installation guide

harmoni25

digital timer thermostat

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Introduction 1

harmoni 25 is an advanced digital timer thermostat used for controlling electrical underfloor heating elements.

The thermostat is designed for fixed installation only. It can be used to control your floor heating system by either the floor temperature, the room temperature or both together.

Please note
The thermostat must be installed by an authorised electrician.

In order to obtain the harmoni 2-year warranty, an authorised electrician/installer must fill in the warranty details (*see page 15*).

More information on this product can be found at: www.harmoni-stat.co.uk

Button & display description 2

Thermostat on

Frost protection
mode activated

Day of the
week

Time mode
activated

Current room
temperature

Heating
element
warming

Current floor
temperature

On/Off

Mode

Clock

Up

Down
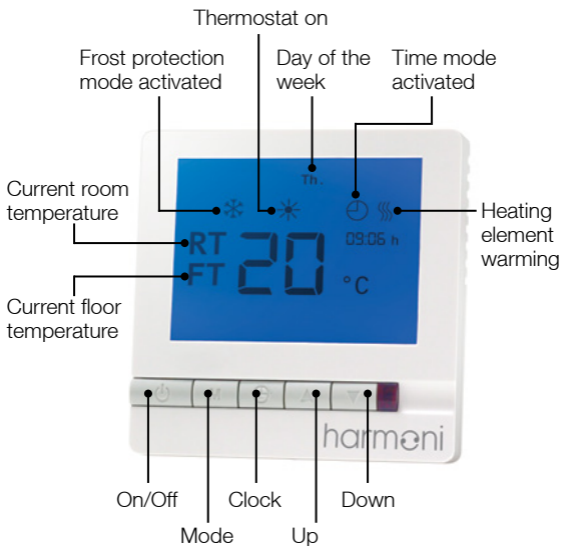
Installing & wiring the thermostat   3
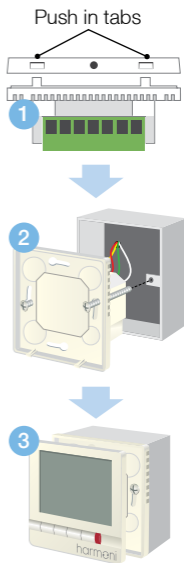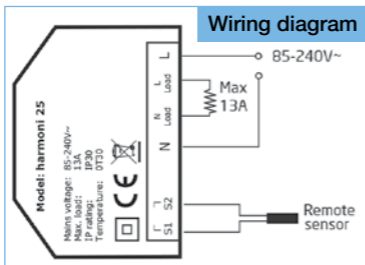
1. To mount the thermostat to the wall box/socket, open the thermostat by gently pushing in the two tabs at the bottom of the casing with a screwdriver.

2. To fix the thermostat, attach the cables (*see wiring diagram below*) and screw into the wall box/socket.

3. Once fastened and the cables connected, reconnect the front panel to the back.

Push in tabs

Wiring diagram

Model: harmoni 25
Mains voltage: 85-240V~
Max load: 13A
IP rating: IP30
Temperature: 0T30

L   85-240V~

L Load
N Load   Max 13A

N

S1 S2   Remote sensor

Basic functionality   4

Power on/off
👆 Press ⏻ to turn the thermostat on or off

4.1 Select how to control your floor heating system

This can be controlled by pressing mode **M**:

a) Floor temperature: Mode 2
The heating element turns on/off around a floor temperature setpoint (the temperature shown in the display is the actual floor temperature).

b) Room temperature: 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).

c) Combined floor & room temperature: Modes 3 & 5
The heating element turns on/off around a room temperature setpoint with a requested max. floor temperature (*Note*: 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 for details*)

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

4.2 Recommended settings

harmoni recommends the following settings for different types of floor constructions:

Program mode	Top flooring	
	Wooden floor*	Tiled floor†
1 (room sensor) If total effect: 0W–1840W		✓
2 (floor sensor) If total effect: 0W–2990W	✓	✓
3 (combined room & floor sensor) If total effect: 1840W–2990W	✓	✓
4 (room sensor) If total effect: 1840W–2990W		✓
5 (combined room & floor sensor) If total effect: 0W–1840W	✓	✓

* Top flooring made of materials such as: parquet, laminate, massive wood, carpet or linoleum.

