

**STROM-
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RF LCD ROOM THERMOSTAT

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STROM LIMITED 2017

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WHAT IS A THERMOSTAT?

An explanation for householders:

A room thermostat is a basic mechanical or electrical switch that controls the heating or cooling in a property. By sensing the air temperature around it the thermostat can decide whether it should activate the heating or cooling device that it is connected, once the requested temperature is reached the thermostat will turn off its connected device. It is common for a thermostat to be connected to a programmer this allows a timed pattern to be set for the thermostat.

HOW TO USE THE THERMOSTAT

Your thermostat does not control how quickly your home heats up or cools down, it only controls the temperature of the property. It is therefore recommended that after installation you set the thermostat at a comfortable temperature and leave it set at this temperature with only minor modification up or down throughout the year.

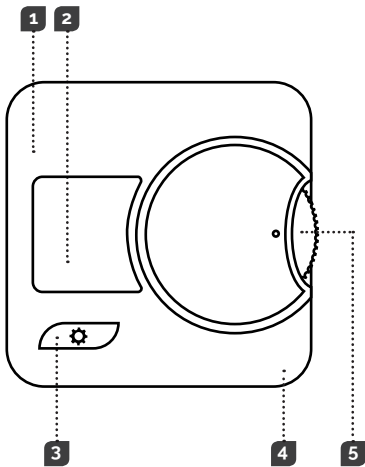
Increasing the temperature of the thermostat will not decrease the amount of time required to heat the home, and will ultimately only increase fuel costs, the same is true of cooling systems.

Normal heating systems are set usually between 18 and 21°C.

Normal cooling systems are set between 15 and 18°C.

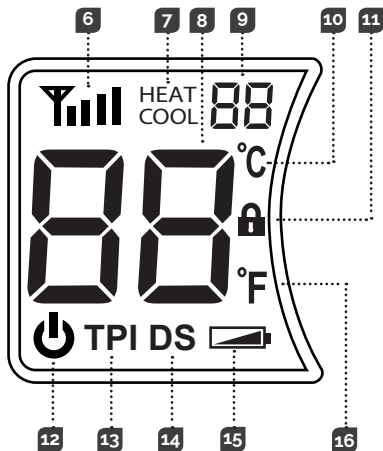
THERMOSTAT BUTTON LAYOUT

- 1** Thermostat
- 2** Thermostat Display
- 3** Function Button
- 4** Battery Compartment
- 5** Selector Dial



THERMOSTAT DISPLAY LAYOUT

- 6** RF Signal Indicator
- 7** Heating Or Cooling Mode (Active Mode Is Lit)
- 8** Current Room Temperature
- 9** User Set Room Temperature
- 10** Celsius Mode (Active When Lit)
- 11** Temperature Lock (Active When Lit)
- 12** Heating / Cooling Active (Active When Lit)
- 13** TPI Mode (Active When Lit)
- 14** DS Mode (Active When Lit)
- 15** Battery Life Indicator
- 16** Fahrenheit Mode (Active When Lit)



SETTING THE TEMPERATURE

Your new Strom Thermostat is extremely simple to operate. To set the temperature simply rotate the selector dial **5** taking note of the new set temperature on the display **9**.

LOCKING THE TEMPERATURE

To lock the temperature of your thermostat to prevent tampering simply press the function button **3** 3 times within a 2 second period, to unlock simply repeat.

TURNING THE THERMOSTAT OFF - COOLING MODE ONLY

When in cooling mode your thermostat can be turned off. To turn the thermostat off simply press and hold the function button **3** for 5 seconds, to turn the thermostat on simply repeat.

PRODUCT GUARANTEE

Your Strom Thermostat is guaranteed by default for a period of 12 months from the date of purchase, to redeem the parts only 3 year guarantee the end user will need to register their unit within 45 days of purchase on our website. The registration page can be found at :

www.stromltd.com/guarantee

The unit is only guaranteed for the 3 years if the product has been installed and maintained in accordance with these instructions, and original proof of purchase has been retained. We recommend keeping the installation invoice or electricians installation certificate to prove if necessary that the product was installed by a qualified electrician. This guarantee is a parts only guarantee.

