theben

RAMSES 813 top HF (clock thermostat) +
REC 11/REC 12/REC 21
(Flush-mounted and plug-in receiver)

1.0 Specified Use

The product combination of **RAMSES 813 top HF** and the control unit **REC 11** or **REC 12** is designed for wire free individual room temperature control in housing space. The controller **RAMSES 813 top HF** is used in dry residential space for the collection and control of temperature.

The **REC** receiver is installed close to the heating facilities. The various heating circuits (rooms) are controlled by, for example, activators.

To use the **RAMSES 813 top HF** clock thermostat, see the operating manual, which is also enclosed.

2.0 Safety

The connection and installation of electrical products may be effected only by a qualified electrician. If clock thermostats are used in a system with other products, care must be taken to ensure that the whole system does not cause radio interference. National regulations and prevailing safety instructions are to be observed. Interference with and changes to the product will result in the loss of the guarantee.

3.0 Description: receiver, type REC 11/ REC 12/ REC 21

1 channel   2 channel   1 channel

illus. REC 11   **illus. REC 12**   **illus. REC 21 D (21 F)**

Receiver, type REC 11 / REC 12 / REC 21

A   Circuit selector **C1** ON/OFF
B   Status indicator, channel **C1**
C   Status indicator, channel **C2**   (2 channel version **REC 12** only)
D   Circuit selector **C2** ON/OFF   (2 channel version **REC 12** only)
E   Field-strength indicator

4.0 Basic data, type REC 11/ REC 12/ REC 21

• Receivers, **REC 11** as single-channel version and **REC 12** as two-channel version, both suitable for wall mounting.
• The **REC 21 D**, **REC 21 F** receiver plugs into an earthed socket.
• The range is approx. 25 - 30 m.

5.0 Electrical connection: receiver type REC 11/ REC 12

REC 11 and REC 12

2 channel

Note the following:

-> Recheck the orientation of the device!

Under exceptional circumstances, the receiver could pick up spurious signals from the vicinity. One or more LEDs might light up, depending on the strength of these signals.

Remedy:

-> Align the device in such a way that as few LEDs as possible light up.

6.0 Coding control unit REC 11/ REC 12/ REC 21

Several products can be used in a residential unit without them having a negative effect on one another.

Coding of channel C1:

-> Press the button **C1** of **REC 11** (REC 12) approx. 5 secs. The LED of **C1** flashes 5 secs,
-> during which the 'Coding' of **RAMSES 813 top HF** must be run (Menu -> Service -> Coding). Confirm with **OK**.

If coding successful:
LED of **C1** and the level indicator light up briefly.

Test of coding of channel 1:

-> If you run the 'Coding' again, the **LED** of **C1** as well as the level display lights up.
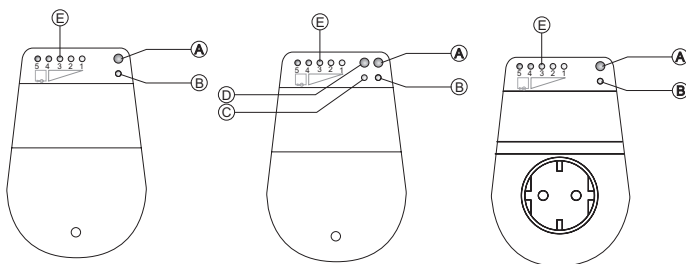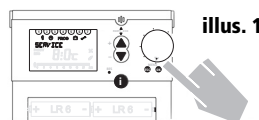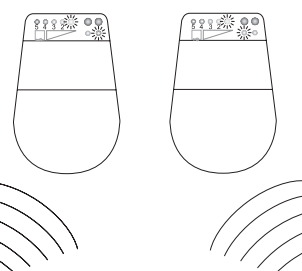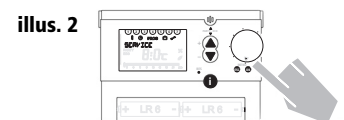
The procedure for coding channel 2 of an **REC 12** receiver is the same.

illus. REC 12
2 channel

illus. 1   **illus. 2**

RAMSES 813 top HF
controller **1**

RAMSES 813 top HF
controller **2**

7.0 Transmission test

Test:
-> Select in the service menu of **RAMSES 813 top HF** the function 'Test HF' (Menu -> Service -> Test HF).

