

ENGINEERING  
TOMORROW



## User Guide

# *Danfoss Link* A central controller for your entire house



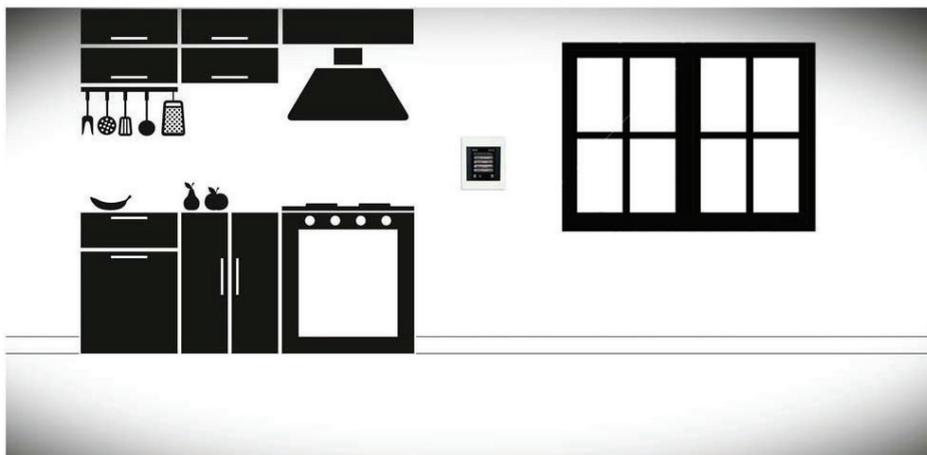
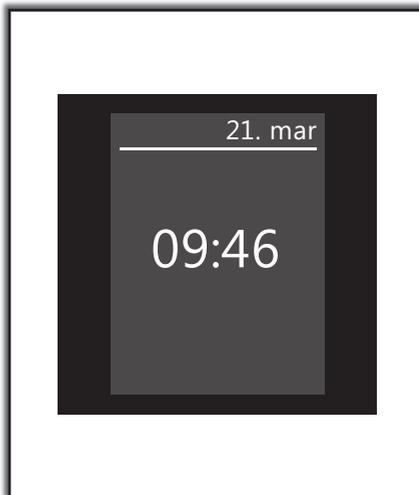
## Congratulation on the purchase of your new *Danfoss Link* system

In this user guide, we will explain what the *Danfoss Link* system can do and provide you with good advice and instructions for finding the settings that fit your exact needs.

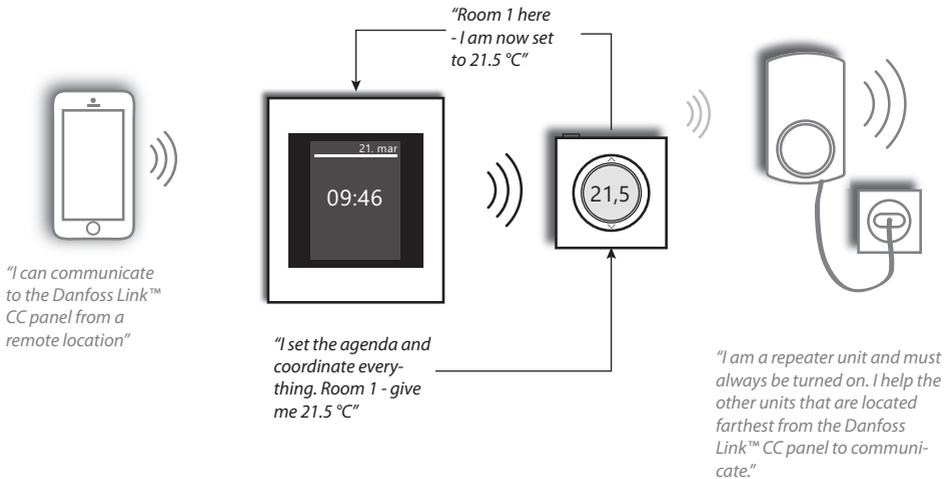
The *Danfoss Link* system is designed to make life easier for you. All sub-systems in your house communicate with one another via Danfoss Link™ CC and the system is able to perform several tasks without you as a user having to study loads of technical instructions.

We hope you will spend some time reading this user guide, to benefit most possible of your *Danfoss Link* system.

This user guide primarily addresses the house's control system. If you would like more specific information concerning a single unit, please refer to the literature provided with the product.



**Building an intelligent wireless system**



**How the user interface works**

The Danfoss Link system is operated via a user-friendly touchscreen.

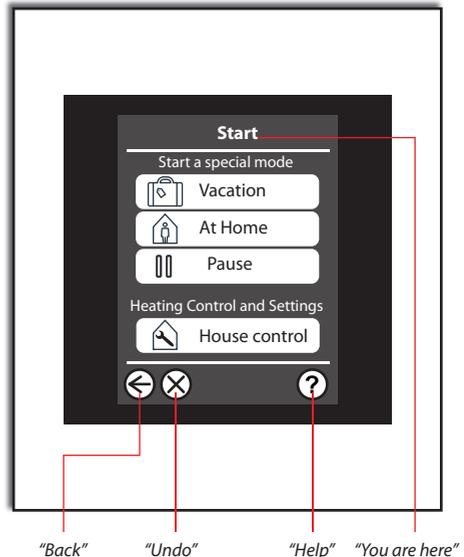
One common characteristic of the user interface is that you are always made aware where you are in the menu structure, at the top of the display.

The "Help" key is located in the bottom right-hand corner. You can use this to obtain additional information about the current given screen display.

The "Back" key is located in the bottom left-hand corner, and you can use this to go one step back in the menu.

By pressing the "X" key, you can undo an erroneous setting. That's all it takes, it's as easy as that.

We encourage you to explore the system's settings and screen displays in order to become familiar with the available options.



**I want to adjust the temperature in one room**

All rooms that are part of the network can be adjusted centrally using the Danfoss Link™ panel.