This guarantee specifically excludes:

Damage caused by the incorrect installation or by power surges, consequential losses - including labour charges and damages to fittings, and any product that has not been maintained and installed in accordance with this manual.

INSTALLATION GUIDE

The contents of this section are meant only for qualified electricians and service engineers. Using this section of the manual without proper training may damage your product or cause you personal injury.

Improper use of this section may render your product warranty null and void.

THERMOSTAT SPECIFICATION

Power Supply	2 x 1.5V AA Type Lithium Batteries
Temperature Range	10 - 30°C
Material	Thermoplastic
Dimensions (HxWxD)	85mm x 88mm x 36mm

RECEIVER SPECIFICATION

Power Supply	90-260VAC 50/60Hz
Switch Capacity	230VAC, 6(2)A SPDT (Volt Free Contacts)
Wireless Range	Approximately 30m Unobstructed
RF Frequency	868MHz
Dimensions (HxWxD)	88mm x 135mm x 35mm

WARNING

IT IS ESSENTIAL THAT BEFORE ANY INSTALLATION OR MAINTAINENCE IS CARRIED OUT THAT THE AC MAINS SUPPLY HAS BEEN ISOLATED, FAILURE TO DO SO MAY RESULT IN DEATH.

Instructions beyond this point are designed for qualified electricians only, and should not be attempted by the user. Should you require any adjustments of your controls please contact a suitable electrician.

- This unit should only be installed by a competent electrician in accordance with all local and national regulations in force at that time and in line with the latest IEE wiring regulations.
- This unit is for fixed wiring only.
- This system must be appropriately fused using a fuse rated at no more than 6 amps.
- Must incorporate a "Class A" switch having seperation of at least 3mm in all poles.

- We recommend a cable size of between 1.0mm² and 1.5mm² must be used.
- Where mounting to a metal surface, always ensure that the metal is earthed.
- This product is not suitable for mounting on a back box.

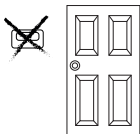
MAINTENANCE

Maintenance should be carried out by a qualified heating and electrical engineer on every part of the heating and hot water system every 12 months from date of installation.

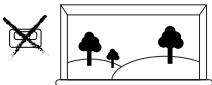
Maintenance should only be carried out after carefully reading these instructions, and the mains AC supply disconnected before maintenance begins.

THERMOSTAT POSITIONING

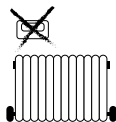
When it comes to thermostat placement there are a few key rules to follow to ensure your product works efficiently and keeps your home warm without wasting energy.



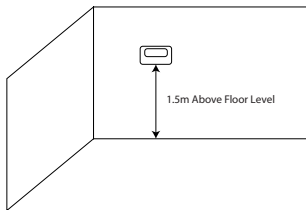
Do not place your thermostat next to external doors or other sources of drafts.



Do not place your thermostat on external walls or unusually cold surfaces.



Do not place your thermostat above or immediately next to a heat source.

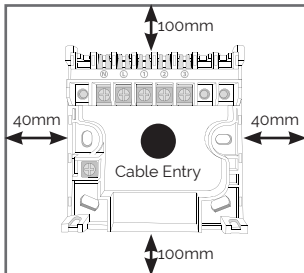


Try to place your thermostat approximately 1.5m above ground level to get the best reading.

WIRELESS RECEIVER INSTALLATION

To install your Strom Wireless Receiver simply follow the installation procedure:

1. Ensure all mains supplies relating to the installation are isolated.
2. Prepare the area for the installation of the new backplate, with the required minimum clearances all the way around the backplate and the entry point for the wiring through the middle of the backplate as shown below:



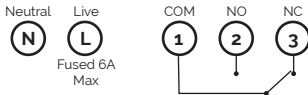
3. Ensure that in the suitable position that the back of the controller once affixed to the backplate is not exposed, and that the surface is ideally non-metallic, and suitable for wall fixings that will firmly support the control and prevent accidental removal.
4. Once the suitable position has been found using a pencil mark the fixing positions on the wall, and use a suitably sized drill bit for the wall plugs (care should be taken to ensure you are not drilling through any utilities such as gas, water, or electric. Once drilled and plugged secure the wall plate in position with the supplied screws.
5. Wire the backplate in accordance with the wiring diagram supplied.
6. Follow the thermostat commissioning procedure.

