

**Wireless control unit 868MHz
U2W4 24V 4/8/12 zones**

The wireless control unit **U2W4 - 24V** - 868 MHz is smart base station with no wires to manage room thermostats (**T2WB** and/or **T2WBD**) and actuators (**A544O2**) in order to set and keep the temperature in different rooms.

The wireless control unit **U2W4 - 24V** - 868 MHz can deliver the power to move actuators (**A544O2**) and it can install a bidirectional communication with thermostats, throughout the most recent 868 MHz radio technology.

This unit records and uses an important amount of measured data to control singularly the room temperature, in order to guarantee the maximum comfort.

The standard version is equipped with a technological software, able to comply every management requirement with current and next heating systems have; since this branch looks

constantly ahead, every software and settings update can be done by inserting a MicroSD memory card. MicroSD slot is on the bottom and the card is optional.



TECHNICAL FEATURES

- Wireless communication between room thermostat (**T2WB** or **T2WBD**) and the wireless control unit **U2W4 - 24V**)
- Technology **868 MHz**
- Thermostat status indication
- “Antifreeze” function
- Heating and cooling systems adjustment function for single rooms, managing up to 12 zones (according to version)
- Management of maximum 18 actuators and 12 room thermostats (according to the control unit version), a pump/boiler, CO signal generator, a dry bulb humidity sensor and external clock
- System setting by MicroSD card

GENERAL INFORMATION

Name

U2W404 to manage maximum 4 room thermostats (**T2WB** or **T2WBD**) – 4 zones

U2W408 to manage maximum 8 room thermostats (**T2WB** or **T2WBD**) – 8 zones

U2W412 to manage maximum 12 room thermostats (**T2WB** or **T2WBD**) – 12 zones

Each room thermostat can drive several zones.

Packaging content

1 x wireless control unit **U2W4 - 24V** 868 MHz with transformer 230V/24V

1 x instruction manual

1 x fixing metallic bar

Accessories (optional)

External antenna U2WA – it extends the radio signal range of the control unit

Signal repeater U2WR – it increases the unit control radio range

Humidity sensor U2DP or U2DPRS – it measures humidity and dew point for heating/cooling floor applications

USE

The wireless control unit **U2W4 - 24V** is used in conditioning systems for new buildings as well as renovations like houses, offices, stores, etc...

Using the wireless control unit **U2W4 - 24V** the installation time can be consistently reduced; that is a great benefit for installers. The wireless control unit **U2W4 - 24V** is often installed in manifold wall boxes. This product is developed for the connection of 4-8-12 room thermostat (**T2WB** or **T2WBD**) and 18 actuators (**A544O2**).

Wireless room thermostat installation (**T2WB** or **T2WBD**) is very easy because no wiring is needed. The free tool connection and the clear color codification allow to quickly link wires (actuators, boiler, pump, etc.). All wires are placed in specific guides, in order to have a clear and orderly arrangement and a fast installation of the wireless control unit **U2W4 - 24V**.

“Antifreeze” function

Every actuator outlet has protection function against freezing, independently of the operation mode. As soon as the set antifreeze temperature is overpassed (5 ... 10°C), actuators A544O2 of the corresponding heating zone are switched on, until reaching the safety set temperature. “Antifreeze” temperature can be set by the MicroSD card.

Pump protection function

The pump is periodically activated (default intervals are set) to avoid any damage due to too long stops. During that time, the LED pump is on.

Valves protection function

When valves are closed for long time (for example, out of the heating season), they are cyclically open in every heated zone to avoid mechanic blocks.

Monitoring the dew point

If the system has a dew point sensor (to purchase separately) and humidity is measured, the valves of all circuits are closed to avoid damages to surfaces because of the moisture. Dew point sensor input is taken into account just in cooling mode.

