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Danfoss RET-MD Electronic Intelligent Dial Setting Thermostat

Danfoss RET-MD Electronic Intelligent Dial Setting Thermostat Installation Guide

Contents

Danfoss RET-MD Electronic Intelligent Dial Setting Thermostat

Installation Instructions

| Features	RET-MD
Power supply	230 Vac ± 15%, 50/60 Hz
Switching action	1 SPDT volt free Type 1B
Switch rating	10-264 Vac, 3 (1) A
Temperature range	5-30°C
Maximum ambient temp	45°C
Control pollution	Degree 2
Design standard	EN 60730-2-9
Rated impulse voltage	2.5kV
Ball hardness test	75°C
Dimensions (mm)	85 wide x 86 high x 42 deep

Mounting

Please Note
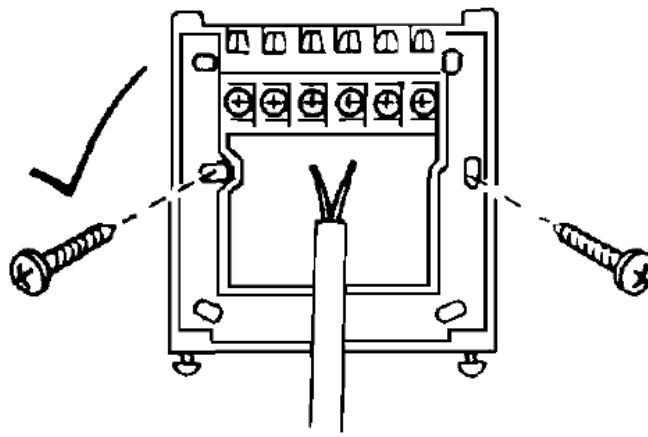This product should only be installed by a qualified electrician or competent heating installer and should be by the current edition of the IEEE wiring regulations.
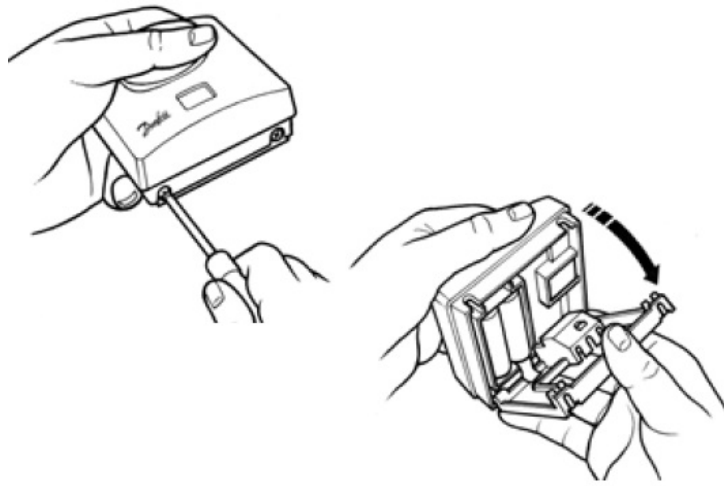
Fix at a height of 1.5m approx from the floor, away from draughts or heat sources such as radiators, open fires or direct sunlight.
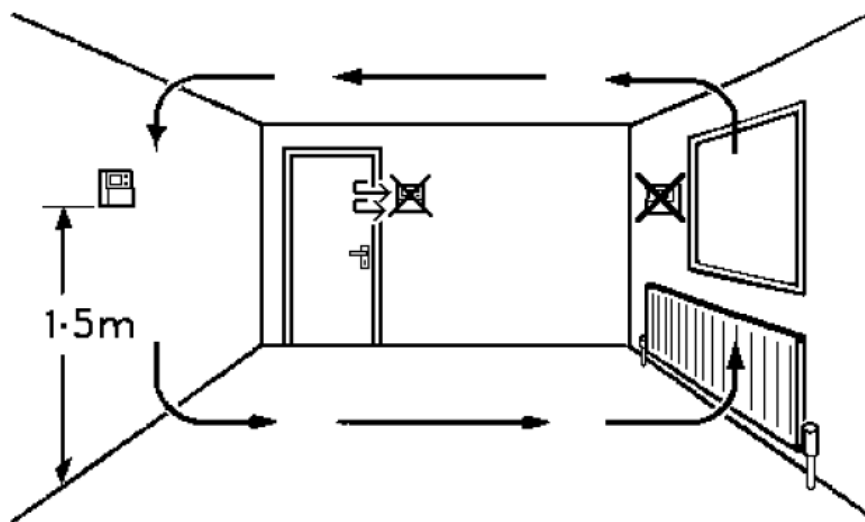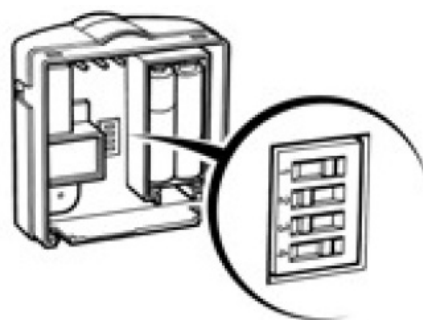