You can also set the temperature using the actual room device, i.e. the *living connect*® thermostat on the radiator, or the Danfoss Link™ RS if you have hydronic floor heating.

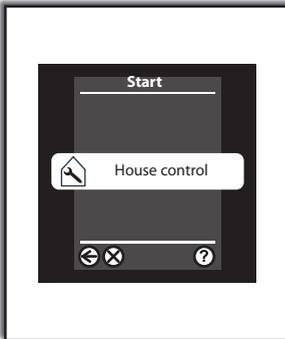
*Please note: If you have a Danfoss Link™ RS in combination with a living connect® thermostat in the same room, the desired room temperature is set using only the room sensor.*



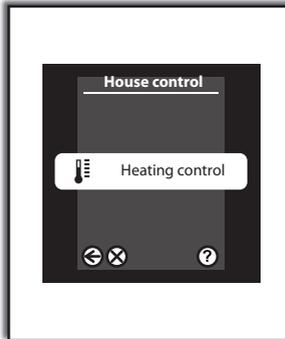
*With the living connect® thermostat, you can set the desired room temperature locally using the thermostat. If you have two thermostats in the same room, they will synchronise automatically.*



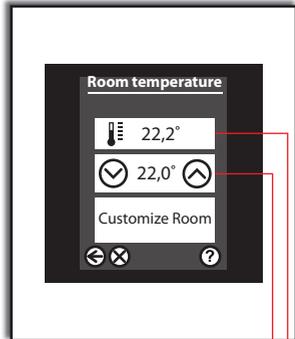
*The Danfoss Link™ RS (standard with floor heating systems, extra accessory for radiators with living connect®). You can set the temperature locally using the room sensor.*



Select **House control**



Select **Heating control** and then the room



Here you can set the **desired** temperature

*Please note: Be aware that hydronic floor heating is a relatively slow-acting heat source. It may take as long as 8 hours for the desired room temperature to be reached.*

*If you have a radiator, you should be aware that the temperature you set is reached **locally, in the area in which the radiator is installed** or **where the room sensor is mounted**. Thus, minor adjustments may be needed.*

*If you have a Danfoss Link™ RS, you can see the measured room temperature here*

## I want to save energy

Danfoss Link makes saving energy easy without having to compromise in terms of comfort.

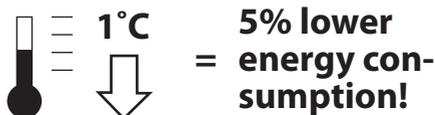
Why maintain a high room temperature when you're not at home?

Lowering the room temperature by one degree will reduce your heating costs by approx. 5%.

For this reason it makes perfect sense to use the **weekly schedule**, which automatically sets the desired **At Home temperatures** when you're at home, and the desired **Away/Asleep temperature** when you're away.

If you have radiator heating, you can experiment with significant temperature reductions (e.g. from 21 °C to 17 °C) in **Away/Asleep mode**.

If you have hydronic floor heating, you should not lower the temperature by more than 1-2 °C, as the cooling/heating time is very long.



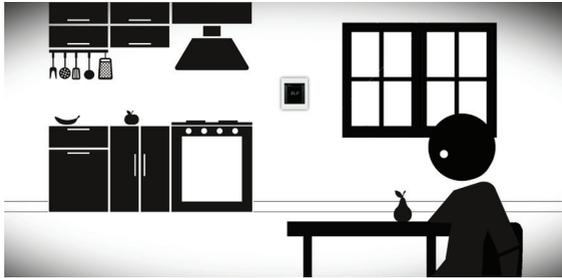
## How the weekly schedule works

This function requires you to set two basic temperatures; one **At Home temperature**, i.e. the desired temperature for when you're at home, as well as one **Away/Asleep temperature** for when you're out of the house or sleeping at night.

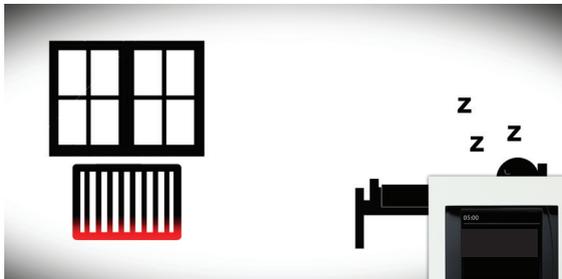
If you like, it is also possible to set various **At Home** and **Away/Asleep temperatures** for each room in your house.

The weekly schedules can be set for each room, and you can of course copy your settings from room to room, as well as setting alternating periods for weekdays and weekends.

The schedules are set directly via the "period arrows" on the screen, and you can remove or set new periods as needed.

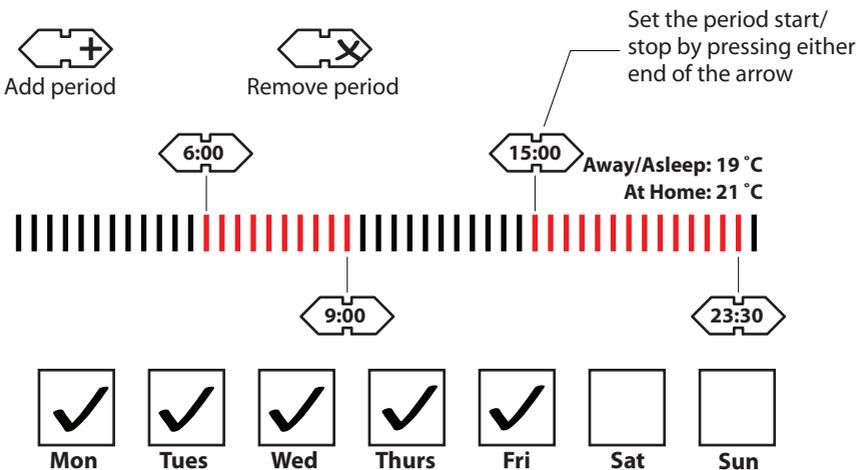


The **At Home** period is activated at the times of day when you are at home.



