



Danfoss RET Series Electronic Dial Setting Thermostat with LCD Display Installation Guide

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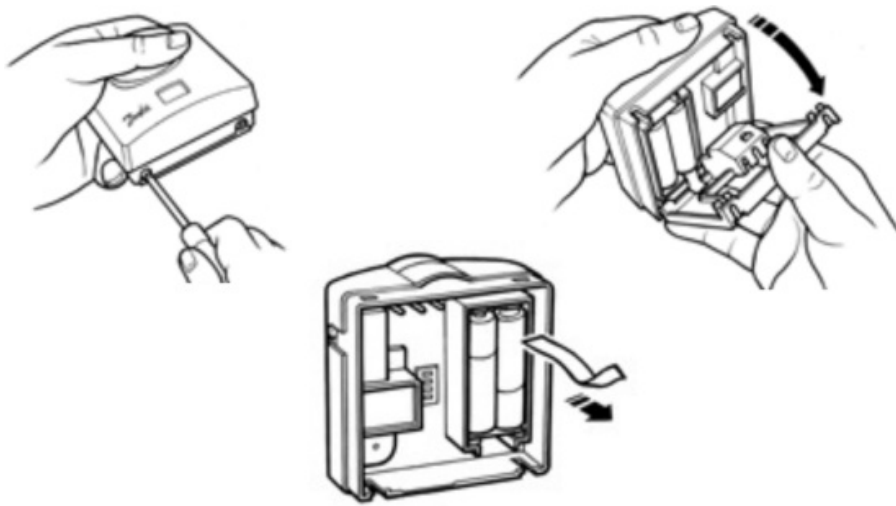
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Installation Instructions

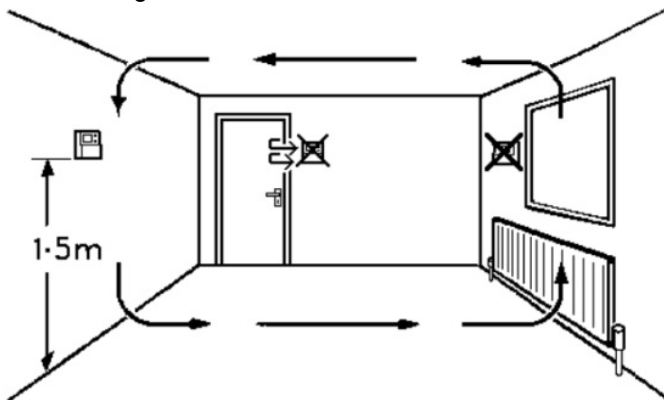
Features	RET B (RF) / RET B-LS (RF) / RET B-NSB (RF)
Contact rating	10 – 230 Vac, 3 (1) (excl. North America)
Contact rating (N.America)	10 – 24 Vac, 50/60Hz, 3(1)A
Temperature Accuracy	±1°C
Contact Type	SPDT Type 1B
Transmitter frequency	433.92 MHz (RF models)
Transmitter range	30m max (RF models)
Power Supply	2 x AA/MN1500 alkaline batteries
Control Pollution Situation	Degree 2
Rated Impulse Voltage	2.5 kV
Designed to meet	BS EN 60730-2-9 (EN 300220 for RF)
Ball Pressure Test	75°C
Temperature Range	5-30°C
Dimensions (mm)	85 wide x 86 high x 42 deep

Important note RF products: Ensure that there are no large metal objects, such as boiler cases or other large appliances, in line of sight between the transmitter and receiver as these will prevent communication between thermostat and receiver.

