



Installation Guide

DEVIlink™ CC

Central Controller



www.DEVI.com

DEVI® 

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1 Introduction

The DEVllink™ is a programmable, wireless control system for heating systems in residential buildings (up to approximately 300 m²).

The DEVllink™ CC is the central control unit. It has a colour touch screen from where the entire installation can be controlled.



This installation guide contains all information about the DEVllink™ CC and how to get started.

It guides you through recommendations and considerations that must be taken into account when handling a wireless system - and it describes the configuration of the system, to ensure a correct and reliable system set-up.



Individual instructions, supplied with the service and room devices, contain information about connecting the respective devices to the network. The instruction will also state whether the device is considered a service device or a room device.

The (?) key can be used at any point during installation.

Always look for the latest software version at www.DEVI.com before installation. See "6 Upgrading software version".

2 Guidelines for installation

The signal strength is sufficient for most applications, however, wireless signals are weakened on the way from the DEVIlink™ CC to the room devices and every building has different obstacles.

Ensure the best performance by keeping the following in mind for planning and installation:

- Max. 30 m between devices in free space.
- Receiving devices should be placed on opposite or next wall as the transmitter, if possible.
- All metal objects in the building construction can weaken wireless signals.
- Reinforced concrete walls and floors weaken the signal strength significantly, but almost any types of construction materials reduce the signal to some degree.
- Corners that are a result of the building design, can weaken the wireless signals, due to either long distances or inadequate reflecting opportunities.

Note! *These are guidelines only as many factors have influence on wireless communication.*

3 Installation plan

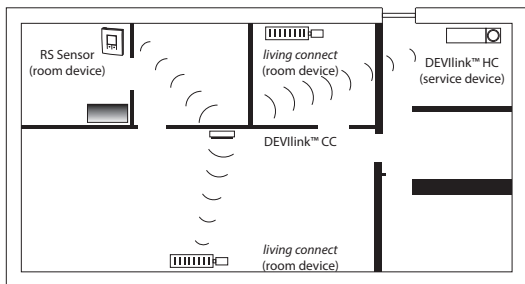


DEVI recommends that an installation plan is made before beginning the actual installation.

1. Create an installation plan of all the room devices (mains powered and battery powered).
2. Add the DEVllink™ CC in a central location to the installation plan.
3. Add necessary repeater units (if any) to the installation plan. DEVI recommends that you include at least one repeater unit within 5 meters from the CC.

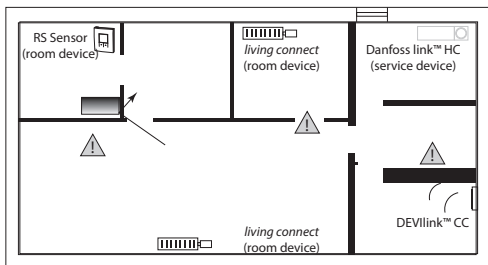
3.1 Correct installation plan

- No metal objects between the DEVllink™ CC and other wireless DEVI units.
- The DEVllink™ CC is installed as central as possible on the floor plan (max. 30 m between devices in free space).
- Wireless signal through walls on shortest possible diagonal distance.



3.2 Incorrect installation plan

- Metal objects between the DEVIlink™ CC and other wireless DEVI units.
- Decentral installation of the DEVIlink™ CC.
- Crossing walls diagonally.



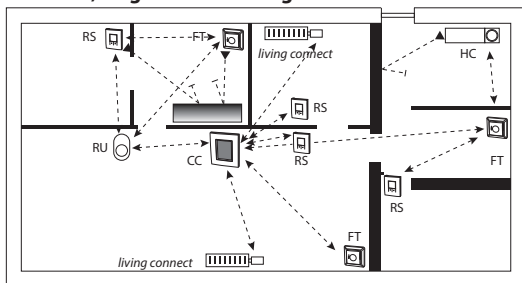
3.3 Repeater units

A repeater unit strengthens the wireless signal when a satisfying connection can not be established between the DEVIlk™ CC and other wireless DEVI mains powered devices.