The **Away/Asleep** period can be activated e.g. overnight, when most people prefer slightly cooler temperatures.

**Scheduling examples**



**Not so fast - what happens if I come home early one day?**

Our everyday lives do not always run according to plan, and sometimes we're forced to stay home, say, with a sick child. In such situations, we don't want the system to lower the temperature during daytime hours.

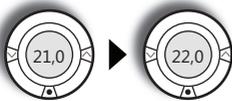
In this case, all you have to do is select **At Home** on the menu's start page, and select the specific rooms in the house, these will then be set to their **At Home** temperatures.

The **At Home** mode will remain active until End of the At Home period or latest till midnight.

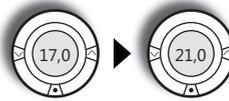


**What happens when I change a local setting in a room?  
Does the Danfoss Link™ CC remember the new setting?**

If you are **not** using the **weekly schedule**, the settings you enter in the room will **always** be permanent.



If you are running the weekly schedules and come home during an **Away/Asleep** period, you will most likely find it necessary to turn up the temperature. This is possible of course, but the system will consider this to be an exception from the rule and not a general preference.



**Away/Asleep period**  
You come home and turn up the heat



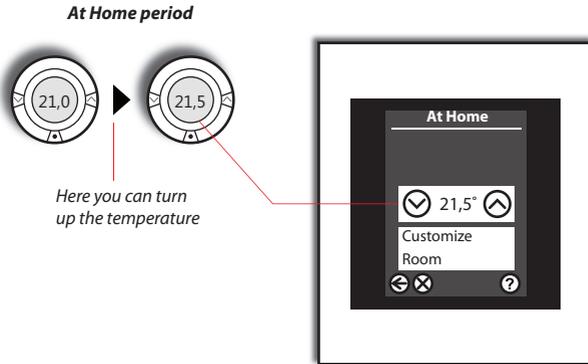
**At Home period**



**Away/Asleep period**  
Automatically returns to the original setting

If you use the **weekly schedule** and change the temperature during a **At Home** period, the system will consider this as an exception from the rule and not as a general preference. This type of modification will not be permanently saved.

*Please note: This describes the **factory settings**; your installer may have set the system up to also remember modifications made locally during an **Away/Asleep** period.*



*If you want to modify the temperature settings permanently, you have to enter the menu with **At Home** and Away/Asleep temperatures.*

**Give the system a little time to adapt...**

The first week after the system is started up in **weekly schedule**, it will take a bit of time for it to become familiar with its new surroundings. It is during this first week that the *Danfoss Link* system learns how quickly the different rooms can be heated.

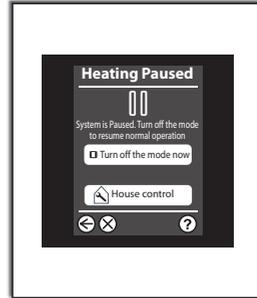
For example, if you set your weekly schedule to 21 °C at 3 pm, the system uses the information it has gathered to determine when to begin a reheating cycle as well as how to account for seasonal temperature differences.



**Pause! I need a break in my schedule ...**

If you need to take break from your normal routine, to air the house for example, then use the **Pause** function.

The temperature of the entire system is lowered to the safest minimum. You choose if this is for just one hour or indefinitely. To turn off the **Pause** function simply turn off the mode.



**We're going on holiday; how should we set the system?**

It's quite simple: all you have to do is press the **Vacation** key on the initial menu display.

The **Vacation** function puts the entire house in hibernation mode, in which all sub-systems drop to a controlled, low operating point, without the risk of moisture damage, frost damage or the like.

You can set the **Vacation** function to start - and stop at a desired date/time. The system will automatically return to your preferred settings in advance, so that you return to a comfortable warm house.

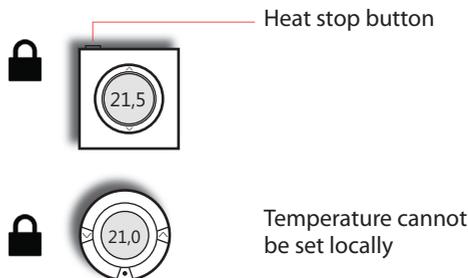


If you return home earlier than expected, you can cancel the **Vacation** function on the main screen.

**Does the Danfoss Link system have a tamper-proof lock?**

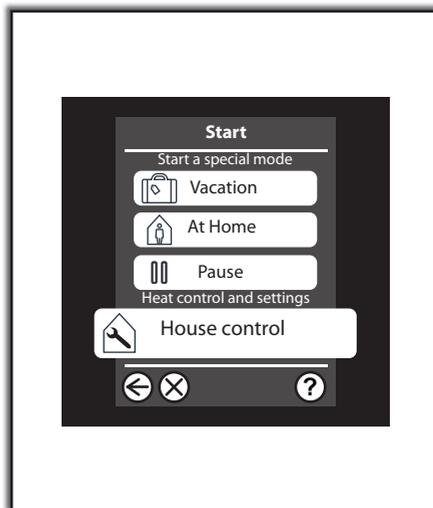
Yes. It is possible to use a tamper-proof lock for the individual room units.

All you have to do is select the **Customize Room** on the individual rooms. Next, select **Room Restrictions**, which will allow you to set a maximum and minimum temperature that can be set from the room in question; alternatively, you can block local room operation all together. If you have room sensors, you can also deactivate the heat stop function on the room sensor.



## Changing the time, date, sound or display

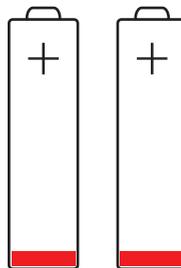
If you would like to change the date and time or modify the display appearance or sound of the user interface, you can do so in **Settings** located under the **House control** menu.



## Uh oh - the batteries are dead. Now what happens?

When the battery-operated units are close to running out of power, an alarm will be issued on the central control panel well before the batteries are completely used up. The system will not "forget" anything even if a unit temporarily loses power.

