



Introduction

RT510+ / RT510TX+ / RT510RF+ is a programmable room thermostat used to control room temperature. Device launching heating system by shorting terminal blocks, simultaneously informing the action and showing this information on the LCD display. Extended features allows us to use various operating modes - automatic (time schedules), manual, frost protection or holiday. Before use please read this manual carefully. Use only AA 1.5 V alkaline batteries in the thermostat. Place the batteries into the battery slot located under the cover. Do not use rechargeable batteries.

Product compliance

This product complies with the essential requirements and other relevant provisions of the following EU Directives: EMC 2014/30/EU, LVD 2014/35/EU, RED 2014/53/EU and RoHS 2011/65/EU. Full text of the EU Declaration of Conformity is available on www.salus-controls.com/uk

(Q) 868.0-868.6MHz; <13dBm

Safety Information

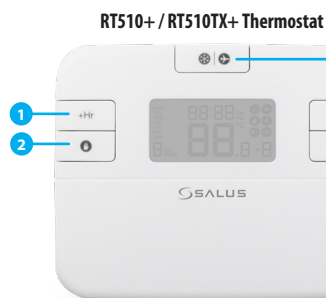
Use in accordance to national and EU regulations. Use the device as intended, keeping it in dry condition. Product for indoor use only. Installation must be carried out by a qualified person in accordance to national and EU regulations.

Technical specification

	RT510+ Thermostat	RT510TX+ Thermostat
Thermostat supply	2x AA alkaline batteries	2x AA alkaline batteries
Thermostat rating max	3 (1) A	-
Outputs	Voltage free NO / COM / NC terminals	-
Temperature range	5 - 35°C	5 - 35°C
Temperature accuracy	0.1°C or 0.5°C	0.1°C or 0.5°C
Control algorithm	ITLC / SPAN ± 0.5 °C	ITLC / SPAN ± 0.5 °C
Radio frequency	-	868 MHz
Dimension [mm]	120x96x27	120x96x27

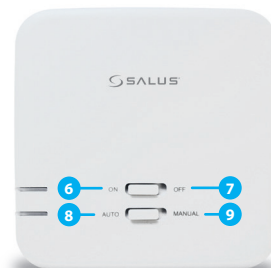
RXRT510+ Receiver	
Receiver supply	230 V AC
Receiver rating max	16 (5) A
Outputs	Voltage free NO / COM terminals
Radio frequency	868 MHz
Dimension [mm]	96x96x27

Button functions



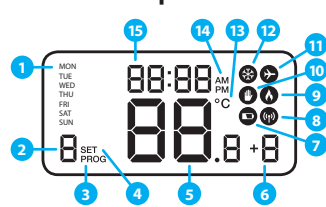
1. Boost function
2. Manual Mode
3. Frost protection / Holiday Mode
4. Increase button
5. Decrease button

RXRT510+ Receiver



6. When in Manual Mode, ON will turn the boiler on.
7. When in Manual Mode, OFF will turn the boiler off.
8. Receiver operates in automatic mode according to the thermostat
9. Receiver output is controlled by the On/Off slide switch.

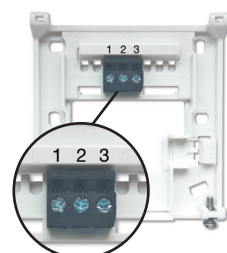
LCD Icon description



1. Day of the week
2. Program number
3. Program indicator
4. Settings
5. Temperature measured / set
6. Boost function
7. Low battery status
8. Wireless connection with the receiver
9. Heating Mode On
10. Manual Mode On
11. Holiday Mode On
12. Frost Protection Mode On
13. Temperature unit
14. AM / PM
15. Clock

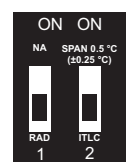
RT510+ Terminals description

Terminal	Description
1 - COM	Common Terminal
2 - NC	Switched Live OFF
3 - NO	Switched Live ON



RT510+ (Thermostat) Dip Switch Settings

The DIP Switches can be found on the rear of your thermostat.



