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Issue Date: May 2022
V04



Introduction

DT500/DT500RF 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 (see the *Battery replacement* chapter on the back). Do not use rechargeable batteries.

Product compliance

This product complies with the essential requirements and other relevant provisions of Directives EMC 2014/30/EU, LVD 2014/35/EU, RED 2014/53/EU and RoHS 2011/65/EU. The full text of the EU Declaration of Conformity is available at the following internet address: www.saluslegal.com

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

	DT500 Thermostat	DT500RF Thermostat
Thermostat supply	2x AA alkaline batteries	2x AA alkaline batteries
Thermostat rating max	5 (3) A	-
Outputs	Voltage free NC / NO / COM terminals	-
Temperature range	5 °C – 35 °C	5 °C – 35 °C
Temperature accuracy	0.1 °C or 0.5 °C	0.1 °C or 0.5 °C
Control algorithm	ITLC SPAN ± 0.25 °C or ± 0.5 °C	ITLC SPAN ± 0.25 °C or ± 0.5 °C
Radio frequency	-	868 MHz
Dimension [mm]	120 x 90 x 29	120 x 90 x 29

DTRX5 Receiver	
Receiver supply	230 V AC
Receiver rating max	16 (5) A
Outputs	Voltage free NC / NO / COM terminals
Radio frequency	868 MHz
Dimension [mm]	98 x 98 x 25.2

Button functions

DT500 / DT500RF Thermostat



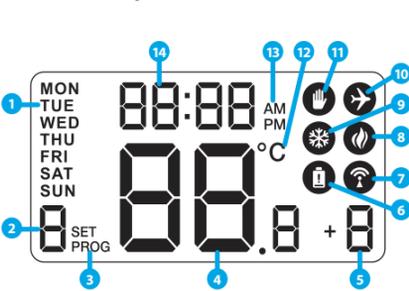
1. Boost function
2. Manual Mode
3. Frost protection
4. Schedule settings / Back button
5. Increase button
6. Decrease button
7. Confirm button
8. Holiday Mode

DTRX5 Receiver



9. When in manual mode, ON will turn the boiler on
When in manual mode, OFF will turn the boiler off
10. Receiver operates in automatic mode according to the thermostat/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 Temperature measured / set
- 5 Boost function
- 6 Low battery status
- 7 Wireless connection with the receiver (only for DT500RF)
- 8 Heating Mode On
- 9 Frost Protection Mode On
- 10 Holiday Mode On
- 11 Manual Mode On
- 12 Temperature unit
- 13 AM / PM
- 14 Clock

DT500 Thermostat Terminals description

Terminal	Description
COM	Common Terminal
NO	Switched Live ON
NC	Switched Live OF



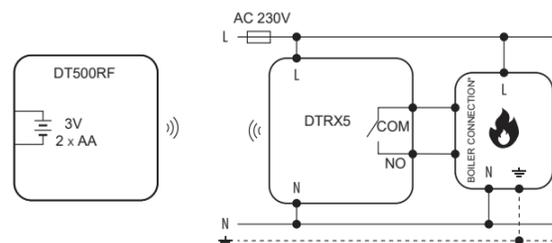
Use terminals on the backplate.

DTRX5 Receiver Terminals description

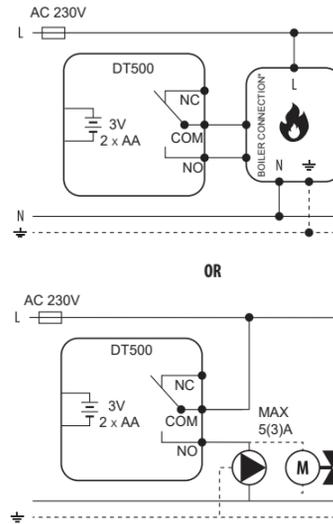
Terminal	Description
NO	Switch Terminal
COM	Common Switch Terminal
L, N	Power Supply (230 V AC)



