

Danfoss
TP7000 Range
Electronic 7 Day
Programmable
Room Thermostat



Danfoss TP7000 Range Electronic 7 Day Programmable Room Thermostat Installation Guide

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Danfoss TP7000 Range Electronic 7 Day Programmable Room Thermostat



Specifications

- **Product Name:** Danfoss Heating TP7000 Range Electronic 7 Day Programmable Room Thermostat
- **Power Supply:** 2 x AA/MN1500/LR6 alkaline batteries, 230v, 50 Hz
- **Memory Backup:** Capacitor during battery change for 1 minute
- **Switching Action of Output Relay:** 1 x SPDT, Type 1B
- **Transmitter Frequency:** 433.92 MHz (RF only)
- **Transmitter Range:** 30m max. (RF only)
- **Dimensions:** Varies (refer to manual for specific dimensions)

This product complies with the following EC Directives: Electro-Magnetic Compatibility Directive (EMC) (2004/108/EC), Low Voltage Directive. (LVD) (2006/95/EC)

Installation Guide

Please Note: This product should only be installed by a qualified electrician or competent heating installer and should be in accordance with the current edition of the IEEE wiring regulations.

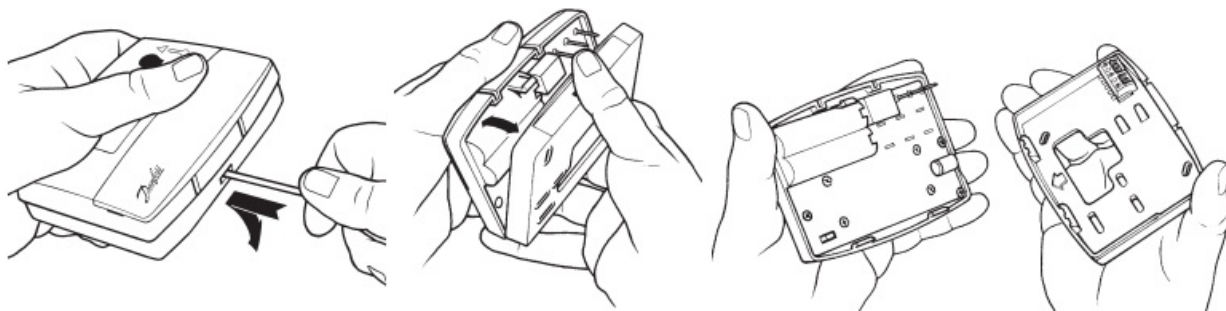
System Overview

Thermostat Features	TP7000-RF	TP7000 TP7000A	TP7000-M TP7000-MA	TP7000-M 24
Power supply	2 x AA/MN1500/LR6 alkaline batteries		230v, 50 Hz	24v, 50 Hz
Memory backup	Capacitor during battery change for 1 minute		Rechargeable cell, 24 hrs (*1)	
Switching action of output relay	N/A	1 x SPDT, Type 1B		
Switch rating of relay contact, voltage and current	N/A	3(1) A, 10-230 volts		
Transmitter frequency (RF only)	433.92 MHz	N/A		
Transmitter range (RF only)	30m max.	N/A		
Rated Impulse Voltage	N/A	2.5Kv		
Dimensions (mm)	138 wide x 88 high x 28 deep			
Ball Pressure Test	75°C			
Temperature Range	5-30°C			
Design Standard	EN 60730-2-7 (EN300220 for RF)			
Control Pollution Situation	Degree 2			
Time accuracy	± 1 min.			
Temperature accuracy	±1°C			
*1: The Unit must be powered up for 6 days to charge the cell before full backup is available				

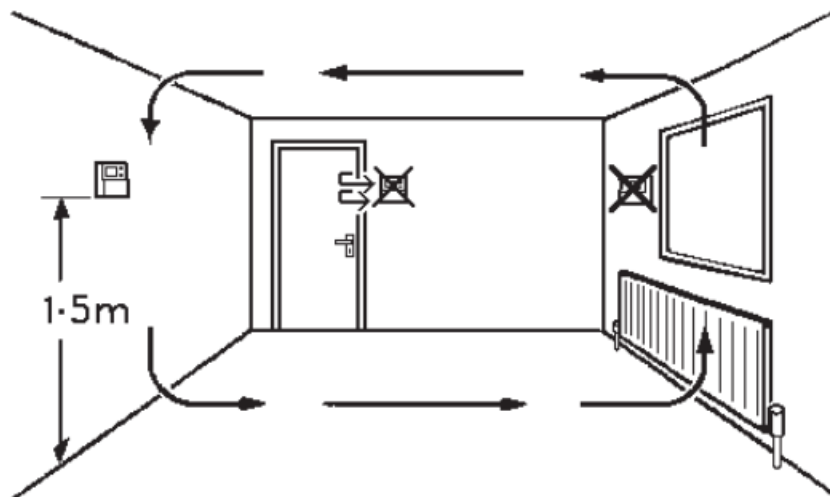
Important note RF products: Ensure that there are no large metal objects, such as boiler cases or other large appliances, in line of sight between the transmitter and receiver as these will prevent communication between thermostat and receiver.

