

Warmup konekt Wireless 10-Channel Wiring Centre 230V

KW-WC10CH



konekt
WIRELESS
BY **Warmup**

**Installation and
operating manual**

Package Contents

Quantity	Description
1	Warmup konekt Wireless 10-Channel Wiring Centre 230V
2	Screws 4.0 x 40 mm
2	Wall Plugs 6 mm
1	DIN Rail
1	Quick Start Guide

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1 Information about this manual

This manual should be read carefully before commencing operation of your konekt wireless product. Always retain the product manuals for future use.

Symbols used:



Hazard indication



Important information

2 Hazard information



Do not open the devices except as instructed to by the installation and operation manuals. It does not contain any user serviceable components.



The device is suitable for indoor use only. It must not be exposed to moisture, vibrations, mechanical loads or temperatures outside of its rated values.



For safety and licensing reasons (CE/UKCA), unauthorised change and/or modification of the device(s) is not permitted.



The device and its packaging are not toys; do not allow children to play with them. Small components such as batteries and packaging preset a risk of choking or suffocation.



Using the devices, in any way or for any purpose, other than those described in their installation and operation manuals invalidates any warranty or liability.



This device is part of the building installation and must only be installed by appropriately qualified and competent persons in accordance with local regulations and standards.



To prevent risk of electric shock, the devices must be disconnected from the mains supply and discharged before conducting any works. Safeguard against the supply being switched back on throughout works.



Non-compliance with the installation instructions may result in a fire or an electric shock.



The device may only be used for fixed installations. The device must be securely attached within a fixed installation.



Ensure all cables connected to the devices are correctly sized and rated.



Do not exceed the rated loads of the device or any individual output.



Manuals for 3rd party devices connected to these, such as heat sources, valves and circulators, must be followed and complied with to ensure compatibility.



This device is intended for use in residential, business and commercial properties only.

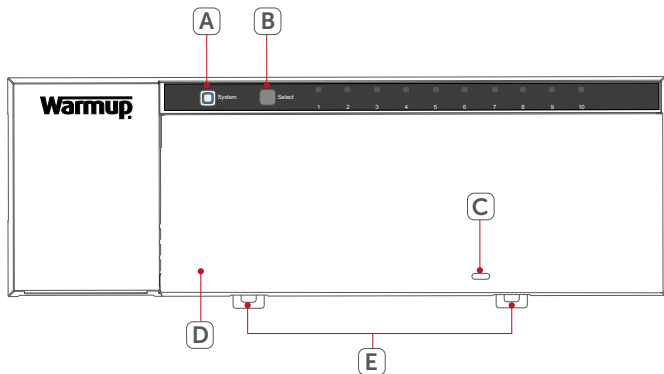


This device does not require product specific maintenance. To clean, use a soft, clean and lint-free cloth. To remove more stubborn marks, dampen the cloth with warm water. Do not use detergents or chemicals on the devices.

3 Function and device overview

The Wiring Centre provides UFH circulator and actuator control based on room, heating/cooling demand. It can control up to 10 heating zones/15 actuators or 9 heating zones/14 actuators if also operating a UFH circulator.

It can be mounted using the screws or DIN rail supplied.



Device overview:

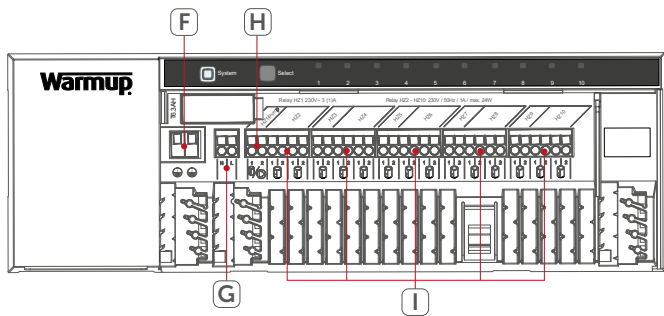
(A) System button (Pairing button and LED)

(B) Select button (channel button and LED)

