Article: 08090705
Version: 01.02

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GB

User's Guide - devireg™ 550 Thermostat

DEVI™
Member of the Danfoss Group

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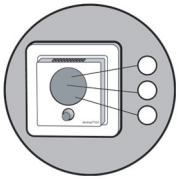

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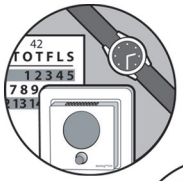

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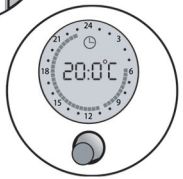

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Your property has been installed with a DEVI electric underfloor heating system. DEVI is Europe's leading under floor heating manufacturer, with over 45 years experience. We have confidence that you will be satisfied with your new system.

DEVI brings you….

An invisible heating solution - A concealed heat source opens up greater opportunities for decorating and furnishing.

Optimum comfort - DEVI brings you the luxury and comfort of a warm floor as well as a pleasant room temperature. A radiator system throws heat up at head height which then travels further up to the ceiling only to travel downwards and return as a cold draft around your feet. DEVI underfloor heating provides appropriately pleasant warmth for your feet, body and head.

Economic running costs- The intelligent DEVI thermostat ensures an accurate temperature control with minimal energy use. With your DEVI system there is no need for costly regular maintenance.

Durability - We provide you with a ten year guarantee on all our mats and cables, and a two year warranty on our thermostats. Practically speaking you can count on DEVI heating cables and mats lasting as long as the house in which they are installed - and that is without having to maintain them.

Hygiene - As DEVI produces only very gentle air circulation, the amount of travelling dust particles is reduced considerably; a great relief for people with allergies or asthma. There are also no dangerous fumes such as carbon monoxide generated by the system.

About the thermostat

Introduction

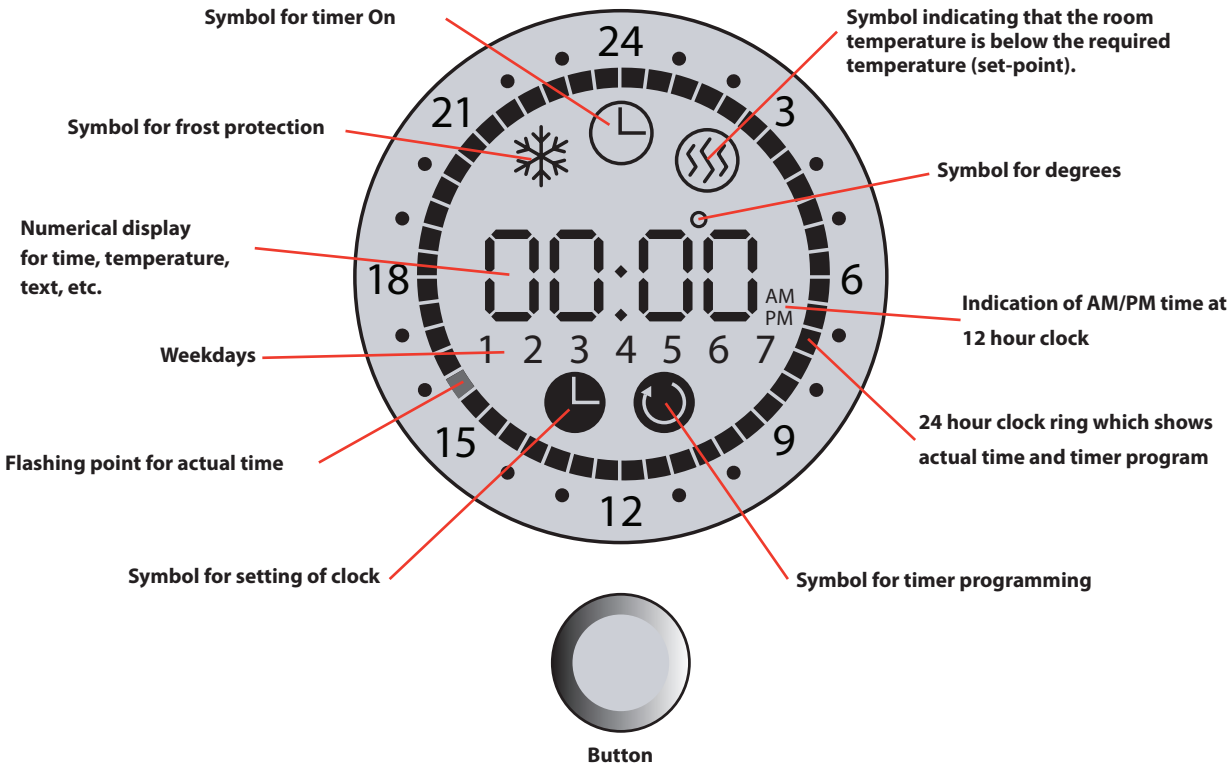
devireg™ 550 is an adaptive temperature controller, specially designed for floor heating systems. It can, however, also be used for other heating systems (e.g. with power heating units).