Installation

- First, remove the wallplate from the back of the unit.



- From the top left-hand corner of the wallplate, there must be clearances of at least 15mm to the right, 15mm to the left, 30mm above and 100mm below in order to mount the plug-in module.

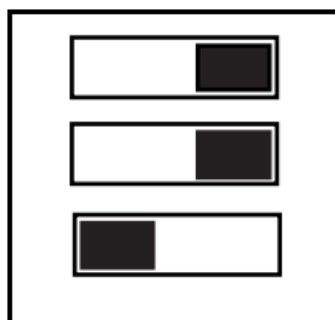


- Before mounting the unit ensure the 4 DIL switches on the rear of the unit have been moved to the required settings (see below). Factory preset is 7-day, with Optimum Start and Chronoproportional control OFF.

DIL Switch Settings

All models

- 5/2 day programming
- Optimum start controller enabled
- Chrono-proportional control
- 7 day programming
- Optimum start controller disabled
- On/Off control



TP7000, M, & RF models with 3/6 cycles per hour option

- Chrono-proportional, 6 cycles/hour

- Chrono-proportional, 3 cycles/hour

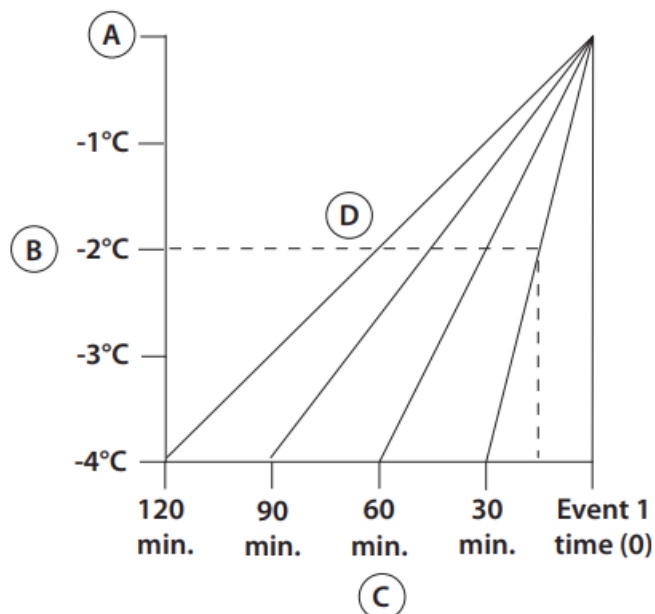


NOTE

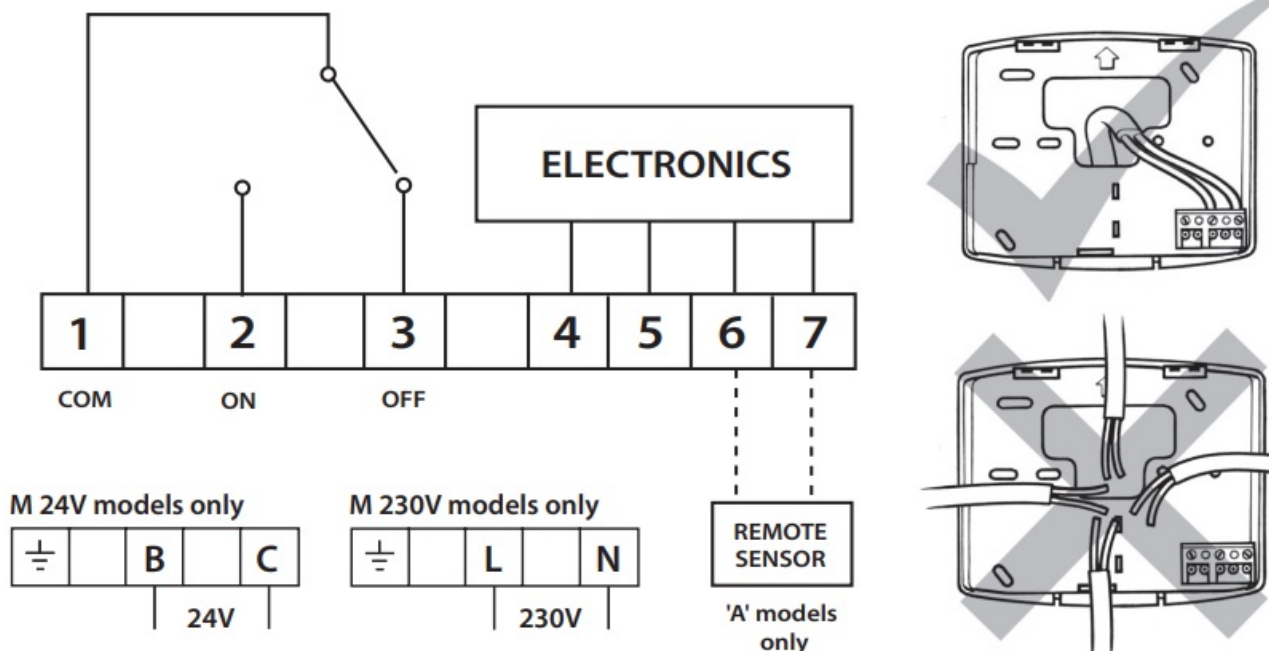
- Use Chrono 3 for high thermal inertia systems, e.g. floor-standing cast iron boilers.
- Use Chrono 6 for low thermal inertia systems, e.g., low water content boilers and combi boilers.
- 7-day – each day can be programmed with different times and temperatures.