† Top flooring made of materials such as tiles, concrete or marble.

Basic functionality   4

4.3 Setting the clock

🖐 Press 🕒 once and the hour will flash.

🖐 Use the ▲▼ (Up/Down key) to select the hours.

🖐 Press 🕒 again until minutes flashes.

🖐 Use the ▲▼ (Up/Down key) to select the minutes.

🖐 Press 🕒 button again until the week day flashes.

🖐 Use the ▲▼ (Up/Down key) to select the day of the week.

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

4.4 Setting the maximum floor temperature

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

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

If you choose to control the floor temperature solely by the floor sensor (mode 2), the max. floor temperature is set for 35°C and cannot be changed.

Change the floor temperature max. limit (mode 3 & 5)

Make sure the thermostat is turned off.

🖐 Hold the **M** button for 10 seconds until the display shows △

Release the **M** button and the display will show **SET**

🖐 Enter the maximum floor temperature (range 20°C–45°C).

4.5 Reading the floor temperature (mode 3 & 5 only)

Make sure thermostat is turned on.

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

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

In modes 1 & 4 (room sensor) the display always shows the current room temperature.

4.6 Frost protection mode

To enable frost protection mode, turn off the thermostat.

🖐 Press **M** for 3 seconds.

Select 01 (00 = disabled).

When frost protection has been enabled the display shows ❄

When enabled and the thermostat is turned off, heating will activate if the room/floor temperature is lower than 5°C; heating will stop if the room/floor temperature is higher than 7°C.

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5.1 Activating timer mode

With the thermostat turned on, press the **M** button for 3 seconds. The following settings will be available:

00 = Override (disable timer functionality)

01 = Programmable. And the display will show 🕐.

Leave the thermostat and the display will return to normal.

5.2 Programming the timer (mode 1)

When programming you need to select Programmable function (01) and the display must show 🕐 (*see above*).

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

> **Please note:** 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.

> For the weekend you will also need to program two periods. You can choose one of the periods to be very short or an extension of the other.

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 start at _____ Temp _____°C
Period 2 start at _____ Temp _____°C
Period 3 start at _____ Temp _____°C
Period 4 start at _____ Temp _____°C

Weekend:
Period 1 start at _____ Temp _____°C
Period 2 start at _____ Temp _____°C
Period 3 start at _____ Temp _____°C
Period 4 start at _____ Temp _____°C

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5.3 Programme your settings

🖑 Press the 🕒 for 3 seconds until the number "1" and "Mo Tu We Th Fr" are displayed.

The first switching time for weekdays can now be programmed.

🖑 Use ▲▼ (Up/Down key) to set the required start time.

🖑 Press 🕒 to confirm this setting.

🖑 Use the ▲▼ (Up/Down key) to set the required temperature.

🖑 Press 🕒 to confirm this setting.

🖑 Repeat the switching time process for weekdays 2,3 & 4.

After you have programmed times 1–4 for the weekday, you can set the switching times for the weekends; "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 temperature.

🖑 Repeat the switching time process for weekends 2,3 & 4.

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

Technical specifications 6

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 × 86 × 13mm (W×H×D)
Fixing screw width	60mm
Housing	ABS + PC Flame Retardant
Operating rating	0~30°C, 5~95% RH (non-condensing)
SW class	A
Ball pressure test	100°C
Pollution degree	2
Weight	253 g

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Notes

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Name ....

Address ....

....

County ....Postcode.........................

Address ....

Phone ....

Email ....

Please note
In order to obtain the harmoni 2-year warranty, an
authorised electrician/installer must fill in the details below.

Electrician /Installer	Installation date ....
Thermostat name	Article number ....

Stamp:

harmoni25

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