The devireg™ 550 will measure the radiant comfort from the floor combined with the comfort from the air temperature in the room to offset the outside weather condition. This means that as soon as you have set your devireg™ 550 at your desired comfort temperature, devireg 550 will then automatically adjust the heating to meet your comfort levels, regardless of changing weather conditions.

devireg™ 550 is also capable of detecting a sudden temperature drop in the room. Instead of switching the heating on to immediately compensate, the devireg™ 550 uses the information stored and then checks if this sudden drop of temperature may be caused by for instance a window that has been opened for 10 minutes.

Even the programming of economy temperatures (i.e. lowering of temperature during the night and when you are at work) is very simple. You do not have to calculate how much earlier the heating should start in order to reach a specific temperature at a specific time. Just tell the devireg™ 550 when you want the comfort temperature, and the devireg™ 550 will take care of the rest. By identifying the rate of heat loss from the room, the devireg™ 550 knows when to start heating in order to achieve the selected temperature at exactly the right time.

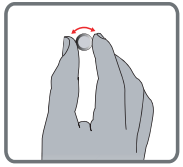
devireg™ 550 - the thermostat that thinks!


Symbol for timer On
Symbol indicating that the room temperature is below the required temperature (set-point).
Symbol for frost protection
Symbol for degrees
Numerical display for time, temperature, text, etc.
Indication of AM/PM time at 12 hour clock
Weekdays
24 hour clock ring which shows actual time and timer program
Flashing point for actual time
Symbol for setting of clock
Symbol for timer programming
Button
24
3
6
9
12
15
18
21
00:00
AM
PM
1 2 3 4 5 6 7

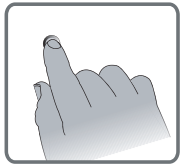
Thermostat button

You can use the button on the thermostat in three different ways:

- You can turn it.



- You can press it.



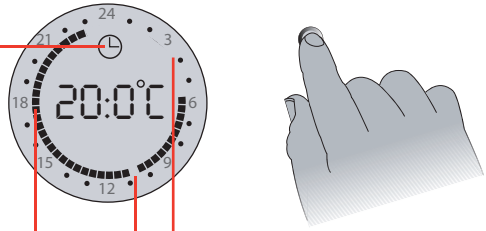
- You can press and hold it for a certain number of seconds.

Switch timer function on/off

The timer function is used for automatic switching between periods with normal (comfort) temperature and periods with lowering of temperature (e.g. at night). When switched on, a timer symbol (clock) is shown at the top of display.

- To switch the timer function **off**, press button.
- To switch the timer function **on**, press button again.

Read more about how to set periods with lowering of temperature (e.g. at night) on page 12.



Clock ring

The markings on the clock ring indicate periods with normal desired temperature and periods with lowering of the temperature (e.g. at night). The flashing point indicates the actual time of day (every half hour).

