



INSTAT a1S Plug In Radio Frequency Receiver Instruction Manual

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Safety Instruction

Caution:

This electronic device, which is looped into the connection lead, is intended for temperature control in dry and closed rooms only.

This device confirms to EN 60730, it works according operating principle 1C.

The circuit on which the unit is operated shall be protected by a miniature circuit breaker according to EN60898-1 (tripping characteristic B or C) with max. 10 A rated current.

Use

Radio frequency receiver for INSTAT+ 868-r (Room temperature controller with clock) or INSTAT+ 868- r1 (Room temperature controller without clock).

For switching electrical devices such as:

- Electric radiators
- Electric wall-mounted heating systems
- Electric towel dryers

Caution: Do not plug multiple receivers in a cascade.
Do not insert a plug-in device.

Features

- Can be directly inserted into a wall socket outlet
- Switches up to 10 A
- One transmitter can control several receivers
- Self-learning address tuning through "Learning Mode" in the transmitter
- One touch button for selecting functions
- Signal lamp indicates faults
- Monitoring of valid radio link
- Acoustic signal in the event of failure
- Emergency operation in case of transition faults

Functional description

The INSTAT 868-a1S receiver converts the transmission signals of the INSTAT 868-r... transmitters into control signals for electrical devices.

The devices are switched via this receiver.

Testing the transmission range

To determine the radio link range, proceed as follows:

Continuously set 30°C and 5°C on the transmitter; the receiver will switch on and off. If the receiver stops to switch, the radio link range has been exceeded.

Commissioning

Establish wireless connection

Note: Products delivered as set are already linked.

For test perform "Testing the radio range" (3.1).

To make the receiver work properly, a connection must be established to the transmitter.

Follow the steps below:

- On the transmitter, switch to "Learning mode" (see transmitter operating instructions)
- **On the receiver activate the "Learning mode" as follows:**

Briefly press the button, short signal tone, lamp is blinking

When the transmitter has been recognized, short signal tone, signal lamp goes off

For thermostats without clock: 2 x blinking

For thermostats with clock: 4 x blinking

- On the transmitter, terminate the "Learning mode"
- For testing the wireless connection just established, see 3.1

Note:

Before learning again a transmitter "Deleting radio links" has to be carried out (see 4.2).

After that the connections can be re-learned.

Deleting a radio link

The connection between transmitter and receiver will be deleted.

- Press the button for 5 seconds
There is a short beep, light flashes
After 5 seconds, a short signal tone.
The lamp expires
- Release button

Power failure

In the event of a power failure in the transmitter or in the receiver, all data will be preserved.

When voltage is available again, normal operation will continue.

Faults

If a fault occurs, an alarm is triggered and an audible signal sounds.

Double addressing

2 transmitters transmit with the same address.

A dual audible signal sounds as a warning.

Control lamp blinks – see Table 1.

To cancel the alarm, re-program the transmitter.

Loss of transmission signal

If the transmitter fails to receive an actuating signal for more than 1 hour, emergency mode will be triggered.

Once the actuating signal is restored, the emergency mode will be cancelled automatically.

Table 1: Function of the lamp and signal tone

Action	Lamp	Signal tone
No signal of thermostat without clock **	single blinking	single
No signal of thermostat with clock **	double blinking	single
Double addressing *	no significance	double

* No emergency mode:

** Emergency mode:

- Signal tone appears, lamp is blinking
- Starting off with 30 % energy (3 Min on, 7 Min. off)

Note:

In some rare cases it may not be possible to establish a permanent radio link between the radio transmitter and the radio receiver.

We therefore recommend to check the reliability of operation at the specific location.

For testing the reliability of operation see 3.1.

Trouble shooting

1. Device will not switch on:

- Has wireless connection been established (refer to 4.1)?
- Refer to Table 2, Section 4 onward

2. It beeps

- for general information see 4.4
- two transmitter transmit with same address, see 4.4.1
- No wireless connection, see table 2, Section 6

3. Transmitter can not be learned in

- Run „delete wireless connection“ (see 4.2)

4. Reverse control action

- Reset to normal operation
 - Push button briefly, short audible signal, control lamp blinks
 - Push and hold button pushed after 5 seconds, a short audible signal will sound, control lamp will blink slowly
 - For normal operation:

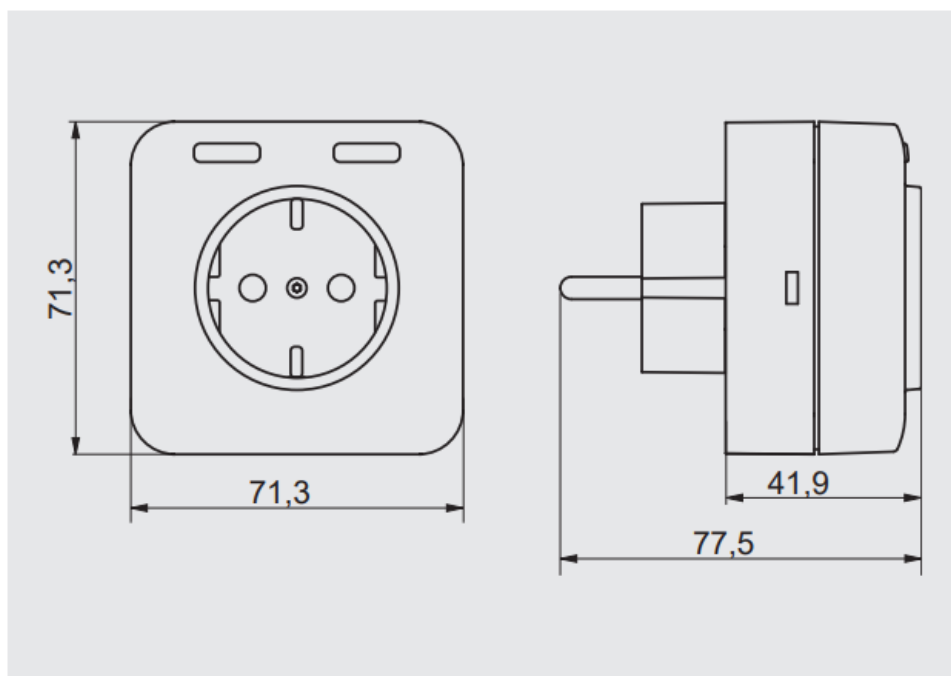
Release button when control lamp is OFF

- Audible signal confirms successful setting

Technical data

Order code	INSTAT 868-a1S
EDP No	0536 37 141 ...
Operating voltage	230 V~ (195 to 253 V) 50 Hz
Switching current:	10 mA...10 A heating load 10 mA... 4 A motor load
Power consumption	~0,73 W
Operating temperature	0 to +35 °C
Storage temperature	–20 to +60 °C
Transition frequency	868,95 Mhz
Antenna	Internal
Lamps	1
Button	to learn
Software class	A
Pollution degree	2
Rated impulse voltage	4 KV
Ball pressure test temperature	75 ± 2 °C
Voltage and Current for the for purposes of interference measurements	250 V / 0,1 A
Degree of protection	IP 20 insulated (condensation not allowed)
Class of protection	I
Weight	~ 210 g

Dimensions



This unit can be used in all EU and EFTA countries.

The manufacturer herewith declares that the device complies with the basic requirements and all other relevant regulations of the RED (2014/53/EU) directive.

The declaration of conformity can be downloaded from „www.funk868MHz.de“



Table 2: If the device does not function, check the following:

Check	Yes	No
1 Is mains voltage available?	Continue with 2	Check fuse if necessary, consult an electrician
2 Directly plug the heater into the wall outlet	Heater functions, continue with 3	Heater or connecting cable defective
3 Receiver: Does the signal light flash? Is the signal tone emitted? (if necessary, wait for an hour)	Transmitter signal missing, continue with 4 (see 4.4)	Continue with 4
4 Transmitter: Is the battery OK?	Continue with 5	Insert new batteries, continue with 5
5 Transmitter: set to 30 °C Does the device switch on after approx. 30 s?	Continue with 6	Device was already switched on, continue with 6 Or if transmitter signal is missing, continue with 7
6 Transmitter: set to 5 °C Does the device switch off after approx 30 s?	Function OK	Transmitter signal is missing, continue with 7
7 Relearn the connection to the receiver Repeat Sections 5 or 6 and check if it works now.	Function OK	Continue with 8 If applicable, check transmission range, refer to 3.1 "Testing the transmission range"
8 Reduce distance between transmitter and receiver to approx. 2 m Repeat Sections 5 or 6 and check if it works now.	Transmitter and receiver work properly	Transmitter or receiver defective


Quick reference

	Section	Description
Testing the transmission range	3.1	<ul style="list-style-type: none"> • Set 30° and 5° continuously on the transmitter • Receiver switches ON and OFF • If the receiver does not change over any more, the range is exceeded
Establish wireless connection	4.1	<ul style="list-style-type: none"> • Set transmitter to Learning mode At the receiver: • Press button briefly, short signal tone, lamp is blinking • If transmitter is recognized, lamp is switched OFF
Delete radio link	4.2	<ul style="list-style-type: none"> • Hold down button for 5 sec., short signal tone, lamp is blinking • Signal tone and lamp switched off shows successful setting
Cancel		<ul style="list-style-type: none"> • Don't press button for 30 sec or • Press button as long as lamp is switched OFF
Signal lamp/signal tone	4.4	See Table 1 Section 4.4.2

This product should not be disposed of with household waste.
Please recycle the products where facilities for electronic waste exist.
Check with your local authorities for recycling advice.



Documents / Resources

	<p>INSTAT a1S Plug In Radio Frequency Receiver [pdf] Instruction Manual 868-a1S, a1S Plug In Radio Frequency Receiver, a1S Radio Frequency Receiver, Plug In Radio Frequency Receiver, Radio Frequency Receiver, Frequency Receiver, Receiver</p>
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