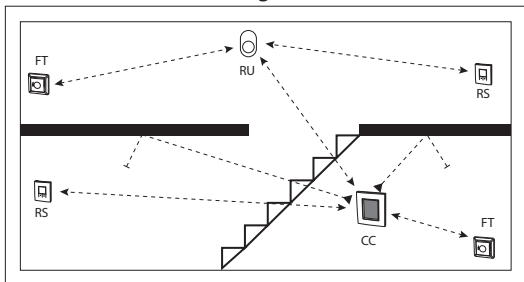
Repeater units can be ordered on stock code no. 088U0230.

Placing repeater units

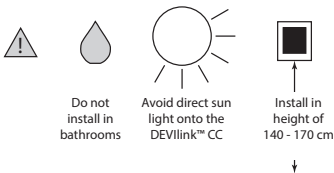
Plan view, single floor building



- CC - central controller
- FT - floor thermostat (room device)
- HC - hydronic controller (service device)
- RS - room sensor (room device)
- RU - repeater unit (service device)
- living connect* - radiator thermostat (room device)

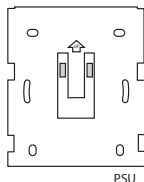
Cross section view - building with more than one floor**4 Installation**

DEVIlLink™ CC can be installed with either a PSU (in-wall power supply) or a NSU (net power supply).



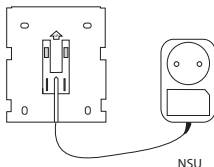
Mounting the DEVlink™ CC with In-Wall PSU

- Hold the PSU over the wall box and mark up the 4 screw holes. Make sure the top is level.
- Drill holes and insert fitting plugs.
- Connect the PSU according to the connection diagram on the back side.
- Mount the PSU with the 4 screws.
- *Do not connect the DEVlink™ CC yet!*



Mounting the DEVlink™ CC with NSU

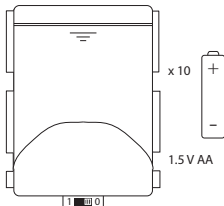
- Place the mounting plate on the wall and mark up the 4 screw holes. Make sure the top is level.
- Drill holes and insert fitting plugs.
- Fasten the mounting plate with the 4 screws.
- *Do not connect the DEVlink™ CC yet!*
- Connect the NSU to a power outlet.



4.1 Preparing to add devices

When adding devices to the DEVlink™ system, the distance between the DEVlink™ CC and the device must not exceed 1.5 m. To accomplish this the DEVlink™ Battery Supply Unit (BSU) is offered as an installation tool.

1. Slide off the lid and insert the batteries.
2. Slide the lid back on and attach the DEVlink™ BSU battery pack onto the back of the DEVlink™ CC.

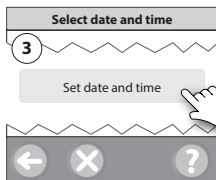
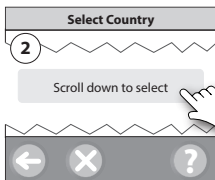
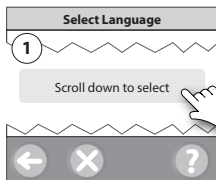


When ready to do the commissioning, turn the switch located on the DEVlink™ BSU to the ON position.

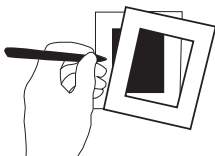
The DEVlink™ CC will now start up. This takes approximately 30 seconds.

A battery pack (BSU) can be ordered on stock code no. 014G0262.

4.2 Initial settings



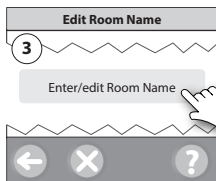
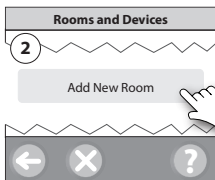
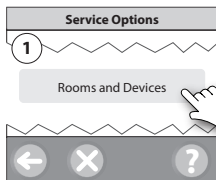
4.3 Start up the installation menu



- Remove the front cover of the DEVlink™ CC by gently pulling it off, pull near the edges of the cover.
- Press the **[SETUP]** pin for 3 seconds to enter the service area.

