

# elero Combio-868 HE Built In Radio Receiver for Heating **Systems Instruction Manual**

Home » elero Combio-868 HE Built In Radio Receiver for Heating Systems Instruction Manual



#### **Contents**

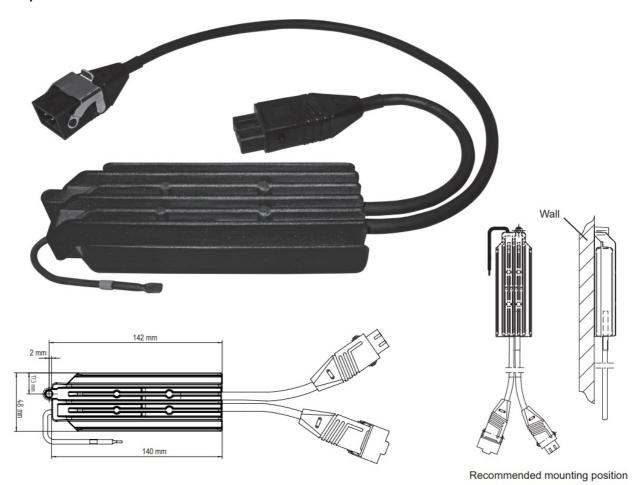
- 1 elero Combio-868 HE Built In Radio Receiver for Heating **Systems**
- 2 Operating instructions (translation)
- 3 Important safety instructions
- **4 General information**
- **5 Explanation of buttons**
- 6 Programming additional transmitters
- 7 Technical data
- 8 Troubleshooting
- 9 Documents / Resources
  - 9.1 References
- **10 Related Posts**



elero Combio-868 HE Built In Radio Receiver for Heating Systems



# Operating instructions (translation)



# Important safety instructions

### Observe the following instructions.

Risk of injury due to electrocution.

Connections to the 230 V mains must be made by authorised specialist personnel.

- The regulations of the local energy supply company as well as the regulations for wet and damp rooms according to VDE 0100 must be followed when making the connections.
- Follow the relevant country-specific regulations.
- When working on the system (e.g. servicing), separate it from the mains supply.
- Keep children away from the control units.
- The control unit must be installed so that it is not exposed to rain.
- Check the system regularly for wear or damage.
- Please note that radio systems must not be operated in areas with an increased risk of interference (e.g. hospitals, airports).
- The remote control is only approved for devices and systems for which any malfunction of the hand-held transmitter or receiver would not result in a risk for persons, animals or property, or if such a risk is covered by other safety devices.
- The operator has no protection whatsoever from interferences by other radio emitters and local terminals (e.g. also from radio installations), that are normally used on the same frequency range.

#### **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!

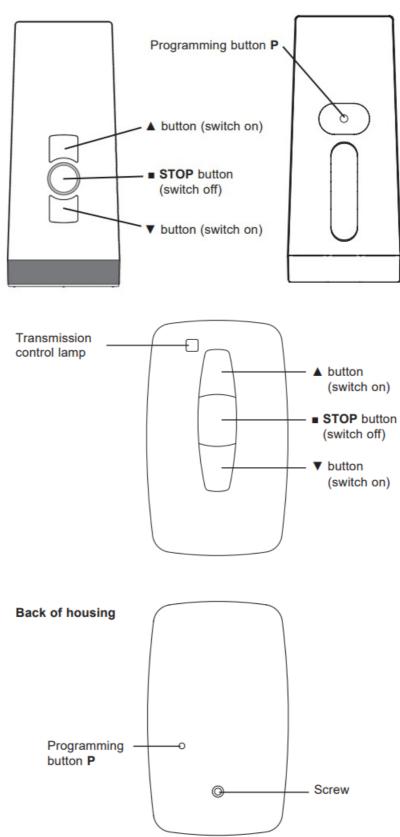
Read the operating instructions of the heating system.

## 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.

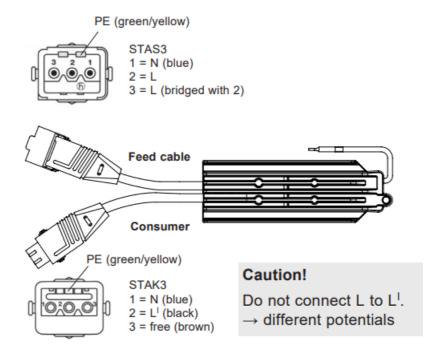
# **Explanation of buttons**



# **Initial operation**

Device becomes hot in use!Risk of burning!

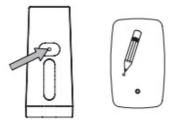
- Ensure that the Combio-868 HE is sufficiently well-ventilated.
- Do not use any highly inflammable or inflammable materials near to the Combio-868 HE.



#### Switch off/on mains.

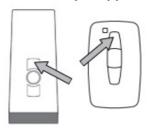
The Combio-868 HE is now ready to program for 5 minutes.

# Briefly press the programming button P.



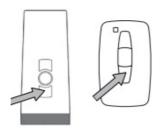
Heating system alternates between 100% and 50% output for 2 minutes.

# Press the ▲ button immediately when 100% heat output appears.



Heating goes off for a short time

Press the ▼ button immediately when 50% heat output appears

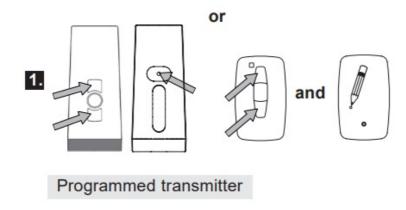


# The transmitter is programmed

Heating switches off

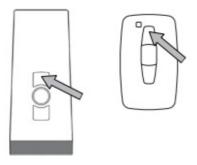
# **Programming additional transmitters**

Programming possible for max. 16 transmitters. To program further transmitters, proceed as follows:



Press the buttons for approx. 3 sec. The heating system alternates between 100 % and 50 % heating power for 2 minutes.

# Press the ▲ button immediately when 100% heat output appears.



Heating goes off for a short time

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





#### Heating goes off

**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 ▲ or ▼ 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
  - TOP button on the programmed transmitter.
- 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 on the programmed transmitter.

- ▼ button
- 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 ▲ or ▼ 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 °C, the Combio-868 HE can be operated normally again.

#### Overtemperature shutdown

At a heat sink temperature of approx. 100 °C and above, the radiant heater is switched off by the Combio-868 HE. If the ▲ or ▼ 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 °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	IP 56
Connector IP Code	IP 54
Permitted	
ambient temperature	−20 °C to +30 °C
Cables	Mains cable 490 mm (STAS 3) Cable to heating 235 mm (STAK 3)
Radio frequency	868 MHz frequency band
Back-up fuse	10 A time delay
Max. number of programmable transmitters per rec eiver	16

#### **IMPORTANT!**

Pay attention to the rated power of the radiant heater!

# Available accessories (not included in the scope of delivery)

- Cable 3 x 1.5 □ 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.	Transmitter is not programmed.	Program the transmitter.
	2. No power supply.	2. Switch on power supply.
Bad radio reception.	Unfavourable position of receiver.	Change position of receiver or aerial.
Heater does not heat o r only heats with reduc ed power.	Radio heater wrongly connected.	1. Check connection.
	2. Heating element is defective.	2. Replace heating element.
	3. Overtemperature war- ning, overtemperature shutdown or emergen- cy shutdown active.	3. Provide for cooling; in the case of e mer- gency shutdown also switch off th e supply voltage.

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## **Documents / Resources**



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#### References

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