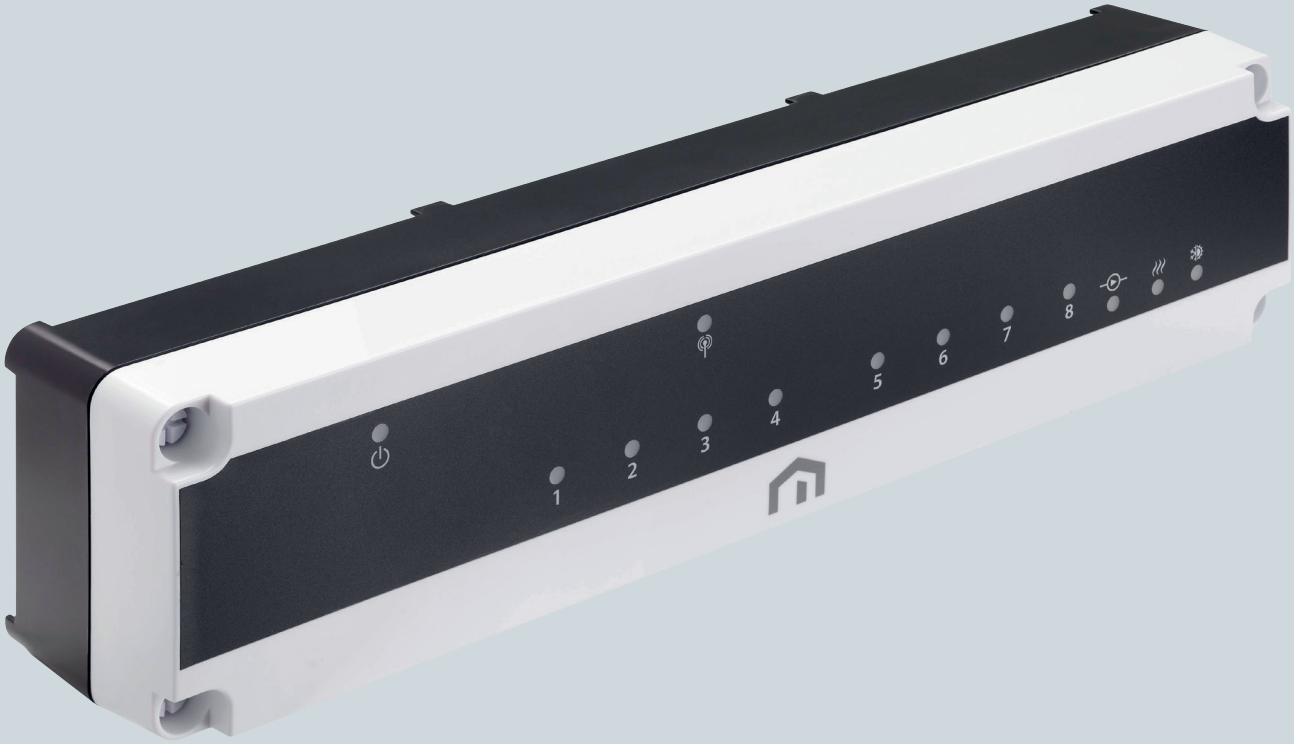


Installation
and user manual

Heating and Cooling

Smart, app connectivity

Boiler or HP compatibility

5 year guarantee

Unisenza PLUS - UFH Wiring Centre RF

EN

EN

EN

Index

EN

1 SAFETY WARNINGS

Pictograms used in this manual

To make reading clearer and more enjoyable, three types of symbols have been used in this manual to convey to the reader the meaning or importance of the information provided:

Hazard signs. Triangular framed shape. Indicate prescriptions relating to present or possible dangers.

Prohibition signs. Circular, barred frame. Indicate prescriptions relating to actions that must be avoided.

Mandatory signs. Full circle. Indicate information that is important to read and comply with.

Purpose of the manual

The purpose of this manual is to guide the qualified installer the installation, maintenance and proper and safe use of the equipment.

For this reason, it is mandatory for all personnel involved in the installation, maintenance and use of the equipment to read this manual.

Contact the Manufacturer if any points are unclear or difficult to understand.

This manual contains information regarding:
- Technical specifications of the equipment;
- Installation and connection instructions.

Intended use

The Unisenza Plus UFH Wiring Centre RF is used for the control of thermal actuators (water flow of the heating/cooling circuits) in an underfloor heating/cooling system with multiple zones by pairing with the **UFH Room Thermostat RF** in the product platform.
The **8-zone** main unit provides eight channels relay on/off output.

Its features are:
- Control of up to 8 independent zones.
- Self-locking connectors for the connection of 3 actuators to each zone output directly.
- Support 230V NC or NO thermoelectric actuators.
- Support heating and cooling control.

EN

- Voltage-free outputs for controlling pump, boiler or heat pump.
- Dew point sensor input to protect the system from condensation when cooling.
- Adaptation for mounting on a 35 mm DIN rail.

Safety regulations

Before proceeding with any installation or use, it is necessary to thoroughly inspect the product. Make sure that all the information contained in this manual correspond exactly to the purchased equipment. In the event that differences are identified, it is necessary to contact the Manufacturer in order to obtain the assistance and specific technical information necessary to operate.

Read this manual carefully before the installation, use and maintenance of the product and keep it for any further future consultation by the various operators.

All installation, assembly, electrical connections to the mains and ordinary/ extraordinary maintenance must be performed **only by qualified personnel or technicians complying with the legal requirements**.

Installation, use or maintenance other than those specified in the manual may cause damage, injury or death, invalidate the warranty and relieve the Manufacturer of all liability.

Disconnect the equipment from the mains before installing or maintaining it.

Do not install the equipment outdoors. The product has been designed to be installed indoors, protected from bad weather, in places where the temperature is between 0 and +50 °C.

At the end of the installation it is necessary to instruct the user in the correct use of the equipment.

EN

2 TECHNICAL DATA

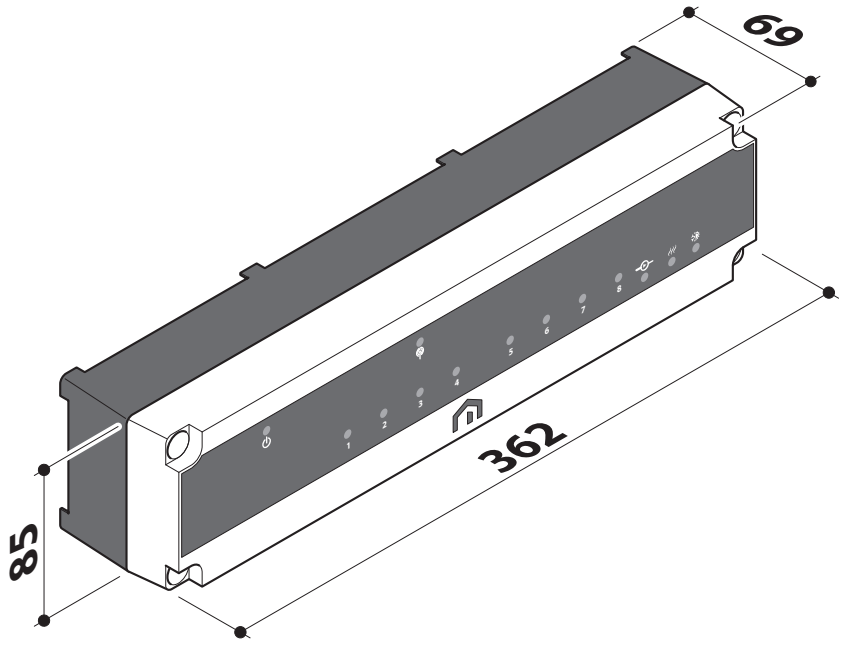
Unisenza Plus UFH Wiring Centre RF

Power Supply	230Vac / 50Hz
Fuse rating	250V - 12.5 A
Supported type of thermoelectric actuator	230V - NC or NO (jumper selectable)
No. of zone outputs for thermoelectric actuators	8
No. of actuator connections per zone	3
Output loading per zone	100VA - (up to 10 thermoelectric actuator)
Zone outputs relay rating	Switched live 230V, Max 3(1) A
Pump control relay rating	Volt-free, Max 230V 3(1)A
Boiler control relay rating	Volt-free, Max 230V 3(1)A
Cable connection	Push-in cable connections with strain relief
Terminal wire gauge	1.5 mm^2
Firmware Update	Over the air firmware update capability
Wireless Communication	Zigbee 3.0, 2.4GHz
Transmission Power	ZigBee: Maximum 10dBm
Operating Environment	Indoor, residential & commercial
Operating Temperature	0°C – 50°C
Storage Temperature	-20°C – 60°C
Operating/Storage Humidity	5-95% RH, non-condensing
Dimensions	362(W) x 69(D) x 85(H) mm
Ingress Protection Rating	IP30
Regulation	CE, UKCA, RED
Environmental Requirement	RoHS compliance