- 5/2 day – one set of times & temperatures for weekdays, and another set for weekends.
- Optimum start control – a function that switches the heating on earlier than the Event 1 programmed time to ensure the required temperature is achieved by the set time.
- Chrono-proportional control – energy saving feature that fires the boiler at regular intervals to maintain a set temperature, achieving a constant ambient environment for the user.

Setting Optimum Start Control

- Set Sw2 to OSC ON (see DIL settings page 4)
- Select OPTIMISER CURVE in programming mode
 - A Event 1 Set Point
 - B Deviation from Set Point
 - C Switch On Time prior to Event
 - D Optimiser Curve Setting



TP7000 Wiring (not RF models)

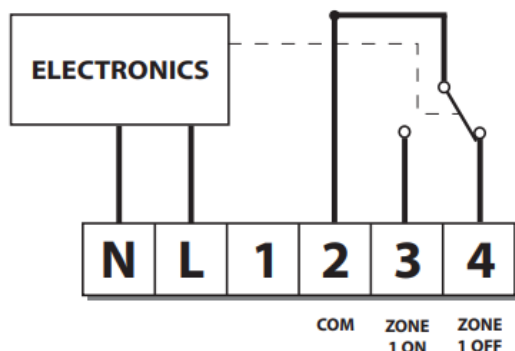


Note: 1.0 mm² solid copper cable should be used to connect the remote sensor to the TP7000A. Please ensure that:

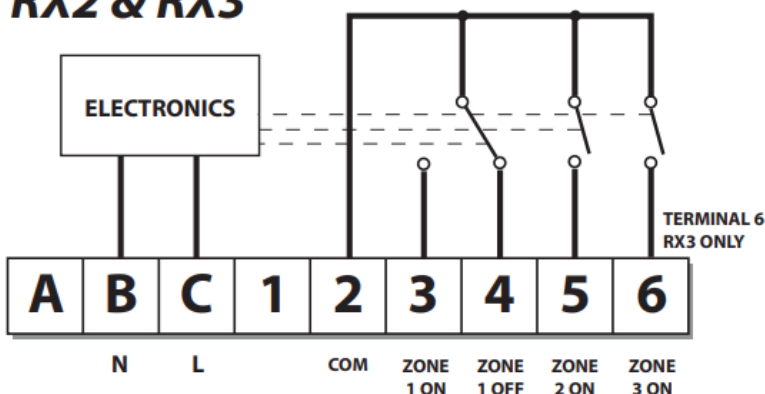
- The cable length does not exceed 50 metres,
- To avoid electrical interference, the cable should not be run parallel in close proximity to other cables carrying mains electricity, and where necessary, the cable should cross over mains cabling at right angles.