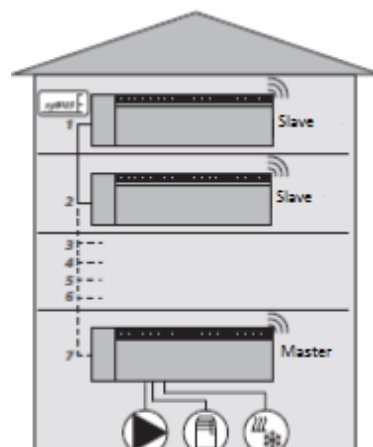
Safety temperature limitation

If a temperature limiter (optional) is installed, when the critical temperature (previously set) is overpassed, valves shut down and they preserve fragile surface of floors.

Connection of many control units

In case of use of many control units in a conditioning system, up to 7 control unit can be paired (Pairing), enabling global parameters exchange. The connection is done via radio or by means of BUS system (syBUS). The radio range has to be followed in order to pair units wireless. If the range is not enough, control units must be connected through the wired system syBUS. The communication type is the master/slave principle. All messages and actions are exchanged among control units. The master unit monitors in a centralized way the following functions:

- CO input/output (if the pilot function is activated)
- Boiler output
- Pump output



TECHNICAL DATA

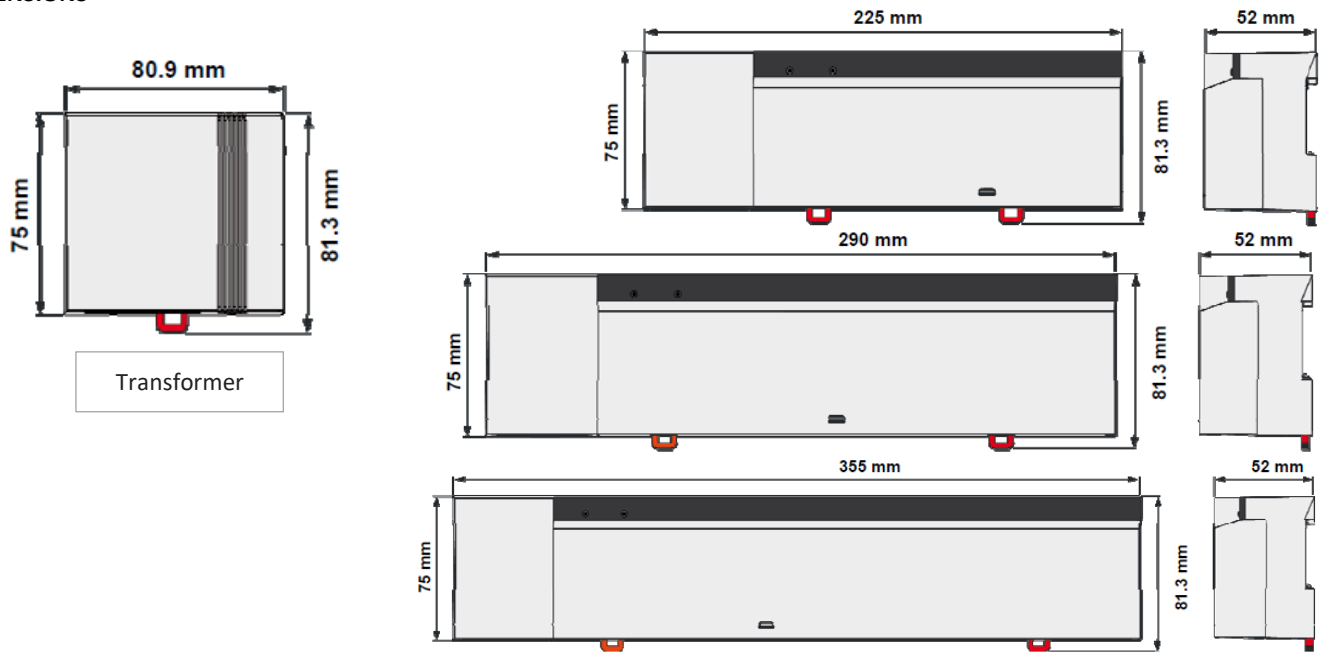
Type	U2W404	U2W408	U2W412
Supply voltage	230 V AC, 24V / ±20% / 50Hz for actuators ⁽¹⁾		
Max. power consumption	50 W (limited by the transformer)		
Fuse	5 x 20 mm, T2A		
Max. n. of room thermostat	4	8	12
Max. n. of actuators	2 X 2 + 2 X 1	4 X 2 + 4 X 1	6 X 2 + 6X 1
Max. supply power for actuators	24W (12x 2W or 8x3 resp. or 18 x 1W)		
Max. switching power	1A/zone		
Frequency	868 MHZ-band		
Radiated power	<10mW		
Range	Max. 25 m		
Standard and regulations	EN60730-1 / EN60730-2-9		
Dimensions (mm) W ⁽¹⁾ xHxD	306x75x52	371x75x52	436x75x52
Protection class	III		
Protection degree	IP20		
Environment temperature	da 0 a + 60° C		
Storage temperature	da -25° a + 70° C		
Air humidity	Max. 80%		
Solid wire	0,5 – 1 mm ²		
Flexible wire	1 - 1.5 mm ²		
Weight ⁽¹⁾	950 g	1100 g	1210 g