In the event of a battery-operated unit running completely out of power, the unit will set the room to a certain temperature before the batteries die.

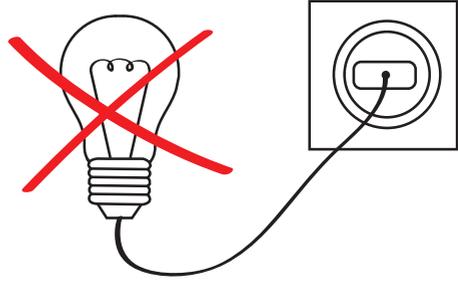


*Please note: Danfoss recommends the use of non-rechargeable, alkaline batteries (2 x AA per room unit), for which you can expect an average battery lifetime of 2 years.*

## Power failure?

Short-term power failures will not affect your *Danfoss Link* system. A power failure lasting more than 8 hours may result in you having to reset the date and time, though all other programmes and units will remain intact.

However, you may find that the system runs somewhat “sluggishly” immediately following a power failure as the network is working hard to re-establish itself.



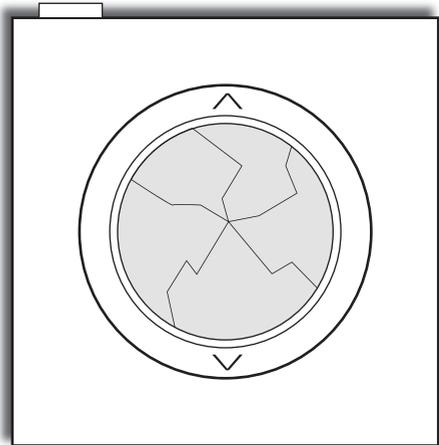
## One of my room units has been damaged

How does the system react when one of your room devices is damaged?

When we do not know what the room temperature is, it is not possible to regulate the floor heating system. In response, we turn up the heat, but the system is unable to maintain a specific room temperature. If a *living connect*® radiator thermostat loses its connection to the *Danfoss Link*™ CC, it will continue running at the last known set point.

The *Danfoss Link*™ CC operating panel will issue an alarm if the room unit has not responded within 90 minutes. The operating panel will indicate which device has experienced an error or in which room the device is missing.

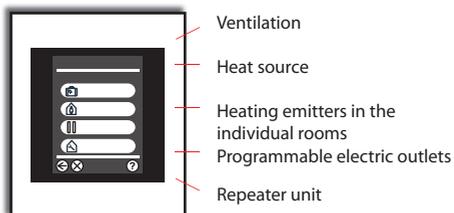
If the device is not physically damaged, you can start by trying to insert new batteries. If this does not solve the problem, please contact your installation technician, who can then remove the defective device from the network and connect a new one.



## That's how the main system works - what about my sub-systems?

*Danfoss Link* can control several sub-systems, and not two solutions are exactly alike. In the pages that follow, we will describe the unique devices you have installed in *your* house (that is, the devices you selected when you generated this user guide).

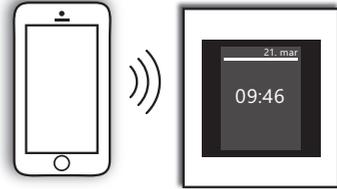
You may also benefit from reading the instructions and descriptions provided with the individual units, but in what follows we will provide an explanation of how the devices interact with the *Danfoss Link* system.



## Connecting your Danfoss Link™ CC for smartphone/ tablet control

Your Danfoss Link™ CC can be paired to your smartphone or tablet for more convenience with the Danfoss Link™ App.

Danfoss Link™ App. allows you to communicate remotely with your Danfoss Link CC. For ease of use the app has the same icons as your Central Controller at home.



### Step 1.

Download the Danfoss Link™ App. from Google play or App Store

### Step 2.

Pair your Danfoss Link™ Central Controller, simply follow the instructions on the Danfoss Link™ App.

To enable smartphone control, your Danfoss Link™ needs to connect to your home WiFi. You can do this in **Settings** located under **House Control**. Select your WiFi network and enter your Wi-Fi password, wait for a check-mark on the globe icon, on the **House Control** screen, note, it may take a few minutes.



Please note: If you need help connecting your app. go to [link.app.danfoss.com](http://link.app.danfoss.com) where you can find additional information.

## What about Software Updates?

The Danfoss Link™ App. will keep itself updated (like other Apps) and the Danfoss Link™ CC with Wi-Fi will receive automatic software updates if Wi-Fi is enabled.

## Danfoss Link CC - End User Agreement and Disclaimer

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- b) Danfoss Terms of Use (available at [www.Danfoss.com](http://www.Danfoss.com))
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### 2. Automatic Software Updates

Danfoss may from time to time develop patches, bug fixes, updates and other modifications to improve the performance of the Software ("Updates"). By connecting the *Danfoss Link™ CC* to the internet You accept that Updates may be automatically downloaded and installed on your *Danfoss Link™ CC* without further notice or consent being required. If you do not wish such Updates to be automatically downloaded and installed You must disable the *Danfoss Link™ CC* from the internet. You acknowledge that you may be required to install Updates to use the Product for remote access.

### 3. Consent to use of data

By enabling Your *Danfoss Link™ CC* to wirelessly connect to the internet you agree that Danfoss may collect, use, register and store information concerning your room names, heating requirements, user set-points, IP-addresses, software and hardware attributes, connection errors and user interaction. Such information is used by Danfoss to improve default settings and enhance the performance of the Software.