Control feature	ITLC	SPAN
Operation	ITLC Internal Temperature Load Compensation for improved efficiency.	When Span is selected on DIP switch № 2, the DIP switch № 1 is not functional.

RXRT510+ Receiver terminals description

Terminal	Description
NO	Switch Terminal
COM	Common Switch Terminal
L, N	Supply (230 V AC)

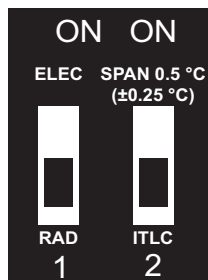


RT510TX+ & RT510RF+ (Thermostat) DIP Switch Settings

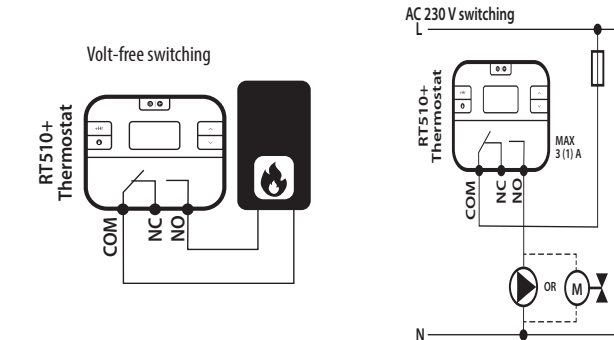
The DIP Switches can be found on the rear of your thermostat.

For all plug-in boiler receiver applications ensure SW1 is set to RAD.

Control feature	ITLC	SPAN
Operation	When ITLC is selected on DIP switch № 2, the DIP switch № 1 is functional. You can choose between radiator or electric heater.	When Span is selected on DIP switch № 2, the DIP switch № 1 is not functional.