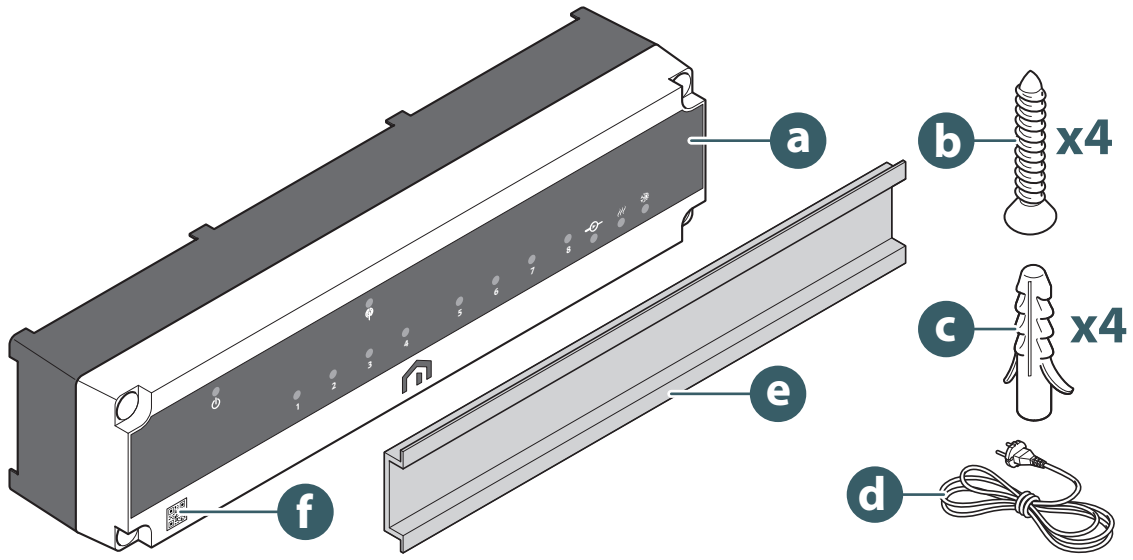
The **Unisenza Plus UFH Wiring Centre RF** complies with the following European directives:
- RED directive 2014/53/EU
- ROHS directive 2011/65/EU
- REACH (EC 1907/2006)

EN

3 DIMENSIONS



4 PACK CONTENTS

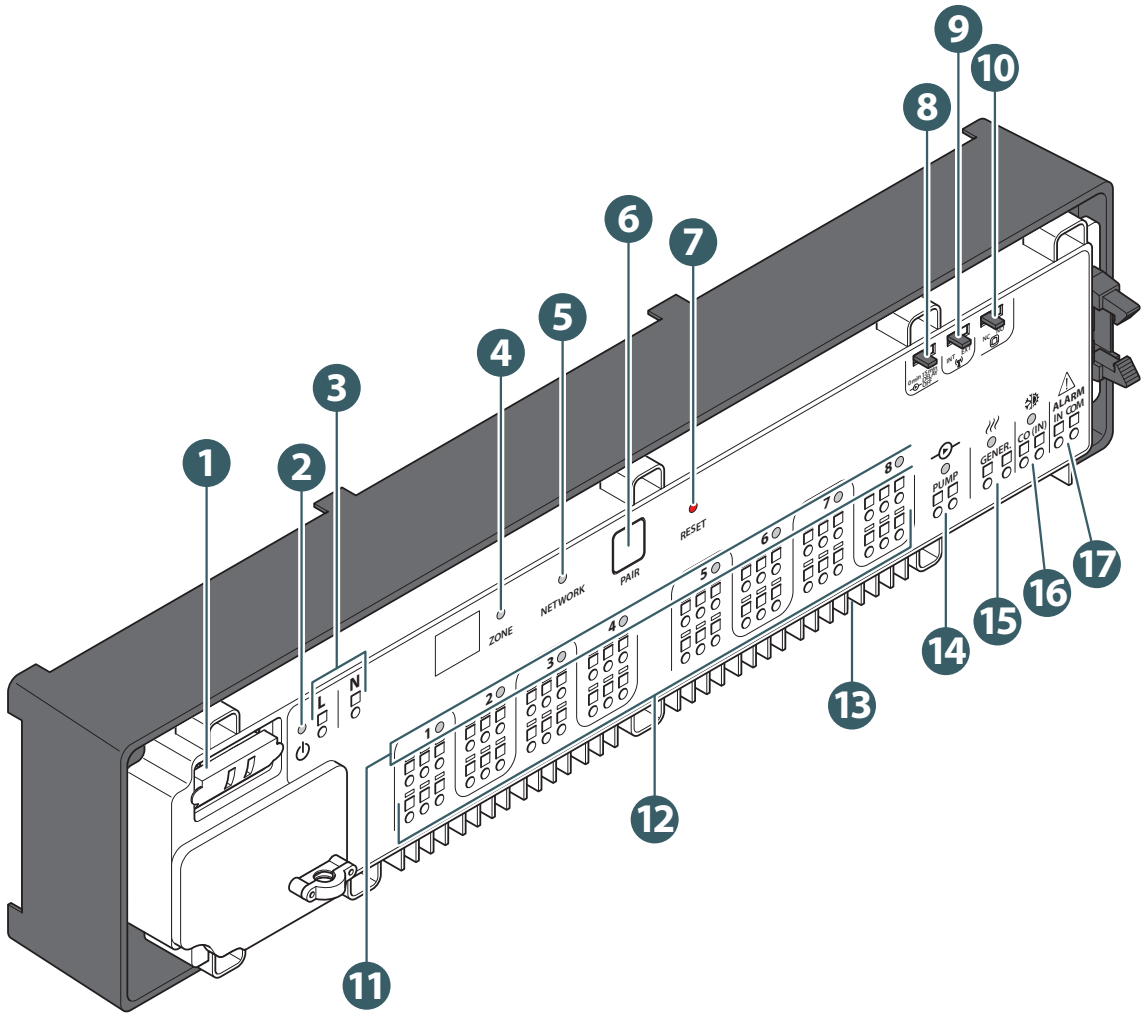


a. Unisenza Plus UFH Wiring Centre RF
b. Plate fixing screw
c. Fixing wall plug for plate fixing
d. Power cord (EU Product Only)
e. DIN Rail (EU Product Only)
f. QR code providing link to electronic User Guide.

EN

5 OVERVIEW

Unisenza Plus UFH Wiring Centre RF



1. Cartridge fuse
2. Power LED indicator
3. Power supply
4. Zone pairing LED indicator
5. Network status LED indicator
6. Pair button
7. Reset button
8. Boiler/heat pump delay OFF jumper
9. INT/EXT antenna jumper
10. NC/NO actuators jumper
11. Zone output LED indicator
12. Terminals for actuators
13. External antenna connector
14. Volt free pump control output and LED indicator
15. Volt free boiler/heat pump control output and LED indicator
16. Heat/Cool changeover input and LED indicator
17. Dew point sensor input

LED Status

LED	Status	Description
Power indicator	Red	Unisenza Plus UFH Wiring Centre RF is supplied with 230V power
Zone pairing indicator	Red	Zone pairing mode is ON
	Red flash slowly	Pairing with selected zone
Network status indicator	Green	Zigbee network is joined
	Green flash slowly	Not connect to gateway
	Green flash rapidly	Joining Zigbee network
Zone output indicator	Green	The zone relay is ON
	No light	The zone relay is OFF
Pump control output indicator	Red	Pump output is ON
Boiler/Heat pump control output indicator	Red	Boiler / Heat pump is ON
Heat/Cool changeover indicator	Red	Unisenza Plus UFH Wiring Centre RF is operating in Heat mode
	Blue	Unisenza Plus UFH Wiring Centre RF is operating in Cool mode

EN

6 APPLICATIONS

The **Unisenza Plus UFH Wiring Centre RF** is used for the control of thermal actuators (water flow of the heating/cooling circuits) in an underfloor heating/cooling system with multiple zones by pairing with the **UFH Thermostat RF** in the product platform.
The **8-zone** main unit provides eight channels relay on/off output. For system with more then 8 Zone you can use multiple Wiring Centre.

7 DOWNLOAD APP FOR ELECTRONIC REGULATOR MANAGEMENT

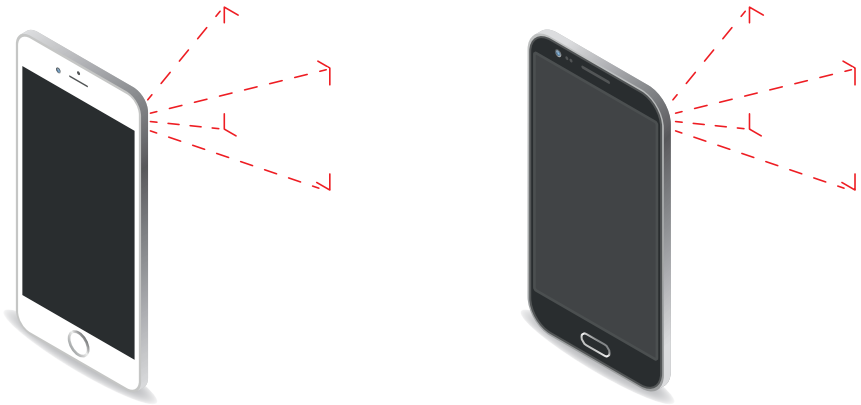
The management of the **Unisenza Plus UFH Wiring Centre RF** is also possible through a dedicated **APP** that allows its configuration and the management of the devices you will pair.

In order to download the **APP**, you need to connect to the **STORE** of your device used for configuration and install the **Unisenza Plus**.

Or, again using the device, you can directly access the installation page using the following **QR codes**, again depending on the operating system.