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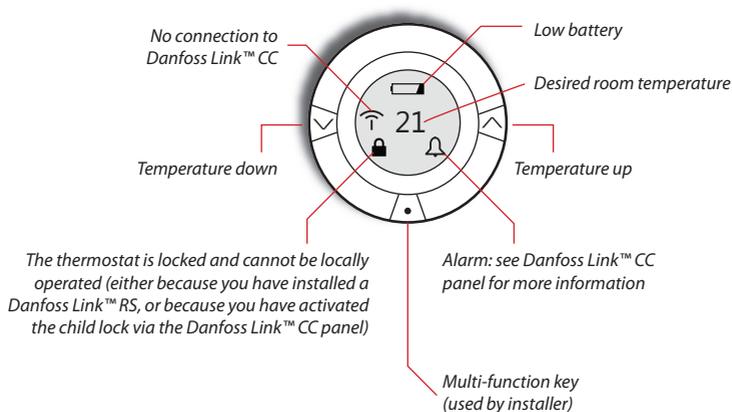
**living connect® radiator thermostat**

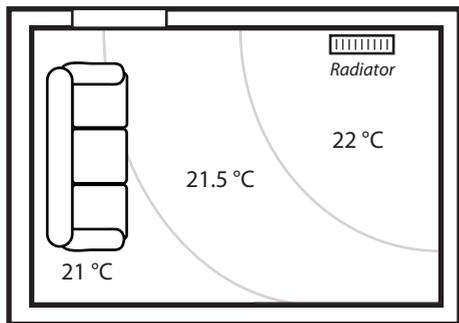
In the pages that follow we provide a number of tips and instructions regarding the settings you can make in the *Danfoss Link®* system when using your *living connect®* radiator thermostats. By reading through this material you can learn more about the thermostats' functions as well as how to maintain them.


**How do living connect® thermostats work?**

The thermostat has a tiny, built-in motor that can open and close the radiator's valve with a great degree of precision. The thermostat is also equipped with temperature sensors that are used to control the unit, as well as with a tiny radio that enables it to "speak" with the Danfoss Link™ CC panel.

The *living connect®* display is normally turned off, but it is activated when you press one of the keys (it does this in order to preserve the battery's lifetime, which is normally about 2 years, depending on your patterns of use and the battery's quality).

**Overview of display and control buttons**




*Please note: A radiator emits heat in a relatively local fashion in the room in which it is located. The desired room temperature you set will apply to the immediate area around the radiator.*

In larger rooms, or in areas with large, cold surfaces (such as windows or poorly insulated walls), you may find it necessary to experiment a bit to find the temperature that provides the desired level of comfort in the parts of the room you actually use.

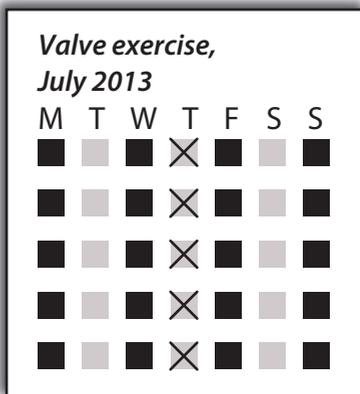
Alternatively, you can install a Danfoss Link™ RS in the room - in the area(s) you actually use - which will assume control of the temperature based on the location in which the sensor is mounted (for more about the use of room sensors, see the section entitled, "**I want to adjust the temperature in one room**").

**Automatic valve "exercise" - yet another feature of the living connect®**

To secure the heating system's functionality, even after longer periods of not being used, *living connect®* is equipped with a preventive valve "exercise" feature.

This means that the radiators may briefly turn on the heat only to close again shortly thereafter (this only takes a few seconds).

Valve exercise is performed once a week, always on Thursdays at 11 a.m.



**What happens when I open a window to ventilate the room?**

The *living connect*® thermostats are capable of sensing when you open a window, provided that a couple of requirements are met (see next section).

When the thermostat senses that a window has been opened, it will automatically shut off the heat for 30 minutes, after which the heating in the room will automatically be restarted. The heat will only be turned off in rooms in which the thermostat sends an “open window” notification.

If you have more than one radiator in the same room, only one of the thermostats has to register an open window, after which all the radiators in said room will shut off.

**Requirement - when is the “open window” function activated?**

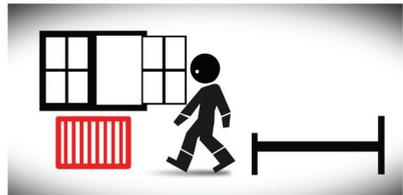
When the *living connect*® thermostat senses a sudden temperature drop, the “open window” function is activated. This means that if the room and outdoor temperatures are nearly identical, then the system will be unable to sense if a window has been opened. This also means that the heating system is inactive and that there is no risk of energy loss resulting from the open window.

Another requirement that enables the open window function to work is that the radiator must be located in the immediate vicinity of the window (which it most often will). If the radiator is located e.g. 10 metres from the window, it may be difficult for the *living connect*® thermostat to sense a clear drop in temperature, which is needed for it to turn off the heat.

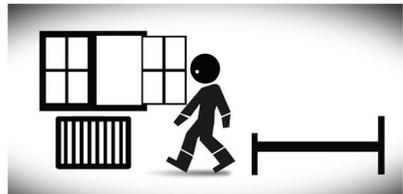
*Please note: If you live in a home without a ventilation system, we recommend that you ventilate the entire house twice daily for a minimum of 5 minutes by opening windows in opposite ends of the house. If you have a Danfoss Air ventilation system, then there is of course no need to open your windows.*



*You get up in the morning and open your bedroom window.*



*Fresh, cool air flows in and is detected by the *living connect*® thermostat; shortly thereafter the radiator is certain that **the window is open**, and the thermostat will then shut off the heat.*



*A while later, you close the window. The heat will be reactivated in the room no later than 30 minutes after it has been shut off.*

## Danfoss Link™ HC/RS floor heating system

Your floor heating system consists of three main components:

- Manifolds (typically located in a utility cabinet) distribute heat to the individual rooms and back.
- The master controller turns the heat on and off at the individual valves feeding the rooms.
- Room sensors measure the room temperature and can be used to set the desired room temperature.



### How does floor heating work?

The principle of floor heating is to heat the room from below, which is an exceptionally comfortable heating method.