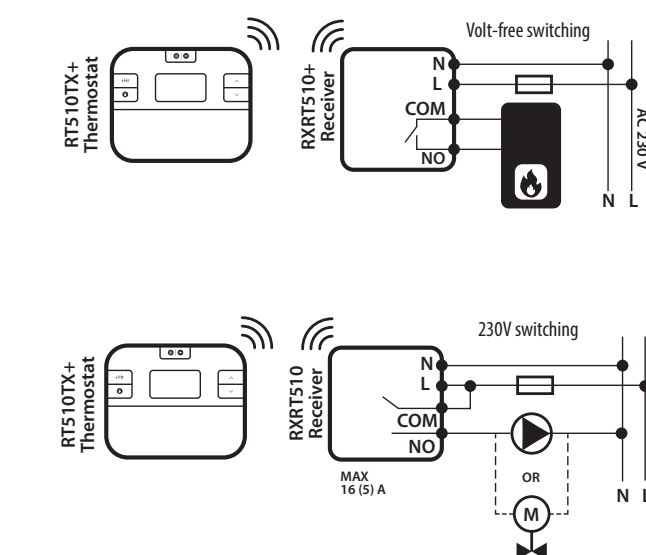


RT510+ Wiring diagram

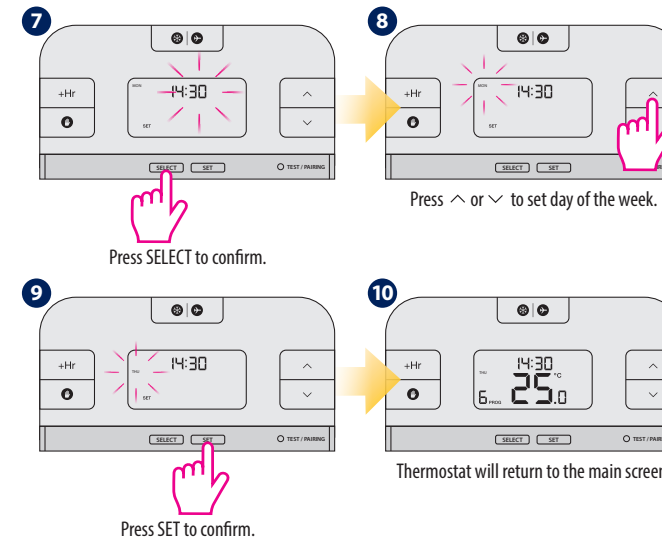
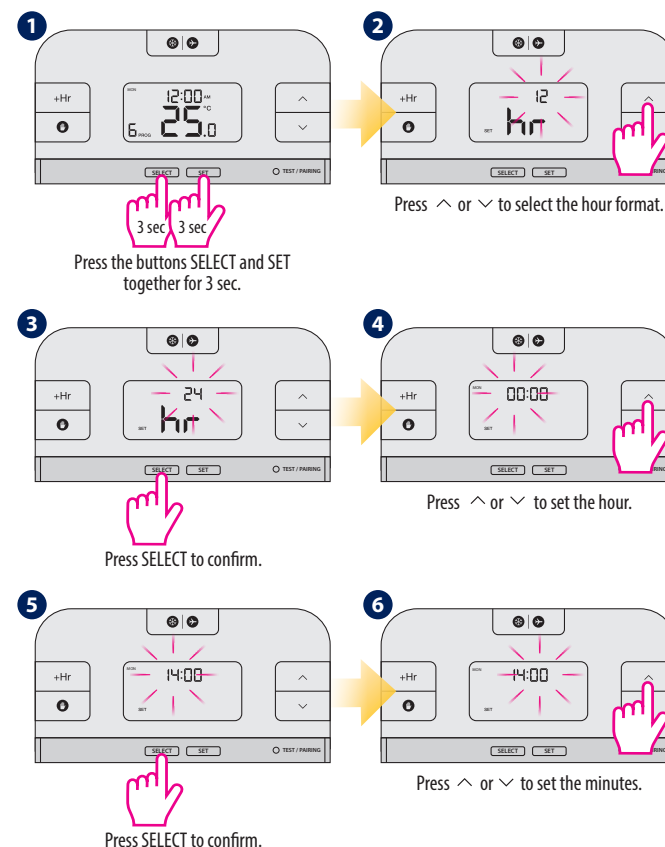


RT510TX+ Wiring diagram

Note: If you are using the RT510RF+ pack, the pairing between the thermostat and the receiver is already done.