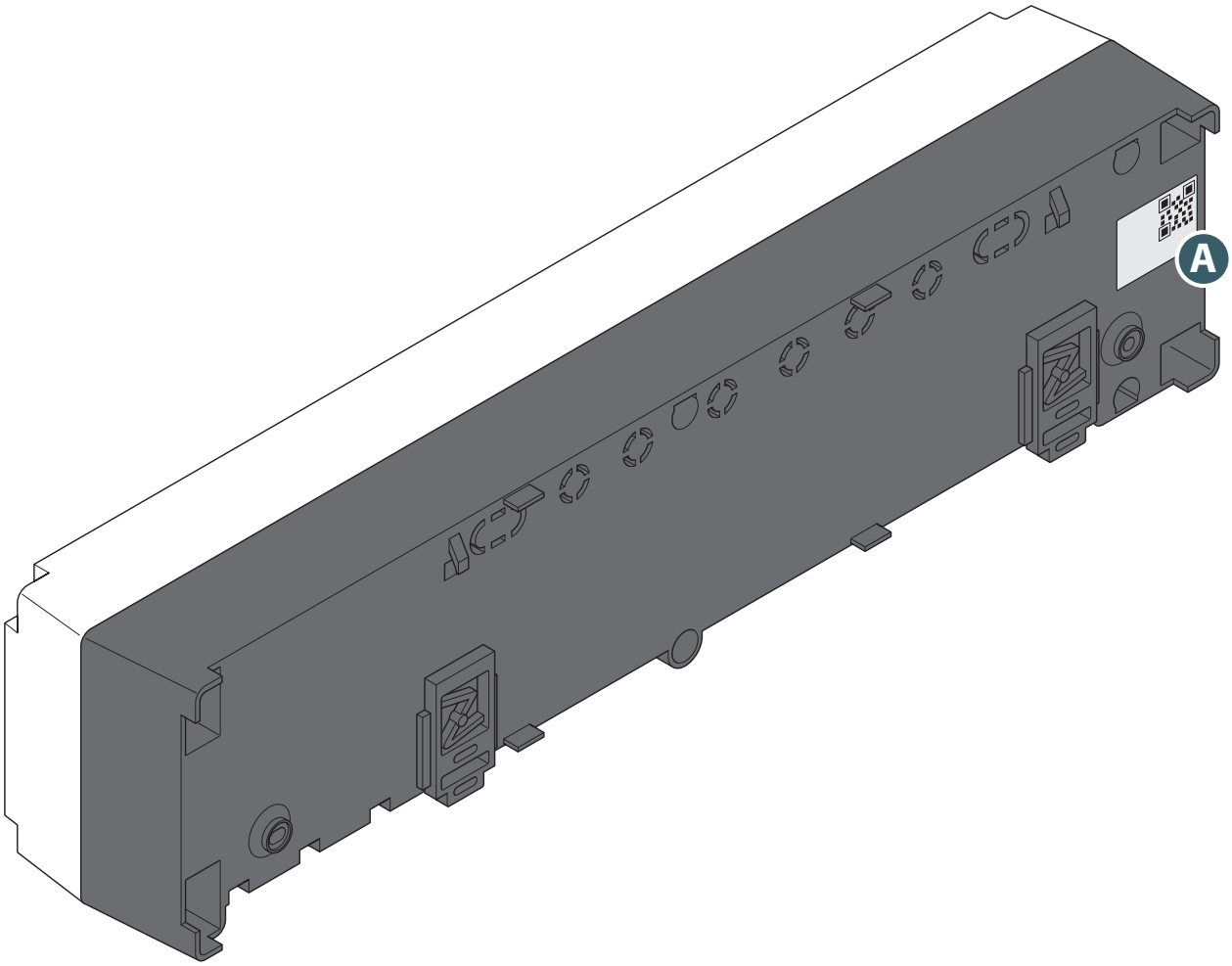
Download on the App Store

GET IT ON Google Play



8 NAMEPLATE

EN



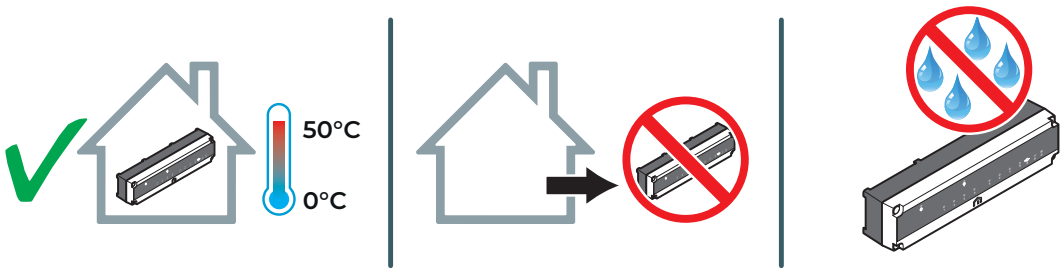
At the rear of the **Unisenza Plus UFH Wiring Centre RF** there is a sticker **(A)** which indicates the device data.

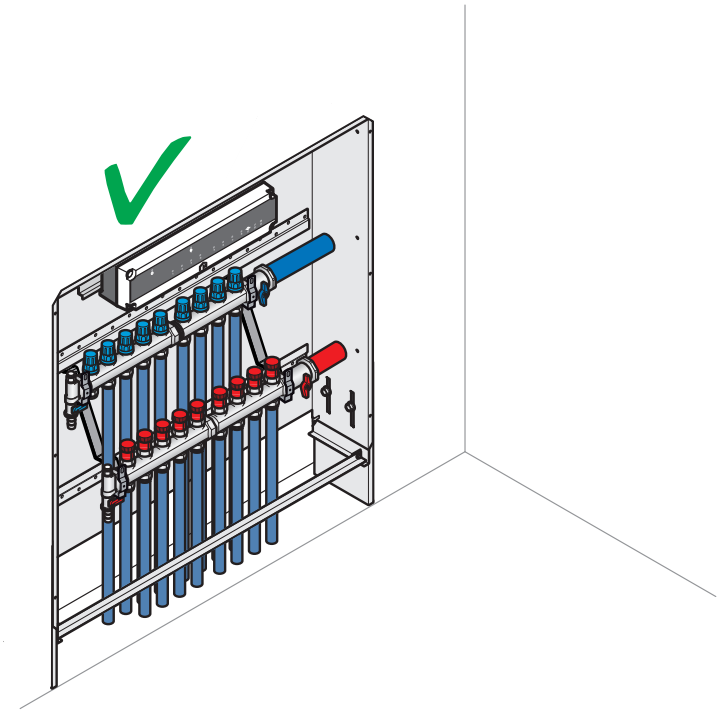
QR code availability for future feature.

EN

9 INSTALLATION

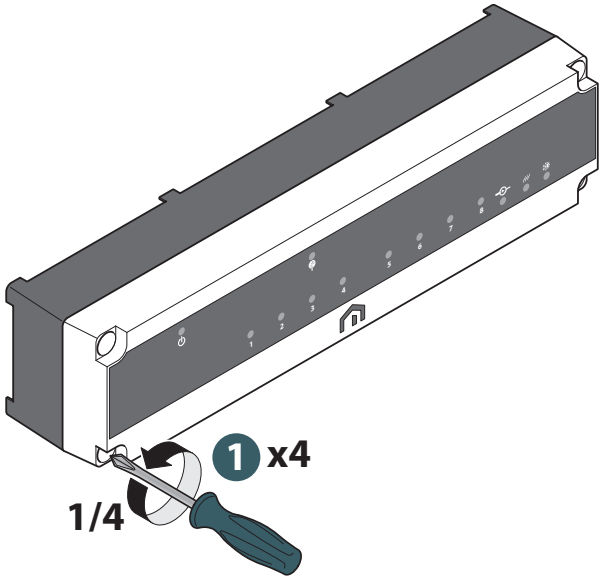
Recommendations for a correct installation