(1) transformer included

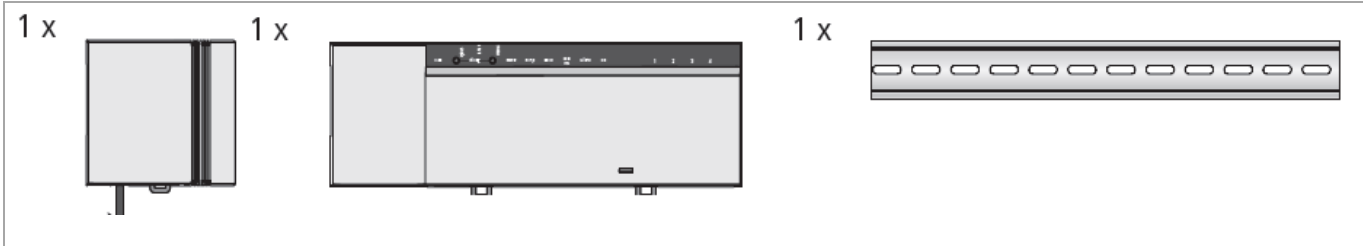
APPROVALS



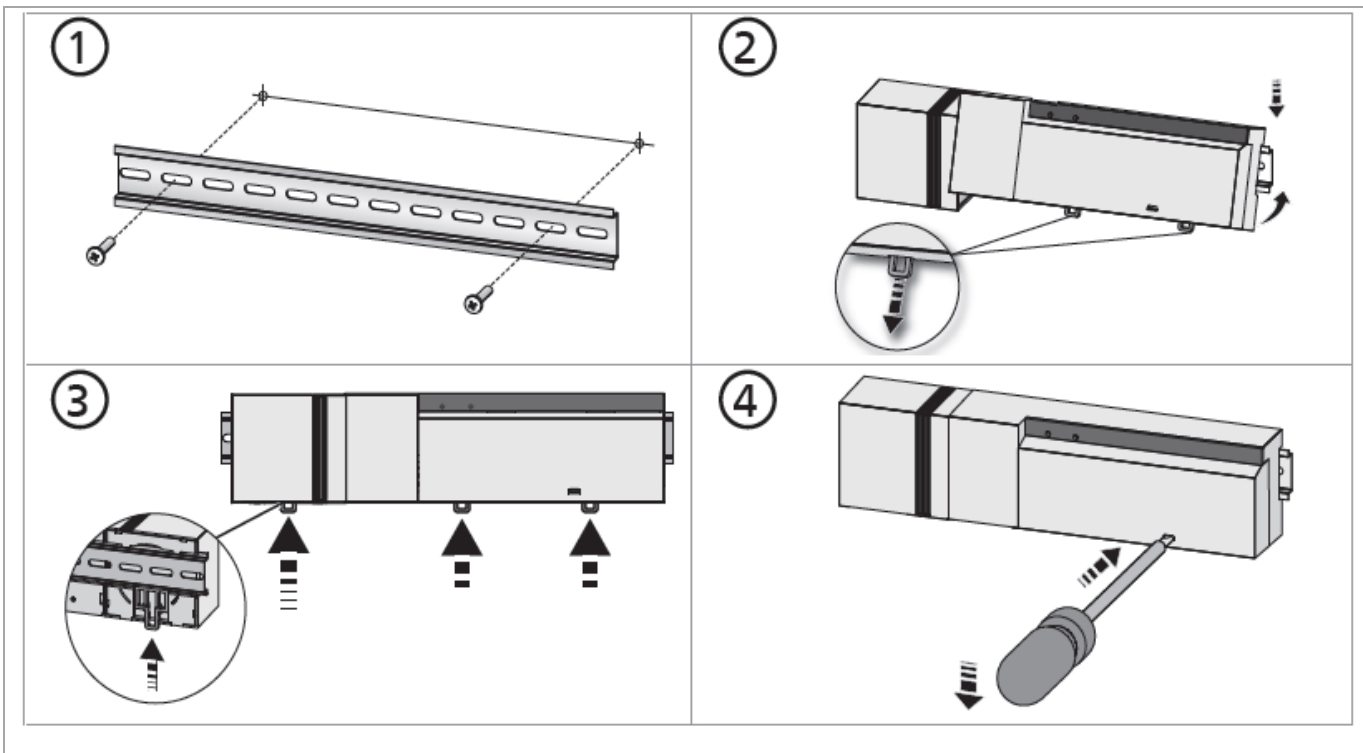