Configurations

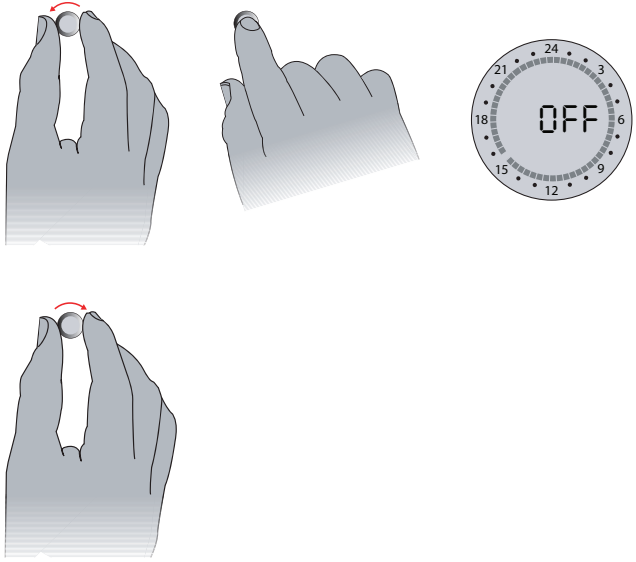
Switch thermostat on/off

Before you can switch the thermostat off, the timer function (indicated by timer symbol on the thermostat display) must be deactivated. Pressing the button switches the thermostat between timer mode and manual mode.

To turn the thermostat off, it has to be set to manual mode. Once set to manual mode, rotate the button anti-clockwise past +5°C (1 by scale), until OFF is displayed.

To switch the thermostat **on** again, raise the temperature above +5°C (1 by scale). This is done by turning the button clockwise.

If the devireg™ 550 only uses a floor sensor, the display will not show the required temperature (5° to 35°), but a scale from 1 to 10 (each whole number represents 5°C at floor temperature).



This situation applies to bathroom and floor warming applications.

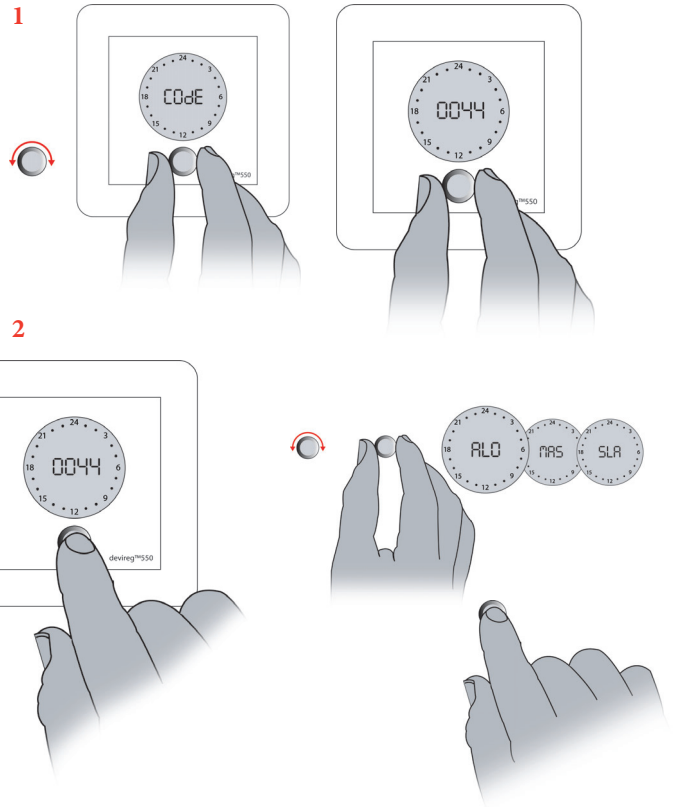
In some situations you may be required to configure the thermostat.

If the thermostat is displaying ‘CODE’, you will be presented with just step 1 and
step 4, complete these steps as described below.

Once you have either completed steps 1 and 4, or the controller is displaying something other than ‘CODE’, you must press and hold the button until the word ‘CODE’ is displayed and follow the steps below:

Step 1-Thermostat access. Rotate button to select code 0044 and then press button once.