4.4 Creating rooms

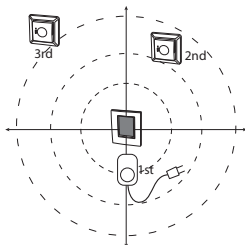
DEVI recommends to create all the rooms before adding devices.



Tip! A list of common room names is available here .

4.5 Adding mains powered devices

- Pair devices to DEVlink™ CC.
- Start with the device closest to the DEVlink™ CC, and move outwards.



4.6 Adding service devices - mains powered

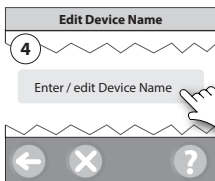
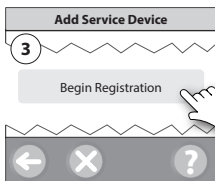
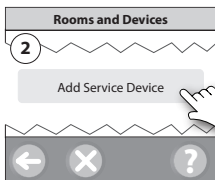
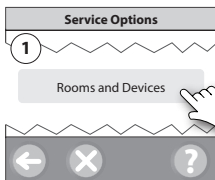


Always add dedicated repeater units first!

Power-up all service devices and room devices (mains powered as well as battery powered).

The DEVlink™ CC supports many different types of service devices which can function as simple ON/OFF devices for other electrically equipment as well as repeater units and controllers for hydronic systems and other sub-systems.

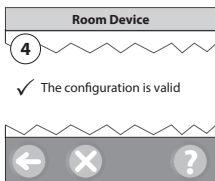
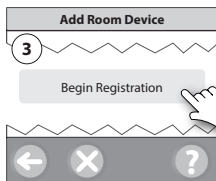
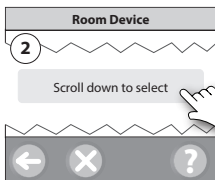
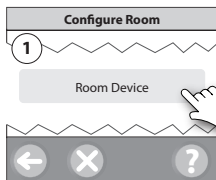
Press the **[SETUP]** pin for 3 seconds to enter the service area.



4.7 Adding room devices - mains powered

A room device regulates temperature in the room where it is installed. All room devices must be configured, according to the previous installation plan, to ensure the signal path.

Start with the device closest to the DEVIlLink™ CC and move outwards.



Press 

Note! ON / OFF relays are only visible in the end-user menu.

Note! DEVllink™ CC automatically selects the regulation principle according to the types of devices in the room. To change regulation principle, see "5.2 Changing parameters for heat regulations"

4.8 Adding room devices - battery powered

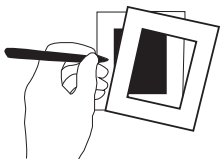
Add the battery powered room devices room by room.

4.9 Performing network test

After finishing the installation perform a network test to ensure that communication between all added devices and the DEVlink™ CC is stable.

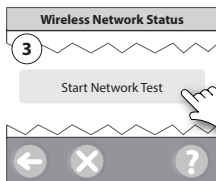
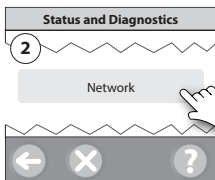
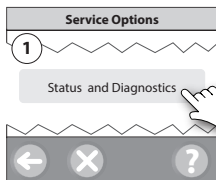
Note! *Do not perform the network test before the DEVlink™ CC is mounted in its final position and connected. Ensure that all living connects (if any) are out of mounting mode, see specific instructions following the living connect.*

1. Turn off the battery pack.
2. Slide the DEVlink™ CC onto the previously installed mounting plate.
3. The DEVlink™ CC will now power-up.



4. Remove the front cover and press the **[SETUP]** pin for 3 seconds to enter the service area.

If there is uncertainty about the network performance, it is recommended to perform a network test before the installation is completed entirely.



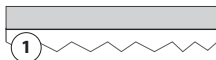
At the end of the network test the DEVllink™ CC waits for all battery operated devices to wake up and report. Follow the instructions given on screen.

If the network test is running correctly, there will be no need for further interaction.

If the network test is performing slow, the DEVllink™ CC guides you through troubleshooting and provides useful tips for speeding up the process.

4.10 Finalising the installation

Press the **[SETUP]** pin to close the installation.



