SANGAMO
Fit & forget...

CHOICE RSTAT8
Digital Programmable Room Thermostat
(2 wire, battery powered)

Direct Wall Mounting
To ensure its correct operation the thermostat should be mounted or situated approximately 1.3 metres above the floor on an internal wall and should be positioned away from direct sunlight, heat sources and drafts.

Wiring Box Mounting
The thermostat may be fitted directly on to a single gang steel flush wiring box. It must not be positioned on an unearthed metal surface.

Electrical Connections

Choice Rstat 8
Internal wiring

- **1** Call for heat
- **2** Common
- **3**

Once connections are made ensure you refit & screw the terminal cover back into place.

Example circuit diagrams for typical installations are shown below. For reasons of space and clarity not every system can be shown

Choice RSTAT8 controlling a typical combination boiler installation - please refer to boiler manufacturers instructions

Choice RSTAT8 replacing a conventional room thermostat on a fully pumped system with an existing programmer and 3 port mid-position valve.

Choice RSTAT8 replacing a conventional room thermostat on a fully pumped system with an existing programmer and two spring return valves with auxiliary switches.

Choice RSTAT8 controlling a secondary heating zone on a pumped system with existing programmer and two spring return valves with auxiliary switches.

Insert Batteries

With the fascia unclipped from its backplate, fit supplied AA batteries into the battery compartment shown. All LCD data will flash. Press SET to stop the flashing.
Refit fascia to backplate by first locating bottom catches and closing into position at the top.

Test Process

Press **+** or **-** buttons to temporarily adjust the set temperature to stimulate product operation. A heating symbol is displayed when the room temperature is below the set temperature indicating the thermostat is calling for heat from the boiler. Check the operation. Press **SET** to revert to program operation.

User Instructions

What is a programmable room thermostat?
...an explanation for householders.

A programmable room thermostat is both a programmer and a room thermostat. A programmer allows you to set 'ON and OFF' time periods to suit your lifestyle. A room thermostat works by sensing the air temperature, switching on the heating when the air temperature falls below the thermostat setting and switching it off once the set temperature has been reached.

So, a programmable room thermostat lets you choose what times you want the heating to be on, and what temperature it should reach while it is on. It will allow you to select different temperatures in your home at different times of the day (and days of the week) to meet your particular needs.

Turning a programmable room thermostat to a higher setting will not make the room heat up any faster. How quickly the room heats up depends on the design of the heating system, for example, the size of the boiler and radiators. Neither does the setting affect how quickly the room cools down. Turning a programmable room thermostat to a lower setting will result in the room being controlled at a lower temperature, and saves energy.

The way to set and use your programmable room thermostat is to find the lowest temperature settings that you are comfortable with at the different times you have chosen, and then leave it alone to do its job. The best way to do this is to set low temperatures first, say 18ºC and then turn them up by one degree each day until you are comfortable with the temperatures. You won't have to adjust the thermostat further. Any adjustments above these settings will waste energy and cost you more money.

If your heating system is a boiler with radiators, there will usually be only one programmable room thermostat to control the whole house. But you can have different temperatures in individual rooms by installing thermostatic radiator valves (TRVs) on individual radiators. If you don't have TRVs, you should choose a temperature that is reasonable for the whole house. If you do have TRVs, you can chose a slightly higher setting to make sure that even the coldest room is comfortable, then prevent any overheating in other rooms by adjusting the TRVs.

The time on the programmer must be correct. The RSTAT9 automatically adjusts between spring and autumn at the changes between Greenwich Mean Time and British

Introduction

The Choice RSTAT8 is a 2 wire, battery powered programmable room thermostat. Being battery powered, these models are suitable for replacing most existing room thermostats.

The thermostat allows you to program and regulate your heating system using up to 6 programmable events per day.