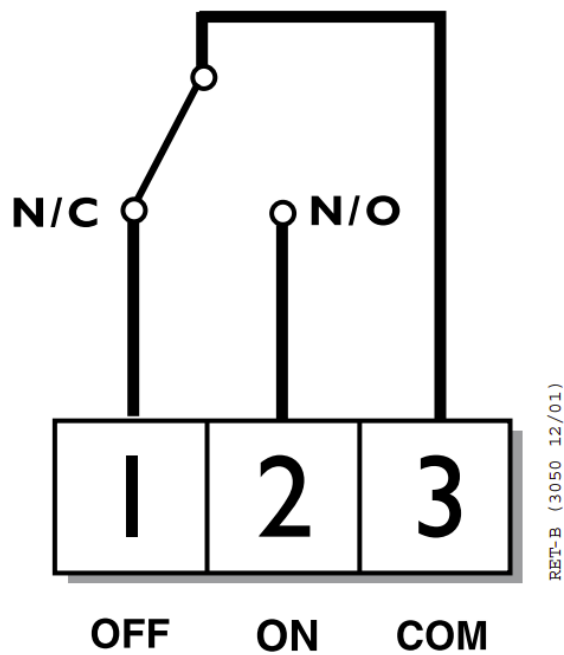
Mounting



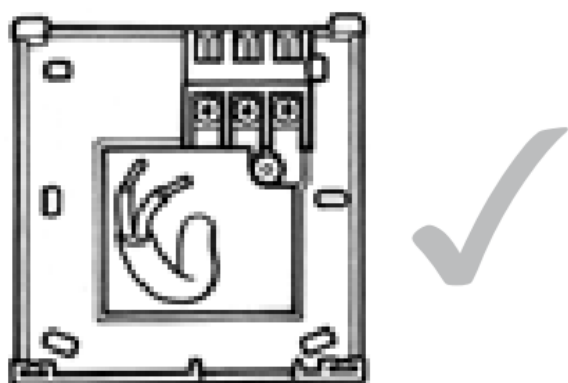
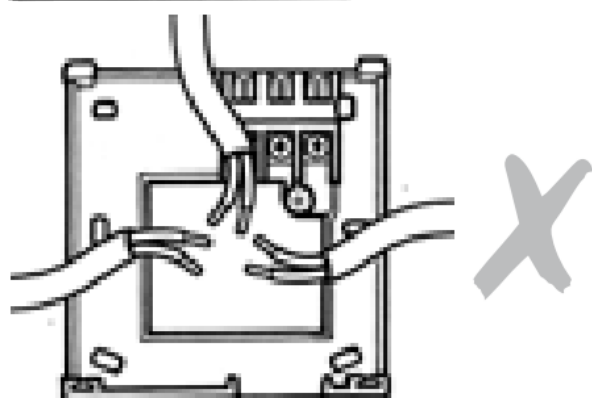
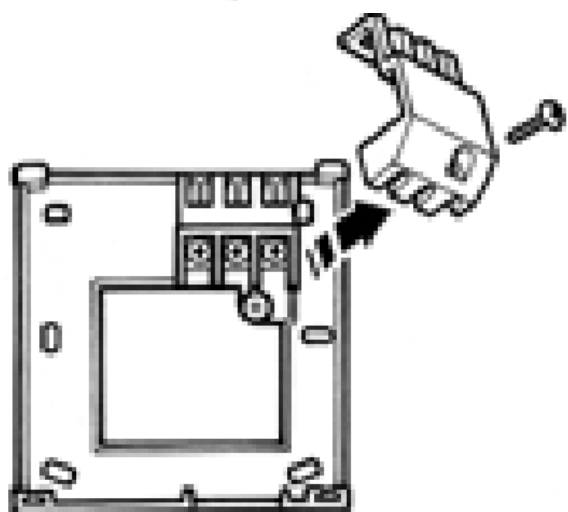
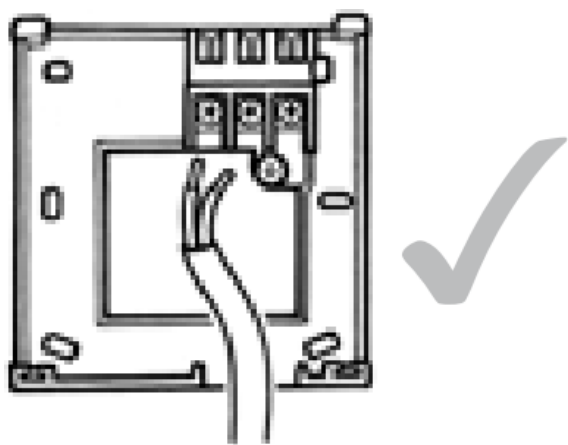
Fix at a height of 1.5m approx from the floor, away from draughts or heat sources such as radiators, open fires or direct sunlight.