Step 2-Operating mode.
Rotate button to select ‘ALO’ and then press button

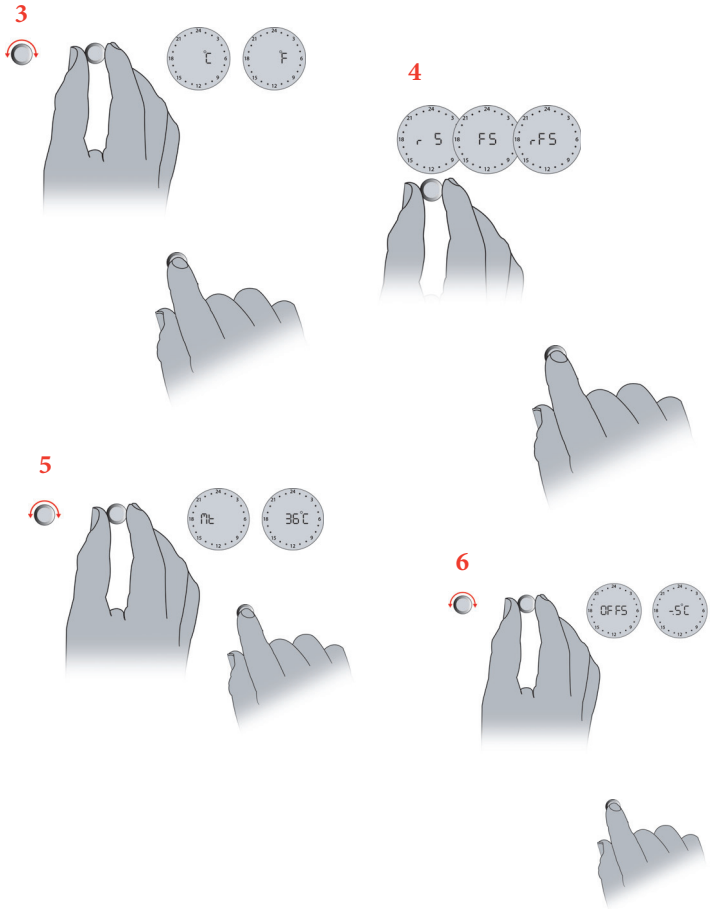


Step 3-Temperature readout. Rotate button to select °C and then press button.

Step 4 -Sensor selection. Rotate button to select 'rFS' to activate the floor and air sensors, then press button. **For bathroom and floor warming applications, please select FS (Floor Sensor).**

Step 5- Maximum floor.
At 'nt' rotate button to select the maximum core floor temperature, then press button.
Important. Please see page 18 for maximum core floor temperature settings specific to your floor finish.

Step 6-OFFS.
This should be set to 0.0°C, if this is the case, press the button to continue, if not- adjust setting and continue.

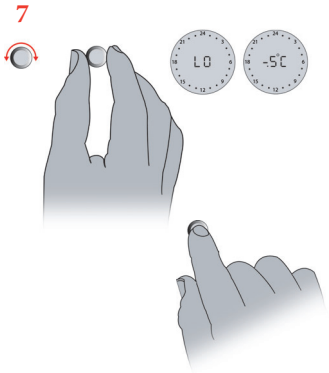


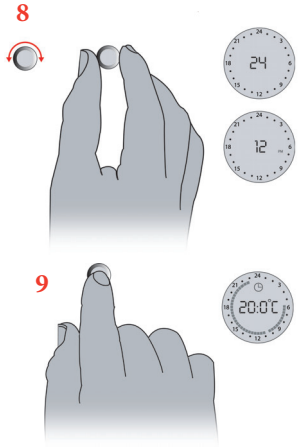
Step 7-Off periods.
'LO' should be displayed, you should rotate dial to select -30°C, then press button.

Step 8-Clock display
Rotate button to select clock display as either 24 hours or 12 hours AM/PM.

Step 9-Save settings
Press button once.

Now you are ready to set the time and day on the controller.