The thermostat is easy to set up and provides clear feedback to the user of the current time and temperature and depending on the program settings will switch the boiler or zone valve appropriately.
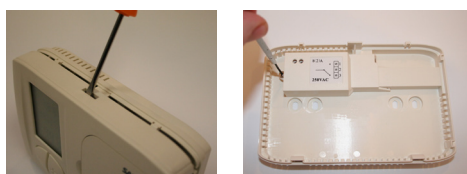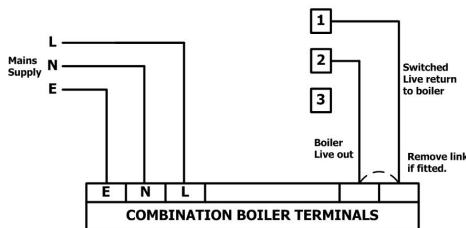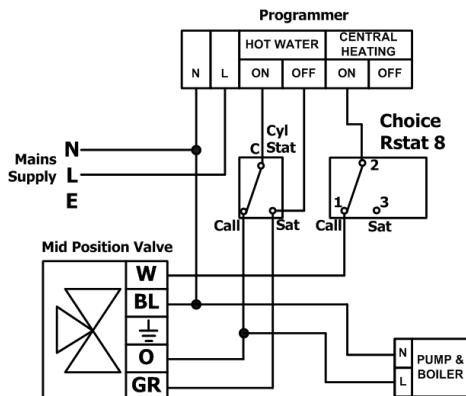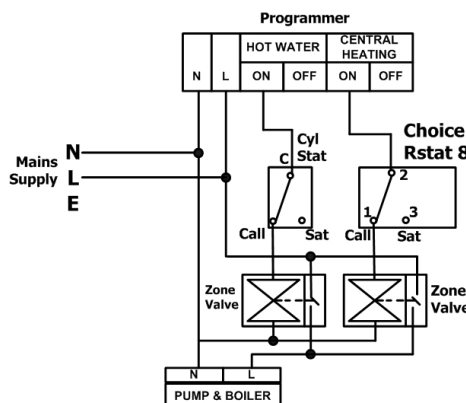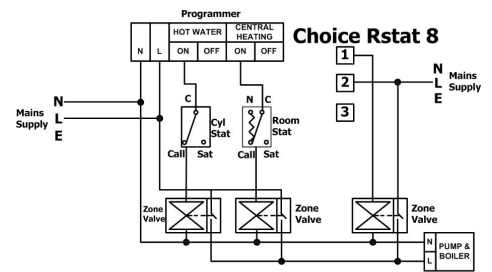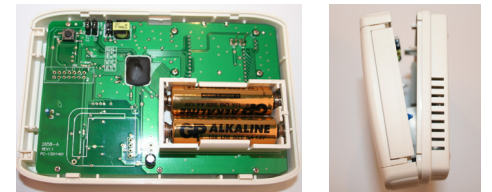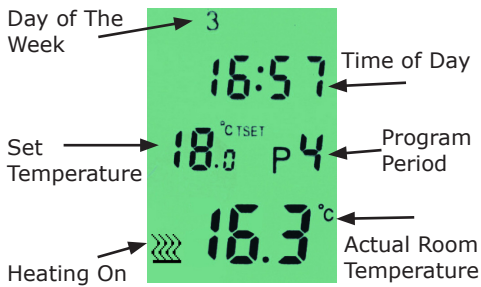
Features

- 24 or 7 day programmable
- Default adjustable program
- Permanent hold temperature
- Timed hold temperature
- Temporary temperature override
- Automatic Summer/Winter time change
- Low battery voltage indication
- Button press back-light operation

Installation

This product <u>must</u> be installed by a competent person in line with the latest IEE regulations. Isolate mains before commencing installation of the product.

Using a screwdriver carefully depress the locking tab at the top and separate the back plate from the fascia. Unscrew and remove terminal cover to gain access to the terminals.

Summer Time.

Programmable room thermostats need a free flow of air to sense the temperature, so they must not be covered by curtains or blocked by furniture. Nearby electric fires, televisions, wall or table lamps may prevent the thermostat from working properly.

Day of The Week — 3

16:57 — Time of Day

Set Temperature — 18.0 °CTSET   P4 — Program Period

Heating On — 16.3°C — Actual Room Temperature

Programme Settings

Clock Setting
1. Press **CLOCK** button once, year flashes, press **+** or **-** buttons to set year.
2. Press **CLOCK** button again, month flashes, press **+** or **-** buttons to set month.
3. Press **CLOCK** button again, day flashes, press **+** or **-** buttons to set day.
4. Press **CLOCK** button again, hour flashes, press **+** or **-** buttons to set hour.
5. Press **CLOCK** button again, minute flashes, press **+** or **-** buttons to set minute.
6. Press **SET** button to confirm, or just wait 15 seconds, it will be confirmed automatically.

Program Setting/Review
1. Default program values are:

Day Group	Cycle	P1	P2	P3	P4	P5	P6
1-7 (default)	24hr	6:30 21°C	8:00 18°C	12:00 21°C	14:00 18°C	18:00 21°C	22:30 16°C
1,2,3,4 & 5	7 Day	6:30 21°C	8:00 18°C	12:00 21°C	14:00 18°C	18:00 21°C	22:30 16°C
6 & 7	7 Day	8:00 21°C	10:00 21°C	12:00 21°C	14:00 21°C	18:00 21°C	23:00 16°C

If 1-7 are all selected then the 24hour cycle option is active– each days programs will be the same.
If either of 1,2,3,4,5,6,7 is selected then the 7 day cycle option is active – each days programs can be different.
Dependant on your lifestyle, these default program settings may be satisfactory.
2. Hold **SET** button, then press **PROG** button once , the current day or day group (1– 7) will flash;
3. Press **+** or **-** buttons to change the day group (1-7) to individual day to be set (1, 2, 3, 4, 5, 6, 7)

4. Press **PROG** button once to display P1 and clock flashes, press **+** or **-** buttons to set time (increment 10 minutes)
5. Press **PROG** button again and temperature flashes, press **+** or **-** buttons to set temperature (increment 0.5°C)
6. Press **PROG** button again to display P2 and clock flashes. Set P2–P6 same as P1
7. After setting P6, press **PROG** button and the current day or day group (1-7) will flash again. Return to step 2 to program other days.
8. After setting all programs, press **SET** button to confirm or wait 15 seconds to confirm automatically.
9. In normal running status, you can press the **PROG** button to review program information for current day or day group.
If current day only is shown initially (Unit is programmed for 7 day cycle).
If day group (1-7) is shown (Unit is programmed for a 24 hour cycle).
Press **+** or **-** buttons to change the day to be reviewed.