Wiring (not RF models)

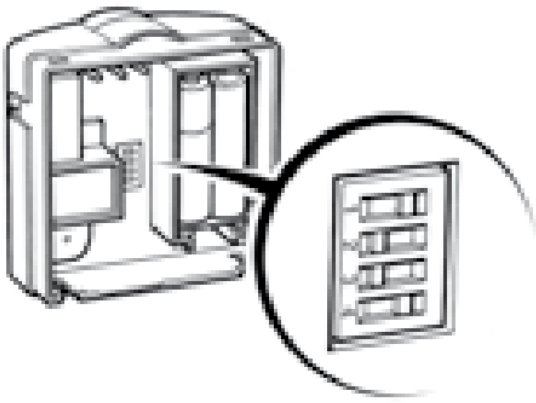


HEATING



DIL switch settings

Slide the DIL switches to the settings required (see below)



Heating selection

COOL	<input type="checkbox"/>	HEAT
ON/OFF	<input type="checkbox"/>	CHRONO
6 CYCLES	<input type="checkbox"/>	3 CYCLES
°F	<input type="checkbox"/>	°C

Cooling selection

COOL	<input type="checkbox"/>	HEAT
NO DELAY	<input type="checkbox"/>	COMPRESSOR DELAY
4 MIN DELAY	<input type="checkbox"/>	2 MIN DELAY
°F	<input type="checkbox"/>	°C

ON/OFF boiler switches ON when below set temperature and OFF when above

CHRONO energy saving feature which fires the boiler at regular intervals to maintain a set temperature, achieving a constant ambient environment for the user.

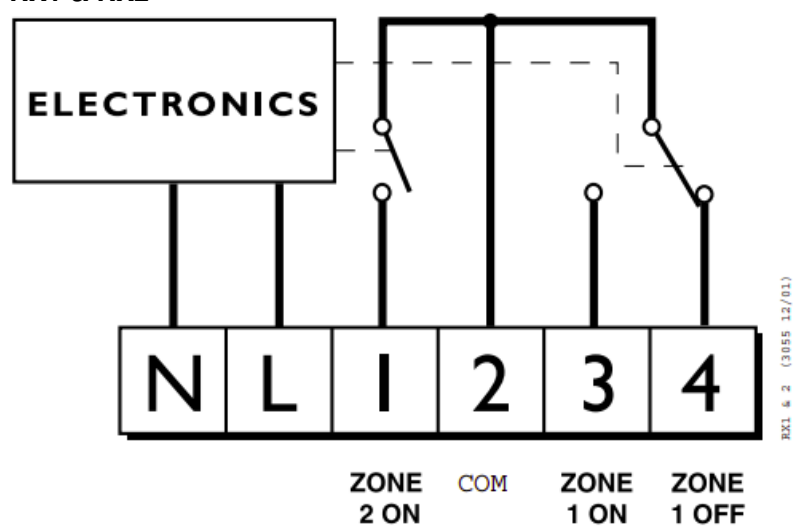
- use **6 Cycles** for radiator systems
- use **3 Cycles** for underfloor heating

