



WATTS BT-WR02 H&C RF Wireless Wall Receiver User Guide

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WATTS BT-WR02 H&C RF Wireless Wall Receiver



Product Information

The BT-WR02 H&C RF receiver is a wall-mounted receiver designed for controlling hydraulic heating regulation or cooling regulation. It features a proportional regulation with a time cycle of 10 minutes and hysteresis regulation. The heating relay can be used to control a boiler, valve, or electric radiator, while the cooling relay is used to manage an actuator for a cold water circuit. The receiver is compatible with thermostats from the BT-XX02 RF or BT-XX03 RF range, except for BT-A02 RF thermostats.

The receiver is delivered with 2 outputs in free contact mode.

To trigger the outputs in live contact, connect the live wire to 1 point of each connector using the cable supplied in the box.

Product Usage Instructions

1. Make sure the power supply is connected to the receiver.
2. Configure the thermostat's address according to the thermostat leaflet.
3. Refer to the thermostat leaflet to enter the thermostat in RF pairing mode.
4. Ensure that the receiver's RF LED is switched off and the thermostat exits the RF init mode to indicate correct pairing between the receiver and thermostat.

Presentation

The BT-WR02 H&C RF receiver is a Wall mounting receiver, specially designed to control hydraulic heating regulation or cooling regulation.

It embeds a proportional regulation with a time cycle of 10mn and a Hysteresis regulation:

- The heating relay is used to control a boiler in free contact or a valve or an electric radiator in live contact. (Available with all thermostats of the BT-XX02 RF or BT-XX03 RF range).
- The cooling relay is used to manage an actuator for a cold water circuit. (Not available with BTA02 RF thermostats).

This couple (thermostat BT-XX02 or BT-XX03 and receiver BT-WR02 H&C RF) can also be managed by a Central unit BT-CT02 RF to have a full control of your heating installation from one point. In that case, the receiver works always in automatic regulation mode for the heating/cooling switch. With the central unit, it is possible to pair the receiver in “Regulation/heating” mode and in “Hydraulic circuit” mode. It is not possible to pair the receiver in lighting mode or ON/OFF mode.








You can access to the general leaflet of the system on wattswater.eu.

With a BT-D02 RF/BT-D03 RF or BT-DP02 RF/BT-DP03 RF it is possible to configure the receiver in manual mode, heating mode, cooling mode or automatic mode (Please refer to the BT-XX02 RF or BT-XX03 RF leaflets). In all cases, the receiver is making cooling only in comfort mode. All other modes (Reduced, anti-freeze, auto in Reduced) forbid the cooling regulation.

In case of set point modification, a delay of 5mn is always applied before switching from cooling to heating or heating to cooling.

In automatic regulation, a dead band of $\pm 1^{\circ}\text{K}$ with timer is applied before switching from heating to cooling or from cooling to heating.

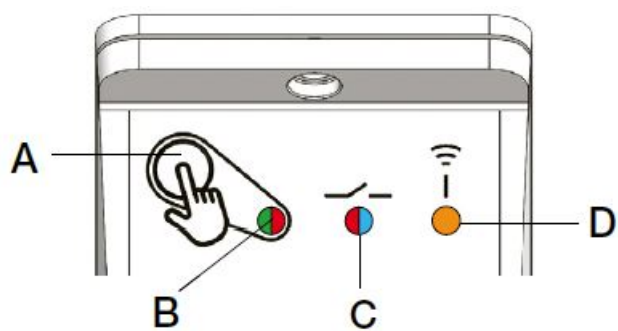
Compatibility matrix

			 BT-CT02 RF	 BT-DP02 RF BT-DP03 RF	 BT-D02 RF  BT-D03 RF	 BT-A02 RF  BT-A03 RF
	Pairing	Regulation / Heating	x	x	x	x
		ON/OFF				
		Lighting				
		Hydraulic circuit	x			
	Regulation mode	Heating		x	x	x
		Cooling		x	x	x
		Manual		x	x	
		Auto	x	x	x	

The receiver is delivered with 2 outputs in free contact mode. To trigger the outputs in live contact, linked the live

on 1 point of each connector using the cable supplied in the box.

