

MAKING MODERN LIVING POSSIBLE

Danfoss



living connect[®]
Installation and User Guide

Danfoss heating

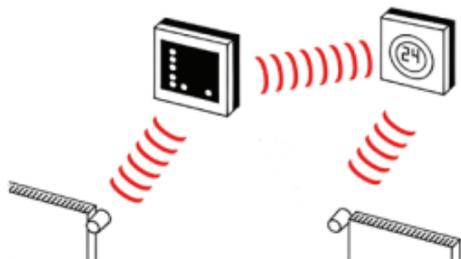
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1.0 System overview

living connect[®] is an electronic radiator thermostat for homes. It is controlled by a central device called a Danfoss Link.

Danfoss Link can also control floor heating and on/off switches in the building.



Please refer to the separate Danfoss Link and room sensor manuals for more information.



living connect[®] uses Z-Wave wireless technology. More information is available at www.danfoss.com/living

2.0 Overview of display and control buttons

See page 14.

3.0 Installation - step by step

3.1 Preparation

living connect[®] is supplied with adapters for Danfoss RA valves and valves with M30X1.5 connections (014G0002), two alkaline AA batteries and a 2 mm Allen key.

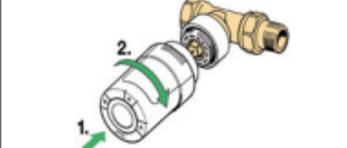
Inserting the batteries

Remove the battery cover and insert the two batteries.

Ensure that the batteries are correctly inserted.  will now flash on the display.



3.2 Installation

1. Start by mounting the the adapter.		
2. Tighten an RA adapter using the Allen key. Tighten an M30 adapter by hand (max. 5 Nm).		
3. Screw the thermostat onto the adapter and hand-tighten (max. 5 Nm).		
4. Press and hold  for approx. 3 seconds to fix the thermostat		
5. Then turn the thermostat until it is correctly oriented.		

3.0 Installation - step by step

3.3 Configuring the Danfoss Link

For practical reasons, it is recommended that the Danfoss Link is connected to a 014G0262 battery pack. This makes the device mobile, and it can then easily be positioned at a distance of up to 1.5 m from each radiator thermostat that is to be added to the system.

Remove the front cover from the Danfoss Link by carefully levering it off, starting with the bottom corners. Press and hold down the setup button using a ballpoint pen for approximately three seconds to start the installation menu (the start-up phase may take several minutes).



For Help, press **?** in the lower right corner.

For installation without a battery pack, please see www.danfoss.com/living.

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3.0 Installation - step by step

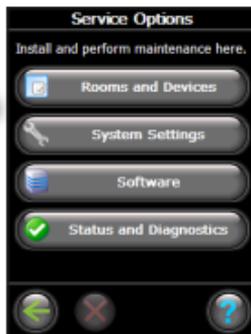
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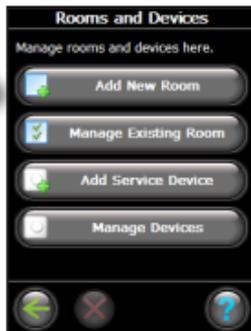
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1. Configure the rooms in which the radiator thermostats have been installed.



2. Add a new room.



3. Edit or enter the room name.
Press  to confirm.



Note – a list of common room names can be found using this button 

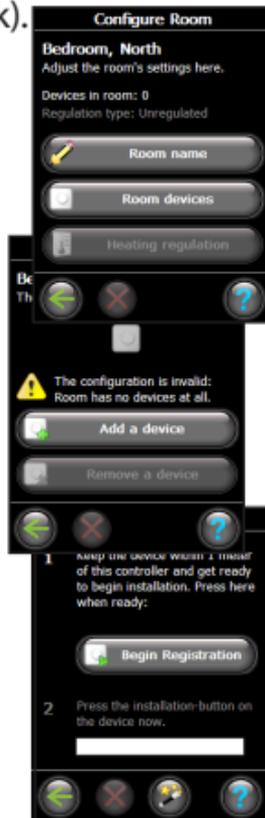
3.0 Installation - step by step

3.4 Connecting to Danfoss Link

Each thermostat must be connected to the Danfoss Link. This is best done by **standing beside** each thermostat with the Danfoss Link (connected to the recommended 014G0262 battery pack).

1. The "Configure room" menu is displayed. Select "Room devices".
2. Select "Add a device".
3. Press **Begin Registration**, and then press  **on the thermostat.**

Repeat for each device.
Once all devices have been registered, perform a network test (see separate Danfoss Link manual).



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4.0 Technical settings

4.1 Installation mode

DK If the thermostat has been removed from the radiator and needs to be reinstalled (after being used), it is necessary to activate installation mode to prevent damage to the thermostat.
UK To enter installation mode:
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Press  until  is displayed.
Press  to withdraw the spindle.
 flashes.
Reinstall the thermostat on the valve.
Press  for approx. 3 seconds to exit.



Please also refer to section 6 regarding removal of the thermostat from the radiator valve.

4.2 Testing the connection

Press  for at least 3 seconds until  is displayed.
Press  until  is displayed.
Press  to make the connection.
 disappears when the connection is made.



