

# impey



## **Amstat Digital Timer Thermostat** Installation guide

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# Introduction

Your thermostat is an advanced digital timer thermostat, which allows you to control your floor heating system by either the floor temperature, the room temperature or combined.

Please follow the instructions in this manual to ensure many years of trouble free usage.

When installing the thermostat, DO NOT apply direct pressure to the thermostat display.

Congratulations with your new floor heating system.

**Please notice that the thermostat must be installed by an authorized electrician!**

# Button and display description

Current floor temperature

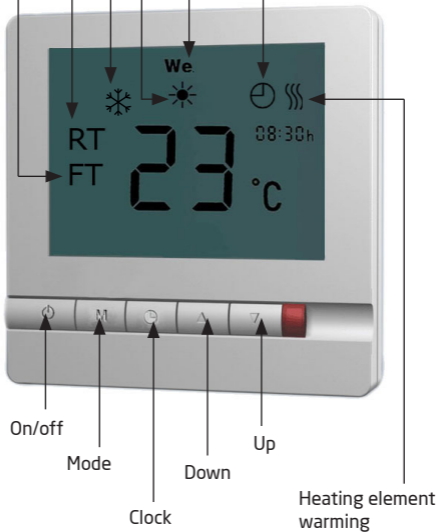
Current room temperature

Frost protection mode activated

Thermostat on

Day of the week

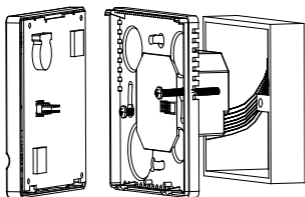
Timer mode activated



# Installing and wiring the thermostat

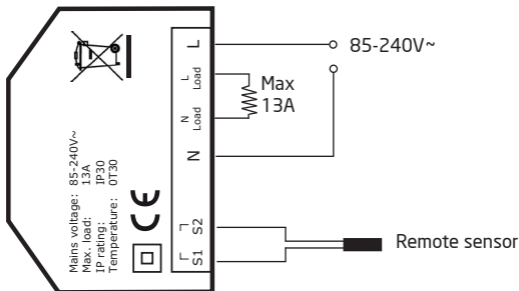
To mount the thermostat to the wall box/wall socket, first open the thermostat by gently pushing the tabs in the bottom of the thermostat. To fix the thermostat, screw in properly sized screws into the wall socket/wall box. When installing the thermostat, DO NOT apply direct pressure to the thermostat display.

When properly fastened and cables connected (see diagram below), mount the frontpanel to the backpart again.



Electrical wall box/socket

## Wiring diagram



## POWER ON/OFF

 To turn thermostat on or off press "⏻"

## SELECT HOW TO CONTROL YOUR FLOOR HEATING SYSTEM

Your floor heating system can be controlled either by the:

- **Floor temperature - program mode 2**  
The heating element turns on/off around a floor temperature setpoint (the temperature shown in the display is the actual floor temperature)
- **Room temperature - program modes 1 & 4**  
The heating element turns on/off around a room temperature setpoint (the temperature shown in the display is the actual room temperature)
- **Combined floor and room temperature - program modes 3 & 5**  
The heating element turns on/off around a room temperature setpoint with a requested max. floor temperature (floor temperature is prioritized over room temperature)

## Change between the above floor heating modes:

With the thermostat turned off.

 Press "⌚" and "▲" for 6 seconds

Select mode 1 to 5 (see table on next page)

After choosing the desired mode do not press any further buttons and the thermostat will go back to normal standby mode.

# Basic functionality

## RECOMMENDED SETTINGS

The following settings are recommended for different types of floor constructions:







Program mode	Top flooring	Wooden floor*	Tiled floor**
<b>1</b> (room sensor) If total effect: 0W-1840W			X
<b>2</b> (floor sensor) If total effect: 0W-2990W		X	X
<b>3</b> (combined floor and room sensor) If total effect: 1840W-2990W		X	X
<b>4</b> (room sensor) If total effect: 1840W-2990W			X
<b>5</b> (combined floor and room sensor) If total effect 0W-1840W		X	X

\* Final floor finish made of parquet, laminate, wood, carpet, linoleum or similar.

\*\* Final floor finish of tiles, concrete, marble or similar.

## SETTING THE CLOCK

With the thermostat turned on.

-  Press "⌚" once, hour will flash.
-  Use the Up/Down key to select the hours.
-  Press "⌚" again, minute will flash.
-  Use the Up/Down key to select the minutes.
-  Press "⌚" button again, till the week day flashes.
-  Use the Up/Down key to select the day of the week.

After setting week day do not press any further buttons and the thermostat will go back to normal operating mode.

## SETTING THE FLOOR TEMPERATURE MAX. LIMIT




This function is used for wooden floors mainly and is *only* available in program modes using the floor sensor (program mode 3 and 5)

The temperature setting should be maximum 35C, which is also the default set point of the thermostat.

If you choose to control the floor temperature solely by the floor sensor (program mode 2) the max. floor temperature is set for 35C and can't be changed.