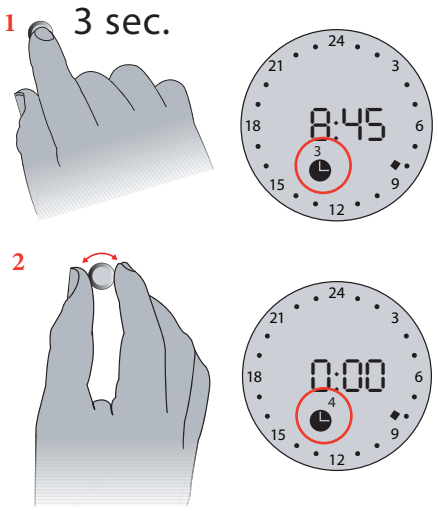


Set weekday and clock

Set clock

1 Hold the button for 3 seconds.
The symbol for setting of the clock and the number of the weekday will be shown on the display.

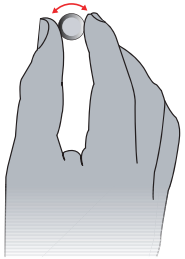
2 Turn the button to the right or left. When the time passes 0:00, the weekday number will change 1 up/down depending on which way you turn the button. The number you choose will be the weekday of the current day of the week. The numbers 1-7 do not correspond to any specific days, so you can choose which day of the week should be number 1, etc.
Example: If today is Tuesday and you select 2 on the display, Tuesday will be weekday number 2.



3 Set the clock to the current time by turning the button to the right or left.

4 Press the button to save the settings.

3



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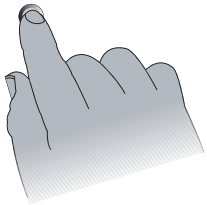


Set temperature

Manual thermostat (Constant temperature)
By switching off the timer function you can set the thermostat so it will maintain a constant temperature (see how to switch timer on/off on page 5). The setting with constant temperature can be used when 24 hour heating is required or for constantly lowering the temperature when going on holiday. An unbroken clock ring indicates constant temperature.

Fixed periods with lowering of temperature
By using the built-in timer you can set up fixed periods for each day of the week where the temperature is lowered (e.g. at night and when you are at work). This means automatic switching between economy and comfort temperature.

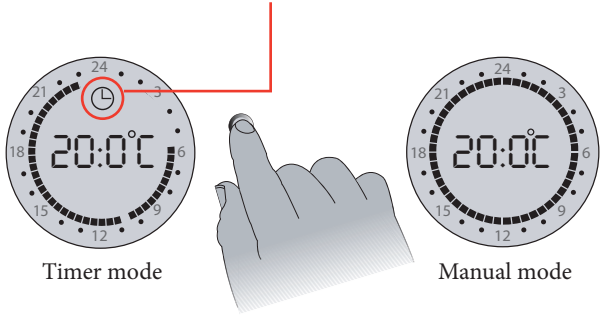
Read more about how to set periods with lowering of temperature on page 15.

When the timer is on, it is indicated by a timer symbol in the form of a clock (and a clock ring if periods with lowering of temperature have been selected).

The display shows the required temperature of the room. Outside the set heating periods (clear segments of the dial) the system will maintain a minimum temperature which is controlled according to the set-back level. This setting is programmed during configuration, (step 7, page 9). e.g. If the requested temperature pr comfort level is set to 20°C, and the set back level (LO) is set to -10°C, the system will maintain a minimum temperature of 10°C. If the heating turns on outside this period, please check set temperature levels and configurations."

Switch timer function on/off

To switch the timer function on/off, press the button. A timer symbol on the display indicates that the timer function is on.



Timer mode

Manual mode

Bathroom and en-suite applications

With all bathroom and ensuite applications, the thermostat will be located outside the room. Because the thermostat is not located in the room it is controlling, it will measure the floor temperature via a floor sensor only. Therefore the display shows temperature on a scale of 1-10 rather than degrees C. Recommended settings in this situation are 5-6, which is 25-30°C (floor temperature). Each unit represents 5°C of floor temperature.

Raise temperature

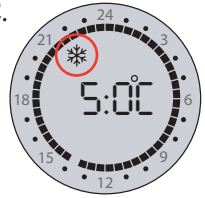
Turn the button clockwise to raise the temperature.

Lower temperature

Turn the button anticlockwise to lower the temperature.

Frost protection

To obtain frost protection, lower the temperature to a minimum of +5°C. Then a frost symbol will appear on the display.