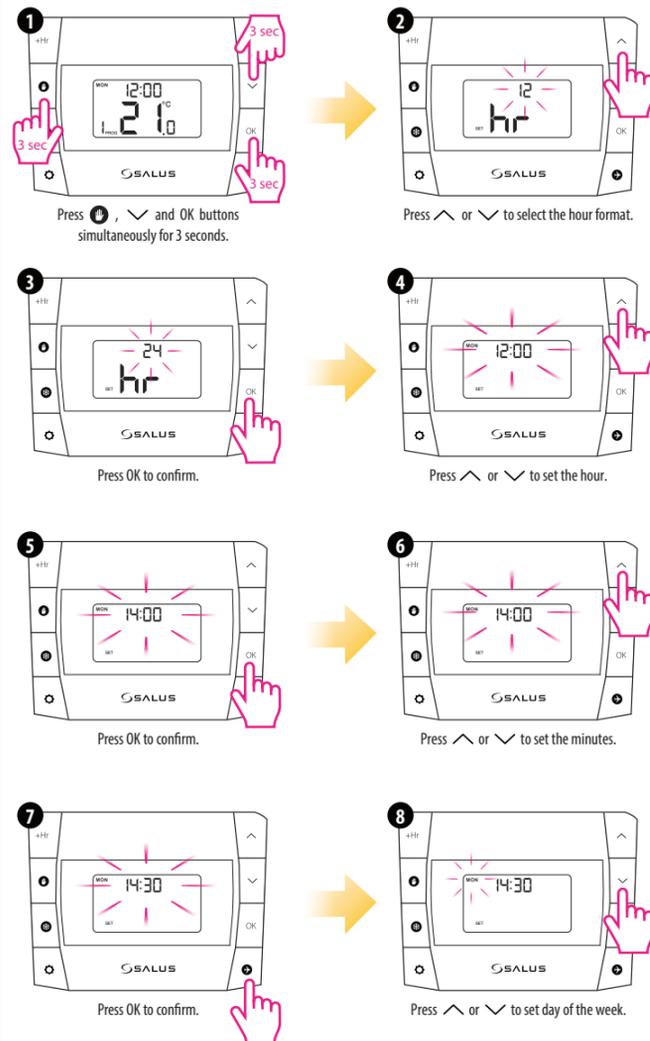
DT500RF Thermostat Wiring Diagram



DT500 Thermostat Wiring Diagram

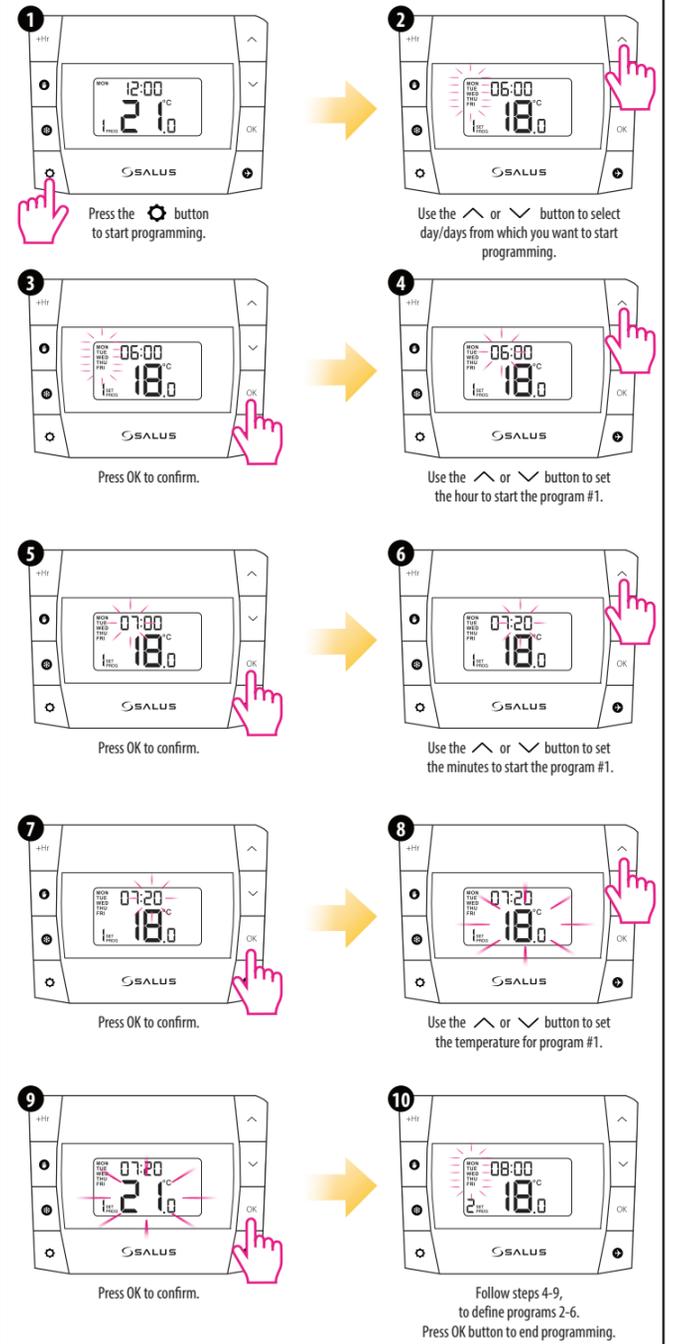


Setting the time



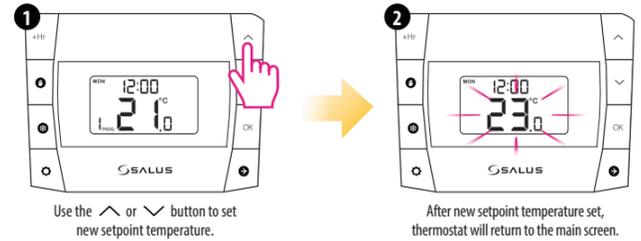
Programming - automatic mode

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

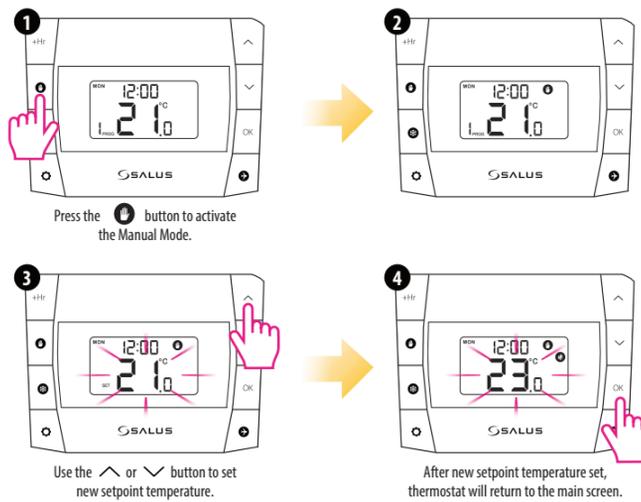
This function is available only in automatic mode (schedule). If a new setpoint temperature will be set during the schedule - it will be maintained until next time interval starts according to programmed schedule.