### Change the floor temperature max. limit (program mode 3 and 5)

With the thermostat turned off.


-  Hold the "M" button for 10 seconds until the display shows "△".
-  Now let go of the button "M" and the display will show "SET".
-  You are now prompted to enter the maximum floor temperature (temperature range 20° C - 45° C)



# Basic functionality

## READING THE FLOOR TEMPERATURE (only in mode 3 and 5)

With the thermostat turned on.

 Press "M" once, the " FT " will flash, and the display will show the floor temperature.


In program mode 2 (floor sensor) the display always shows the current floor temperature.

In program mode 1 and 4 (room sensor) the display always shows the current room temperature.

## FROST PROTECTION MODE

To enable frost protection mode.

With the thermostat turned off.

 Press "M" for 3 seconds.  
Select 01 (00 = disabled)

When enabled and the thermostat has been turned off, the heating will be activated if the room/floor temperature is lower than 5° C; the heating will turn off if the room/floor temperature is higher than 7° C.

When frost protection mode has been enabled the display shows "❄".

## ERROR CODES

E1: Error on the room sensor (contact installer)

E2: Error on the floor sensor (contact installer)

## ACTIVATE TIMER MODE

When using the timer mode, you must first activate the timer mode:

With the thermostat turned on, hold the "M" button for 3 seconds. You can select below settings:

00 = Override (disable timer functionality)

01 = Programmable. And the display will show "⌚".

Leave the thermostat and it will go back to normal display.

## PROGRAMMING THE TIMER - MODE 01

When programming you need to select Programmable function and the display must show "⌚" (see above)

You can now set the heating programs. The thermostat must have 4 heating periods for the weekdays and 4 heating periods for the weekend.

Please notice that the programming of the whole calendar week *must take place in one continuous process*, so it is a good idea to have the periods written down for reference when programming the thermostat.

*Note, for the weekend you will also need to program 2 periods. You can choose one of the periods to be very short or in extension of the other.*

# Timer functionality

## Example, weekdays:

Period 1 starting at 07.00 - Temperature setting 22° C

Period 2 starting at 08.30 - Temperature setting 18° C

Period 3 starting at 17.00 - Temperature setting 22° C

Period 4 starting at 23.00 - Temperature setting 18° C

## Example, weekend:

Period 1 starting at 09.00 - Temperature setting 22° C

Period 2 starting at 23.00 - Temperature setting 18° C

Period 3 starting at 23.01 - Temperature setting 22° C

Period 4 starting at 23.02 - Temperature setting 18° C

## My settings:

### Week days:

Period 1 on \_\_\_\_\_ °C

Period 2 on \_\_\_\_\_ °C

Period 3 on \_\_\_\_\_ °C

Period 4 on \_\_\_\_\_ °C

### Weekend:


Period 1 on \_\_\_\_\_ °C

Period 2 on \_\_\_\_\_ °C






Period 3 on \_\_\_\_\_ °C

Period 4 on \_\_\_\_\_ °C





## How to program the timer:

-  Hold the "⌚" for 3 seconds, the number 1 and "Mo Tu We Th Fr" are displayed.

This indicates that you can program the first switching time for the week-day.

-  Use Up/Down key to set the required start time.
-  Press "⌚" to accept this setting.
-  Use the Up/Down key to set the required temp.
-  Press "⌚" to accept this setting.
-  Repeat for switching times 2-4 week-day.

After you have programmed times 1-4 for the weekday, you are now able to set the switching times for weekend "Sa Su" will be displayed.

-  Use Up/Down key to set the required start time.
-  Press "⌚" to accept this setting.
-  Use the Up/Down key to set the required temp.
-  Repeat for switching times 2-4 for the weekend.

To disable the timer, select "Override" (Mode 01)

## How to override settings in TIMER MODE

At any time you can change the preset timer temperature settings by pressing the Up/Down key.

Your manual override will apply until the start of the next timer cycle. Thereafter the thermostat will resume your programmed settings.



## Technical specifications

External sensor:	NTC 10 kOhm at 25° C
Sensor values:	
15° C	14,8 kOhm
18° C	13,1 kOhm
20° C	12,1 kOhm
22° C	11,2 kOhm
Display:	LCD
Power consumption:	<2W
Set-point range:	Room: 5° C to 35° C Floor: 20° C to 35/45° C
Accuracy:	±1° C
Buttons:	Touch pad
Switch current rating:	<13A (resistive load)
Mains voltage:	85-240V~
Dimensions:	86 x 86 x 13 mm (WxHxD)
Fixing screw width:	60mm
Housing:	ABS + PC Flame Retardent
Operating rating:	0~30° C, 5~95% RH (non-condensing)

## Warranty certificate

Name:

Address:

Zip code/City:

Telephone:

### **Please notice!**

In order to obtain the this warranty an authorized electrician/  
installer must fill in the below fields.

Electrician/installer:

Installation date:

Thermostat name:

Article number:

Stamp:



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