DIMENSIONS

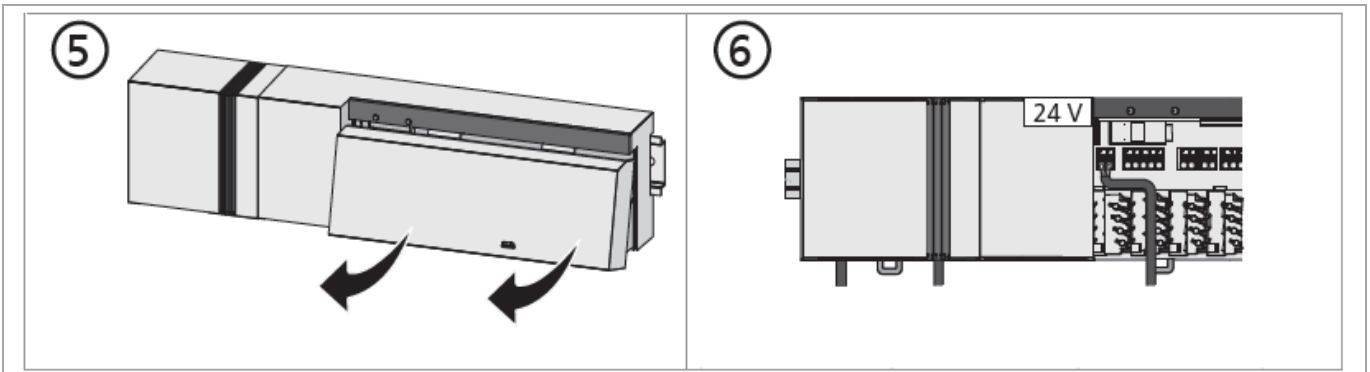


PACKAGE CONTENT

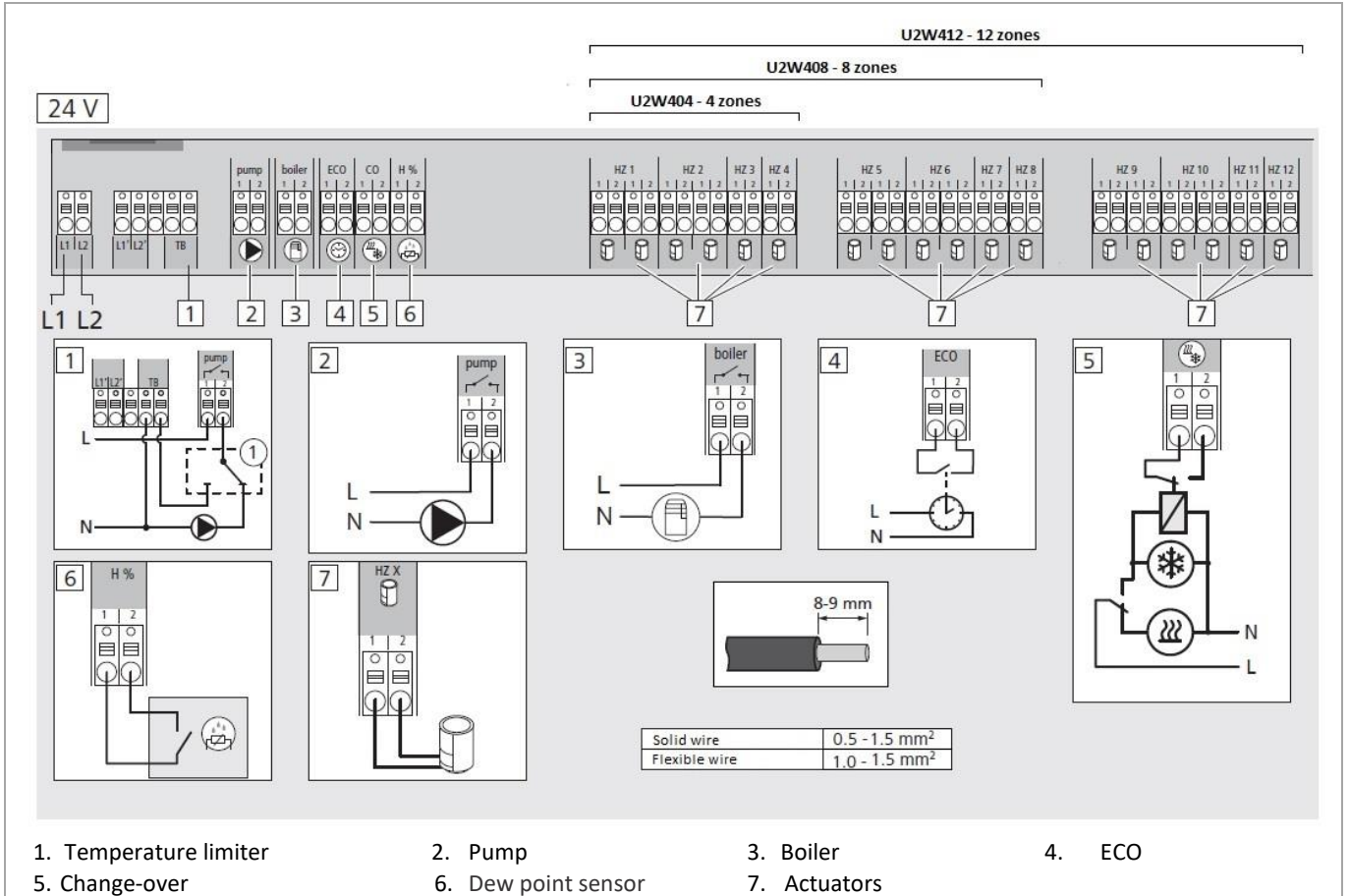


