

ENGINEERING  
TOMORROW

Danfoss

User Guide

# BasicPlus<sup>2</sup>

## Room Thermostats for Floor Heating

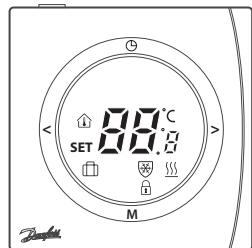


[www.heating.danfoss.com](http://www.heating.danfoss.com)

## 1 Functional Overview

Symbols	Function description
	Room temperature
	Floor temperature
	Temperature indication
	Set temperature
	Floor heating, Active
	Frost protection, Active

Symbols	Function description
	Away mode
	Child safety lock
	Power ON/OFF
	Timer and program operation
	Mode change/check floor temp./child safety lock/parameters setting
	Up/down selectors



## 2 Power ON/OFF

Turn the thermostat ON or OFF by pressing .

## 3 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.

## 4 Select Away Mode

- Press **M** to enter Away mode and  will be displayed.
- Press **<** or **>**, **SET** appears; set the Away mode setpoint.
- Press **M** again to exit Away mode.

## 5 Set Timer (only for WT-P and WT-PR types)

- Press ; **hh** flashes. Press **<** or **>** to adjust hour.
- Press  again; **mm** flashes. Press **<** or **>** to adjust minute.
- Press  again; **week** flashes. Press **<** or **>** to adjust week.
- Complete all adjustments. Press any button to exit (automatic exit after 6 seconds with no operation).

## 6 Advanced Programmable Timer (only for WT-P and WT-PR types)

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.

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.).

<p><b>P1:</b> Press  to display Mo. Tu. We. Th. Fr.</p> <p><b>P1, Event 1:</b></p> <ol style="list-style-type: none"><li>1. Use &lt; or &gt; to select the start time.</li><li>2. Press  to accept the setting.</li><li>3. Use &lt; or &gt; to select the temperature.</li><li>4. Press  to accept the setting.</li></ol> <p><b>P1, Event 2-4:</b> Repeat the Event 1 procedure for programming Event 2-4.</p>	<p><b>P2:</b> Sa. Su. are now shown in the display.</p> <p><b>P2, Event 1:</b></p> <ol style="list-style-type: none"><li>1. Use &lt; or &gt; to select the start time.</li><li>2. Press  to accept the setting.</li><li>3. Use &lt; or &gt; to select the temperature.</li><li>4. Press  to accept the setting.</li></ol> <p><b>P2, Event 2-4:</b> Repeat the Event 1 procedure for programming Event 2-4.</p>
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The thermostat will continue the 4-event program based on the present time and day.

To set and change the room temperature temporarily:

1. Press < or > at any time to change the desired temperature value. **SET** is shown in the display.
2. 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.						
Mon - Fri	6:30	20° C (27° C)*	8:30	15° C (25° C)*	16:30	20° C (27° C)*	22:30	15° C (25° C)*
Sat - Sun	7:30	20° C (27° C)*	9:30	20° C (27° C)*	16:30	21° C (28° C)*	22:30	15° C (25° C)*

\* Floor temperature control mode.

## 7 Check Floor Temperature

- Press **M** and hold. Press < within 6 seconds.
-  flashes and the current floor temperature is displayed. Operate again, then exit (automatic exit after 6 seconds with no operation).

## 8 Child Safety Lock

- Press **M** and hold. Press > within 6 seconds to lock all buttons.
- Press again to exit the child safety lock.

## 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 WT-P/PR, press , which is available for this purpose (automatic exit after 30 seconds with no operation).

To exit WT-D/DR, wait for automatic exit (30 seconds). The upper digits indicate the parameter number.

The digits indicate the set value as follows:

<b>No.</b>	<b>Parameter settings</b>	<b>Settings range</b>	<b>Default</b>	
			<b>WT-D/DR</b>	<b>WT-P/PR</b>
P01	Working mode	01: Manual 02: Advanced Programmable Timer	NA	02
P02	Temperature control mode	01: Only room temp.; 02: Room and floor temp.; 03: Only floor temp.	01	01
P03	High room temp. limit	5-35° C (only for 01 and 02 in P02)	30° C	30° C
P04	Low room temp. limit	5-35° C (only for 01 and 02 in P02)	5° C	5° C
P05	Floor temp. limitation mode	01: High temp. limitation; 02: Low temp. limitation (only for 02 in P02)	01	01
P06	Floor temp. limitation setpoint	20-45° C (only for 02 in P02)	35° C	35° C
P07	High floor temp. limit	20-45° C (only for 03 in P02)	35° C	35° C
P08	Low floor temp. limit	20-45° C (only for 03 in P02)	20° C	20° C
P09	Frost protection	01: Enable; 02: Disable	01	01
P10	Frost protection setpoint	5-17° C	5° C	5° C
P11	Timer display option	01: 24 h; 02: 12 h	NA	01
P12	Room temp. display option at shutdown	01: No display current temp.; 02: Display current temp.	01	01

P03 to P08 appear on relevant temperature control mode.

## **10 Error Messages**

E1	Room sensor failure
E2	Floor sensor failure
EE	EEPROM failure
Lo	Temperature lower than 0° C
Hi	Temperature higher than 50° C

All relay output will be turned off in all cases.