Wiring
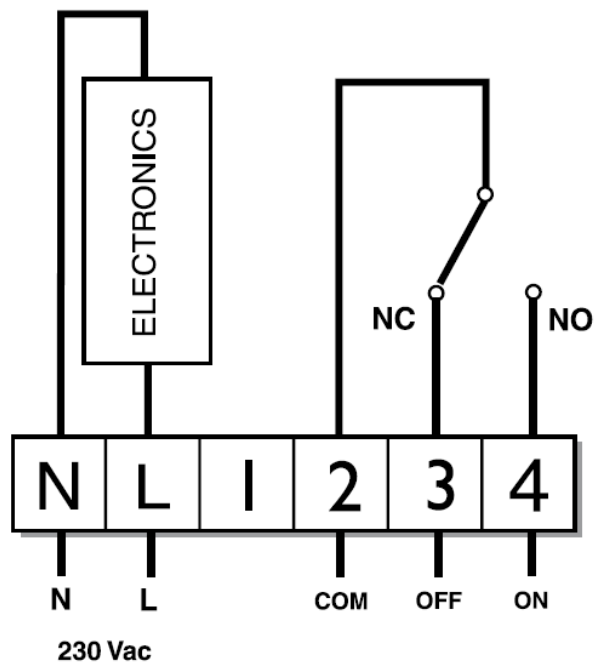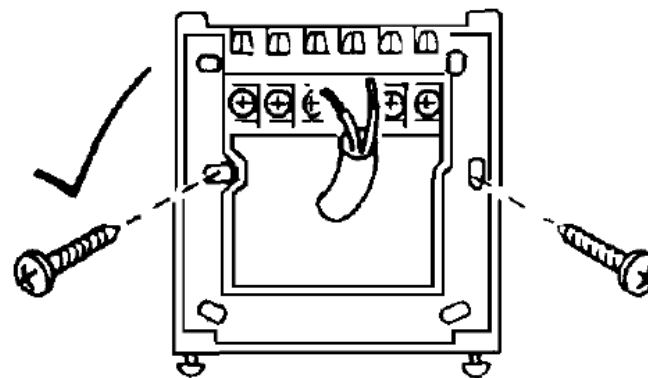
Note: For RET-MD live supply is from the Time Control output

DIL switch settings

| Delay Start disabled | | Delay Start enabled |
ON/OFF		CHRONO
6 CYCLES		3 CYCLES
°F		°C

Slide the DIL switches to the settings required.

ON/OFF – boiler switches ON when below set temperature and OFF when above.
CHRONO – energy saving feature that 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.