Display description



A (push button)	B (red/green)	C (red/blue)	D (orange)	
/ de	/	/	/	OFF mode
Short press button with bip	/	/	/	ON/OFF tri
Comfort mode / Green fix opened (without heating, without cooling)	/	/	/	with the 2 outputs
Reduced mode / Green 50% opened (without heating, without cooling)	/	/	/	with the 2 outputs
Antifreeze mode / Green 10% opened (without heating, without cooling)	/	/	/	with the 2 outputs
/ mand (Heating output closed)	/	Red	/	Heating de
/ mand (Cooling output closed)	/	Blue	/	Cooling de
10sec press a thermostat or the central unit	/	/	Orange slow flash	RF pairing with
/ on	/	/	Orange quick flash	RF recepti
/ ost	/	/	Orange quick flash permanently	RF signal I
/ Thermostat sensor	Red / green flash	/	/	Error on
30sec press receiver	Orange	Blue/red	Orange	Reset of the

Technical characteristics

Environment. (Temperatures) Operating /shipping et storage	0°C – +40°C -10°C to +50°C
Power supply	230Vac 50Hz
Electrical protection	Class II – IP33
Output Maximum Load	2 x Relay 5A 250VAC Up to 5A resistive – 250Vac 50Hz (2 wires L,N)
Radio Frequency & RF Receiving distance	868MHz < 10mW (Bidirectional communication) Range of approximately 100m in open space Range of approximately 30m in residential environment
CE Directives Your product has been designed in conformity with the European Directives.	EN 60730-1:2017 / EN 60730-2-9:2021 / EN IEC 61000-3-2:2019 + AMD1:2021 EN IEC 61000-3-3:2013 + AMD1:2017 + AMD2:2021 / EN 55014-1:2017 EN 55014-2:2015 / EN 55024:2010 + A1:2015 / ETSI EN 301 489-3 V2.1.1 ETSI EN 301 489-1 V2.2.3 / ETSI EN 300 220-1 V3.1.1 / ETSI EN 300 220-2 V3.2.1 EN IEC 63000:2018 / Regulation (EU) 2015/1188 / Regulation (EU) 2013/813
Classification / Contribution	IV / (2%)
Regulation characteristics	Proportional Integral regulation or Hysteresis regulation. Regulation is defined by thermostat linked to each channel (see thermostat leaflet)

Installation and RF pairing rules

Install and plug the receiver into the following guidelines to guaranty an optimal reception:

- The receiver must be put at a minimum distance of 50cm of all others electrical or wireless materials like GSM, Wi-Fi router
- Before wiring work related to the receiver must be carried out only when de-energized
- Connect your receiver to the power supply.

Following your installation an order of pairing must be respected for a correct RF initialisation.

Installation 1: Receiver BT-WR02 H&C RF + RF thermostat BT-XX02/BT-XX03

1. The receiver must be put in RF pairing mode by 10sec pressing on the button.
2. The RF LED should be orange slow flashing, indicating that the Receiver is now in radio configuration mode waiting for a thermostat configuration address.
3. Please refer to the thermostat leaflet for enter the thermostat in RF pairing mode.
4. The receiver RF LED must be switched OFF and the thermostat should exit the RF init mode to indicate correct pairing between both elements.

Installation 2: Receiver BT-WR02 H&C RF + RF Thermostat BT-XX02/BT-XX03 + central unit BT-CT02 RF

1. Link first the thermostat with the smart home.
2. The receiver must be put one time more in RF pairing mode by 10 sec pressing on the button.
3. Then the RF LED should be orange slow flashing, indicating that the receiver is now in radio pairing mode waiting for a thermostat configuration address.
4. Please refer to the Central leaflet for more explanation about the pairing mode "RF Init". Pair only in heating mode or hydraulic circuit mode.
5. The receiver RF LED must be switched OFF and the Central will show a message to indicate correct pairing between both elements.

Remarks:


- In case of loss RF communication (RF Alarm), the receiver will stop heating or cooling.

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Documents / Resources

	<p>WATTS BT-WR02 H&C RF Wireless Wall Receiver [pdf] User Guide BT-WR02 H C RF Wireless Wall Receiver, BT-WR02 H C RF, Wireless Wall Receiver, Wall Receiver, Receiver</p>
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References

- [WATTS EUROPE](#)
- [Watts Industries Deutschland GmbH](#)
- [WATTS EUROPE](#)
- [Watts Industries Español S.r.l. | Watts Water Technologies](#)
- [WATTS Companies in Europe](#)
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- [Watts Industries Italia S.r.l. | Watts Water Technologies.](#)