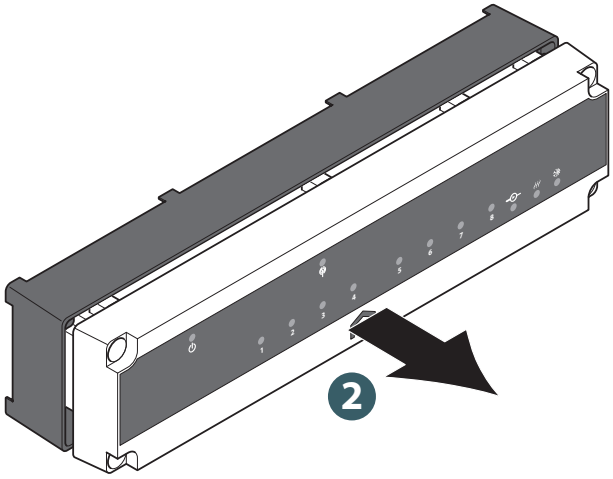


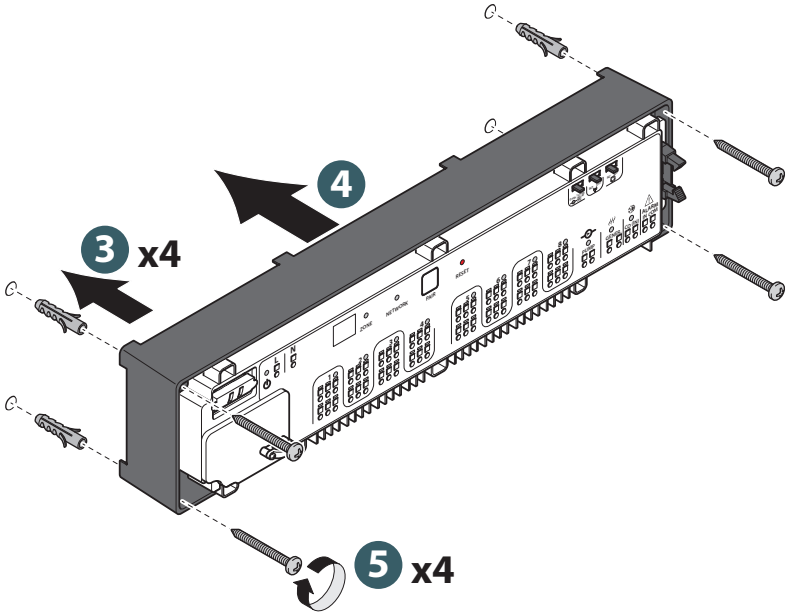


EN

Fixing on the wall

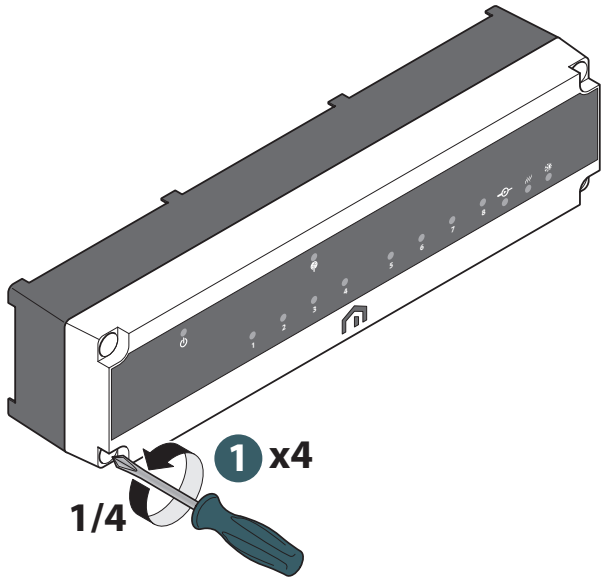


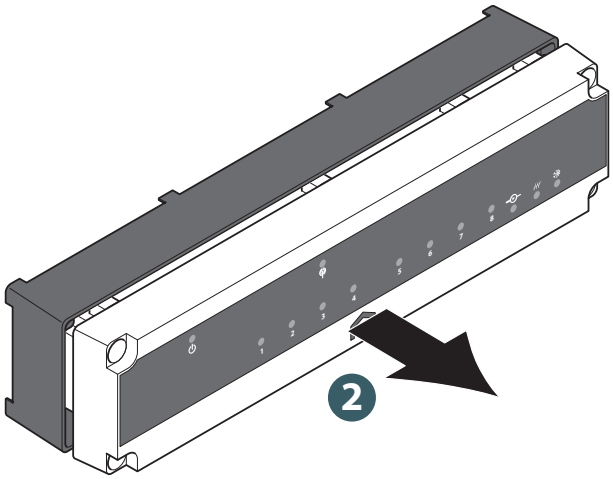


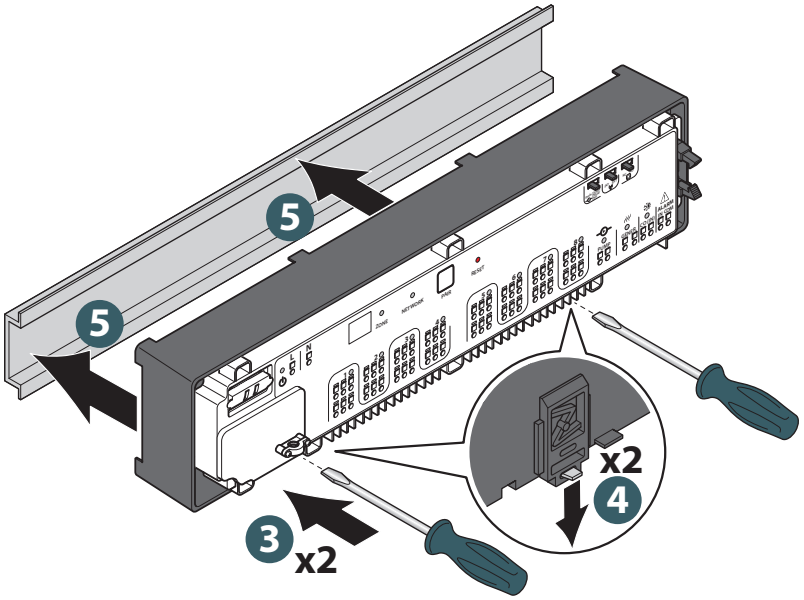


EN

Fixing on the DIN rail



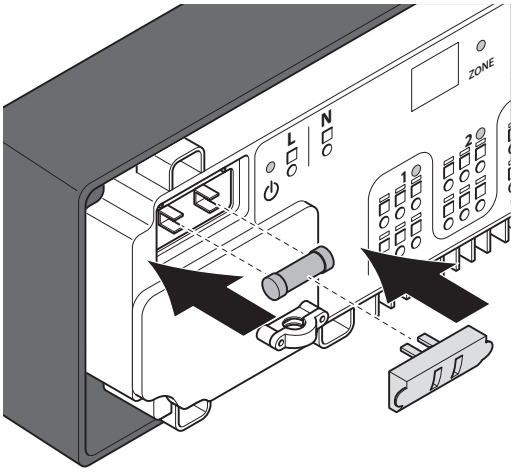




EN

Wiring

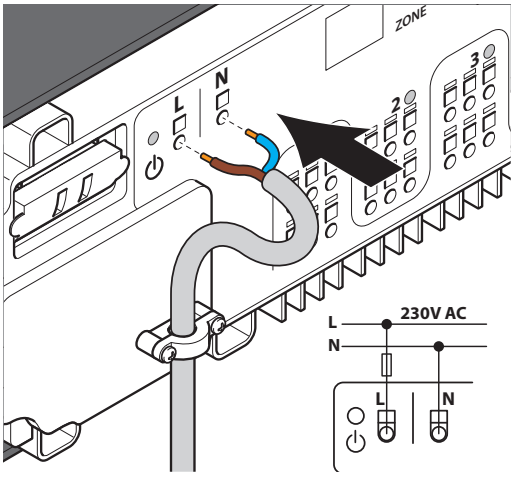
Fuse



Fuse replacement should be undertaken only when the Wiring Centre is disconnected from power supply.

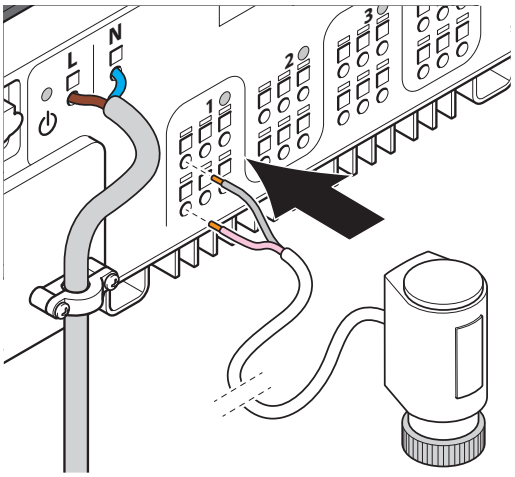
The mains fuse is located under the top cover, at the main terminals and protects the Wiring Centre and devices powered by it. Use cartridge fuse - **type 5 x 20 mm** – nominal burn rate **12A**. To remove fuse, lift the socket with a flat screwdriver and pull out for fuse.

Power supply



Power supply for Wiring Centre is **230V - 50Hz**.

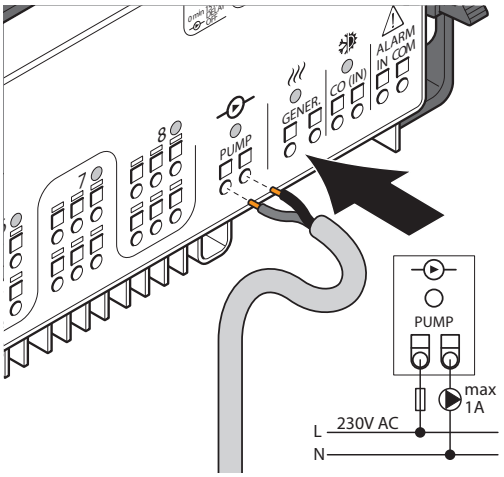
Terminals for actuators



Wires of the thermoelectric actuators should be plugged into the self-locking connectors in the appropriate zones. You can connect **3 actuators** directly to one zone.
The current load of one zone is adapted to operate with up to 10 thermoelectric actuators with a power of 1 Watts.

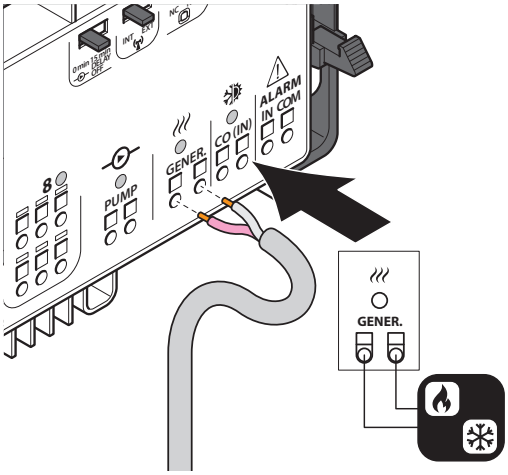
Actuator voltage is 230V during normal operation.

Pump control output



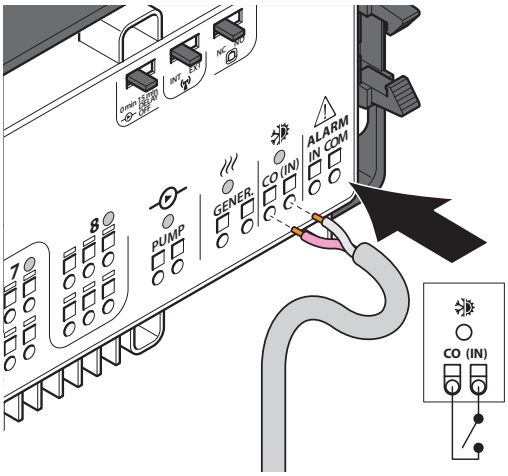
The Pump Control output is a volt free output **(COM/NO)** that controls the circulation pump in the heating/cooling system, based on the signal received from the linked thermostats..
The Pump control output closes in **3 minutes** after receiving the heating/cooling signal from any of the thermostats linked with Wiring Centre.
The output opens also after **3 minutes**, when the last thermostat stops sending heat / cool demand.
The Wiring Centre will operate the pump for **5 minutes**, only if the pump output has not been operated by a thermostat, within the preceding **24 hours**. This function may also be initiated via the **APP**.

Boiler/Heat pump control output



This is a volt free output **(COM/NO)** that could controls the boiler or heat pump in the system, based on the heating/cooling demand received from the thermostats linked with Wiring Centre.
The Boiler/Heat pump control output closes to turn On the boiler or heat pump in **3 minutes** after receiving the heating/cooling signal from any thermostats linked with Wiring Centre.
The output switches off the boiler or heat pump when the last thermostat stops sending heat demand after the time set on the Boiler/heat pump delay OFF jumper.