DELAY START
energy saving feature that automatically delays the heating start time, depending on how close to the set point the ambient room temperature already is (see chart below). For example, during milder weather, the heating start time can be delayed to avoid wasting fuel by bringing rooms up to temperature earlier than necessary.
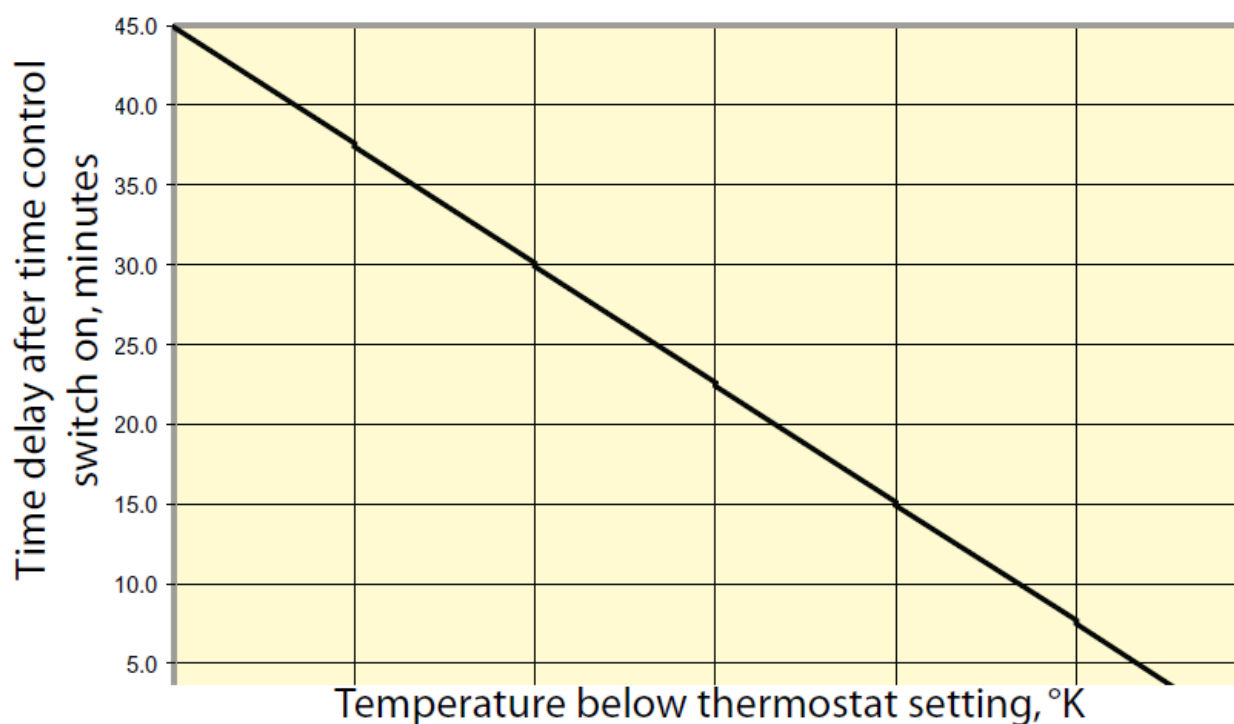
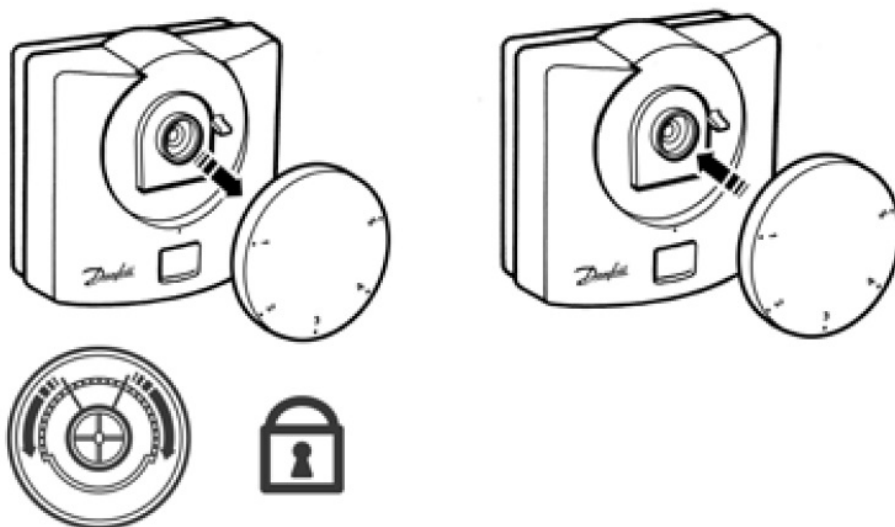**Mounting (continued)**
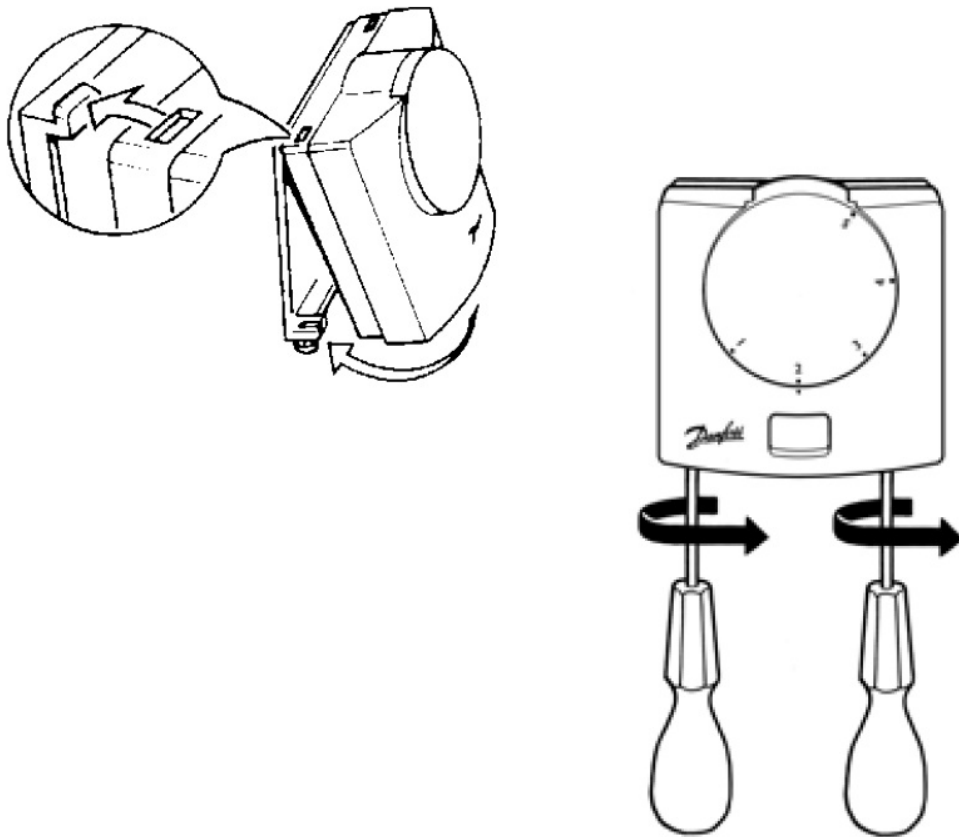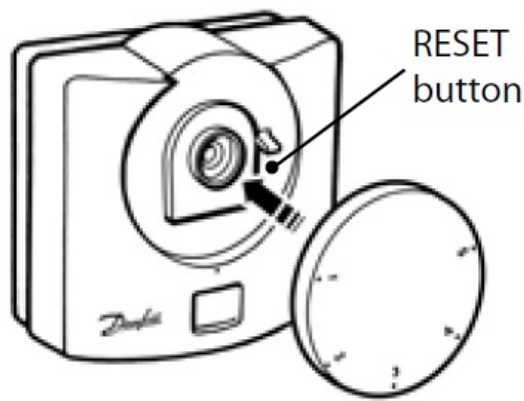
Locking & Limiting