Floor heating pipes can be embedded directly into the concrete slab (heavy/wet floor heating), or special heat distribution panels can be used (e.g. SpeedUp) located closer to the finished floor (light/dry floor heating).

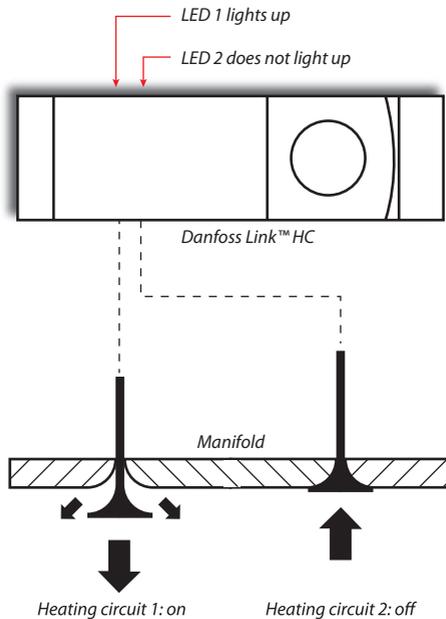
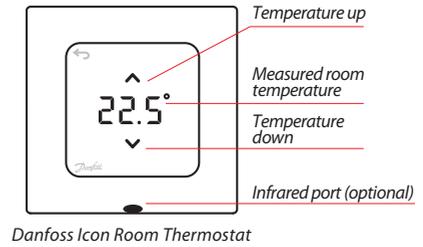
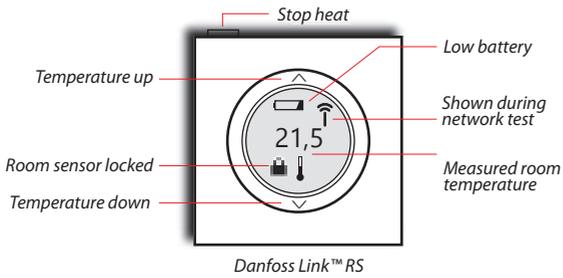
*Please note: Up to 95% of all systems are installed as heavy floor heating. Contact your installer if you are in doubt as to whether your system has been installed as heavy or light floor heating.*

**Heavy floor heating** has a relatively long response time. It will generally take about 1-2 hours per adjusted degree for the system to reach the desired room temperature.

On very few days in the year, typically during transitional periods, temperatures slightly over or under those set must be expected. This occurs when the weather changes faster than the controller is able to keep up, e.g. in the event of sudden periods of intense sunlight or sudden, significant drops in temperature.

**Light floor heating** has a relatively short response time. It will generally take about 20 minutes for the system to achieve the desired room temperature for each adjusted degree.

## Overview of display and buttons



## Can I use temperature reduction periods when I have floor heating?

Yes, you can, as long as you keep certain things in mind.

### Heavy floor heating

We recommend one long temperature reduction period (at least 7 hours) with a slightly lower **economy temperature** setting.

The difference between the **comfort** and the **economy temperature** must not be more than 1-2 degrees.

Lowering the temperature too much will prevent the system from reaching the low temperature and no energy saving will be achieved.

*Please note: You should be particularly aware of this if your heat source is a heat pump.*

If you attempt to achieve too great a reduction in temperature you risk the heat pump having to activate its supplementary heat source (electric heating element) when reheating begins. This will have a negative impact on your energy consumption.

### Light floor heating

We recommend setting a lower **economy temperature** for one or two extended periods.

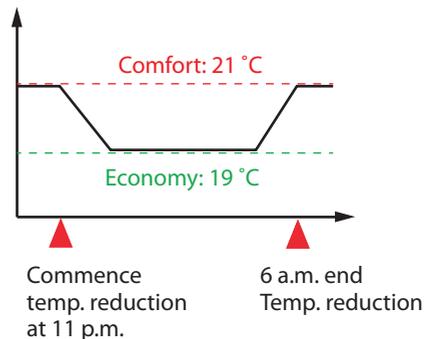
The difference between the **comfort** and the **economy temperature** must not be more than 3-4 degrees, as otherwise the system will not be able to keep up.

*Please note: You should be particularly aware of this if your heat source is a heat pump.*

If you attempt to achieve too great a reduction in temperature you risk the heat pump having to activate its supplementary heat source (electric heating element) when reheating begins. This will have a negative impact on your energy consumption.

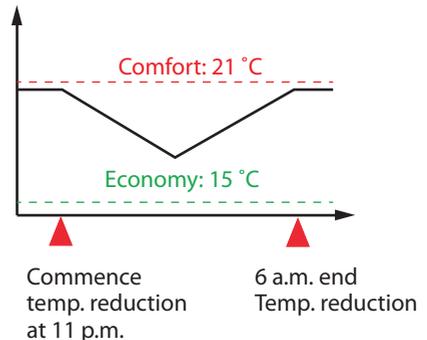
### A good example

Savings achieved



### The wrong way

No or negligible energy saving



### Operating economy

You should be aware that for the first year, heating expenses for a newly laid, heavy floor heating system will be 20-30% higher.

This is because the energy required to evaporate the water trapped in the concrete can only be derived from the heating system.

In a 150 m<sup>2</sup> house with heavy floor heating, some 1500 litres of water have to evaporate during the first year.

1500 litres of water



### Opening windows to ventilate a room

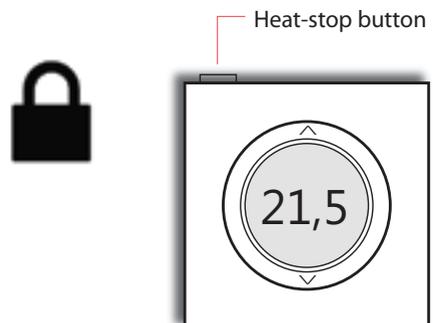
When ventilating a room, you can use the heat-stop button on the room sensor in that room.