Heat/Cool changeover input

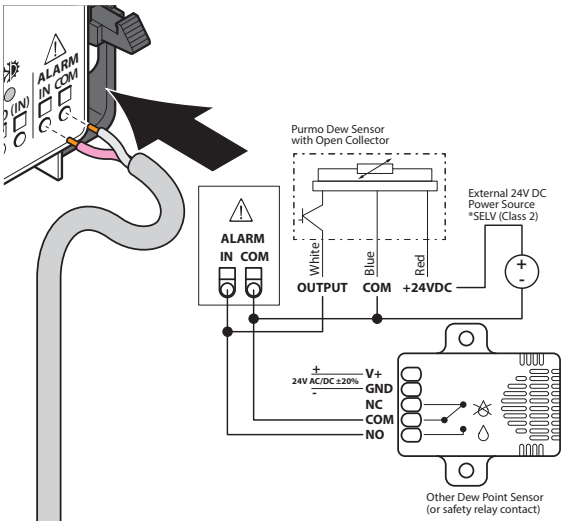


This input is used for switching the Wiring Centre in Heating mode or in Cooling mode. When the input contact is opened, the system will operate in Heating mode and the indicator light will be RED. When the input contact is closed, the system will operate in cooling mode and the indicator light will be BLUE.

Heat/Cool chageover input	Indicator	Mode
Opened contact	Red	Heating
Closed contact	Blue	Cooling

EN

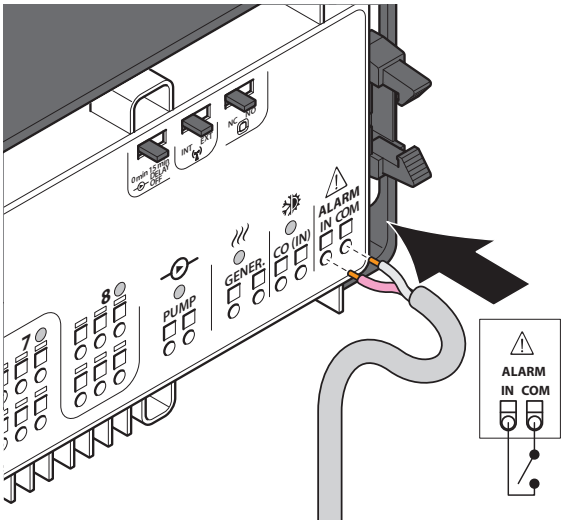
Alarm input



In **Unisenza Plus UFH Wiring Centre RF**, the alarm inputs can be used to connect a safety thermostat (in heating mode) and/or a dew point sensor (in cooling mode). When the alarm is triggered by safety thermostat or dew point sensors, the wiring centre switches off all zones, Pump control output and also the Generator output, until the alarm signal is dismissed.
The alarm input supports 2 types of sensor connection, the Open Collector type and the Dry Contact type. It is possible to connect maximum 3 dew point sensors for each Wiring Centre. The reference connection to the **IN** and **COM** terminals is illustrated as per the adjacent diagram.

Note! Sensor supply voltage 24V has to be provided externally.

Dew point sensor input

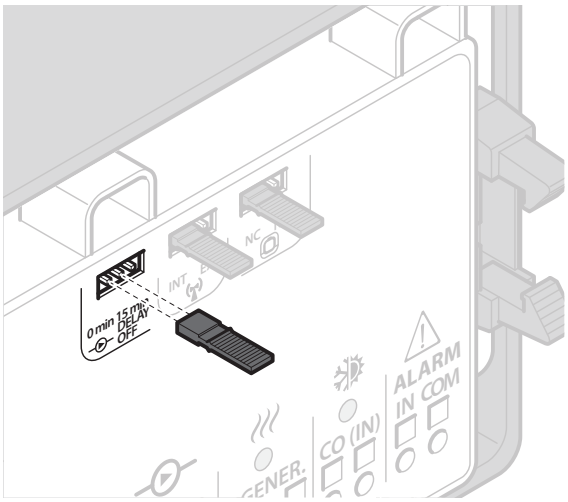


Closing the contact of the Dew Point Sensor will result in switching off all zones in the wiring centre, Pump control output and also the Boiler/Heat pump control output.
This input can also be used in other applications by closing the contacts to switch off all outputs of the wiring centre in both Heating mode and Cooling mode. All relays and control outputs resume normal operation after this sensor input contacts are opened again.

EN

Jumper setting

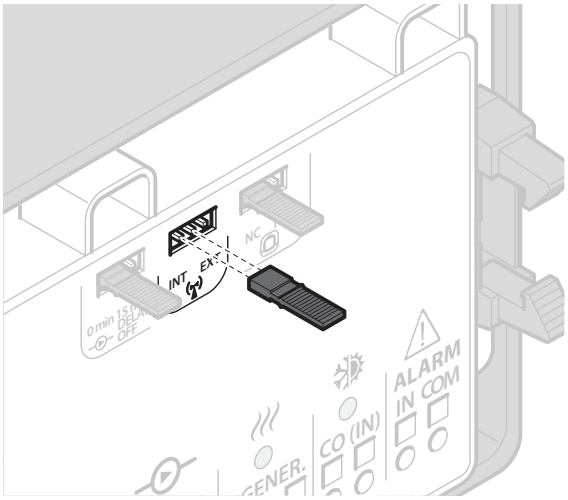
Boiler/heat pump delay OFF jumper



This jumper is for setting the delay time (no delay or 5 minutes delay) of the Boiler/heat pump control output to turn Off after the last thermostat stop sending demand for heat (or cool).

0 min 5 min

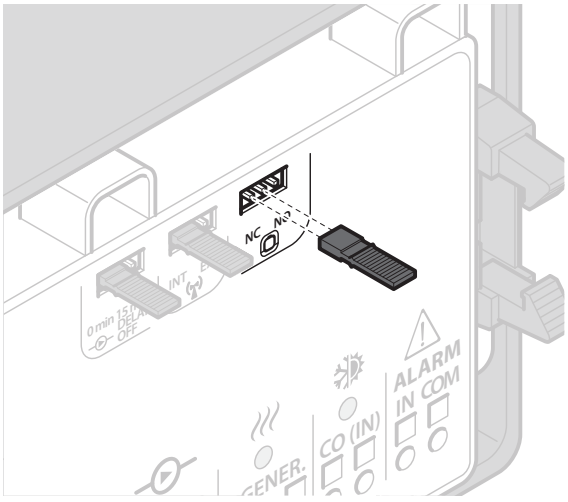
INT/EXT antenna jumper



There is an option to connect an external antenna to the wiring centre. Place the jumper in the EXT position when an additional antenna is used.

INT EXT

NC/NO actuators jumper



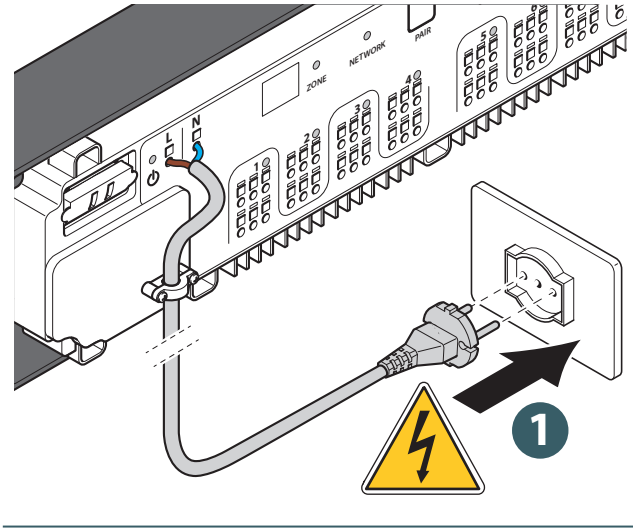
Select the type of the thermoelectric actuator connected to the wiring centre.
- NC : actuator normally closed
- NO : actuator normally opened

