MAKING MODERN LIVING POSSIBLE

Danfoss Link™ BR Boiler Relay

Installation Guide

Danfoss Heating Solutions

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Important information

For safety reasons the heating system must have a bypass function. This is either built into the boiler or it must be installed in the system.

Demount other heating control timers in the installation or they will interfere with the Danfoss Link heating control algorithm. If weather compensation is present it should be set to constant comfort.

Introduction

The Danfoss Link™ BR (Boiler Relay) is a device for turning gas and oil boilers ON/OFF depending on heating demand.

The Danfoss Link™ BR is powered by 230 V~.

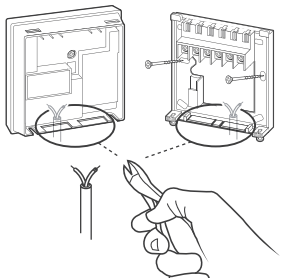
Installation

The Danfoss Link™ wireless system's transmission range is sufficient for most applications; however each building has different obstacles affecting communication and maximum transmission distance.

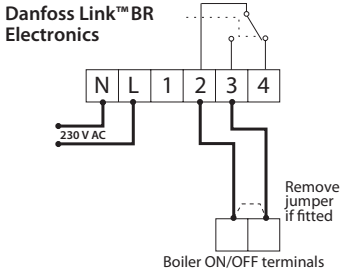
If communication problems occur Danfoss suggests that accessories would be required to support the system, such as repeaters. In exceptional cases the wireless system may not be suitable for your installation.

Be aware that installation and placement must be according to local building regulations.

Mounting



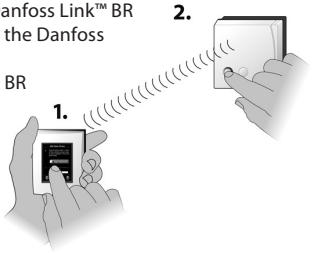
Wiring



Note: Refer to boiler manufacturer's manual for wiring connections to the boiler.

Adding the device

The process of adding the Danfoss Link™ BR to a system is performed on the Danfoss Link™ CC.
Note that the Danfoss Link™ BR must be added as a **Service Device**.



When adding, press and release the install button, and observe that the LED gives a fast green flash.
If adding is successful the LED turns green permanently.
For further information, see the Danfoss Link™ CC instruction manual.

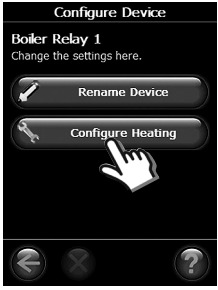
Note: If adding the Danfoss Link™ BR to the Danfoss Link™ CC is unsuccessful, make sure the right Danfoss Link™ CC software version is applied. Correct version: 2.3.27 or higher.

Configure Danfoss Link™ BR

Select “Manage Devices” in “Rooms and Devices”.

Select “Configure Device”.

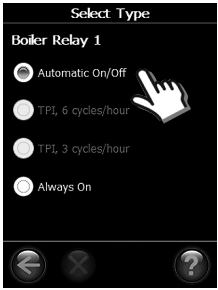
Select Device to configure



Press “Configure Heating” to bring up the heating configuration, which will show the current heating preferences and allow them to be edited by pressing the buttons.

Configure the BR Control Type

Press the "Select Type" button.



Select one of the modes. Default BR setting is "Automatic On/Off".

Automatic On/Off:
The boiler is only ON when there is heat demand from a reference room in the system. Recommended for modulating boilers and non-condensing boilers.

TPI (Time Proportional Interval):
A duty cycle is calculated and used to control the boiler.
- 6 cycles/hour is recommended for condensing non-modulating gas boilers.
- 3 cycles/hour is recommended for condensing non-modulating oil boilers.

Note: If the installation has a mixing shunt for floor heating, it is recommended to adjust the set point temperature as high as needed on the coldest day of the year. The TPI control will lower the supply line temperature to the necessary level needed at all time. TPI is implemented in Danfoss Link CC software version 2.4.x or higher.

Always On:
The boiler is kept ON regardless of heat demands.

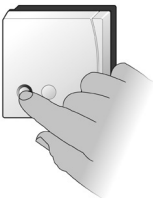
Configure the BR Control Reference Room

From the "Configure Heating" screen it is possible to select the control reference (i.e. the boiler will be turned ON if any of the **selected** rooms call for heat). By default all rooms are selected.

Press the "Select Rooms" button.

Any number of rooms can be selected for use as reference. Room include/exclude is toggled simply by pressing the room-button.

Perform network test



Once the Danfoss Link™ BR and all other devices in the system have been registered and the Danfoss Link™ CC is placed in its final position, perform a **network test** (see separate Danfoss Link™ CC manual).

Note: If the connection to the Danfoss Link™ CC is lost for more than 1½ hour, the Danfoss Link™ BR will go into safety mode. In this mode the boiler will be turned ON continuously.

Factory reset

Turn off the power to the device, then press and hold the install button in front of the device for approx. 5 sec. while the power is switched on again. The button must be held until LED gives a red flash.

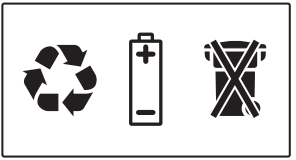
Status indicator

Green LED ON	Relay OFF/Standby
Red LED ON	Relay ON/Heating
Green LED fast flash	Adding or link test
Green LED short flash	Ready for adding
Red LED slow flash	Adding not OK Link test not OK Safe State Active

Technical specifications

Operation voltage	230 V AC, 50 Hz
Standby consumption	1.6 W
Load	3 amps resistive 1 amp inductive
Rated impulse voltage	2.5 kV
Switching	Type 1B
Regulation	ON/OFF
Ambient temperature	0˚ to +45˚C
Transmission frequency	Wireless Z-wave 868.42 MHz
Transmission range in normal buildings	Up to 30 m
Transmission power	Max. 1 mW
Pollution situation	Degree 2
Ball pressure test	75˚C
Software classification	Class A
IP class	40
Dimensions	84 × 84 × 30 mm

Disposal instructions



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