INSTALLATION

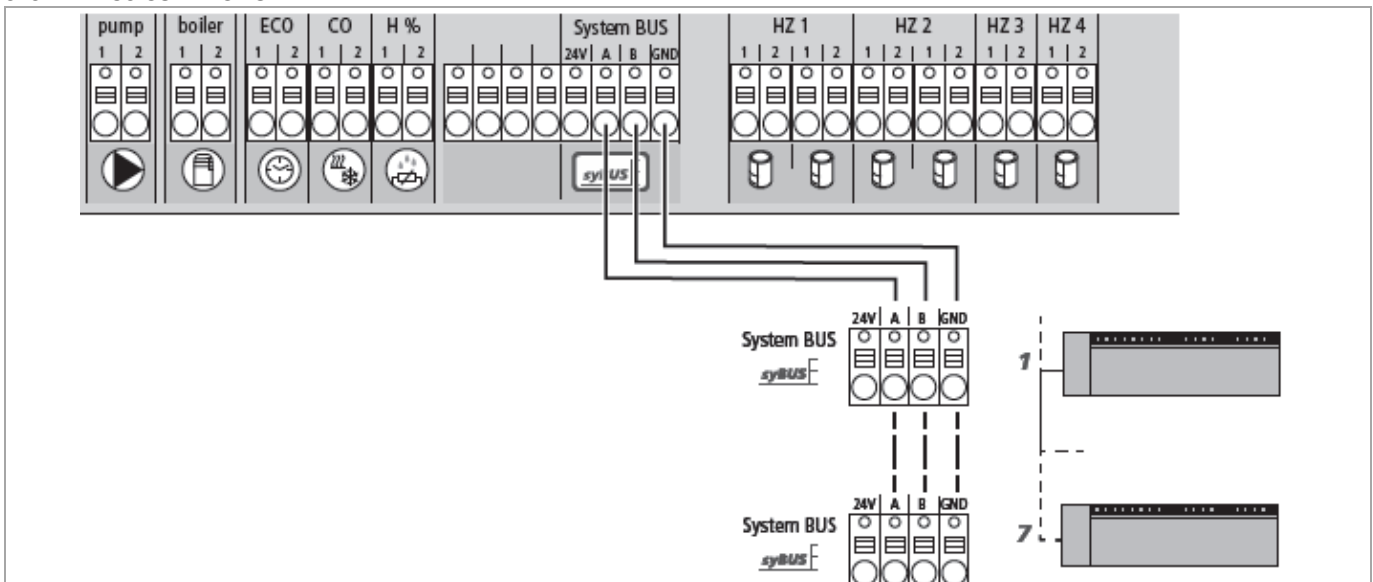




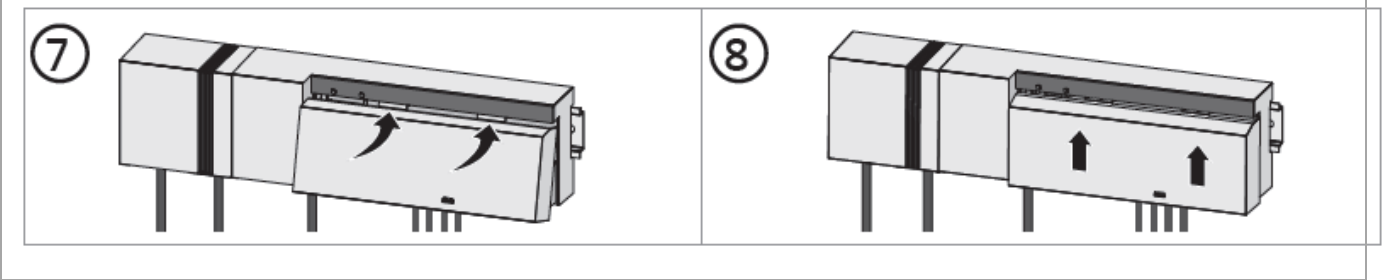