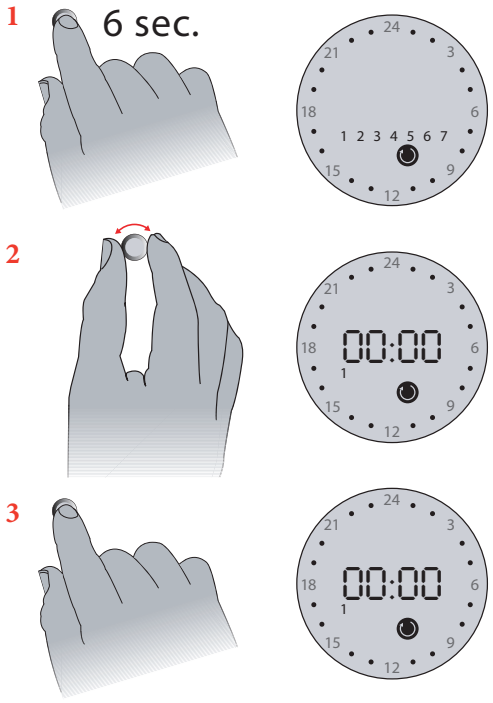
Set periods with lowering of temperature (timer)

The timer is not factory set.

1 Hold the button for 6 seconds.
The symbol for timer programming and the weekday numbers are shown.

2 Select the weekday that you want to begin with by turning the button until the wanted weekday is shown. You can read more about setting weekday on page 10.

3 Press the button once to choose weekday.
Now you are ready to begin defining periods.



4 Turn the button clockwise to indicate the first time that normal temperatures are required (comfort), e.g. 06:00. The clock uses 30-minute intervals.

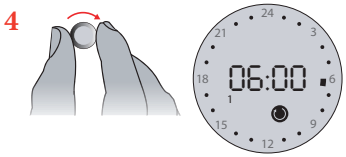
5 Press the button.

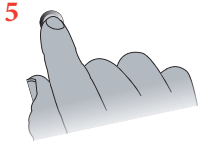
6 Turn the button clockwise to indicate the time when the temperature should be lowered again. Black segments should then be displayed, to indicate the desired settings.
The number of degrees e.g -30°C, is the temperature the thermostat is lowered according to, during an economy period. This will have already been set during configuration.

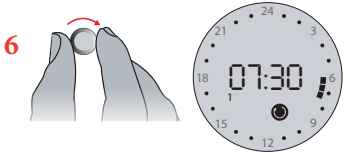
7 Press the button.

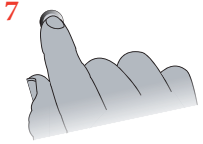
8 Turn the button clockwise to the period when normal temperature is required again, e.g. 15:30.
Clear segments should now be displayed to indicate the economy period set.

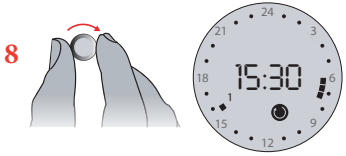
9 Press the button.

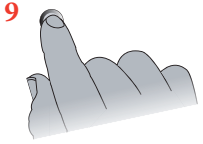












10 Turn the button clockwise once again to the next time that you require a period with lowering temperature to begin., e.g. 22:30.

11 Press the button.

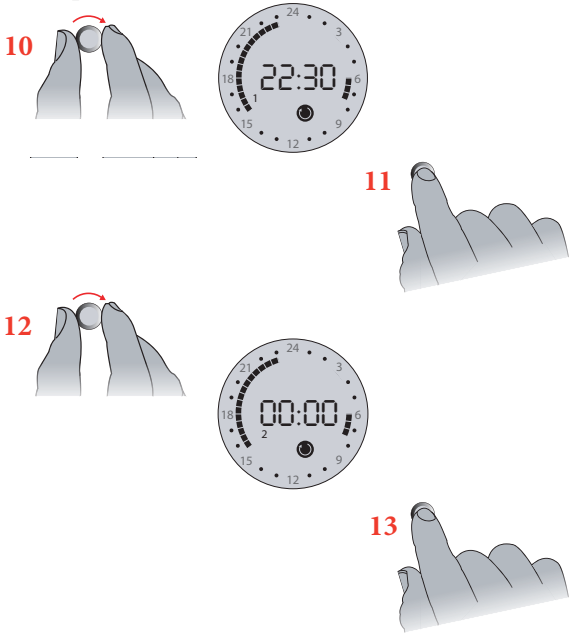
12 Turn the button clockwise to make settings for the following weekday, and continue until you have made period settings for all seven weekdays.

