

ENGINEERING
TOMORROW

Danfoss

User Guide

TP5001

Programmable Room Thermostat



1 LCD Overview

Symbols	Function description	Symbols	Function description
Mon – Sun	Current set day		Heating active
1 2 3 4	Current on/off period		Frost protect active
AM 00:00 PM 00:00	Current set time / parameter number in setup		Schedule mode
	Room temperature		Away mode
	Temperature indication		RF Status (TP5001RF only)
SET	Set temperature		Battery low indicator (TP5001B & TP5001RF only)



2 Buttons

Symbols	Function description
	Power on/off
	Timer and program operation
M	Mode change / option setting
< >	Temperature / option setting selectors

3 Power ON/OFF

Turn the thermostat ON or OFF (standby) by pressing .

4 Setting the Temperature

- Press < or > at any time to change the desired temperature value. **SET** is shown in the display.
- When releasing < or >, the display returns to showing the actual temperature.
- The adjustment step is 0.5 °C.


5 Select Away Mode

- Press **M** to enter Away mode and will be displayed.
- Away mode temperature can be set in parameter settings, P07.
- Press **M** again to exit Away mode.

6 Set Date & Time

- Press ; Year digit Flashes. Press < or > buttons to adjust year.
- Press again; Month digit flashes. Press < or > buttons to adjust month.
- Press again; Day digit flashes. Press < or > buttons to adjust day of the month.
- Press again; Hour digit flashes. Press < or > buttons to adjust hour.
- Press again; Minute digit flashes. Press < or > buttons to adjust minute.
- Press to exit, automatic exit after 20 seconds, any changes are retained.

7 Frost Protection Temperature

- You can switch the thermostat OFF (Standby) by alternately pressing . In OFF (Standby) mode, the thermostat is set to a Frost Protection temperature setting and will switch On only if the measured temperature falls below this temperature (5 °C by default).
- The frost protect icon and current temperature will be displayed.

8 Advanced Programmable Timer


The Advanced Programmable Timer mode enables the setting of a timer-controlled program for automatic comfort temperature, and an energy-saving lower setback temperature if standard room comfort temperature is not required.

Example below for 5/2 day setup, 4 Temperature settings.




The function consists of 2 programs:

P1 with 4 events in 5 days (Mon. Tue. Wed. Thu. Fri.)

P2 with 4 events in 2 days (Sat. Sun.).

P1: Press  for 3 secs to display Mo. Tu. We. Th. Fr.

P1, Event 1:




- Use < or > to select the start hour.
- Press  to accept the setting.
- Use < or > to set the minute.
- Press  to accept the setting.
- Use < or > to select the temperature.
- Press  to accept the setting.

P1, Event 2-4:

Repeat the Event 1 procedure for programming Event 2-4.

P2: Sa. Su. are now shown in the display.

P2, Event 1:

- Use < or > to select the start hour.
- Press  to accept the setting.
- Use < or > to set the minute.
- Press  to accept the setting.
- Use < or > to select the temperature.
- Press  to accept the setting.

P2, Event 2-4:

Repeat the Event 1 procedure for programming Event 2-4.

If schedule working mode is set to 24hr, only P1 program will be available, see parameter P01. Mo. to Su. will be set together with the same times and temperatures.

The thermostat will continue the 4-event program based on the present time and day.

To set and change the room temperature temporarily:


- Press < or > at any time to change the desired temperature value. **SET** is shown in the display.
- When releasing the < or >, the display returns to showing the actual temperature. This temperature change is only temporary and will be maintained only until the next programmed setting!

A default program provides timer control if the customer does not create own programs:

Days	Event 1		Event 2		Event 3		Event 4	
	Start time	Temp.	Start time	Temp.	Start time	Temp.	Start time	Temp.
Mo. - Fr.	6:30	20° C	8:30	15° C	16:30	20° C	22:30	15° C
Sa. - Su.	7:30	20° C	9:30	15° C	16:30	20° C	22:30	15° C

* 24hr mode default program same as Mo. - Fr. above.

9 Set Control Parameters

- Press M button for 6 seconds to enter the parameter setting mode. Press M for parameter selection and set the parameter range via < or >. Complete all adjustments.
- To exit press , which is available for this purpose (automatic exit after 20 seconds with no operation).

The digits indicate the set value as follows:

No.	Parameter settings	Settings range	Default
P01	Working mode	01: Manual 02: Schedule timer 5/2 day 03: Schedule timer 24hr	02
P02	Heat control mode	01: On/off load compensation 02: On/off standard	01
P03	Heat control start-up mode	01: Normal start control 02: Delayed start control 03: Optimised start control	01
P04	Temperature limit high	Between low (P05) and 35° C	35° C
P05	Temperature limit low	Between 5° C and high (P04)	5° C
P06	Frost protect temperature	Between 5° C and 15° C	5° C
P07	Away mode temperature	Between low (P05) and high (P04)	18° C
P08	Timer display	01: 24hr 02: 12hr	24hr
P09	Service due setup	Installer setting only	
P10	RF Pairing (TP5001RF only)	00: RF pairing mode off 01: RF pairing mode on	00
P11	Auto daylight saving	01: On 02: Off	01

10 Error Messages

E1	Sensor failure
EE	EEPROM failure
Lo	Measured temperature below 0 °C
Hi	Measured temperature above 50 °C
E3	RF Pairing failed
E4	RF Signal lost

Danfoss Limited

Heating Segment • heating.danfoss.co.uk • +44 (0)1895 617000 • E-mail: customerservice.uk@danfoss.com

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