ELECTRIC CONNECTION



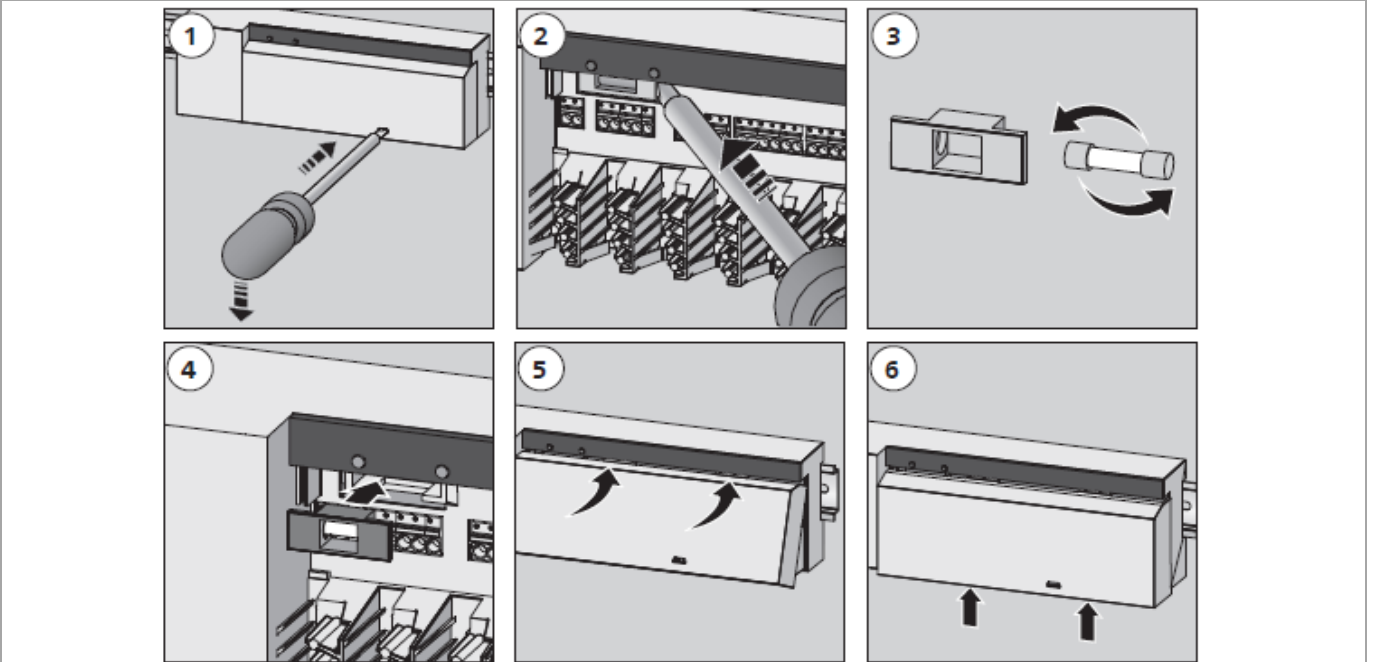
SYSTEM BUS CONNECTION



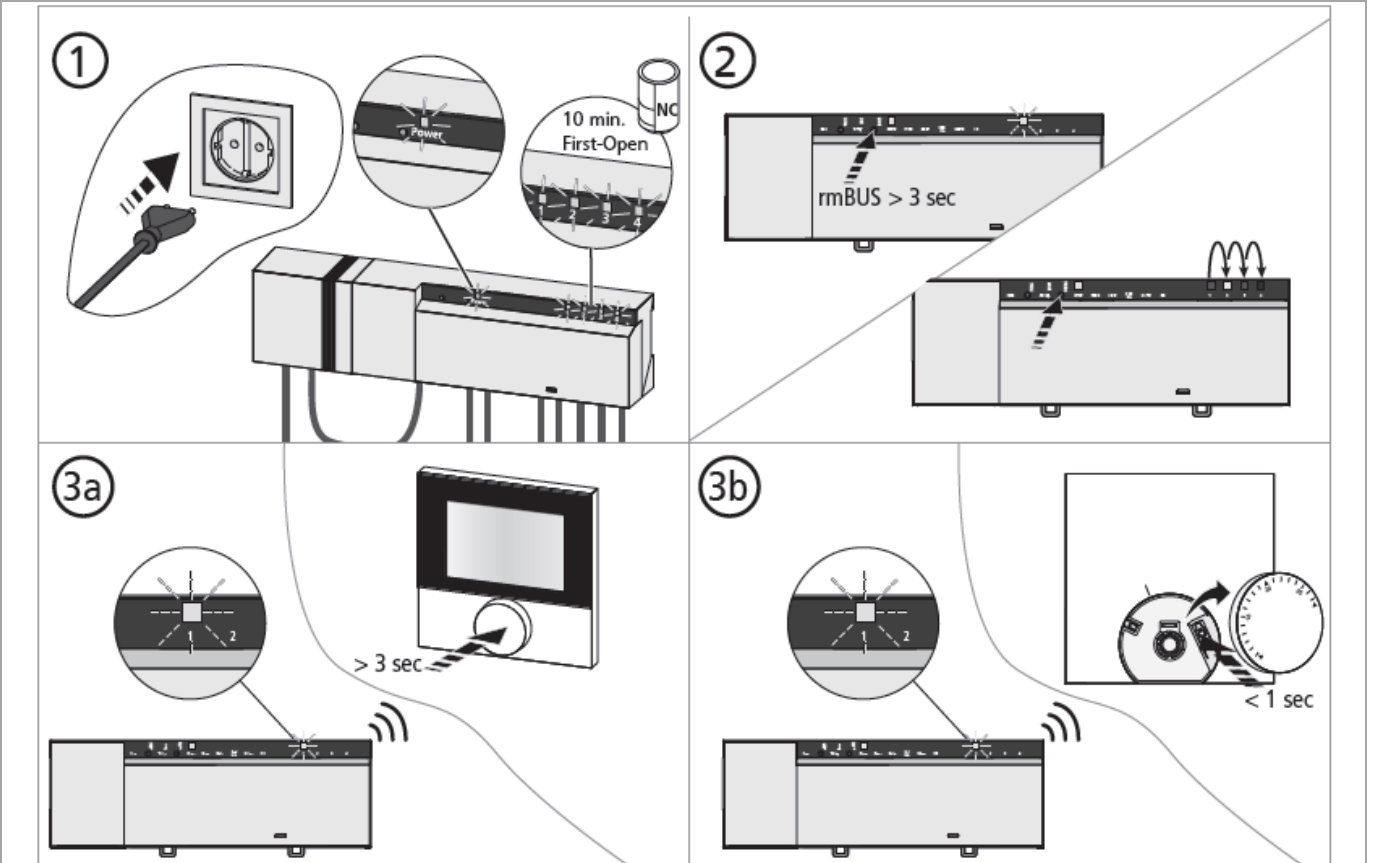