(C) Slot for opening cover

(D) Cover

(E) Spring latch for DIN rail mounting



(F) PE connection

(G) N (neutral conductor) and L (phase conductor) connections

(H) Zone 1 Actuator or Mixing Unit Circulator terminals

(I) Zone 2-10 Actuator terminals

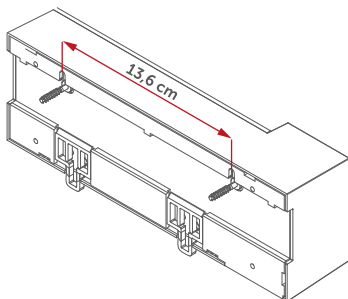
4 General system information

The Wiring Centre is part of the Warmup konekt Wireless System. Devices in the konekt Wireless System system can be easily paired and setup through the konekt Wireless Smart Hub using the konekt App. All functions of the konekt Wireless System are described in detail in the User Guide. The User Guide and Online manuals for all other konekt Wireless devices are available on www.warmup.co.uk

5 Mounting

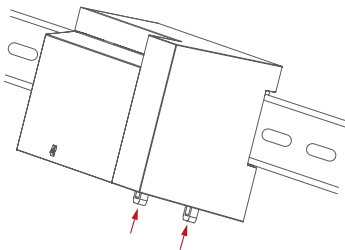
5.1 Screw mounting

- Identify a suitable mounting location for the wiring centre, close to the manifold, within cable reach of valve actuators and circulator on the manifold/mixing unit.
- Ensure that there are no cables or pipes in the wall at this location!
- Use a pen to mark the positions of the two bore holes with a distance of 13.6 cm on the wall
- Use the supplied screws and plugs to secure the wiring centre to the wall.



5.2 DIN-rail mounting

- Place the wiring centre onto the DIN rail as shown.
- Secure the wiring centre by pressing the spring latches (E) upwards.
- Ensure that the wiring centre is latched correctly and secured to the rail.



6 Startup

6.1 Installation



This device is part of the building installation and must only be installed by appropriately qualified and competent persons in accordance with local regulations and standards.



To prevent risk of electric shock, the device must be disconnected from the mains supply and discharged before conducting any works. Safeguard against the supply being switched back on throughout works.

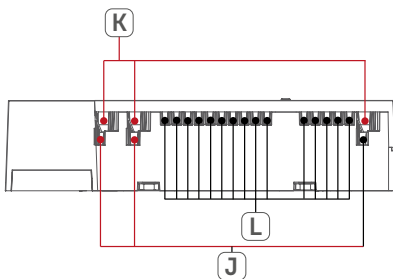


Non-compliance with the installation instructions may result in a fire or an electric shock.

6.1.2 Cable bushings

Cable bushings

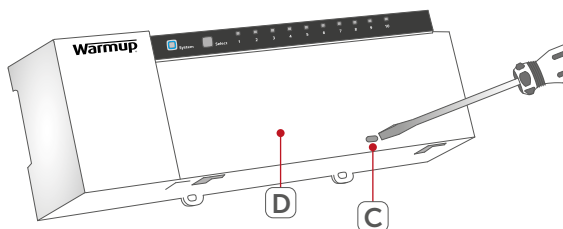
- (J) Cable bushing 1
- (K) Cable bushing 2
- (L) Cable bushing 3



Max. cross sections for the wiring centre cable bushings	
Cable bushings	Cable cross section [mm ²]
1 (J)	> 5.2
2 (K)	> 8.2
3 (L)	> 3.2

Max. cross sections for connecting to the wiring centre terminals	
Rigid cable [mm ²]	Flexible cable with/without ferrule [mm ²]
0.75 - 1.50	0.75 - 1.50

