Operating and installation instructions

Remote unit with room sensor THETA RFF

Art. 0450017020 – 0550-12

The remote unit **THE**TA **RFF** with integrated room sensor influences the relevant heating circuit with following functions:

- **Measurement of the current room temperatur via sensor**
- **Operational mode selector (1)**
  (Automatic-permanent heating mode-permanent set back mode)
- **Change of the current room temperature (2)**
  (required daytime temperature resp. set back temperature)

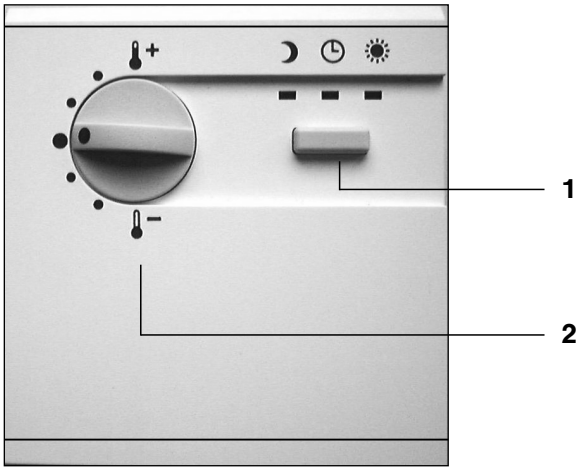

Fig. 1 – Frontal view

Measuring the current room temperature

The integrated sensor measures the current room temperature which is sent by a two wire data bus to the standard unit or boiler control panel.

Changing the required room temperature

With the knob (2) the required daytime temperature and set back temperature (to be set in the standard unit or boiler control panel) can be modified by ± 6K in relation to center position of the knob.

Turn clockwise (🌡) : raises temperature

Turn counterclockwise(🌡) : lowers temperature

Selection of operational mode

The required operational mode is selected with the button (1) and will be indicated by the corresponding LED and symbol. Press button (1) until indication changes.

◷ – **AUTOMATIC MODE**
The heating circuit is controlled according to the operating times program P1 (or P2 or P3) in the standard unit or boiler control panel and the adjustment of knob (2).

☼ – **CONTINUOUS HEATING MODE**
The heating circuit is continuously controlled according to the adjustment of the daytime temperature in the standard unit or boiler control and the adjustment of knob (2).

☾ – **CONTINUOUS SET BACK MODE**
The heating circuit is continuously controlled according to the adjustment of the set back temperature in the standard unit or boiler control panel and the adjustment of knob (2).

Note: *This operational mode depends on the settings of set back temperature, hot water economic temperature and reduced heating mode (see the relevant levels in the operating instructions).*

Other operating modes

The temporary modes *PARTY*, *ABSENT* and *HOLIDAY* as well as the operational mode *STANDBY* can only be selected in the control unit and will be indicated as shown below:

Operational mode	State of LED´s in remote unit
PARTY	LED ✷ flashing
ABSENT	LED ◗ flashing
HOLIDAY	LED ◷ flashing
STANDBY	All LED´s on

Special conditions and faults

State of operation	LED ◗	LED ◷	LED ✷
Starting phase or after power failure	short flashing	short flashing	short flashing
Address fault	flashing	on	on
Data bus error or heating circuit is not available	on	flashing	on

Data bus address

In order to guarantee a selective communication between room units and control units, it is necessary to set every room unit in the bi-dirictional data bus system to the corresponding address.

The setting of the data bus address has to be done via the address selector inside the remote unit (see fig. 2) in accordance with following table:

Remote unit RFF data bus address	Control unit Nr.	address	Heating circuit
1	1	10	direct circuit
2	1	10	mixer circuit 1
3	1	10	mixer circuit 2
4	2	20	direct circuit
5	2	20	mixer circuit 1
6	2	20	mixer circuit 2
7	3	30	direct circuit
8	3	30	mixer circuit 1
9	3	30	mixer circuit 2
A	4	40	direct circuit
B	4	40	mixer circuit 1
C	4	40	mixer circuit 2
D	5	50	direct circuit
E	5	50	mixer circuit 1
F	5	50	mixer circuit 2
0		indefined	indefined

Attention!
Every installed remote unit requires its own bus address. It is not permitted to use one and the same address twice. This causes collision in the data bus system and a defective controlling (see page 1 - special conditions and errors - address error).

Installation

A – Locatiion

The remote unit should be fixed at a height of approx. 1,20 – 1,50 m at a place most repesentative of all rooms. It is recommended to chose an interior wall of the coolest day room (such as entrance halls).

The remote unit may not be installed:

- on places with direct sun influence (take wintertime position of sun into account)
- close to heat sources such as TV-sets, refrigerators, wall lamps, radiators etc.
- on to walls with built in heating- or hot water pipes or fired chimneys
- on to exterior walls
- in corners or niches, shelves or behind curtains (insufficient circulation)
- close to doors of rooms which have no heating (influence of cold air)
- in leaky wall cavities (cold air influence caused by chimney effect in installation pipes)

B – Installation

After removing the front cover the remote unit is fixed using supplied screws and plugs. The data bus line has to be lead through the lower cut-out.

Electrical installation

The wiring of the remote unit(s) to the standard unit or boiler control panel has to be made by a shielded data bus line between terminals A and B of both units.
Recommended data bus line: J-Y (ST) Y 2 x 2 x 0,6.

Important! Do not change connecting terminals A and B!

After installing the data bus line and setting the data bus address (see left table) remount front cover.

Remote unit (front cover removed)

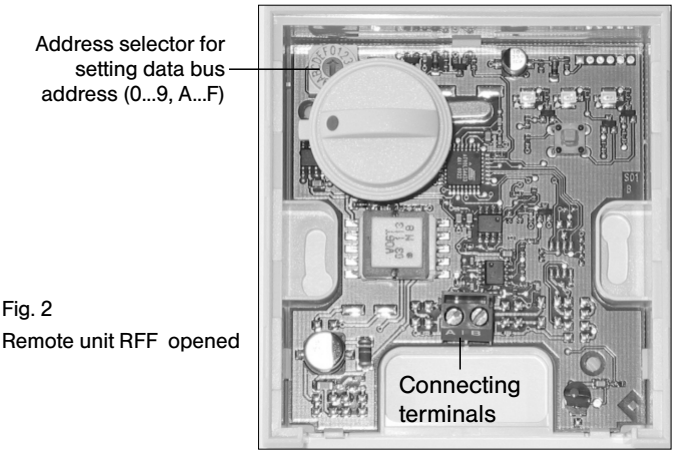

Fig. 2
Remote unit RFF opened

General wiring schematic

of remote units with the control unit

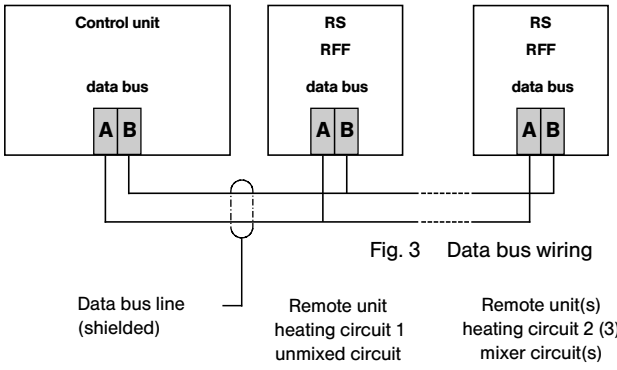

Fig. 3 Data bus wiring