If no connection can be made, the alarm and antenna symbols flash together.
Refer to "Troubleshooting" at www.danfoss.com/living

4.0 Technical settings

4.3 Adjustment to the radiators and the room

The factory setting is $P2$. Use $P1$ if the radiator appears oversized for the room. Use $P3$ if it is undersized.*

Press  for at least 3 seconds until  is displayed.

Press  until P is displayed. Press 

Select 1 , 2 or 3 using the arrow keys, and exit using 

**The frequency of adjustment for $P1$, $P2$ and $P3$ varies to compensate for radiator over/under sizing.*



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4.4 Reset to factory settings

Remove the battery cover and take out one battery. Press and hold  for approx. 10 seconds, while reinserting the battery.

Danfoss Link will then display "device removed". Press OK.

Note that if the thermostat is moved to another room, it is recommended it be reset to the factory default settings. The thermostat will be reset and disconnected from Danfoss Link.

4.0 Technical settings

4.5 Changing orientation

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The thermostat is set to horizontal orientation by default. If vertical orientation is required, this may be changed as follows:

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- Press  for at least 3 seconds until \overline{m} is displayed.
- Press  until OR is displayed.
- Select using 
- \square flashes, select 90 by pressing 
- Select using 

\square = horizontal (default)/ 90 = vertical

4.6 Deactivating intelligent control

The thermostat's intelligent control ensures that a desired temperature is reached by a given time. For example if Danfoss link is set to switch from 17°C to 22°C at 07.00 am - e.g. from a saving period to a normal heating period, the thermostat will calculate when it has to begin heating in order to reach 22°C at 07.00 am. This feature may be deactivated as follows:

- Press  for 3 seconds until \overline{m} is displayed.
- Press  until $F0$ is displayed.
- Select using 
- Select \square or 1 using 
- Select using 

1 = intelligent control activated/ \square = deactivated

4.0 Technical settings

4.7 Technical data

Actuator type	Mechanical
Software classification	A
Safety classification	Type 1
Reaction time/ temperature	10 min. for 50% change
Recommended use	Residential
Open window function	Yes
Voltage	2x1.5 V = 3 volts DC
Update frequency	12 times an hour
Operating temperature	+5° to +40°C
Mechanical strength	70 N (max. pressure from valve)
Maximum water temperature	120°C
Movement type	Linear
Battery life	2 years
Spindle movement	2-3 mm on the valve
Maximum extension	4.5 mm
System rhythm	Measures temp. every minute
Speed of adjustment	1 mm/s
Power supply	2x1.5V AA Alkaline, class III (SELV)
Power consumption	3 mW in standby, 1.2W in active state
Transportation temperature range	-20 - 60°C
Size (mm)	L: 91 Ø:51 (RA)
Weight	190 g
Approvals	  WEEE

The thermostat may not be used in hazardous installations or in places where it will be exposed to water.

5.0 Safety precautions

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The thermostat is not intended for children and must not be used as a toy.

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Please dispose of packaging materials in accordance with local regulations and ensure all packaging is kept away from children to prevent the possibility of injury.

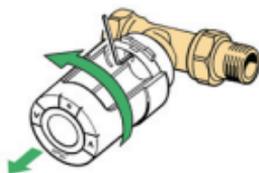
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Do not attempt to dismantle the thermostat as it contains no user-serviceable parts. Please return any defective thermostat to the distributor.

6.0 Removal

To remove the thermostat, insert an appropriate tool in the hole in the thermostat's battery chamber (see illustration). Keeping the tool in position, turn the entire thermostat anticlockwise until it is completely unscrewed.



See section 4.1 regarding installation mode.

7.0 Disposal

The thermostat must be disposed of as electronic waste.



User Guide for *living connect*®

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1.0 System overview

See page 3.

2.0 Overview of display and control buttons

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Low battery

Network connection

Child lock

Temperature set point

Alarm

Frost protection



Use these buttons to navigate within the menu and to adjust the temperature.



Use this button to select the menu and confirm choices.

3.0 Changing the battery

When the battery level is low, the alarm bell icon flashes and the display will flash 8 times an hour between 19:00 and 22:00 hrs.

If the battery goes flat, the system switches automatically to frost protection mode.

Rechargeable batteries may **not** be used.

Note - please only use 1.5V AA alkaline batteries.

Remove the battery cover and insert the two batteries. Ensure that the batteries are correctly oriented.

4.0 Temperature

The temperature is usually controlled via Danfoss Link, but may be changed at any time using the thermostat's buttons. If this is done, the thermostat sends a message to Danfoss Link, instructing it to synchronise the other thermostats in the room.

The change only remains in effect until the next programmed period.



Press   to change the temperature.

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5.0 Troubleshooting

Error code	Error
E1	Transmitter failure. Contact your local service technician.
E2	Malfunction in thermostat's front temperature sensor. Contact your local service technician.
E3	Malfunction in thermostat's rear temperature sensor. Contact your local service technician.
E4	Motor failure. Contact your local service technician.
Antenna and alarm bell symbol flash together	No connection to Danfoss Link, follow the instructions at www.danfoss.com/living .



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