6.1.3 Cover and terminal information

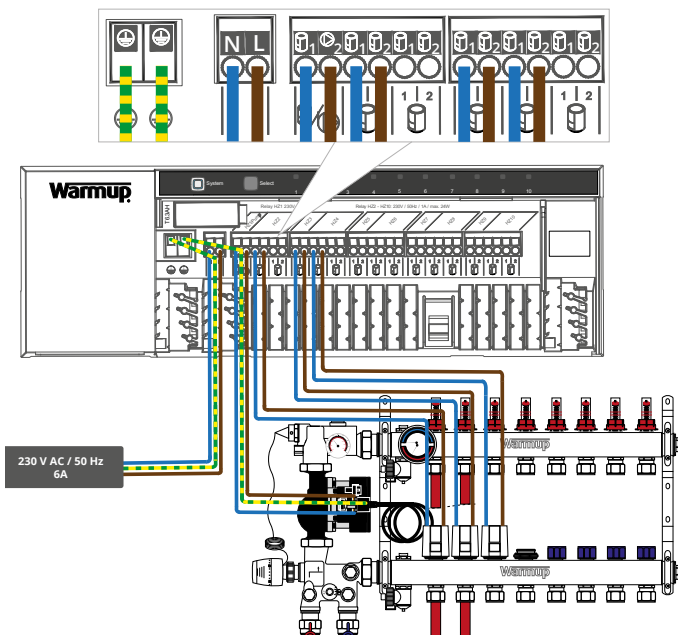


Open the cover (D) by inserting a screwdriver into the slot (C) by and removing the cover by pulling it down and then towards you.



To open the wiring terminals use a suitably sized flat head screwdriver to press the terminal in to open, release to close.

6.1.4 Wiring information



Follow the diagram above to wire your underfloor heating system with the konekt wireless wiring centre.

- Connect the 230 V AC live and neutral conductors to the **L & N** terminals.
- Wire the cable(s) of the valve actuators in your heating circuits and the pump to the connecting terminals of the wiring centre.
- Ensure that all connected cables are fixed and secured within the cable bushings before closing the cover.

6.2 Initial power-up



After switching on the mains voltage, the LED (**B**) will light permanently green.

If the wiring centre has not yet been connected, pairing mode will be activated for first 3 minutes. You will find more information about pairing your device in the next section.

During the first 10 minutes after the mains voltage has been switched on the device remains in start mode. In this time, all heating zones are triggered and the channel LED(s) will light green.


In the next 20 minutes, the valves are operated via two-point control. If the temperature falls below the setpoint temperature, the valves are switched on. If the setpoint temperature is increased, the valves are switched off.


After 20 minutes, the valves are operated via PI control with PWM output (normal operation).

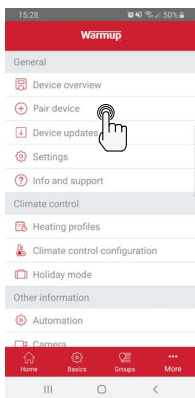
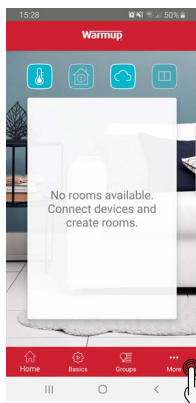
6.3 Pairing device

The wiring centre can be paired seamlessly to the konekt Wireless Smart Hub (KW-UKHUB). To pair devices to the Smart Hub please download the konekt app.


6.3.1 Pairing to the Smart Hub

 The Smart Hub must be set up via the konekt App, before any other devices can be added to your system. For further information, refer to the Smart Hub operating manual.

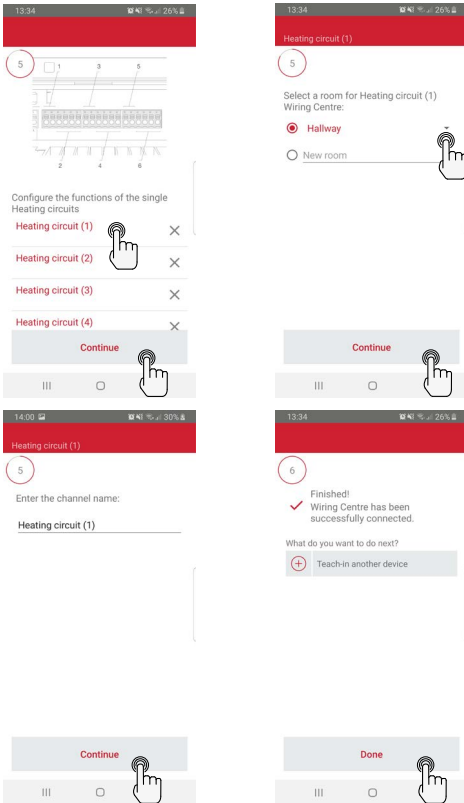
 If you have already connected the wiring centre to other konekt Wireless device(s), you **MUST** restore its factory settings first before you can connect it to the Smart Hub (see section 11)



- Open the konekt wireless App and select Pair device.
- If required, press the system button **(A)** once. The LED will flash orange to indicate pairing mode. Pairing mode will remain active for three minutes.
- Your device will automatically appear in the konekt App. To confirm, scan the QR code attached to the device or alternatively enter the last four digits of the device number (SGTIN) in the App.
- If pairing is successful the LED **(B)** will light up green. If it lights red please try to pair the device again.
- In the App, give the device a name and allocate it to a room.