By pressing the button, all heating in the room concerned will be stopped and the display will turn completely blank.

Pressing the button again turns on the heat and the current room temperature will be shown in the display.

*Please note: You can lock the heat-stop button if you are afraid of accidentally pressing it or e.g. have young children in the house. See the front of this user guide: **Does the Danfoss Link® system have a tamper-proof lock?***

If you have a Danfoss Air ventilation system, it is of course not necessary to open the windows.

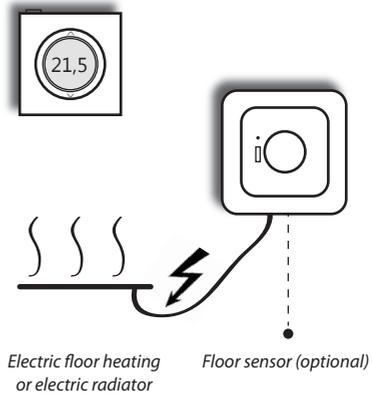


**Danfoss Link™ FT/FT-S wireless relay units**

Your wireless system includes one or more wireless relays.

The wireless relay is mostly used in one of the following ways:

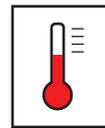
1. As part of a room heating solution based on an electric heat source (electric floor heating or an electric radiator). In this case, the system also has a Danfoss Link™ RS installed, which controls the room temperature via the heat source/relay.
2. In installations with electric floor heating, in which there is also a built-in floor sensor (the sensor is embedded in the concrete).



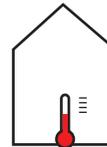
**Does my system have a built-in floor sensor?**

You can easily see if your system is controlled by room or floor temperature by accessing the room in question on the Danfoss Link™ panel. Simply select **Heat control** in the **House control** menu.

If the room is controlled by an ordinary room sensor, a thermometer will appear in the display. If, on the other hand, the room is fitted with a floor sensor, a thermometer will be shown in the floor of a house.



Ordinary room sensor = operates based on the room temperature

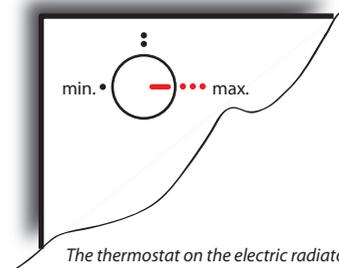


Embedded floor sensor = operates based on floor temperature

**If the relay is used with an electric radiator along with a Danfoss Link™ RS**

... it is important that the radiator's own thermostat is set to the highest possible setting (which takes the thermostat out of play).

*Please note! The wireless relay also functions as a repeater unit (signal amplifier) and helps to secure a strong wireless network. The relay must therefore always be on.*

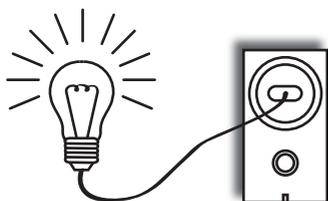


**Danfoss Link™ HR and Danfoss Link™ PR wireless relay units (Products are no longer available)**

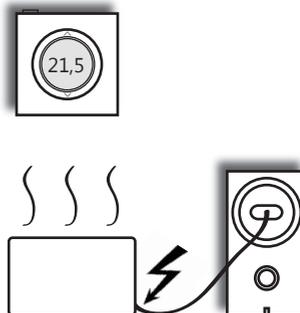
Your wireless system includes one or more wireless relays.

The wireless relay can be used in two ways:

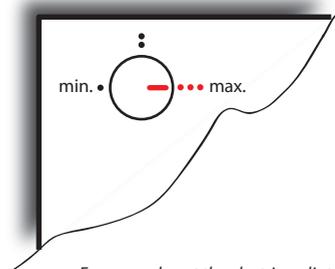
1. In order to implement timer control of e.g. conventional electric heating panels with their own thermostat, as well as of lighting or other electricity-consuming devices.
2. In connection with a room heating solution for the control of electric heating panels along with a Danfoss Link™ RS, which maintains the desired room temperature.



*For example:  
Midnight to 9 p.m. off  
9 p.m. to midnight on*



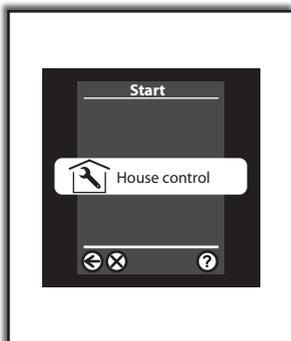
If you have this combination, it is important that the radiator's thermostat is set to the highest possible temperature (which will thus take the radiator's thermostat out of play).



*For example, set the electric radiator's thermostat to its maximum temperature (if a Danfoss Link RS™ is used; otherwise this is not necessary)*

## How can I find out which device I have?

You can easily see which type of relay you have.



If, in the **House control** menu, you have the **Control on/off** menu option, the relay is used as described in section 1.

If this menu option is not visible, the relay is used as described in section 2 and the unit is associated with a room as its heat source, equipped with a Danfoss Link™ RS.

All weekly scheduling and temperature settings can be entered as described in the first part of this guide.

*Please note: The wireless relay also functions as a repeater unit (signal amplifier) and helps to ensure a strong wireless network. The relay must therefore always be on.*

**Danfoss CF-RU Repeater Unit**

Your wireless system includes a repeater unit (signal amplifier).

The repeater unit is used to link two wireless devices which have difficulty communicating with each another.

There are various reasons why a wireless system may require a repeater unit. For one thing, the distance between the devices may be too great. Secondly, building components (e.g. walls or floors) may absorb the signal to the extent that a repeater unit becomes necessary.

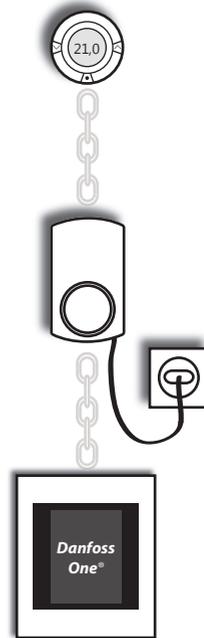
The advantage of using a repeater unit is that it is mains powered and, unlike a battery-operated device, it can emit signals very frequently.