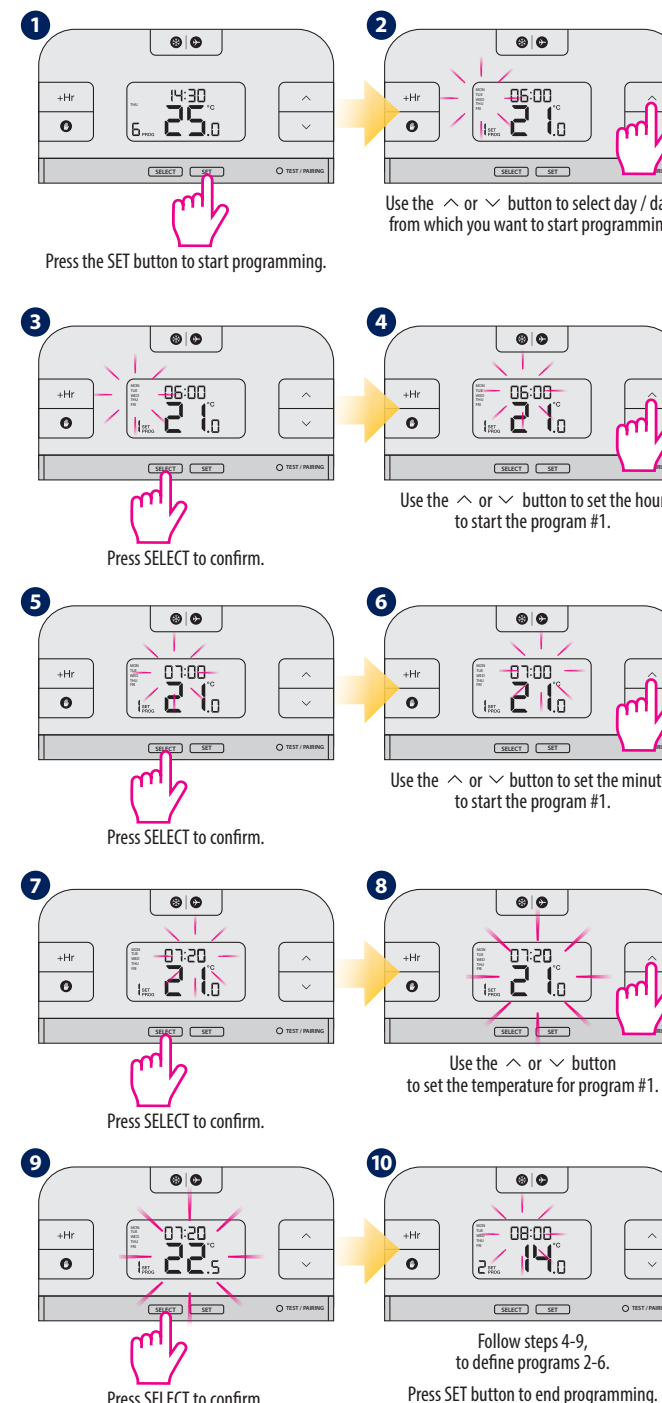


Setting the time



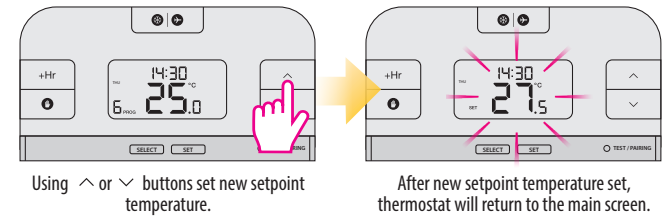
Programming - automatic mode

In this mode, user can set the schedules for thermostat (temperature setpoints for specific periods of time). To do this, firstly choose programming mode: "5-2" (business days + weekend) or "24h" (each day separately) using parameter d04 from **Installer mode**. Programmed schedules should use all time periods.



Temporary Override Mode

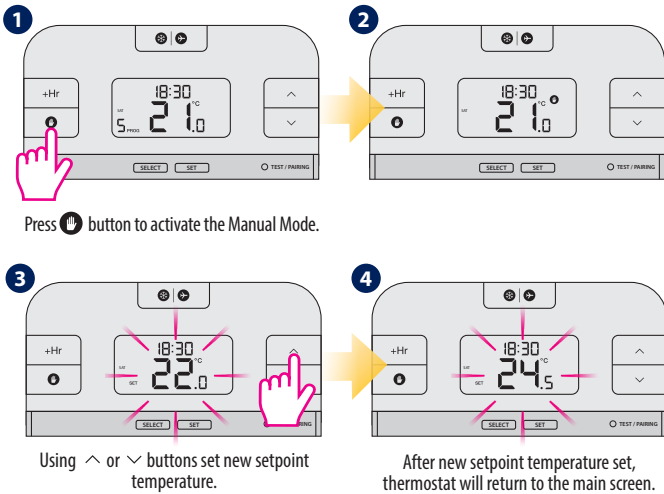
This function is available only in automatic mode (schedule). If a new setpoint temperature will be set during the schedule - it will be maintained until next time interval starts according to programmed schedule.



i Temporary Override mode will be disabled when new schedule will be set.

Manual Mode and setting setpoint temperature

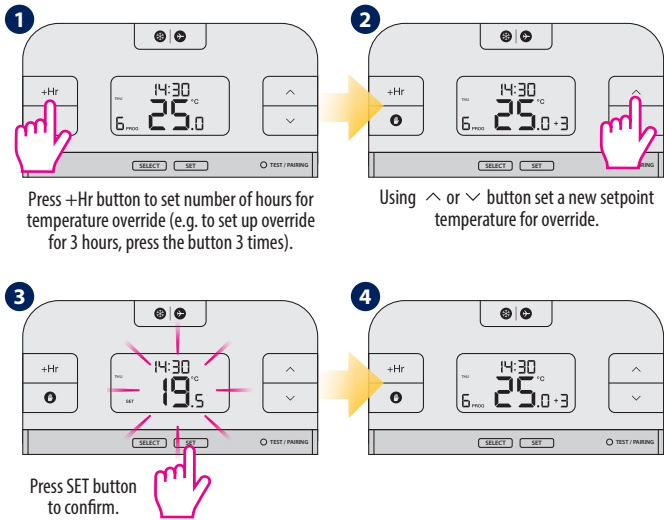
In this mode thermostat does not work according to the programmed schedule but it will maintain selected temperature.



