SALUS CB12RF RF Multizone Control Box User Guide

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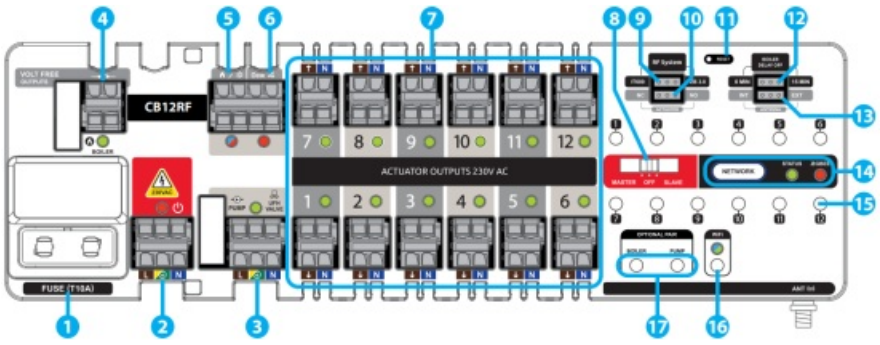
CB12RF
RF MULTIZONE CONTROL BOX

Quick Guide

MULTILANGUAGE MANUAL

Control Box Description



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RX10RF & RX30RF (optional)

Additional, wireless device control module that can be used – for example- when we can't use cable between the CB12RF control box and the boiler.

Introduction

The CB12RF is an advanced RF control box designed to address the key installation and functionality challenges. Featuring IT600 and ZigBee 3.0 device compatibility, it allows seamless integration with other smart home devices and systems.
Compact and streamlined, the CB12RF is ideal for manifold installations. It supports up to 2 actuators per zone, adapting flexibly to diverse heating requirements. Additional features include earth terminals for enhanced safety and multiple operating modes (Master, Slave, or Off) to ensure compatibility with both existing iT600 products and further ZigBee 3.0 systems.
With built-in WiFi for cloud connectivity and firmware updates, the CB12RF combines cutting-edge technology and user-friendly features, making it a powerful and efficient solution for modern heating control.

Product Compliance

This product complies with the essential requirements and other relevant provisions of Directives 2014/53/EU and 2015/863/EU. The full text of the EU Declaration of Conformity is available at the following internet address: www.saluslegal.com.

2405-2480MHz, <20dBm

Safety Information

Use in accordance to national and EU regulations. Use the device as intended, keeping it in dry condition. Product for indoor use only. Installation must be carried out by a qualified person in accordance to national and EU regulations.

(1) Fuse

The wiring center includes fuse protection to safeguard its components and connected devices. In the event of a wiring center failure, the fuse is designed to blow first, preventing damage to other parts or connected equipment.

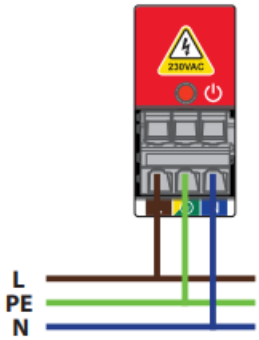
Note: Fuse replacement should be done when the wiring center is disconnected from power supply.

(2) Power Supply

Power supply for wiring center is 230V ~ 50Hz

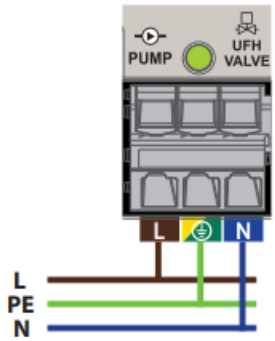
Features of the installation:

- three wires with PE protective conductor
- made in accordance with applicable regulations



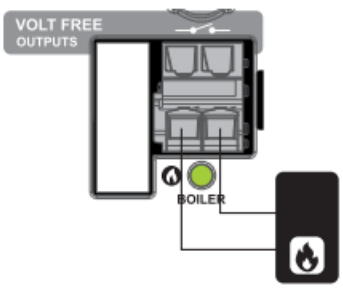
(3) Pump Output and LED

The pump output is 230V with three terminals: L (Live), N (Neutral), and PE (Earth). The PE terminal must be connected as the earth connection. When any thermostat connected to the control box calls for heating or cooling, the pump output is activated. If no thermostat calls for heating or cooling, the pump output is deactivated. A built-in 3-minute delay is included for pump activation and deactivation. A green LED indicates the current state of the pump output.