A regular on/off signal is transmitted for 15 minutes. The level indicator and the LED of the **REC 11** receiver light up in a five-second cycle.
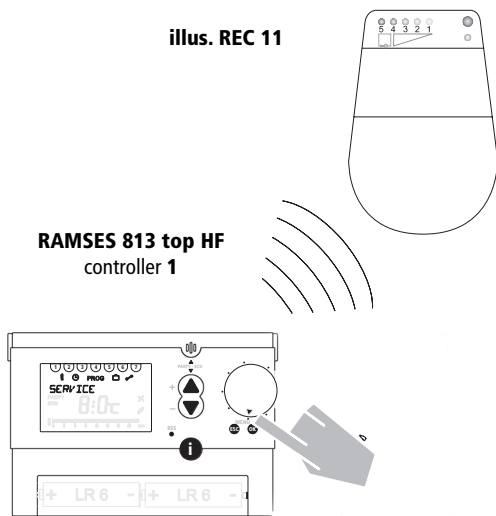
-> Hold the **RAMSES 813 top HF** controller in the desired part of the living accommodation.

The test phase provides an opportunity of optimising the location of the controller and thus the reception quality. The relays are not switched!

Optimum reception:
• All LEDs light up when the signal is transmitted.
• At least one green LED should light up.

Premature cancellation: Press the **ESC** key.

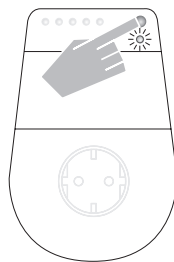**illus. REC 11**

RAMSES 813 top HF
controller **1**

8.0 Override switching: REC 11/ REC 12/ REC 21

Switch ON channel C1:

-> Tap briefly (approx. 1 sec) on the **C1** button.
The LED for **C1** lights up, the relay switches on.

Switch OFF channel C1:

-> Tap briefly (approx. 1 sec) on the **C1** button.
The **C1** LED goes out, the relay switches off.
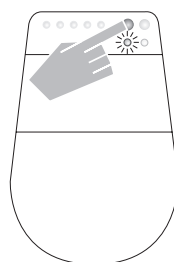
1 channel REC 21
(1 channel REC 11)

Switch ON channel C2:

(Possible only with the two-channel version
REC 12)

-> Tap briefly (approx. 1 sec) on the **C2** button.

Switch OFF channel C2:

-> Tap briefly (approx. 1 sec) on the **C1** button.
The **C2** LED goes out, the relay switches off.

2 channel REC 12

9.0 Cancelling Coding: REC 11/ REC 12/ REC 21

-> Press the **C1** (C2) button on **REC 11** (or **REC 12**) for approximately 10 secs. The LED of **C1** (C2) is illuminated and goes off again after 3 secs.

   The coding is cancelled.

   Test:

-> Run the 'Coding' on **RAMSES 813 top HF** (Menu -> Service -> Coding).

The level indicator lights up. LED on **C1** (C2) must not light up again.
If necessary repeat the process.

23.0 Technical data of REC 11/ REC 12/ REC 21

Reception frequency:	868 MHz
Permitted ambient temperature:	–10 °C ... + 40 °C (–10T40)
Operating voltage:	230 V~ +/–10 % 50 Hz
Contact rating:	
REC 11	16 (2) A 250 V~
REC 12	2 x 6 (1) A 250 V~
REC 21 D/F	16 (2) A 250 V~
Protection class:	II nach EN 60730-1
Enclosure type:	IP 20 nach EN 60529

The product complies with the essential requirements and other relevant regulations of the RTTE Directive 1999/5/EEC.

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