Locking & Limiting

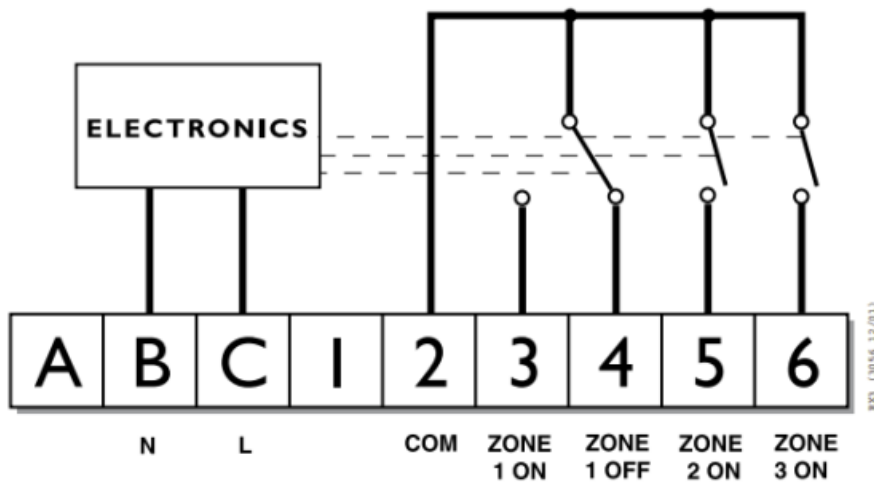


Receiver Wiring (RF only)

RX1 & RX2



RX3

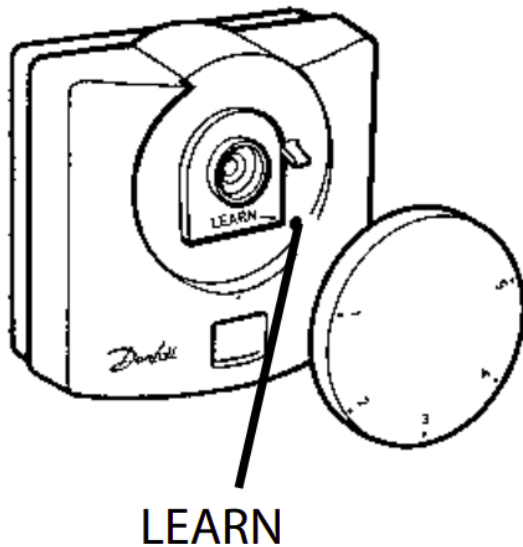


Note: 1) For mains voltage operated systems, link terminal 2 to mains live supply 2) Power supply to unit must not be switched by timeswitch

Commissioning (RF only)

If the thermostat and the receiver have been supplied together in a combined pack, the units have been paired in the factory and no commissioning is required (RX1 only).

Step 1 RET B-RF



Position the setting dial to number 1. Remove dial, press & hold LEARN button for 3 seconds (located under setting dial).

Do not replace the setting dial yet

NOTE: Thermostat now transmits signal continuously for 5 mins.

Step 2 RX1

Press and hold buttons **PROG** and **CH1** until green light flashes.

Step 3 RX2/RX3

For RX2 or RX3 repeat steps 1 and 2 for each thermostat and channel, leaving at least 5 mins between the commissioning of each thermostat.

Step 4 RET B-RF

To replace the thermostat setting dial, position the dial to number 1.

Instructions



What is a room thermostat?

an explanation for householders. A room thermostat simply switches the heating system on and off as necessary. It works by sensing the air temperature, switching on the heating when the air temperature falls below the thermostat setting, and switching it off once this set temperature has been reached.

Turning a room thermostat to a higher setting will not make the room heat up any faster. How quickly the room heats up depends on the design of the heating system, for example, the size of boiler and radiators.

Neither does the setting affect how quickly the room cools down. Turning a room thermostat to a lower setting will result in the room being controlled at a lower temperature, and saves energy.

The heating system will not work if a time switch or programmer has switched it off.

The way to set and use your room thermostat is to find the lowest temperature setting that you are comfortable with, and then leave it alone to do its job. The best way to do this is to set the room thermostat to a low temperature – say 18°C-and then turn it up by one degree each day until you are comfortable with the temperature. You won't have to adjust the thermostat further. Any adjustment above this setting will waste energy and cost you more money.