(4) Boiler Output

The boiler output is a volt-free connection that controls the boiler in the heating system. It activates 3 minutes after receiving a heating signal from any paired thermostat. The output deactivates and turns the boiler off when the last thermostat stops sending a heat demand, following the delay set on the jumper.



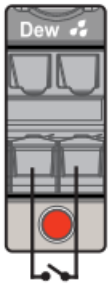
(5) Heat / Cool Changeover

The HEAT/COOL switch is a volt-free dry contact. When the switch is open, the control box operates in HEAT mode. When closed, it switches to COOL mode. During a mode change, the control box notifies all connected thermostats to adjust their system mode accordingly.

CO terminal	LED	Mode
Opened contacts	Red	Heating
Closed contacts	Blue	Cooling

(6) Dew Point

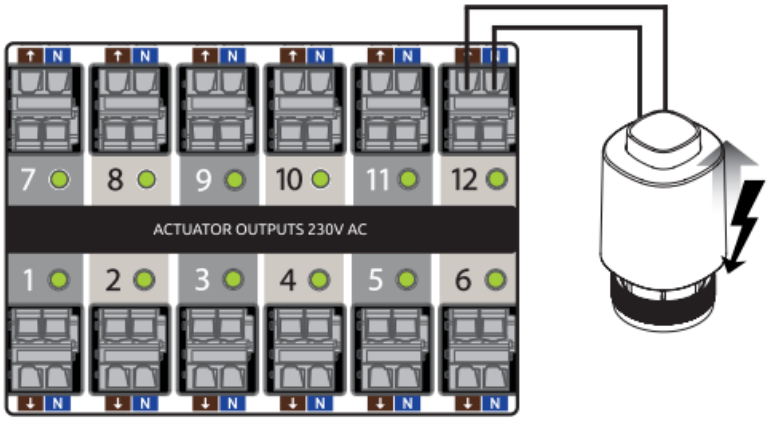
In Cooling mode, the control box monitors condensation through a connected dew sensor. If condensation is detected, the control box signals all connected thermostats to stop cooling until the condensation clears, ensuring system protection and efficiency.



(7) Wiring Center Zones, Buttons and LEDs

Each system supports a total of 12 zones, allowing a maximum of 12 thermostats to be paired. A single thermostat can be paired with multiple zones.

- Zone Control: Each zone is controlled by its own 0.5A Triac, designed exclusively for actuators. No other devices should be connected to the zones.
- Actuator Limit: Up to 2 actuators can be connected per zone (System supports up to 24 actuators).



Each zone has a green LED to display the relay state.

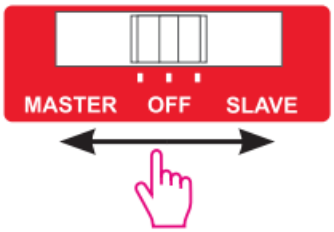
Thermostat is calling for heating or cooling

Ready for pairing (for ZigBee 3.0)

(8) Master – OFF – Slave Selection

The slide switch allows the user to select if the control box operates as Master or Slave. The default position is OFF, where no communication occurs, and the device only detects switch changes.

- **Master:** The control box acts as a coordinator, creating its own network for iT600 and ZB3 devices to join.
- **Slave:** The control box functions as an end device, joining a Master network, Computime universal gateway, or other compatible ZigBee gateways.



(9) IT600-ZigBee 3.0 Jumper Selection

This switch allows the user to select whether the control box operates as an iT600 or ZigBee 3.0 device.

- **IT600** thermostats: **VS** range, **Quantum** range, **HTR** range, **TS600**.
- **ZigBee 3.0** devices: **Elypso**

Note: If you have a mix of thermostats you must use IT600

iT600 Selected

Zig-Bee 3.0 Selected

It is only active when the **MASTER-OFF-SLAVE** switch **(5)** is set to **SLAVE**.

(10) NC-NO Actuator Jumper Selection

The NC/NO jumper allows selection of the actuator type, with the default set to NC (normally closed).