Locking – setting the thermostat at a temperature that cannot be altered by the user. Limiting – allowing the user to alter the temperature within a predefined range, which is less than the full range of the product (i.e. between 18-22°).

Resetting the unit

When power is first applied, remove the dial and press the RESET button for 2 seconds.

RESET button

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 the 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

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.
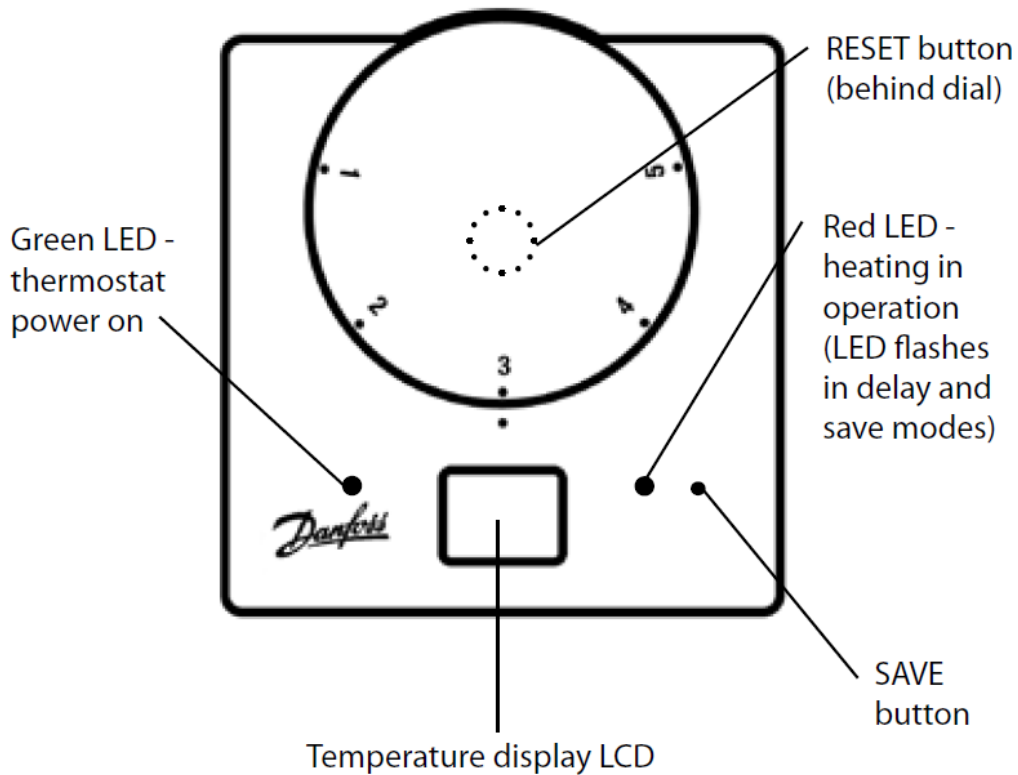
Display
The LCDs actual room temperature until the setting dial is moved.

Setting the temperature

Turn the setting dial to the required temperature. The selected temperature will flash in the LCD to signify it is showing a set temperature. After a short period, the display stops flashing and shows actual room temperature.

Understanding your thermostat

RESET button (behind dial)

Green LED - thermostat power on

Red LED - heating in operation (LED flashes in delay and save modes)

SAVE button

Temperature display LCD

- If the green LED is lit the Time Control is activated.
- If the red LED is lit constantly, the heating is switched on.
- If the red LED is flashing, the Delay Start function is in operation.
- If the Save button is pressed while the heating is on, the Delay Start function will start. This can save energy by switching the heating off once the room is up to temperature for the duration of the delay period (refer to
- Delay Chart on page 9). Pressing the Save button a second time will return the thermostat to normal operation and the heating will start.
- If the green LED is on, but the red LED is off, the room temperature has been reached and the thermostat is satisfied. If more heat is required turn the setting dial to increase the set temperature.

For problems relating to your heating controls .
Visit our website: **www.danfoss-randall.co.uk**
Email our technical department:
drl_technical@danfoss.com
Call our technical department at 0845 121 7505
(8.45-5.15 Mon-Thurs, 8.45-4.45 Fri

Danfoss Randall Ltd
Ampthill Road
Bedford
MK42 9ER
Tel: 01234 364621
Fax: 01234 219705

Documents / Resources

Danfoss RET-MD Electronic Intelligent Dial Setting Thermostat [pdf] Installation Guide
ORT-01, RET-MD, RET-MD Electronic Intelligent Dial Setting Thermostat, Electronic Intelligent Dial Setting Thermostat, Intelligent Dial Setting Thermostat, Dial Setting Thermostat, Setting Thermostat, Thermostat

References

- 🌐 **Danfoss - Engineering Tomorrow in United Kingdom and Ireland | Danfoss**
- **User Manual**

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