If your heating system is a boiler with radiators, there will usually be only one room thermostat to control the whole house. But you can have different temperatures in individual rooms by installing thermostatic radiator valves (TRVs) on individual radiators. If you don't have TRVs, you should choose a temperature that is reasonable for the whole house. If you do have TRVs, you can choose a slightly higher setting to make sure that even the coldest

room is comfortable, then prevent any overheating in other rooms by adjusting the TRVs. Room thermostats need a free flow of air to sense the temperature, so they must not be covered by curtains or blocked by furniture. Nearby electric fires, televisions, wall or table lamps may prevent the thermostat from working properly.

User Instructions

Display

The LCD displays actual room temperature until the setting dial is moved.

Setting the temperature

Turn setting dial to required temperature. The selected temperature will **flash** in the LCD to signify it is showing **set temperature**.

After a short period the display stops flashing and shows **actual room temperature**.

Thermostat status (heat mode only)

A flame symbol will be lit whenever the thermostat is calling for heat.

Thermostat status (cool mode only)

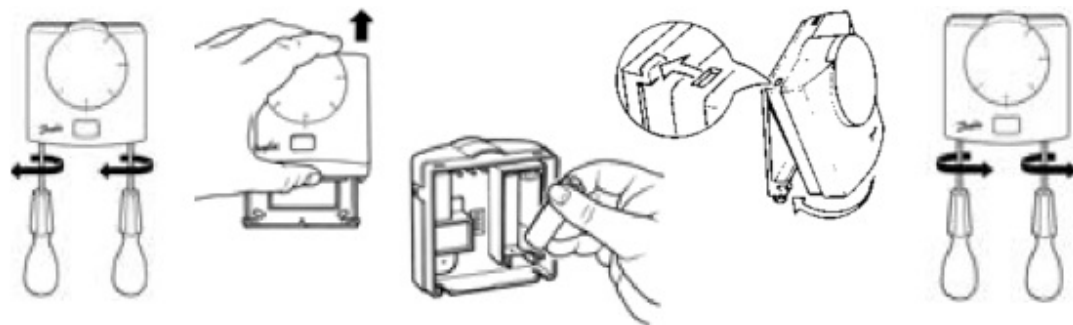
A snowflake symbol will be lit whenever the thermostat is calling for cooling. If this is seen to flash, the thermostat output is delayed for a short period to prevent compressor damage.

Low battery indication

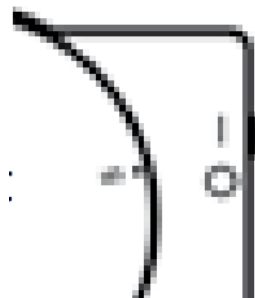
A battery symbol will flash in the display when batteries require replacement. Batteries should be replaced within 15 days, after which the thermostat will turn off the load it is controlling.

When this happens “Of” will be displayed.

IMPORTANT: alkaline batteries must be used.



RET B-LS model only



This model is fitted with an **Auto/Off switch**.

When the switch is set in “I” position the thermostat controls at the temperature set by the setting dial.

When set to “O” the thermostat output is turned off and “Of” is displayed.

RET B-NSB model only



This model is fitted with a **Day/Night switch**.

When the switch is set to the “Sun Symbol”, the thermostat **controls at the temperature set** by the setting dial.

When set to the “Moon symbol”, the thermostat **controls at 4°C below** the temperature set by the setting dial.

NOTE: if used to control cooling, thermostat controls 4°C higher, with switch in MOON position.

www.danfoss.com/Business Areas/Heating

This product complies with the following EC Directives:

Electro-Magnetic Compatibility Directive.

(EMC) (89/336/EEC), (92/31/EEC)

Low Voltage Directive.

(LVD) (73/23/EEC), (93/68/EEC)



Documents / Resources



[Danfoss RET Series Electronic Dial Setting Thermostat with LCD Display](#) [pdf] Installation Guide

RET B RF, RET B-LS RF, RET B-NSB RF, RET Series Electronic Dial Setting Thermostat with LCD Display, Electronic Dial Setting Thermostat with LCD Display, Dial Setting Thermostat with LCD Display, Thermostat with LCD Display, LCD Display

References

- [User Manual](#)

[Manuals+](#), [Privacy Policy](#)

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