- Switching to NO means normally open actuators are connected.
- Switching to NC means normally closed actuators are connected.

NC Actuator Selected

NO Actuator Selected

The control box and connected thermostats must use the same actuator type (either NC or NO) to ensure compatibility. The Zone LED indicates power supply to the actuators:

- For NC actuators, power opens the valve.
- For NO actuators, power closes the valve.

(11) Reset Button

Press the **Reset** button to re-power the CB12RF device. Use a sharp object in order to press the button through the pinhole

Please note, this action does not perform a factory reset and will not erase any settings or configurations.

(12) Boiler Delay Jumper

The DELAY OFF jumper allows users to set a boiler turn-off delay of either 0 or 15 minutes, with a default of 0 minutes. In a Master-Slave system, the delay is determined by the Master jumper setting.

0 MIN
Selected

15 MIN
Selected

(13) INT-EXT Antenna Jumper

For optimal RF performance, use the jumper to select between the internal or external antenna.

- **INT Position**: Uses the on board RF antenna.
- **EXT Position:** Uses an external antenna connected to the antenna terminal.

INT Selected **EXT** Selected

Default setting: **INT (Internal Antenna)**

(14) Network Button, LEDs and Factory Reset

Form network

Set the **MASTER-OFF-SLAVE** switch **(8)** to **MASTER** and power on the Control Box. The ZigBee LED will flash. Long press the network button to start forming the network—ZigBee LED turns steady ON, and the Status LED flashes. Once the network is formed, the Status LED becomes solid ON, and the ZigBee LED flashes in the “Open Network” pattern for 10 minutes.

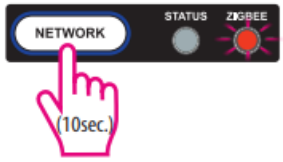
Join network

Set the **MASTER-OFF-SLAVE** switch **(8)** to **SLAVE** and power on the Control Box. The ZigBee LED will flash. Long press the network button to start joining a network—ZigBee LED turns steady ON, and the Status LED flashes.
Once joined, the Status LED becomes solid ON.

Factory Reset

Holding the NETWORK button for 10 seconds restores the Control Box to its default settings by removing it from the ZigBee network, clearing all associated devices, bindings, and reporting tables, and erasing WiFi credentials.

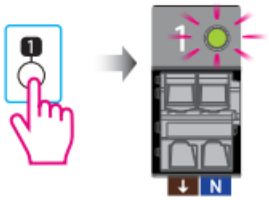
Additionally, the ZigBee LED indicates the reset status by flashing the red color.



(15) Zone Buttons

Long press the Zone Button on the Master Box to start pairing; the Zone 1 LED will flash to indicate it is ready. To cancel the selection, long press the Zone 1 button again, and the LED will stop flashing.

Same principle applies for each of the zones.

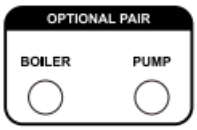


(16) WiFi Button and LED

In order to commission WiFi on the CB12RF, Bluetooth Low Energy (BLE) is automatically enabled for 15 minutes after the device is powered up. During this time, the WiFi State LED flashes. If needed, BLE can be reactivated by pressing the button **(14)**, which restarts the 15-minute timer. Each press resets the timer and BLE remains active for the full duration of 15 minutes before automatically deactivating. While BLE is inactive, the WiFi State LED stays off.

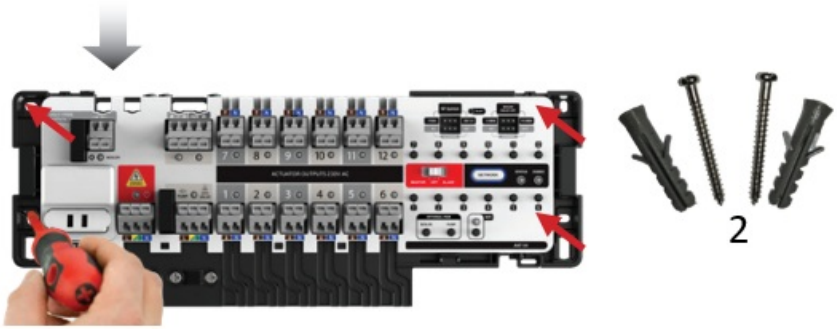
(17) Boiler and Pump Buttons

Used in order to find and bind with the RF Receiver for both boiler and pump.