WIRING DIAGRAM

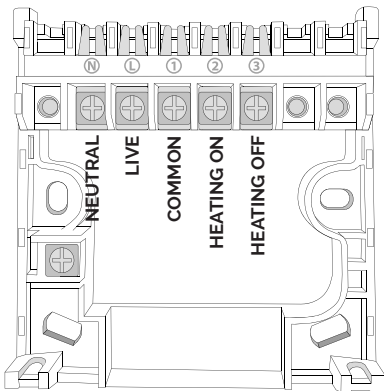
When wiring your backplate up, or performing maintenance on the backplate please ensure that all the mains AC supply has been isolated.

We recommend that all wiring is done with 1.0mm² or 1.5mm² cabling, and that care is taken to ensure good connection with the terminals.

Electrical wiring schematic



Backplate wiring view



THERMOSTAT COMMISSIONING

Once you are happy that the receiver has been fitted and wired in accordance with this installation manual you will need to commission the thermostat, test pairing and ensure the following has been completed:

1. Power has been restored to the receiver.
2. Ensure the thermostat is powering on and responding to user input.
3. Check the pairing between the control and receiver.
4. Set the mode of the thermostat.
5. Set the advanced functions as required.
6. Leave a copy of these instructions with the controller for the homeowner.

WIRELESS LINK INDICATOR

FLASHING - There is a communication error, please re-pair.

ON - The thermostat has established a signal with the receiver.



FLASHING - The thermostat is communicated with the receiver.

ON - Indicates the signal strength between devices.

ENTERING ENGINEERS MODE

To set the control mode of the thermostat and set the advanced functions you must enter the engineers mode. To do this simply:

1. Set the temperature of the device to 10°C or 50°F using the selector dial **5**.
2. Press and hold the function button **3** for 5 seconds.
3. You have now entered the engineers mode, the system will automatically exit after 10 seconds of inactivity.

CHANGING THE SETTINGS

To change the settings of the thermostat enter the engineers mode. Changing the value is done by turning the selector dial **5**, and swapping between options by pressing the function button **3**.

SETTING OPTIONS

MENU DISPLAY	DESCRIPTION	VALUES
1	Change Temperture Unit	Celius or Fahrenheit
2	Thermostat Mode	Heat or Cool
3	Sensor Calibration	-3 to +3°C
4L	LCD Contrast Ratio	12 to 15
5B	Backlight Time Out	Off to 5 Seconds
6	Delayed Start	On or Off
7	DS Time (Cooling Only)	2 to 5 Minutes

MENU DISPLAY	DESCRIPTION	VALUES
8	TPI Mode	On or Off
9	TPI Time (Heating Mode)	10 or 20
	Dead Zone Temp. (Cooling Mode)	1 or 2°C
AH	High 2-Bit Wireless Address	-
A3	3rd & 4th Bit Wireless Address	-
A5	5th & 6th Wireless Address	-
AL	Low 2-Bit Wireless Address	-

WHAT IS TPI?

Reducing energy costs and carbon emissions is within reach when fitting thermostats with TPI.

TPI or Chronoproportional Controls is a load compensator as it works by ensuring the boiler 'on' time is reduced to a minimum and balances the boiler heat output with the heat loss. This reduces the net temperature of the return water to the boiler.

Where a thermostat without TPI is used the benefits of a high-efficiency condensing boiler are rarely realised and will often not be running in condensing mode.

Where TPI is used there is the benefit of more accurate temperature control plus possible reductions of upto 10% in both fuel cost and carbon emissions.

REPAIRING THE THERMOSTAT

If the thermostat is indicating a problem with the wireless link please follow the repairing sequence:

1. On the wireless receiver press and hold the M/A button for 10 seconds until the green light begins to flash.
2. Enter the engineers mode of the thermostat.
3. Using the function button cycle to either AH, A3, A5 or AL.
4. Press & hold the function button for 5 seconds.

If you are successful the thermostat will display "OK", however in the event that "Er" is displayed the pairing has been unsuccessful. If pairing is unsuccessful please move the thermostat closer to the receiver and repeat the process again.

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