Every time the clock passes midnight (00.00), it changes over to the next weekday.

13 Finally, hold the button for 3 seconds to save your settings and finish. The display will automatically return to normal display.

With devireg™ 550 you only have to programme the time when you want comfort temperature and the time you want economy temperature. The thermostat will do the rest. You do not have to calculate when the heating should start; devireg™ 550 will do this for you.

Please note: If at any point a mistake is made, rotate the dial anticlockwise to the first segment and press the button to clear the markers.



Error messages

devireg™ 550 has a built-in system that constantly checks the heating system, the thermostat itself and a possible network for any malfunctions. If an error occurs, the 24hr clock ring will flash together with a code for the detected fault, which will be shown as a number from 2 to 7.

You can read more in Installation Guide to WEB•HOME. Please see our website for more details. www.devi.co.uk

⚠ A fault on the floor sensor/sensor cable or thermostat overheating will result in the heating being switched off.

No	Error	What to do?
2	Configured as Master, but another Master unit detected.	Thermostat incorrectly set during configuration. See step 2, page 7. Set to ALO..
3	Configured as a Slave, but cannot find any Master unit.	
4	The thermostat is switched off because of overheating.	Call an electrician (Let the thermostat cool for a period. Then enter basic set-up to leave error mode).
5	Sensor fault. Floor sensor short-circuit.	Call an electrician (Have an authorised electrician check the floor sensor wiring and obtain a resistance reading of 10K - 24K Ohms).
6	Sensor fault. Floor sensor open circuit.	Call an electrician (Have an authorised electrician check the floor sensor, resistance should be 10K - 24K Ohms).
7	Clock is not set.	Set the clock (see page 11).

Maximum core floor temperature settings

		Floor Finish		
System	**Floor Construction**	**Tiles**	**Timber**	**Carpet**
Devimat System	Timber Base	29-32°C	27-32°C	27-32°C
	Concrete Base	40°C	29-32°C	29-32°C
Cable System	Cable Screed	40-45°C	35°C	40-45°C
	Timber suspended Floors	36°C	36°C	36°C

These temperatures are guidelines only and may vary subject to the floor finish manufacturer's recommendations.

The DEVI Guarantee

You have purchased devireg 550™, which forms an integrated part of a DEVI™ system, which we are certain will improve your home comfort and economy. A DEVI™ system provides complete heating solutions with Deviflex™ heating cables or devimat™ heating mats, devireg™ thermostats and devifast™ fitting bands. If, however, contrary to all expectations, a problem should occur with your devireg™ heating system, we at DEVI™, with manufacturing units in Denmark, are, as European Union suppliers, subject to general product liability rules, as stated in Directive 85/374/CEE, and all relevant national laws which implies that: DEVI™ provides a warranty for deviflex™ heating cables and devimat™ heating mats for a 10 year period and all other DEVI™ products for a 2 year period against defects in material and production.
The obligation of DEVI™ will be to repair or supply a new unit, free of charge to the customer, without secondary charges linked to repairing the unit. In case of defective devireg™ thermostats, DEVI™ reserves the right to repair the unit free of charge and without unreasonable delay to the customer. The DEVI warranty only covers connections made by authorised electricians and installations performed in accordance with the installation instruction and does not cover faults caused by incorrect designs supplied by others, incorrect installation or any subsequent damage that may occur.

If DEVI™ is required to inspect or repair any defects caused by any of the above, then all work will be fully chargeable. The DEVI™ warranty is void, if payment of the equipment is in default. At all times, we at DEVI™will respond honestly, efficiently and promptly to all queries and reasonable requests from our customers. The above mentioned warranty concerns product liability whereas matters in relation to legislation on sale of goods shall be referred to national law.

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Your notes