio-868 HE switches to the overtemperature warning state.

# **Emergency shutdown**

At a heat sink temperature of approx. 110 °C and above, the radiant heater is switched off by the thermal switch in the Combio-868 HE. This thermal switch has a latching function.

The supply voltage must be switched off in order to put the Combio-868 HE back into operation after cooling.

## **Technical data**

Mains voltage	230 V
Frequency	50 Hz
Max. connected power	2000 W
IP Code Connector IP Code	IP 56 IP 54
Permitted ambient temperature	–20 °C to +30 °C
Cables	Mains cable 490 mm (STAS3) Cable to heating 235 mm (STAK3)
Radio frequency	868 MHz frequency band
Back-up fuse	10 A time delay
Max. number of programmable transmitters per receiver	16



Pay attention to the rated power of the radiant heater!

Available accessories (not included in the scope of delivery)

- Cable 3 x 1.5<sup>o</sup> Cable length: 6.5 m with STAK3 and Schuko connector.
- STAS3 for connection of the heating system to the Combio-868 HE.

## Troubleshooting

Fault	Cause	Remedy
No radio reception.	<ol> <li>Transmitter is not programmed.</li> <li>No power supply.</li> </ol>	<ol> <li>Program the transmitter.</li> <li>Switch on power supply.</li> </ol>
Bad radio reception.	Unfavourable position of receiver.	Change position of receiver or aerial.
Heater does not heat or only heats with reduced power.	<ol> <li>Radio heater wrongly connected.</li> <li>Heating element is defective.</li> <li>Overtemperature war- ning, overtemperature shutdown or emergen- cy shutdown active.</li> </ol>	<ol> <li>Check connection.</li> <li>Replace heating element.</li> <li>Provide for cooling; in the case of emer- gency shutdown also switch off the supply voltage.</li> </ol>