The repeater unit thus plays a vital role in your Danfoss Link® system, and it is very important **not** to switch it off.

Switching the repeater unit off may result in parts of your system being unable to communicate with Danfoss Link™ CC.

Battery-operated devices which lose their connection to Danfoss Link™ CC will attempt to establish an alternative path of communication. If this happens, the devices will expend a significant amount of battery power because they will be emitting signals so frequently.

*Please note: The repeater unit must remain switched on at all times!*



Troubleshooting

Symptom	Possible cause	Solution
Room temperature too high	<p>When batteries are running low, the device will automatically set the room to a certain temperature before the batteries die.</p> <p>Someone may have set the room device too high.</p> <p>Strong solar gains in low-energy homes.</p>	<p>Replace the batteries (the Danfoss Link™ CC panel will indicate if a device has run out of battery power).</p> <p>Reduce the room temperature setting range in the room, or deactivate the local setting option. Also refer to section: <b>Does the Danfoss Link® system have a tamper-proof lock?</b></p> <p>Solar screening / blinds.</p>
Room temperature is too low in <b>all</b> rooms	<p>The heat source is providing no or insufficient heat.</p> <p>The heat source itself is operating with an automatic temperature reduction schedule.</p> <p>Defective circulation pump.</p>	<p>Check if the heat source is active.</p> <p>Deactivate temperature reduction schedule on the heat source if it conflicts with the desired operation.</p> <p>Check the circulation pump. If necessary, contact your installer.</p>
The room temperature is too low in <b>a single</b> room (radiator heating).	<p>The thermostat has been set too low.</p> <p>There is air in the system.</p> <p>Valve is “sticking”/defective.</p>	<p>Set the thermostat to the desired temperature, at ½-degree intervals, if possible.</p> <p>If your radiator is making hissing or bubbling noises, try bleeding it for air, if possible, topping off the system with water (ask installer).</p> <p>Replace the gland seal if valve spindle movement is restricted (Installer). Contact your installer.</p>

Symptom	Possible cause	Solution
<p>The room temperature is too low in a <b>single</b> room (radiator heating).</p>	<p>The dirt trap is blocked.</p> <p>If the room has never been able to reach the desired temperature, it may be due to an incorrectly dimensioned heat source:</p> <ul style="list-style-type: none"> <li>• The radiator is too small.</li> <li>• Insufficient hydronic balancing -&gt; insufficient flow to radiator or floor heating circuit.</li> </ul>	<p>Contact your installer.</p> <ul style="list-style-type: none"> <li>• Install a larger radiator.</li> <li>• Contact your installer for proper hydronic balancing and the correct presetting of the radiator valve.</li> </ul>
<p>The room temperature is too low in a <b>single</b> room (room sensor)</p>	<p>If the room has never been able to reach the desired temperature, it may be due to an incorrectly dimensioned heat source:</p> <ul style="list-style-type: none"> <li>• The radiator is too small.</li> <li>• Insufficient hydronic balancing -&gt; insufficient flow to radiator or floor heating circuit.</li> </ul> <p>The room sensor has been shut off (the display is blank/off).</p>	<ul style="list-style-type: none"> <li>• Install a larger radiator.</li> <li>• Contact your installer for proper hydronic balancing and the correct presetting of the radiator valve.</li> </ul> <p>Press the small button at the top of the room sensor to reactivate heating in the room.</p> <p>Also refer to section: <b>Does the Danfoss Link® system have a tamper-proof lock?</b></p>
<p>The battery life is less than 2 years</p>	<p>Rechargeable batteries are being used.</p> <p>Old batteries (batteries also have an expiry date).</p> <p>Unstable wireless network.</p> <p>Defective product.</p>	<p>Switch to non-rechargeable alkaline batteries.</p> <p>Switch to non-rechargeable alkaline batteries.</p> <p>Contact your installer.</p> <p>If the wireless network is unstable, the room device will communicate more often than normal, resulting in increased battery consumption.</p> <p>If you believe you have a defective product, contact your installer.</p>

Symptom	Possible cause	Solution
<p>I use the <b>weekly schedule</b> function, but I am unable to obtain the desired temperature at the desired time.</p>	<p>The system has a built-in <i>forecast</i> function, which gradually ‘learns’ how quickly the individual room can be reheated. Once the system has learned how quickly the room can be reheated, the re-heat function will start at the right time. Your installer <u>may</u> have deactivated this function from the service menu (the forecast function is activated in standard settings). If the forecast function is deactivated, the re-heat cycle will only start when the system enters a <b>comfort</b> period, i.e. it will take longer to reach the desired room temperature.</p> <p>The heat source also runs with a temperature reduction schedule, e.g. a gas boiler that runs with a reduced flow temperature during night hours. This can result in insufficient heating output when the heating system needs it.</p> <p>The decreased temperature is set so low that the reheating cannot be achieved within the desired time interval.</p> <p>The presetting of the radiator valve is too low.</p>	<p>The forecast function will improve the longer the system has been in use. During the first two weeks after start-up of a newly installed system, the system must ‘become familiar’ with the house. If after a couple of weeks the system cannot reach the desired temperature, contact your installer to see if the forecast function has been deactivated.</p> <p>Check your heat source to see if it has a temperature reduction schedule; if so, you should ensure that there is enough power available when the system needs it. Danfoss recommends using only the Danfoss Link™ CC to set the temperature reduction periods.</p> <p>Try to set a slightly higher temperature for the reduction period. If you have <b>heavy floor heating</b>, you cannot lower the temperature by more than 1-2 degrees at night, as <b>heavy floor heating</b> has a relatively long response time.</p> <p>For rooms with radiator heating, a max. reduction of around 4 degrees is recommended.</p>



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