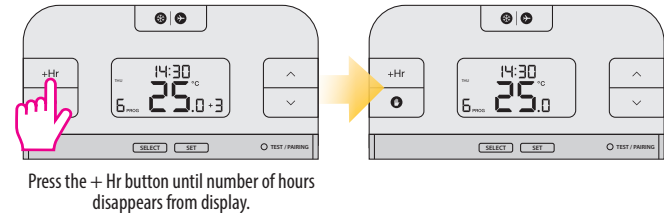
i To turn off the Manual Mode press **M** button. Once the manual mode is off, the hand icon **M** on the thermostat will disappear.

Hourly temperature Override Mode (+Hr)

This function is available in Automatic and Manual Mode. It is used to change the setpoint temperature for a specified number of hours (up to 9 hours). Once that time is over, thermostat returns to previous mode.

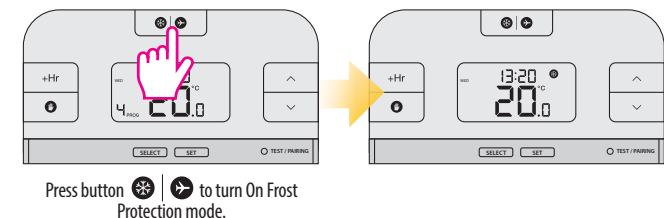


Turning off hourly temperature override mode before time's up

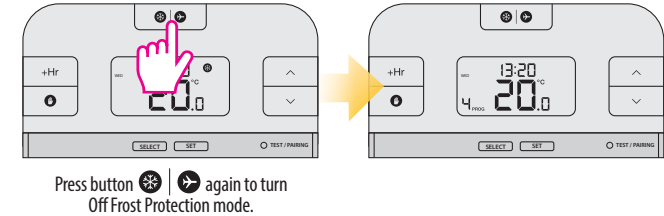


Frost Protection

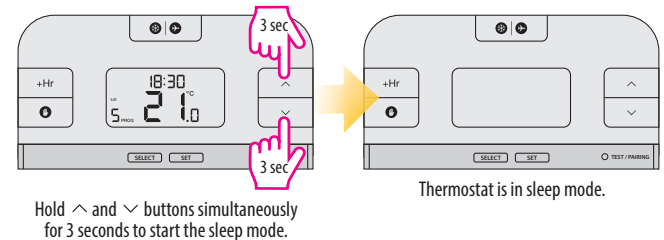
i Temperature of the Frost Protection mode is set as default at 5°C. This temperature can be changed in Installer Mode in d03 parameter.