Copy function
1. Hold **COPY** button for 3 seconds to display **COPY** and day 1 flashes
2. Press **+** or **-** buttons to select the day which you want to copy from, then press **COPY** button once, the day will stop flashing.
3. Press **+** or **-** buttons to select the day which you want to copy to, press **COPY** button once to complete.
4. Press **+** or **-** buttons to select next day you want to copy to, press **COPY** button again to complete.
5. Repeat above steps to finish, then press **SET** button to confirm, or you can wait 15 seconds, it will be confirmed automatically.

Permanent Hold: Temperature is held indefinitely until user cancels
Press **HOLD** button once to display ⊶ symbol,
Press **+** or **-** buttons to set the temperature, press **PROG** button once.
Then press **SET** button to confirm or you can wait 15 seconds to confirm automatically.
The setting will be kept until you exit by pressing **SET** button.

Hold Days: Temperature is held for a number of days before returning to the programs
Hold **HOLD** button for 3 seconds to display **d:01** and ▥ symbol.
Press **+** or **-** buttons to select holding days from **d:01** to **d:99**, then press **PROG** button once.
Then press **SET** to confirm or you can wait 15 seconds to confirm automatically.
Press **+** or **-** buttons to set override temperature.
The setting will be kept until finished the holding days,

or you can press **SET** button to exit manually.

Hold Hours: Temperature is held for a number of hours before returning to the programs
Press **+** or **-** buttons to set temperature,
Press **CLOCK** button, then **+** or **-** buttons to select time range from 1 – 9 hours. Press **PROG** button.
Then press **SET** button to confirm or you can wait 15 seconds to confirm automatically.
The setting will be kept until finished the holding hours, or you can press **SET** button to exit manually.

Hold until next program: Make a temporary change to the temperature
Press **+** or **-** buttons to set temperature, press **PROG** button once.
Then press **SET** button to confirm or you can wait 15 seconds to confirm automatically. The setting will be kept until next program, or you can press **SET** button to exit manually.

Set Temporary Temperature Default Settings : Temperatures initially offered when + or - buttons are pressed
Default temperatures when first pressing the **+** or **-** buttons
Hold **SET** and press **+** button once to flash 22.0°, press **+** or **-** button to set temporary override temperature (7 - 35°C, default is 22°C).
Hold **SET** and press **-** button once to flash 18.0°C, press **+** or **-** button to set temporary override temperature (7 - 35°C, default is 18°C).
SET button to confirm, or just wait 15 seconds, it will be confirmed automatically

Additional Instructions

Switching Differential (on/off control) : The tolerance from the set temperature before the measured temperature signals the thermostat to switch its output.
Press **CLOCK** button once, then press **COPY** button once to display **S: 1**, press **+** or **-** buttons to change between **S:1** or **S: 2**, then press **SET** button to confirm.
S: 1: differential is ±0.2°. When room temperature is -0.2°C below setting temperature, it will display symbol and boiler will turn on. When room temperature is +0.2°C above setting temperature, symbol will disappear and relay will turn off.
S: 2: differential is +0°C or -0.2°. When room temperature is -0.2°C below setting temperature, it will display symbol and boiler will turn on. When room temperature is reached, i.e. +0.0°C, symbol will disappear and relay will turn off.

LCD Back-light Operation
Press **LIGHT** button to turn on back-light. It will turn off without pressing in 15 seconds.

Reset
1. Reset software: Press **RESET** button to return to default values.
2. Reset hardware: Press SW11 key on the PCB to reset the thermostat. The program settings are retained.

Specification

Power supply: 2x AA 1.5v batteries
Battery lifespan: 1 year
Temperature display range: 5 - 40°C (increment 0.1)
Temperature control range: 7 - 35°C (increment 0.5)
Program time increment: 10 minutes
Temperature accuracy: +/-1°C
Operating temperature: 0 - 45°C
Clock accuracy: <1sec / day

Protection rating: IP30
Dimensions: 135 x 89 x 32mm
Mounting: Wall
Contact rating: 8(2), 250Vac (Volt free contact)
Insulation class: 2(double insulated)
Flexible wire size: 0.5 - 2.5mm
Rigid wire size: 0.5 - 2.5mm

143761 Issue A

Approval Standards
EN60730-1
EN60730-2-7
EN60730-2-9

If you have a problem or require any further information please contact our technical team on:
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