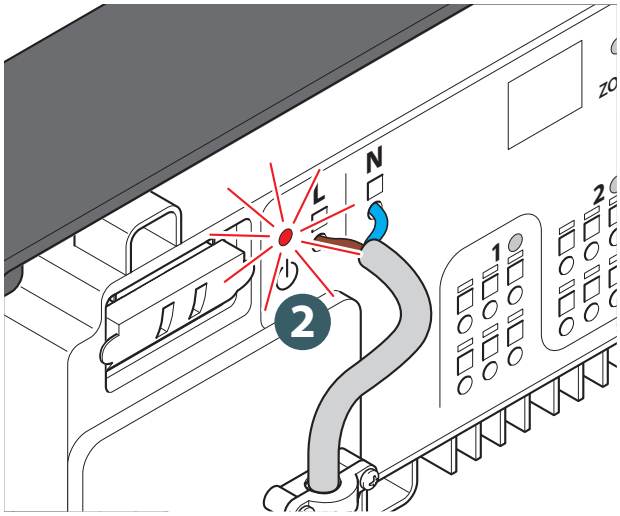
NC NO

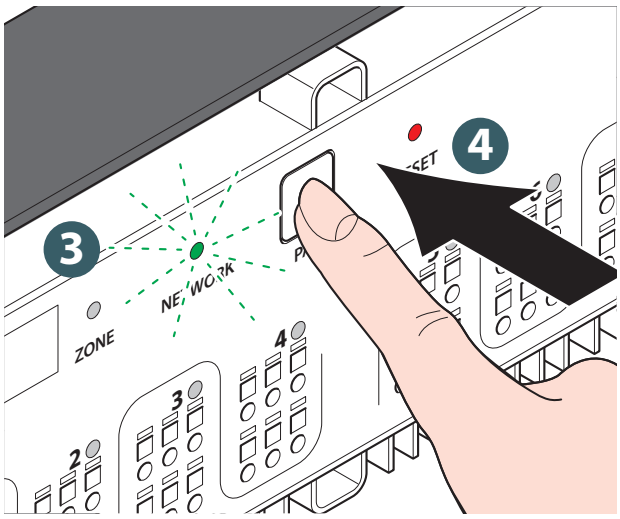
EN

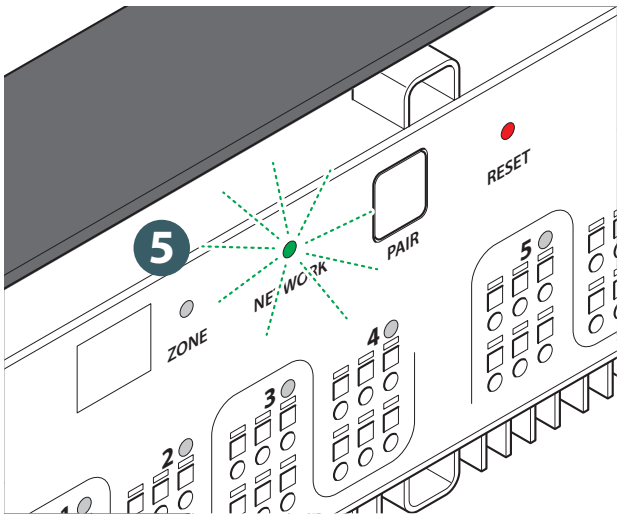
10 USE

Joining to Unisenza Plus Gateway

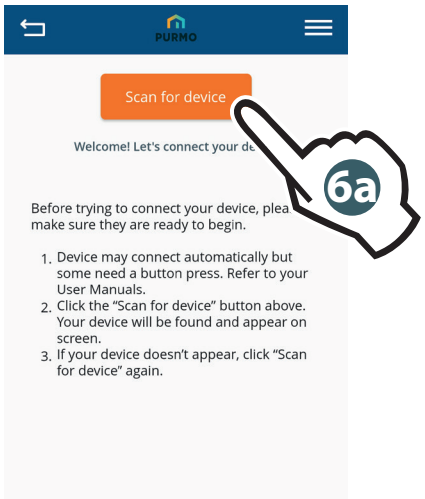


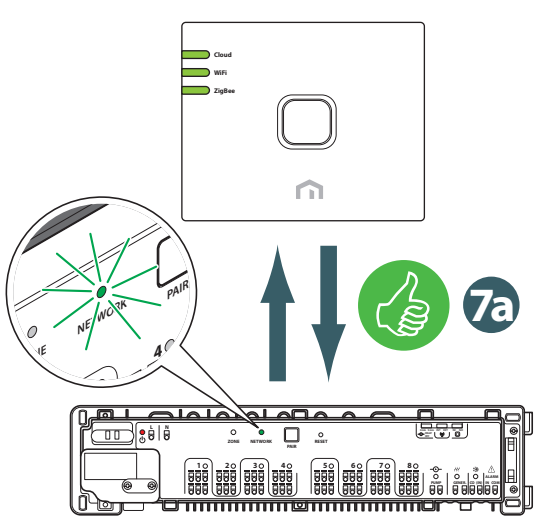






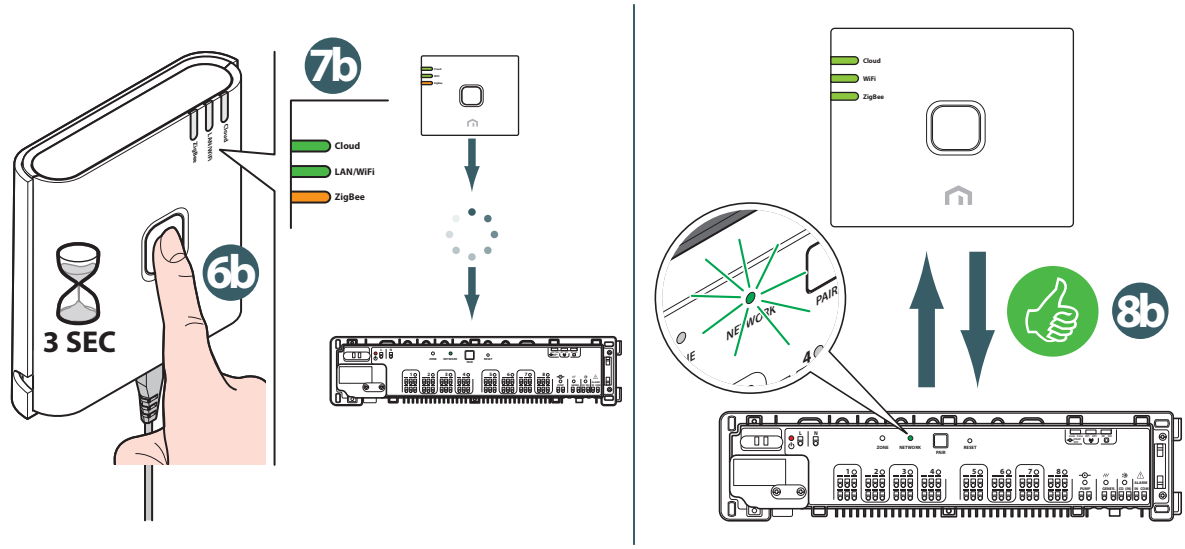
With APP





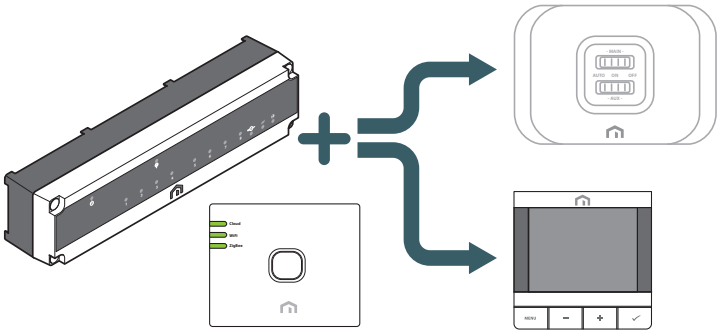
EN

Without APP



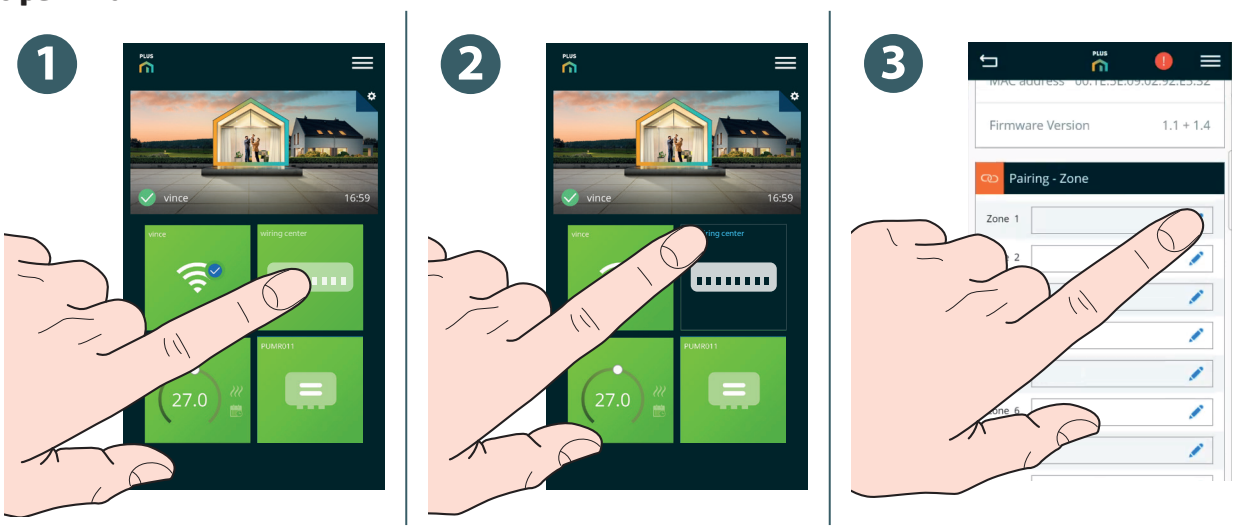
If you want to associate a **Unisenza Plus UFH Wiring Centre RF** that was previously associated with another **Gateway**, it is necessary to perform a reset to the factory settings of the electronic regulator before making the new association.

Pairing wiring centre zones to Unisenza Plus Thermostat RF

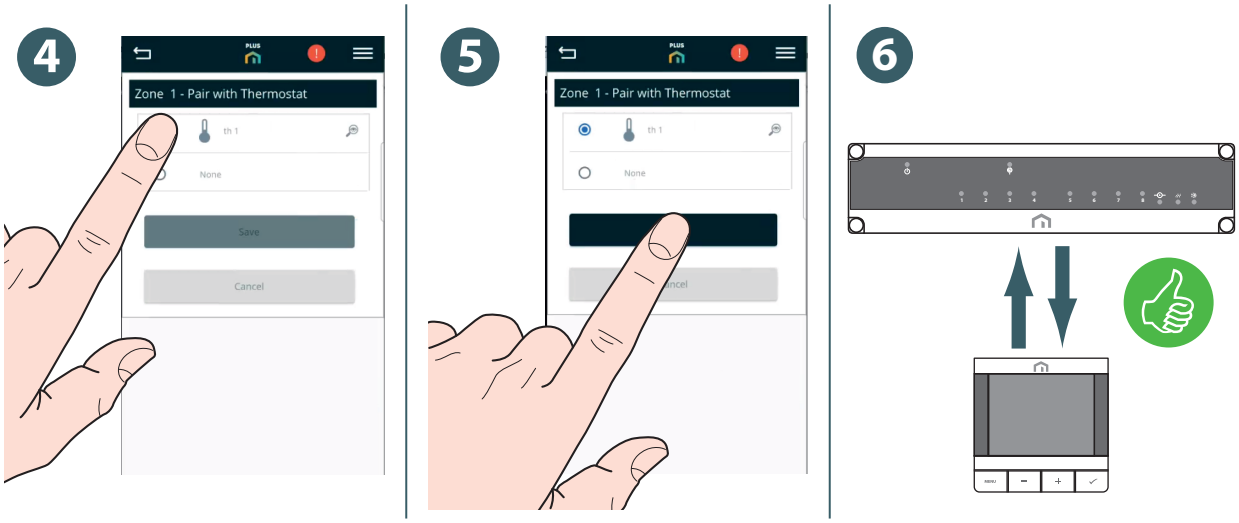


After the wiring centre joined the **Unisenza Plus network**, the zone outputs can be paired with **Unisenza Plus UFH thermostas RF**. Each zone can be paired with one room thermostat in the network and a compatible thermostat could be paired with more than one zone output.