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

Manual Mode and setting setpoint temperature

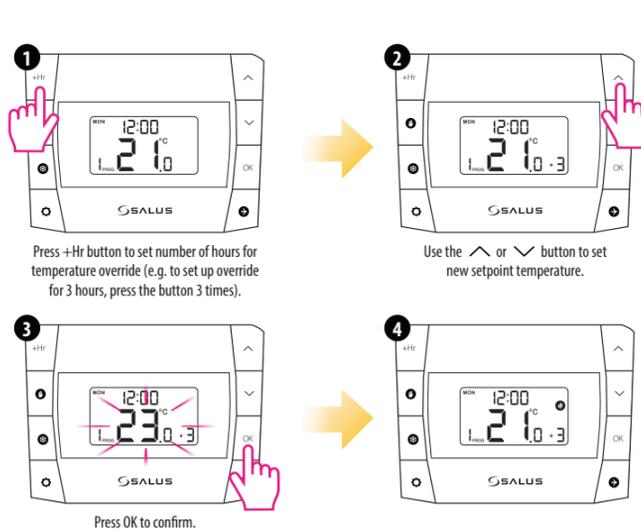
In this mode thermostat does not work according to the programmed schedule but it will maintain selected temperature.



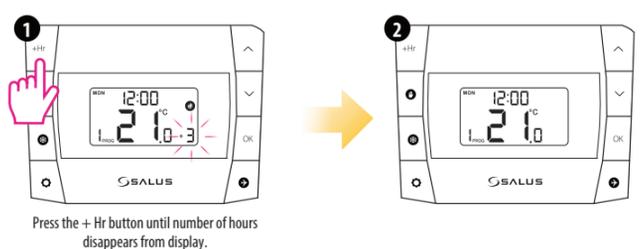
To turn off the Manual Mode press the Manual Mode button. Once the manual mode is off, the hand icon will disappear.

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.