 The wiring centre can be paired with the wall thermostat (KW-STATH) using the konekt App. The wall thermostat offers precise time and temperature control of floor heating systems when combined with the Wiring Centre. To pair the thermostat to the Smart Hub please refer to its manual.

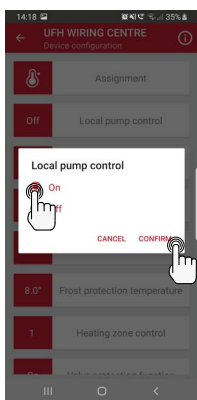
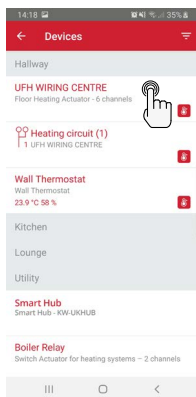
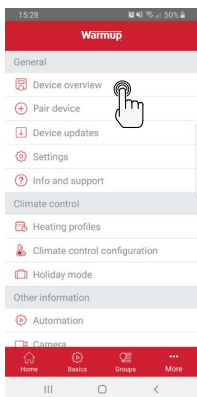
6.3.2 Pairing the Channels to the Rooms



- After allocating the Wiring Centre to a room, select the first Channel connected to an Actuator. This may be the second Channel if the first is connected to a Mixing Unit Circulator.
- Select the room the active channel will control.
- If desired, give the Channel a new name and then press Continue.
- Repeat for each Channel being used.
- Press Continue and then Done once every Channel being used has been assigned to the correct room.



In the default settings, the pump control is deactivated. You must switch this on through the konekt app as shown below.



7 Troubleshooting

7.1 Command not confirmed

If at least one device does not accept a command, the LED **(B)** will light up red. This may be caused by radio interference (see section 10). Other possible issues may be:

- Device cannot be reached.
- Device is unable to execute the command (load failure, mechanical block, etc.).
- Device is defective.

7.2 Duty cycle

The duty cycle is a legally regulated limit of the transmission time of devices in the 868 MHz range. The aim of this regulation is to safeguard the operation of all devices working in the 868 MHz range. In the 868 MHz frequency range we use, the maximum transmission time of any device is 1% of an hour (i.e. 36 seconds in an hour). Devices must cease transmission when they reach the 1% limit until this time restriction comes to an end.

Warmup devices are designed and produced with 100% conformity to this regulation. During normal operation, the duty cycle is not usually reached.

However, intensively repeated device pairing processes may mean that this limit is reached in isolated instances during commissioning.

IMPORTANT: If the duty cycle limit is exceeded, the device may stop working for a brief period. The device will start working normally again after a short period (max. 1 hour).

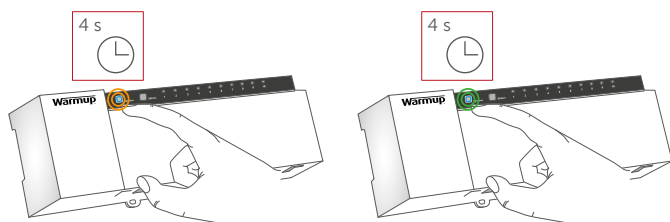
7.3 Error codes and flashing sequences

Flashing sequences of the system LED (A)		
Flashing code	Meaning	Solution
Short orange flashing	Radio transmission/ attempting to transmit/ configuration data is transmitted	Wait until the transmission is completed.
1x long green light	Transmission confirmed	You can continue operation.
1x long red light	Transmission failed or duty cycle reached	Please try again (See section 7.1 and 7.2)
Short orange flashing (every 10 s)	Pairing mode active	Enter the last four numbers of the device serial number to confirm
6x long red flashing	Device defective	Have a look at your app for error message or contact your installer.
1x orange and 1 x green lighting	Test display	Once the test display has stopped, you can continue.
Flashing sequences of the channel LED		
Flashing code	Meaning	Solution
Slow flashing	Emergency operation activated	Change batteries of the wall thermostat, perform a communication test, re-position the wall thermostat (if required), replace wall thermostat if defective
Short double flashing	Radio connection to wall thermostat failed	Re-position wall thermostat or add a WiFi repeater/ extender (see section 7.1)

8 Restore factory settings



The factory settings of the device can be restored. The device will automatically reconnect to the system and redownload its settings unless it is deleted within the konekt App first.