Receiver Wiring (RF models only)

RX1



RX2 & RX3



Note:

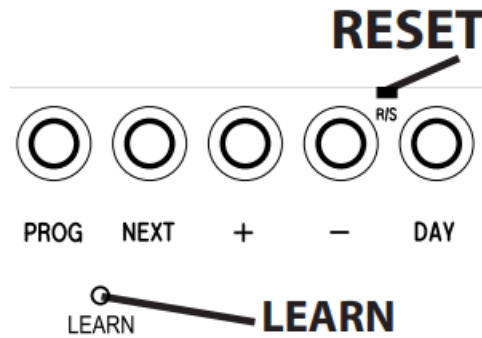
1. For mains voltage-operated systems, link terminal 2 to the mains live supply.
2. Power supply to the unit must not be switched by the timeswitch.

Commissioning (RF versions 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). To tune the RX receiver to the frequency of the thermostat signal, follow steps 1-5 below.

1. TP7000-RF

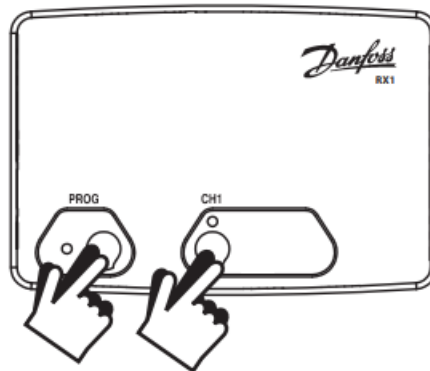
Press the recessed RESET button, using a nonmetallic object, to reset the unit.



2. Press & hold the recessed LEARN button for 3 seconds, using a non-metallic object.

NOTE: The Thermostat now transmits continuously for 5 minutes.

3. RX1 – Press and hold buttons PROG and CH1 for 3 seconds until the green light flashes once.



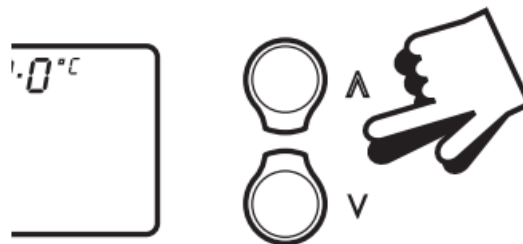
4. RX2 (if applicable)

- Stat 1 – perform steps 1-3.
- Stat 2 – wait 5 mins, perform steps 1-2 and then press PROG and CH2 on RX2.

RX3 (if applicable)

- Stat 1 – perform steps 1 – 3.
- Stat 2 – wait 5 mins, perform steps 1-2, and then press PROG and CH2 on RX3.
- Stat 3 – wait 5 mins, perform steps 1-2, and then press PROG and CH3 on RX3.

5. TP7000-RF – Press ▲ or ▼ to return the unit to normal operation.



Danfoss Randall Ltd.

Amphill Road, Bedford, MK42 9ER

- **Tel:** 0845 1217 400
- **Fax:** 0845 1217 515
- **Email:** danfosrandall@danfoss.com
- **Website:** www.danfoss-randall.co.uk

Product Usage Instructions

Installation Guide

This product should only be installed by a qualified electrician or competent heating installer in accordance with the current IEEE wiring regulations.

System Overview

The TP7000 Range Thermostat features different models with various power supply options, memory backup capabilities, switching actions, and transmitter specifications. Refer to the manual for specific details of each model.

Installation


1. Remove the wallplate from the back of the unit.
2. Ensure clearances of at least 15mm to the right, 15mm to the left, 30mm above, and 100mm below for mounting the plug-in module.
3. Adjust the DIL switches on the rear of the unit to the required settings before mounting.

FAQs

Q: What should I do if the thermostat is not communicating with the receiver in RF models?

A: Ensure that there are no large metal objects obstructing the line of sight between the transmitter and receiver, as they may prevent communication.

Documents / Resources

 <p>TP7000 Range Electronic 7 Day Programmable Room Thermostat</p> <p>Installation Guide</p>	<p>Danfoss TP7000 Range Electronic 7 Day Programmable Room Thermostat [pdf] Installation Guide</p> <p>TP7000-RF, TP7000, TP7000A, TP7000-M, TP7000-MA, TP7000 Range Electronic 7 Day Programmable Room Thermostat, TP7000 Range, Electronic 7 Day Programmable Room Thermostat, 7 Day Programmable Room Thermostat, Programmable Room Thermostat, Room Thermostat, Thermostat</p>
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References

- [User Manual](#)

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

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