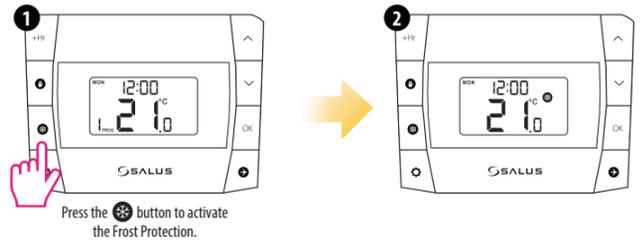


Turning off hourly temperature override mode before time's up

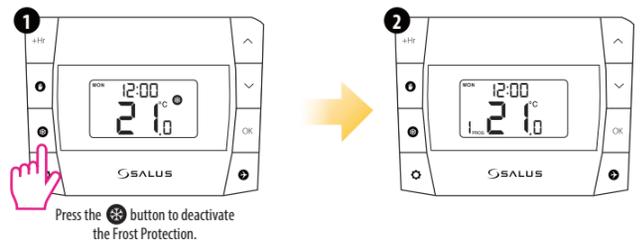


Frost Protection

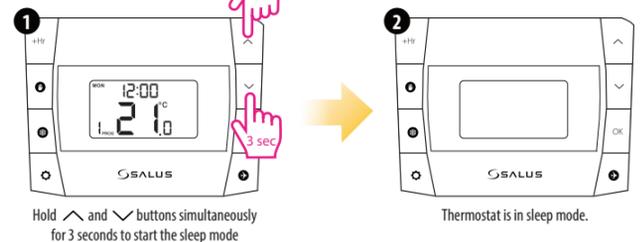
Temperature of the Frost Protection mode is set as default at 5°C. This temperature can be changed in Installer Mode in d03 parameter



Deactivate Frost Protection

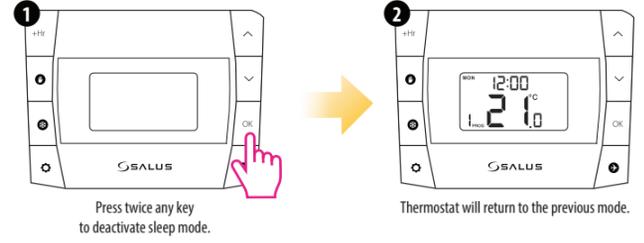


Sleep Mode



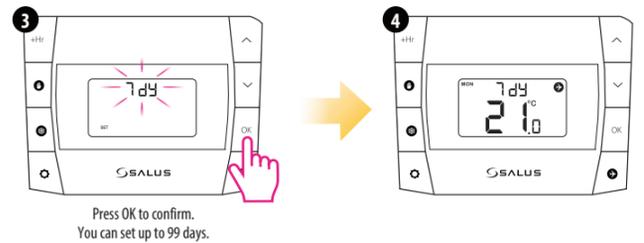
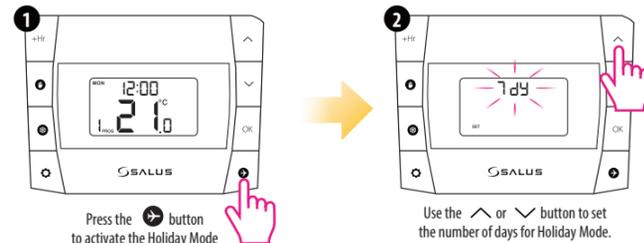
When the sleep mode is activated, all thermostat functions are paused.

Deactivate the Sleep Mode



Holiday Mode

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



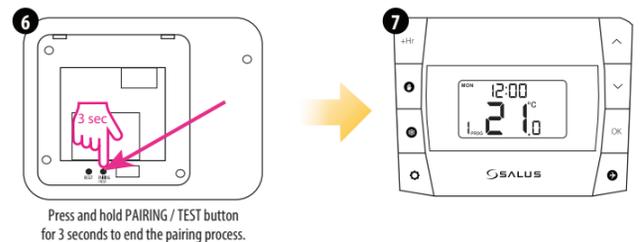
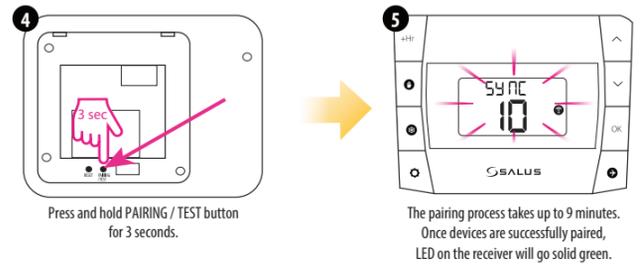
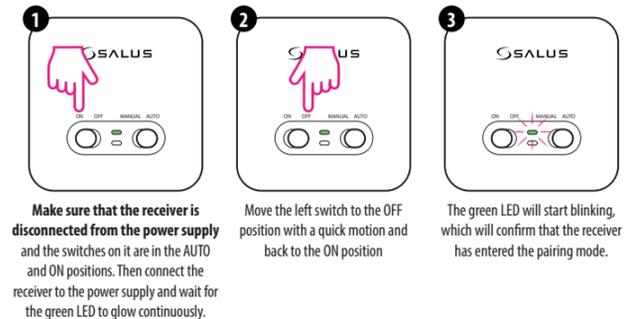
To turn off the Holiday Mode, hold down the Holiday Mode button for 3 seconds. The airplane icon should disappear from the display.