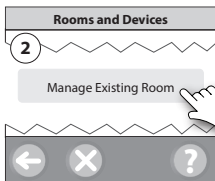
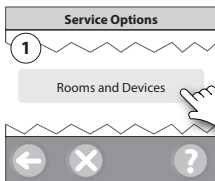
10:15

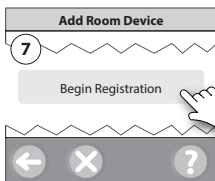
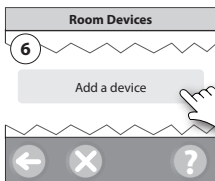
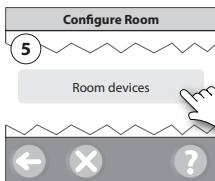
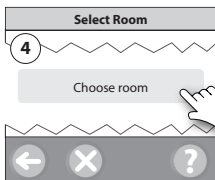
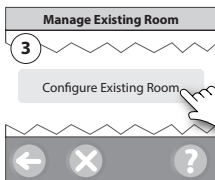


5 Modifying an existing installation

5.1 Adding devices to an existing room

Remove the front cover and press the **[SETUP]** pin for 3 seconds to enter the service area.





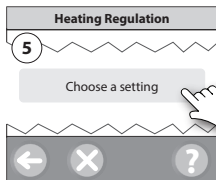
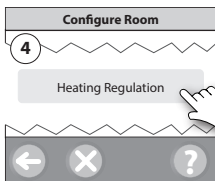
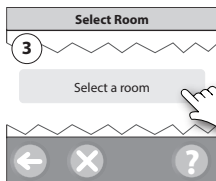
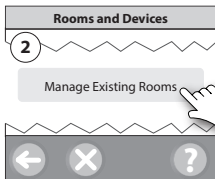
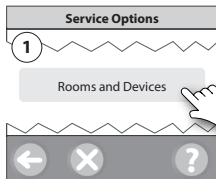
Continue until all new devices are added to the desired room.



Perform a network test after modifying the installation.

5.2 Changing parameters for heat regulations

Remove the front cover and press the [**SETUP**] pin for 3 seconds to enter the service area.



- **Forecasting method:** When activating the forecast method, the system will automatically predict the heating start-up time necessary to reach the desired room temperature at the desired time (all heat emitter types).
- **Maximum floor temperature:** The default setting is 35 °C (electrical floor heating).
- **Regulation type:** Only in connection with electrical heating systems.

Note! Use pincode [0044] to change between the following regulation types:

Room sensor (regulates only by room temperature) - if only DEVllink™ RS is fitted (hydronic floor heating) or DEVllink™ RS + DEVllink™ FT (electrical heating).

Floor sensor (regulates only by floor temperature) - if only DEVllink™ FT/S is fitted.

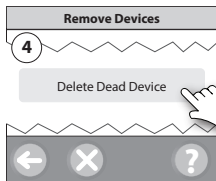
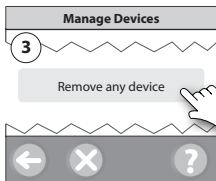
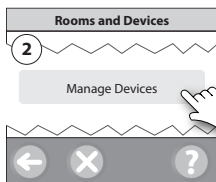
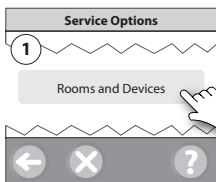
Combined room/floor (ensures min. floor temperature and regulates room temperature in parallel) - DEVllink™ RS + DEVllink™ FT/S is fitted.

In case of hydronic floor heating, be aware if a certain max. floor temperature is given by the floor manufacturer. This can be assured by fitting a thermostatically controlled mixing shunt.

5.3 Removing a room or a service device

Preferred method for removing a device: Individual devices can be removed by pressing and holding any button on the device, while switching the power on/off. Keep pressing any button for approx. 5 seconds after reconnecting the power.

Back-up method for removing a defective or missing device (only if/when the above is not possible): Remove the front cover and press the [SETUP] pin for 3 seconds to enter the service area.



To replace a device, while retaining all settings for that device, use the function [Replace any device] and follow the instructions given on the screen.

By using this function, all settings for that particular device, are transferred to the new unit.