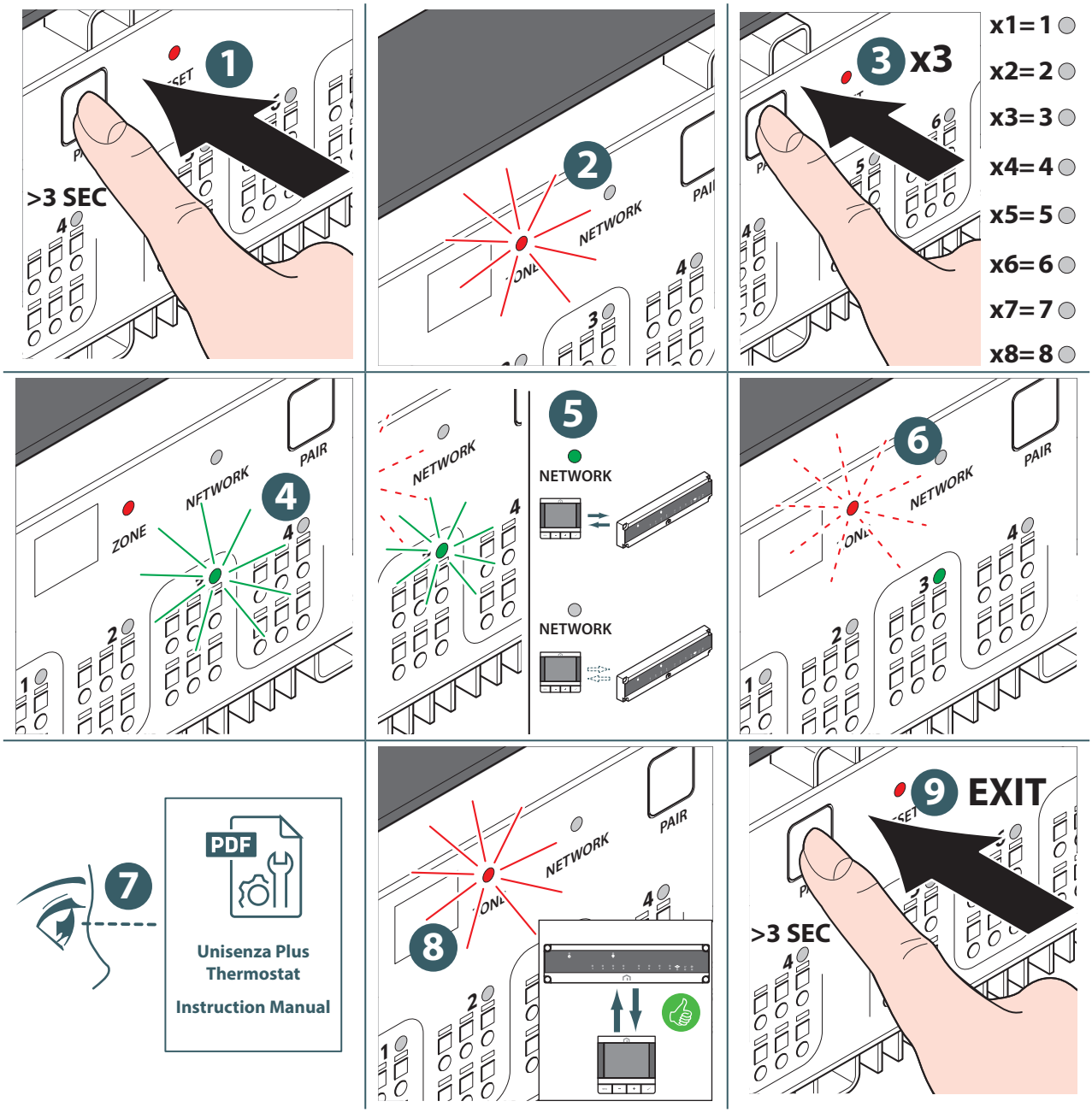
To pair with APP



EN

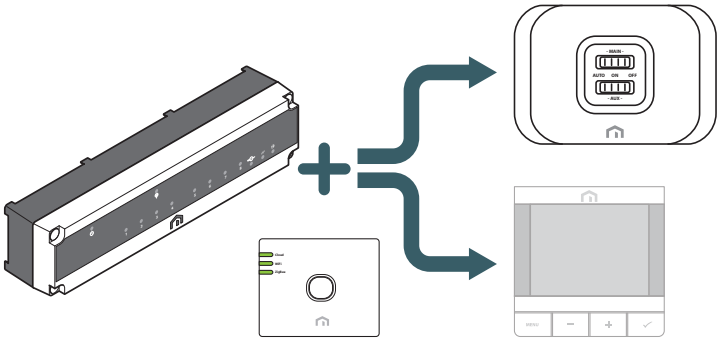


To pair without APP (repet the same operations for every zone)



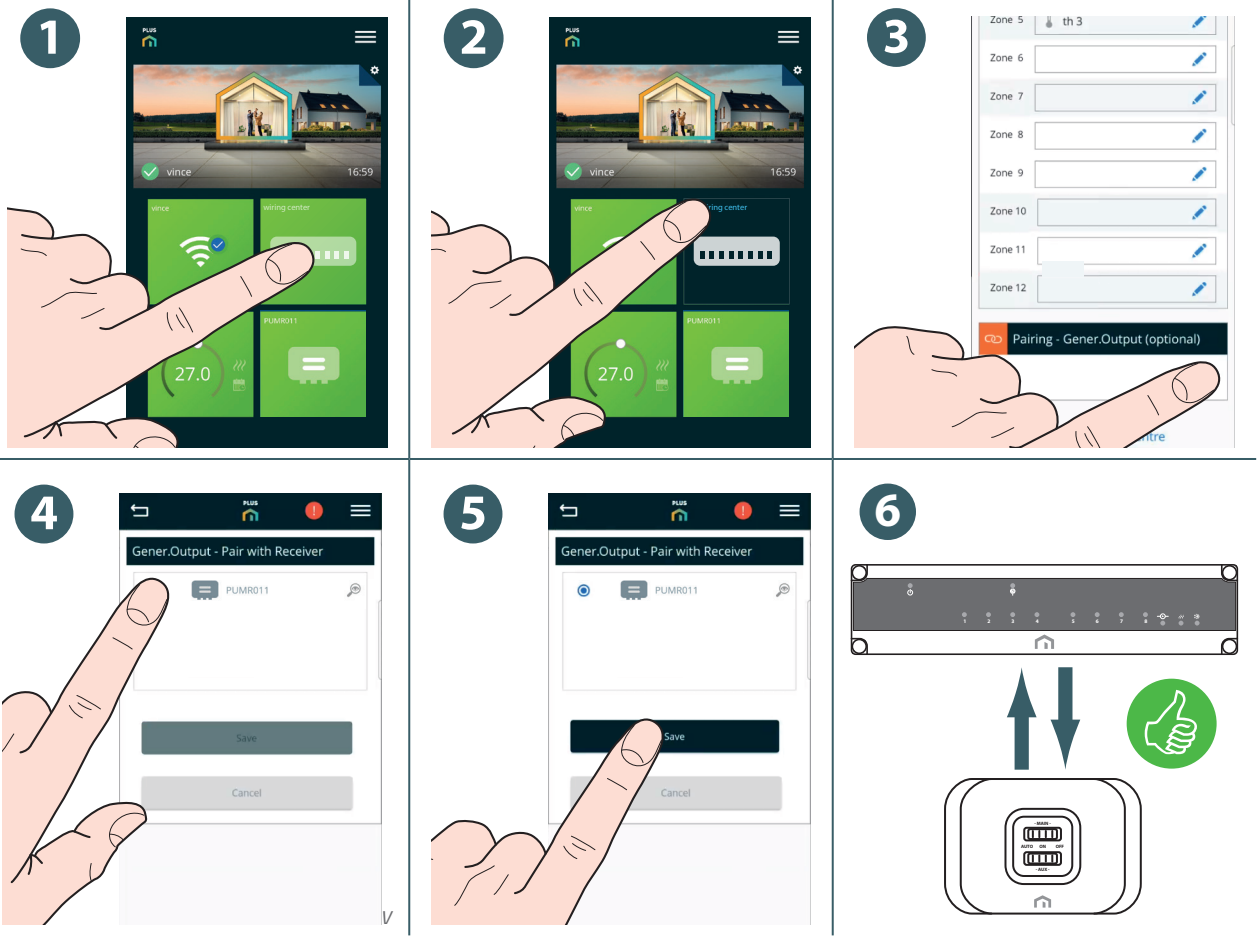
EN

Pairing wiring centre zones to Receiver

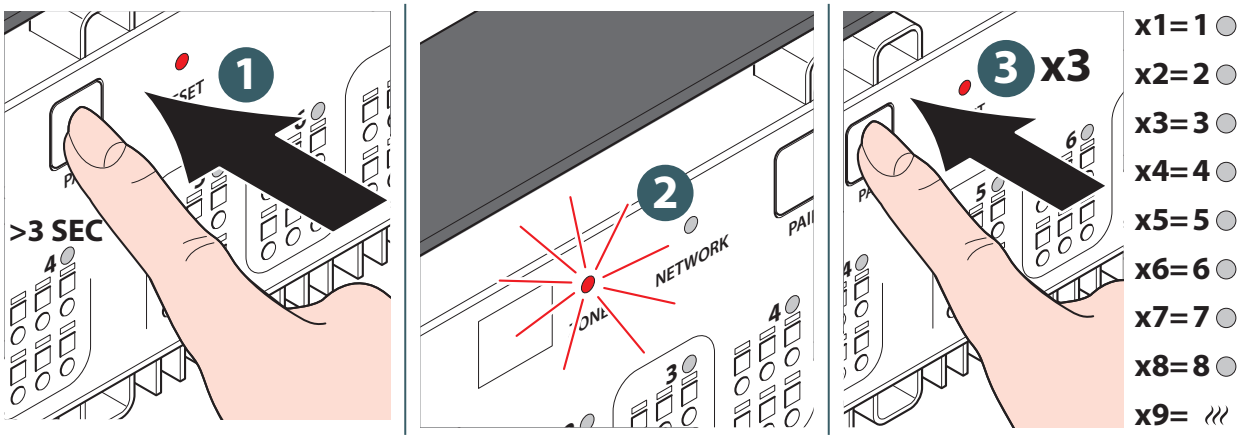


The wiring centre can also be paired with a compatible **Unisenza Plus Receiver** to switch on boiler, heat pump or other devices when there is a **Heating** or **Cooling** demand from a paired thermostat.