PROTECTIVE COVER CLOSING



FUSE CHANGING

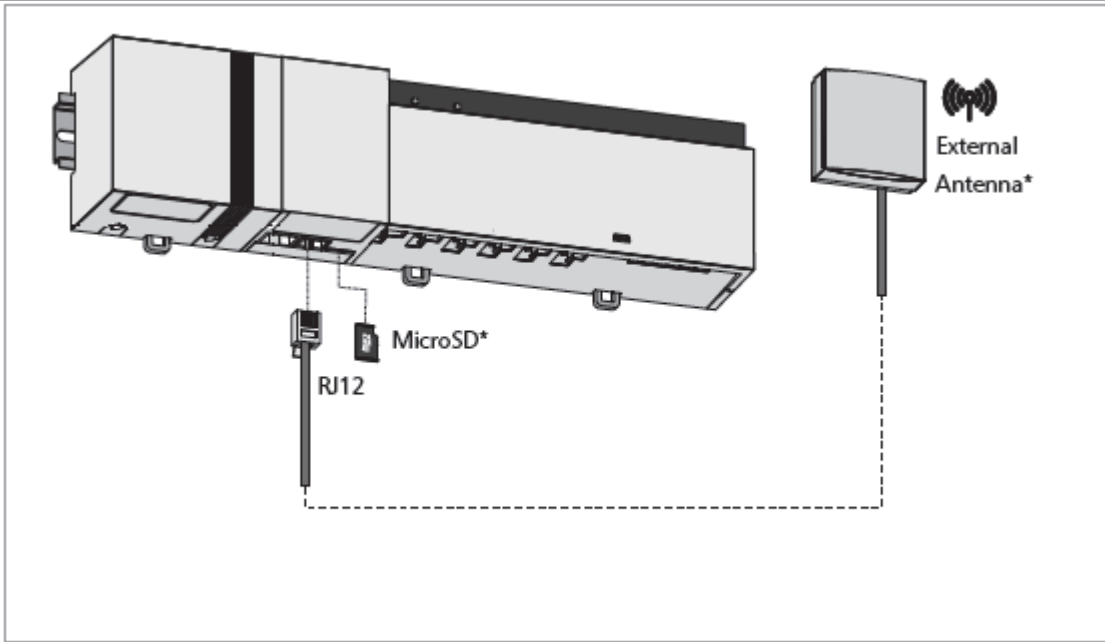


COMMISSIONING



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EXTERNAL TOOLS CONNECTION



(*) not included in the package