5.4 Factory reset of DEVlink™ CC



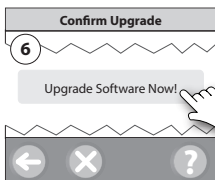
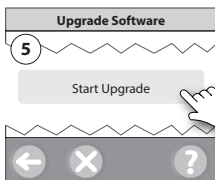
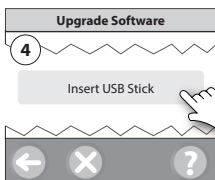
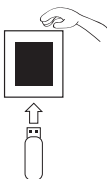
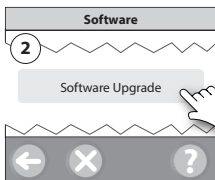
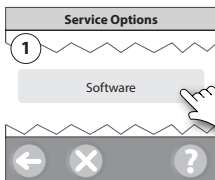
All assigned rooms and all added devices will be removed from the system! It is recommended to remove all devices individually before resetting to factory default or replacing the DEVlink™ CC.

Remove the front cover and press and hold the reset button on the right side of the DEVlink™ CC, until the controller gives a clear beep. All rooms are now deleted and the DEVlink™ CC is reset to factory settings.

6 Upgrading software version

DEVlink™ software is upgradable. New software versions are published on www.DEVI.com.

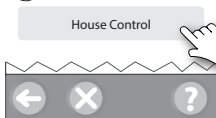
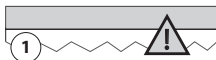
1. Download the software upgrade to a USB key, and insert the USB key in the USB port.
2. Remove the front cover and press the **[SETUP]** pin for 3 seconds to enter the service area.














7 Warnings



If a warning or an alert occurs, a yellow alert icon will be shown on the standby screen. Follow the procedure to find more information.



7.1 Alert Icons

	Battery warning
	Critical battery level
	Low battery level
	Device not responding
	Too many dead devices
	Heating turned off in a room
	Tamper proof / Restrictions enabled
	Manual operation
	Icon for floor temperature
	Icon for room temperature
	Icon for TRV

8 Technical specifications and approvals

DEVlink™ CC	
Operation voltage	15 V DC $\pm 10\%$
Standby power consumption	Max. 2 W
Screen	3.5" TFT colour w. touch
Ambient temperature	-10 to +40 °C
Storage temperature	-20 to +65 °C
Ball pressure test temperature	75 °C
Pollution degree	2 (domestic use)
Transmission frequency	868.42 MHz
Transmission range	Up to 30 m
Max. repeaters in a chain	3
Transmission power	Max. 1 mW
Software class	A
IP class	21
Dimensions	125 x 107 x 25 mm
Weight	179 g

DEVIlLink™ PSU (In-Wall)

Operation voltage	100-250 V AC 50/60 Hz
Recommended protection fuse	Max. 16 A
Output voltage	15 V DC $\pm 10\%$
Standby power consumption	Max. 0.15 W
Max. load	10 W
Cable specifications	Recommended 1.5 mm ² , max. 2 x 2.5 mm ²

DEVIlLink™ NSU (Net Adapter)

Operation voltage	100-240 V AC 50/60 Hz
Recommended protection fuse	Max. 16 A
Output voltage	15 V DC $\pm 10\%$
Standby power consumption	Max. 0.3 W
Cable length	2.5 m
Max. load	7 W

DEVIlLink™ BSU (Battery Supply Unit)

Output voltage	15 V DC $\pm 10\%$
Number of batteries	10 x AA

The DEVlink™ CC is tested for safety and EMC requirements as specified in EN60730-1 and EN60730-2-9.

9 Warranty



10 Disposal instructions



Danfoss A/S
Electric Heating Systems
Ulvehavevej 61
7100 Vejle
Denmark

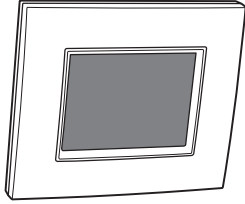
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DEVILink™ CC with PSU

140F1076 EN

Central Controller
15V $\overline{\text{---}}$
50-60Hz
-10°C to +40°C
16 A
IP 21



Product documentation



* 8 0 6 5 6 0 8 0 *



Designed in Denmark for Danfoss A/S



5 703466 232460