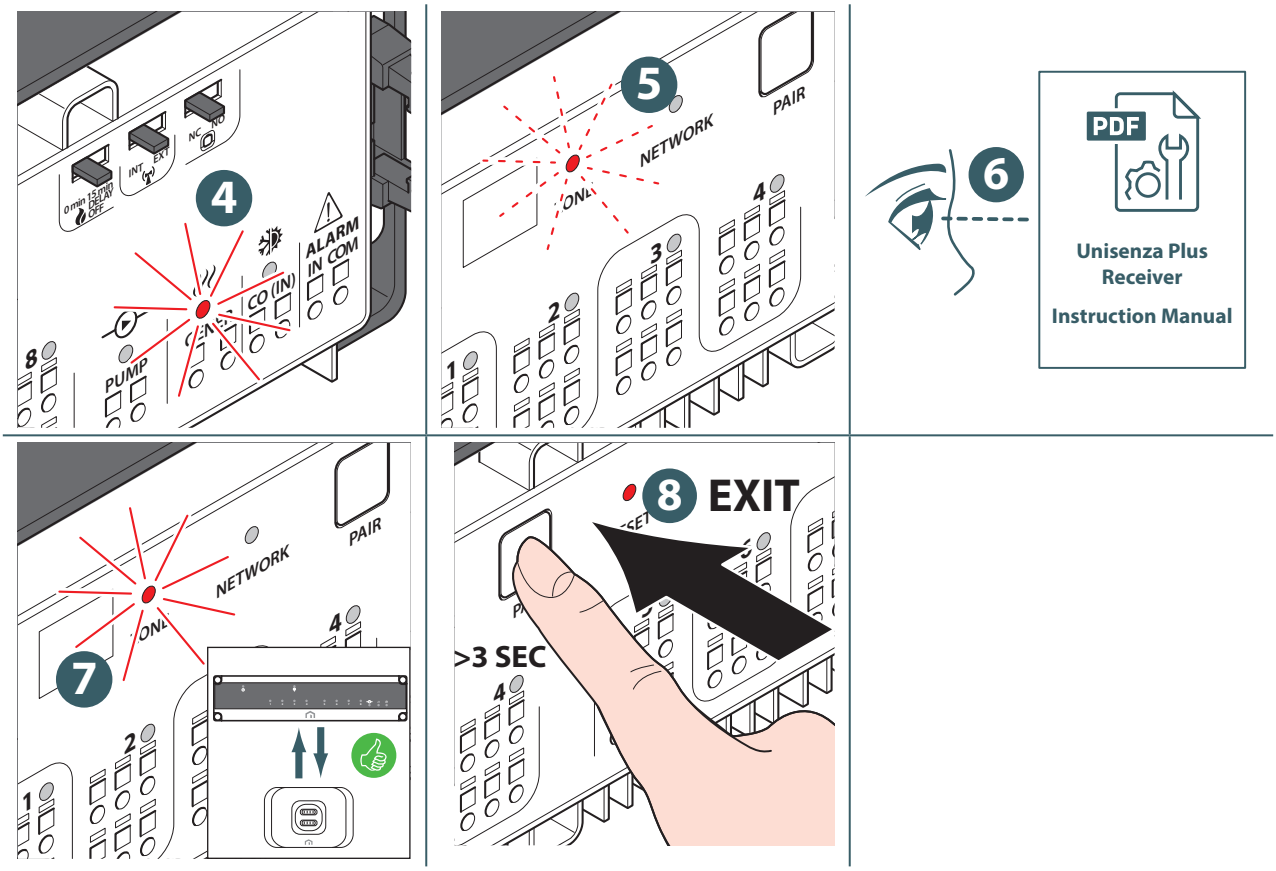
To pair with APP



To pair without APP



EN


4
ALARM
IN COM
CO (IN)
PUMP
5
NETWORK
PAIR
6
PDF
Unisenza Plus
Receiver
Instruction Manual
7
NETWORK
PAIR
8 EXIT
>3 SEC

11 MAINTENANCE

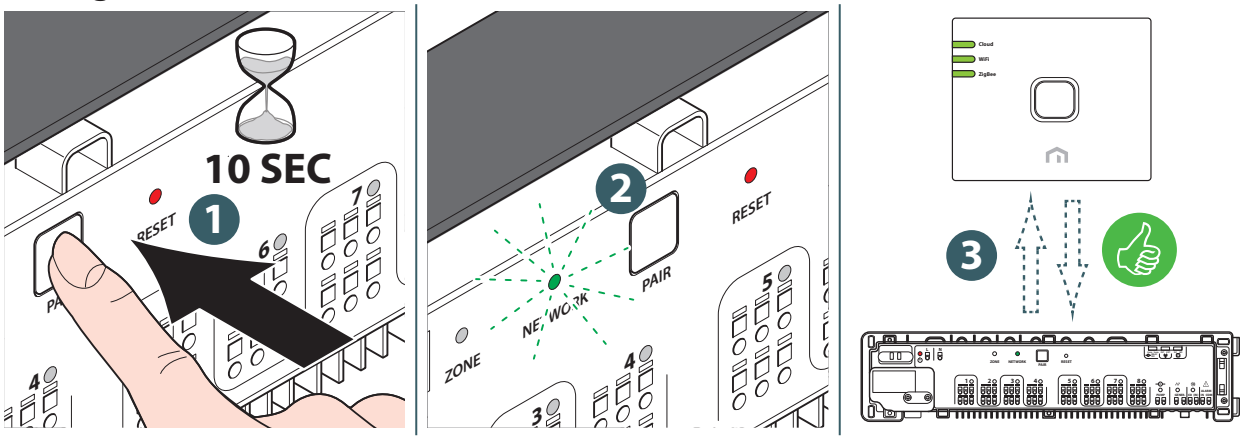
EN

Over-the-air (OTA) software update operation.

The **Unisenza Plus UFH Wiring Centre RF** upgrades its software automatically when there is a newer version software available from the server.
A valid connection to the gateway and the Internet is needed to allow the **Unisenza Plus UFH Wiring Centre RF** to download the new software image. All device functionality is maintained during the download and the update process, until the device restarts to activate the new software.

All settings and paired devices information are retained after the update.

Factory Reset



Cleaning

Other maintenance

Any type of maintenance must only be carried out by qualified personnel, trained and authorized by the Manufacturer. It is absolutely forbidden to open the device and try to repair it independently, this would result in a serious danger for the person as well as voiding any warranty.

The manufacturer accepts no responsibility for any damage to property or people.

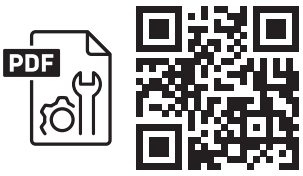
EN

12 MANUAL DOWNLOAD AND UPDATES

Due to the requirement for continuous improvement, we constantly update the user manuals of our systems.
We therefore invite you to periodically check whether the manual in your possession is always the latest written version.
To do this, you can connect to the following **internet address**:

https://www.purmogroup.com/support

or by scan the **QR cod**e displayed below.



13 DISPOSAL AT THE END OF LIFE

Pursuant to art. 13 of Decree-Law No. 49 of 2014 "Implementation of the WEEE Directive 2012/19/EU on waste electrical and electronic equipment".
The mark of the crossed-out bin with a bar specifies that the product was placed on the market after 13 August 2005 and that at the end of its useful life it must not be collected with other waste but must be disposed of separately. All the appliances are made of recyclable metal materials (stainless steel, iron, aluminium, galvanized sheet metal, copper, etc.) in a percentage greater than 90% by weight. Make the equipment unusable for disposal by removing the power cable and any compartment or cavity closing device (if any). It is necessary to pay attention to the management of this product at the end of its life by reducing any negative impacts on the environment and improving the efficiency of the use of resources, applying the principles of "polluter pays", prevention, preparation for reuse, recycling and recovery. Please note that the illegal or incorrect disposal of the product entails the application of the penalties provided for by current legislation.

Information on disposal in Italy
In Italy **WEEE** equipment must be delivered to:
collection centres (also called waste separation areas or platforms)
the Dealer where you buy new equipment, who is required to accept it free of charge ("one on one" collection).

Information on disposal in European Union countries
The EU **WEEE** equipment directive has been adopted differently by each country, therefore if you want to dispose of this equipment we suggest you contact the local authorities or the dealer to ask for the correct method of disposal.

UNISENZA PLUS - UFH Wiring Centre RF manual EN
23005M1810C01FEN1

A PURMO GROUP BRAND
Bulevardi 46
P.O. Box 115
FI-00121 Helsinki
Finland
www.purmogroup.com