DT500RF Thermostat Pairing with the DTRX5 Receiver

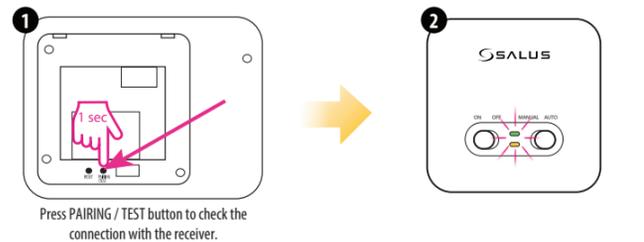
Note: If you are using the DT600RF pack, the pairing between the thermostat and the receiver is already done. During the pairing process, please make sure the thermostat and the receiver are at least 1 meter from each other.

Important note: The communication radius of the thermostat with the receiver is of maximum 100m, in open space. In built space, with various obstacles (eg walls, floors, metal structures, furniture elements), the communication radius will be significantly reduced. RF communication can be disrupted by local factors, such as GSM antennas, radio frequency devices or toys, or other equipment that produces electromagnetic interference. Receivers for the boiler must be powered from a stable voltage source, without frequent interruptions or voltage fluctuations (outside the standard tolerance). The manufacturer is not responsible for identifying or combating the effects of local disturbances.

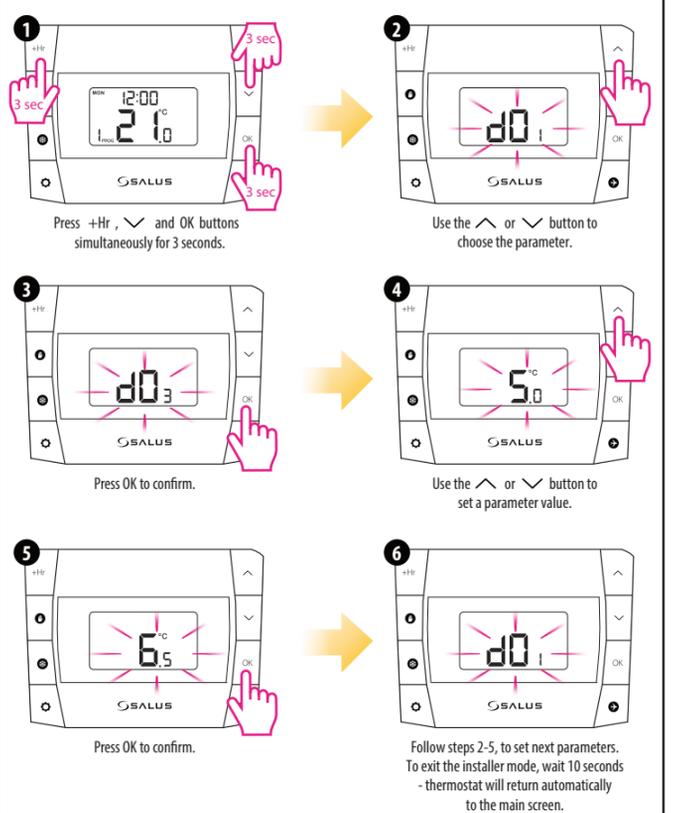
If you want to re-pair the devices with each other, follow the steps below:



Test the pairing process

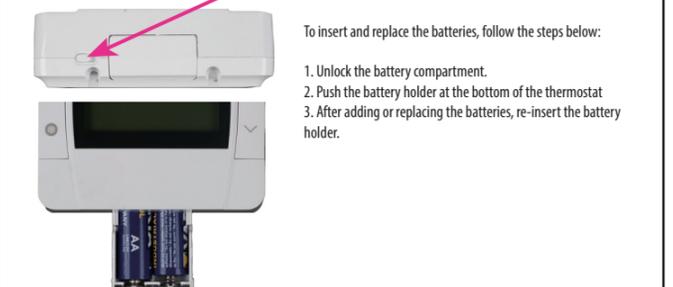


Installer Mode



dxx	Function	Parameter value	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 24hr (7d)	5/2 d
d05	TPI or SPAN algorithm selection TPI = self-adaptive algorithm SPAN = hysteresis (fixed temperature deviation)	ITLC or SPAN	ITLC
d06	TPI or SPAN adjustment (if you selected SPAN in parameter d04, then parameter d05 will display the SPAN settings, the same applies to the TPI algorithm)	6CP or 9CP / 0.25 °C or 0.5 °C	6CP / 0.5 °C

Battery replacement



Reset of the DT500/DT500RF thermostat

Press and hold the +, down arrow, and OK buttons for 5 seconds, or press the RESET button on the back of the thermostat. Then the thermostat will be reset. It will display all segments on the display and the default settings will be restored.