- Press and hold the system button **(A)** for 4 seconds until it begins to quickly flash orange.
- Release the system button
- Press and hold the system button again until the system button LED lights green
- Release the system button to finish the factory reset.

9 Maintenance and Cleaning



The device does not require any specific maintenance other than replacing the battery when necessary. To clean, use a soft, clean and lint-free cloth. To remove more stubborn marks, dampen the cloth with warm water. Do not use detergents or chemicals on the devices.

10 General information about radio operation

Radio transmission is performed on a non-exclusive RF channel, which means that there is a possibility of interference occurring. Interference can also be caused by switching operations, electrical motors or defective electrical devices.



The range of transmission within buildings can differ greatly from that available in the open air. Besides the transmitting power and the reception characteristics of the receiver, environmental factors such as humidity in the vicinity have an important role to play, as do on-site structural/screening conditions.

Declaration of Conformity



Warmup hereby declares that the Warmup konekt Wireless radio equipment is compliant with RED Directive 2014/53/EU and Radio Equipment Regulations 2017. Please scan the QR Code for the Declaration of Conformity.

Instructions for Disposal



Do not dispose of the device(s) with regular domestic waste! Electronic equipment must be disposed of at local collection points for waste electronic equipment in compliance with the Waste Electrical and Electronic Equipment Directive.

11 Technical specifications

Warmup konekt Wireless 10-Channel Wiring Centre 230V



Product Code	KW-WC10CH
Supply voltage	230 V AC / 50 Hz
Current consumption	6.3 A max.
IP Rating	IP20
Protection class	I
Ambient temperature	0 - 50°C
Type	1.B.
Dimensions (W x H x D)	225 x 75 x 52 mm
Weight	566 g
Radio frequency band	868.0-868.6 MHz, 869.4-869.65 MHz
Maximum radiated power	10 dBm
Receiver category	SRD category 2
Typ. open area RF range	270 m
Duty cycle	< 1% per h / < 10% per h
Construction	independently mounted electronic regulation and control device, surface mount
Number of heating zones	10 / (9)
Number of actuators	15 / (14)
Number of pumps	1
Switching capacity per heating zone	1 A max.
Nominal load of all actuators	250 W max.
Type of disconnection	micro
Cable type and cross section	Rigid, flexible cable, 0.75-1.5 mm ²
Cable cross section of cable bushing 1	> 5.2 mm
Cable cross section of cable bushing 2	> 8.2 mm
Cable cross section of cable bushing 3	> 3.2 mm
Withstand voltage	2500 V
PTI value of housing	IIIb with 100 < CTI < 175

12 Warranty

Warmup plc warrants these product(s), to be free from defects in the workmanship or materials, under normal use and service, for a period of three (3) years from the date of purchase by the consumer. If at any time during the warranty period the product is determined to be defective, Warmup shall repair or replace it, at Warmup's option.

If the product is defective, please either;

Return it, with a bill of sale or other dated proof of purchase, to the place from which you purchased it, or

Contact Warmup. Warmup will determine whether the product should be returned or replaced.

This warranty does not cover removal or re-installation costs and shall not apply if it is shown by Warmup that the defect or malfunction was caused by failure to follow the instruction manuals, incorrect installation or damage which occurred while the product was in the possession of a consumer. Warmup's sole responsibility shall be to repair or replace the product within the terms stated above.

WARMUP SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE OF ANY KIND, INCLUDING ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING, DIRECTLY OR INDIRECTLY, FROM ANY BREACH OF ANY WARRANTY, EXPRESS OR IMPLIED, OR ANY OTHER FAILURE OF THIS PRODUCT. THIS WARRANTY IS THE ONLY EXPRESS WARRANTY WARMUP MAKES ON THIS PRODUCT. THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IS HEREBY LIMITED TO THE THREE-YEAR DURATION OF THIS WARRANTY.

This Warranty does not affect your statutory rights.



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