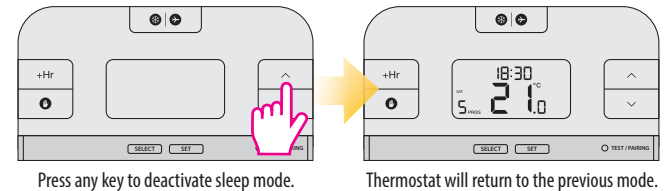
Turning Off the Frost Protection Mode



Sleep mode

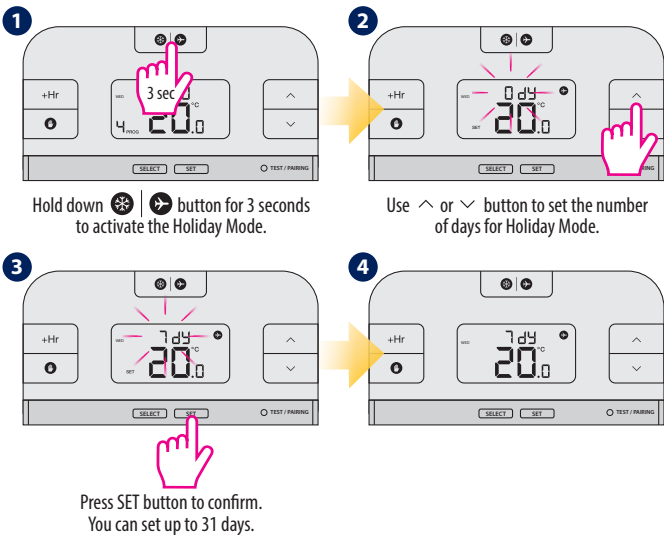


i When the sleep mode is activated, all thermostat functions are paused.



Holiday Mode

In this mode the "frost protection" temperature is maintained for a specific number of days.



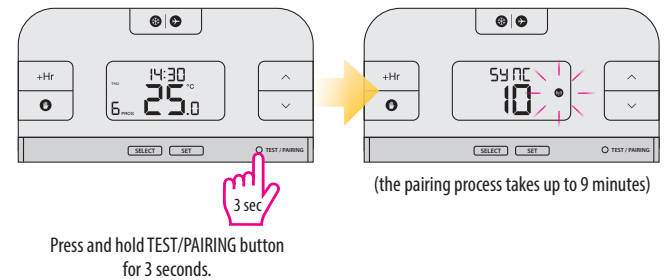
i To turn off the Holiday Mode, hold down **F** button for 3 seconds. The airplane icon **A** should disappear from the display.

RT510TX thermostat pairing with the receiver

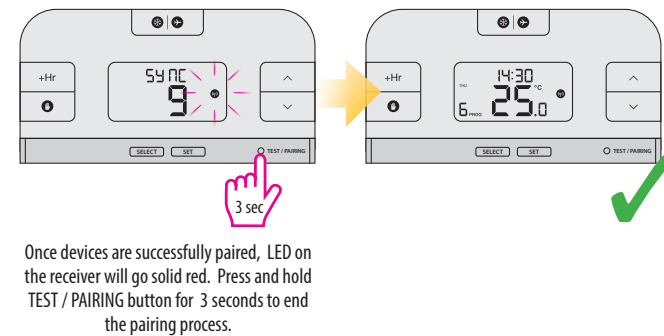
Note: If you are using the RT510RF+ pack, the pairing between the thermostat and the receiver is already done.

i If you bought the RT510TX+ and RXRT510+ separately or if you want to re-pair thermostat with the receiver, make sure that the device is disconnected from the power supply and the switches on the receiver have been set to AUTO and ON. Then connect the receiver to the power supply and wait for the red LED to light steadily. Then switch to the OFF position and again to ON position quickly. The red flashing LED will confirm entering the pairing mode.