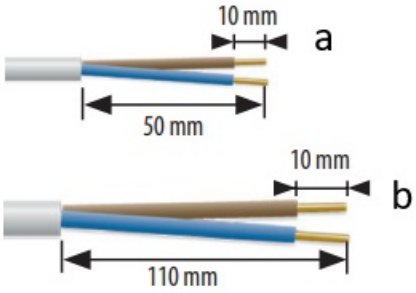


Mounting

1. Remove the top cover of the wiring center.
2. Use the provided screws and wall anchors.



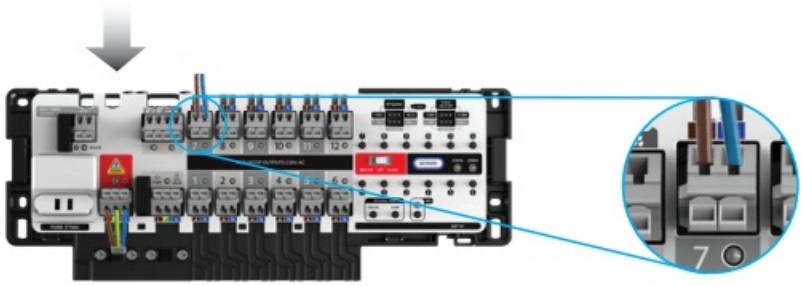
Optional: Attach the back of the wiring center to the wall.



Remove the appropriate section of insulation from the wires.

a: Additional devices (e.g. pump, boiler)
b: Wiring centre power supply

Connect the power cord.



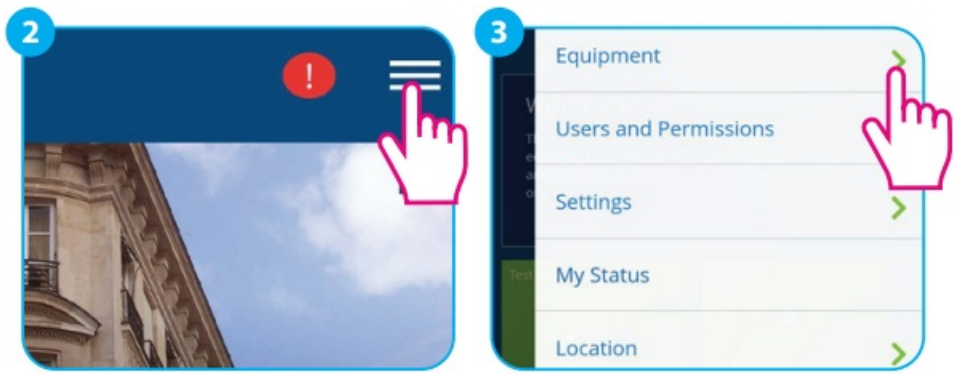
Connect the rest of the wires.

Make sure that all the wires are properly connected, then 16 WiFi Button and LED connect the power cord to the 230 V AC power supply.

Screw the main part of the wiring center to the back of the housing.

Identification in Online mode

SCAN FOR APP INSTALLATION



For the thermostat and zones pairing procedure, please refer to the Thermostat Quick Guide.

SALUS Controls plc,
Units 8-10,
Northfield Business Park,
Forge Way, Parkgate
Rotherham, S60 1SD
United Kingdom

SALUS Controls GmbH,
Dieselstrasse 34,
63165 Mühlheim am Main,
Germany

UK: tech@salus-tech.com
DE / NL: info@salus-controls.de
FR: technicalsupport@saluscontrols.fr
RO: tehnic@saluscontrols.ro
DK: Support@salus-controls.dk

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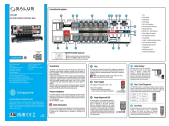
Documents / Resources

	SALUS CB12RF RF Multizone Control Box [pdf] User Guide RX10RF, RX30RF, CB12RF RF Multizone Control Box, CB12RF, RF Multizone Control Box, Multizone Control Box, Control Box, Box

References

- Choose your country – Salus
- User Manual