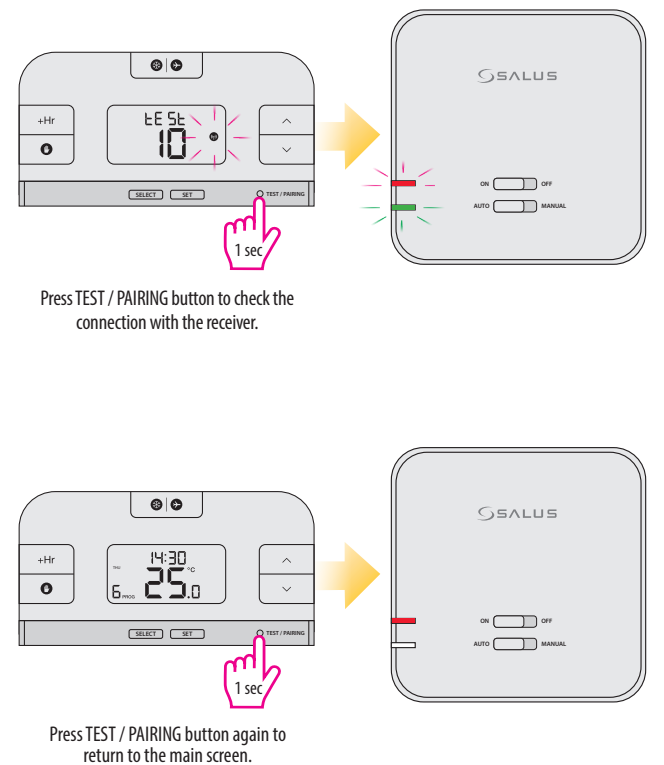
Begin the pairing process



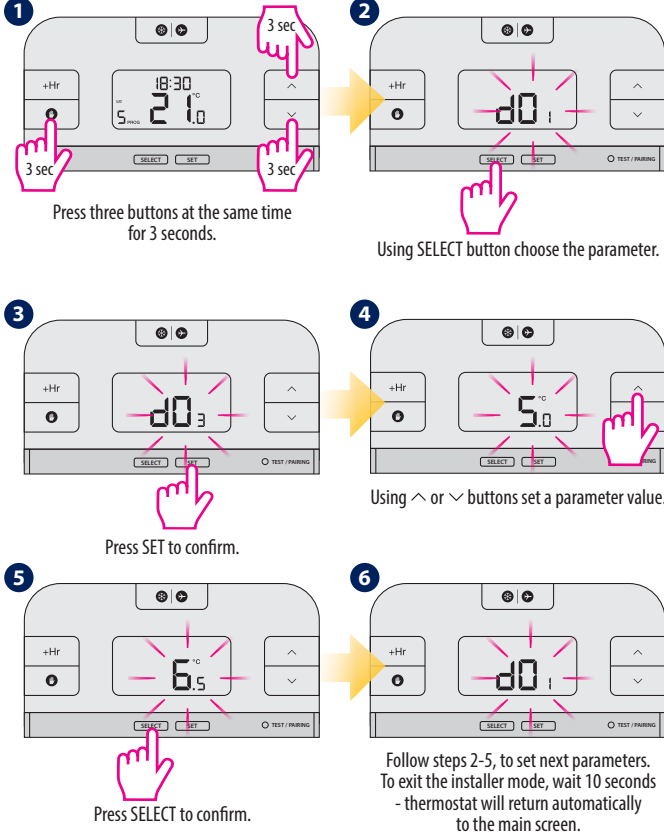
End the pairing process



Test the pairing process

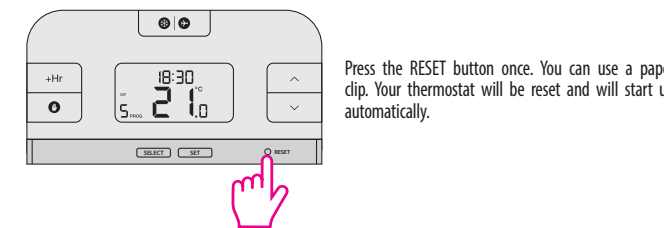


Installer Mode

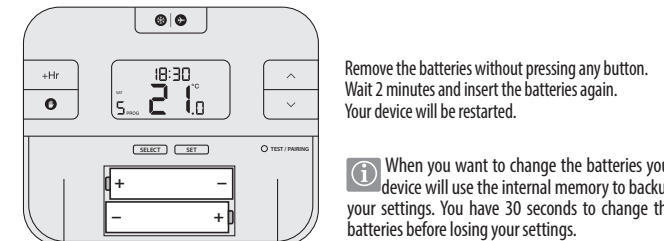


dx	Function	Parameter	Default value
d01	Temperature display increments	0.1°C or 0.5°C	0.5°C
d02	Temperature offset	+/- 3.0°C	0.0°C
d03	Frost Protection setpoint temperature	5.0°C - 17.0°C	5.0°C
d04	Programmer selection	5/2 or 24 hr (7d)	5/2 d

Reset of the RT510+ thermostat



Reset of the RT510TX+ thermostat



Changing your Batteries / Blank Screen

If you do not notice the "low battery" symbol displayed on the screen in time, it will shut down. In this case, after removing the old batteries, it is necessary to wait 5 minutes before inserting the new batteries. Otherwise, it is possible that the internal circuit will remain partially discharged and it can prevent the thermostat from restarting.