

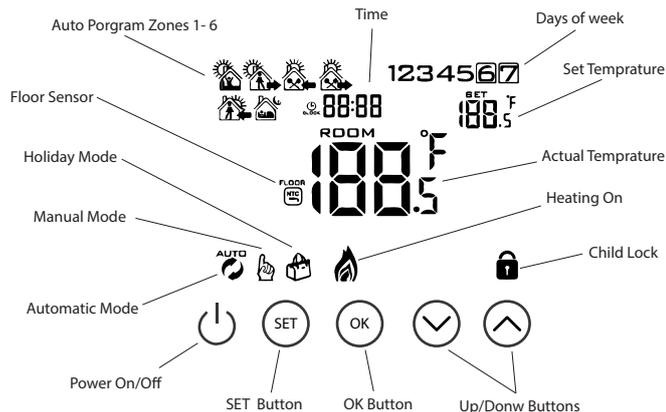
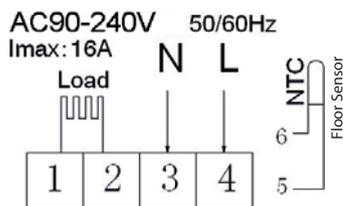
RT5 Thermostat Instructions

Before fitting this thermostat, (stat) make sure to read these instructions fully. The installer must be competent and qualified to work with electricians before making any connections to mains power. It is the responsibility of the installer to make sure the thermostat is installed in a suitable location, programmed correctly and also suitable for use with your chosen heating system. Failure to understand and follow these instructions correctly can cause damage to the thermostat, heating system and create a hazardous environment to health. Make sure to check all ratings given in these instructions and also ratings of the heating system this thermostat will be controlling to be sure they are all compatible.

Features Specifications

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| <ul style="list-style-type: none"> 1: Touch screen for easy clean IP rated control. 2: 0.5 degrees accuracy 3: Child lock 4: Battery backup for program settings 5: Holiday and Hold Modes 6: Internal and external temperature sensors. 7: Clear back lit flat screen 8: Low profile design | <ul style="list-style-type: none"> 1: 100-240Vac - 50/60HZ 2: Max load 16A@250V/AC 3: Electromagnet Switch Relay 4: Max temperature range 0-75°C 5: Default temperature setting range 5-35°C 6: External NTC 10k Probe |
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Wiring



Screen Icons & Keys - How to use set and make changes were possible.

Feature	NOTE: Thermostat must be ON and screen LIT UP to operate this thermostat unless stated otherwise.
ON / OFF	Turn ON/OFF: Quick tap POWER button to turn on and turn off.
Time / Day	To change the time and day tap the OK button. Minutes will flash, use the UP / DOWN buttons to set the minutes. Once correct tap OK again and the hours will flash. Again make changes using UP / DOWN buttons and then tap OK again. Now day will flash, (note the 7 days of the week are represented as numbers 1-7 with 1 being Monday) again make changes using UP and DOWN buttons and then tap OK to finish.
	Manual mode activated. Thermostat will hold the current set temperature unit a change is made. To select Manual mode simple tap the SET button to swap between Manual and Auto modes.
	Automated / Programmed heating cycle activated. Stat will continuously run the pre-set automated 7 day heating cycle. To select this simply tap the SET button to swap between Auto and Manual modes. See 'Automated Program Settings' for how to set up and program the automated heating cycle.
	Automated program - Temporary override. If you wish to manually change the temperature when running the stat in Auto mode simply use the UP/DOWN buttons to change the temperature. The new temperature will now be set and held until the next automated program cycle zone kicks in. During this temporary override time you will see in the bottom left of the screen. Once this time zone ends and the programed cycle moved into the next time zone the thermostat will revert back to the preprogrammed temperature and time cycle. This symbol will then be replaced with .
	Holiday mode is used to set a single temperature for a set number for days such as when away on holiday. To set up press and hold OK for 5 seconds to enter holiday mode setting. OFF or ON will now be flashing. Use UP / DOWN buttons to select ON and then tap OK. Number of days will then be flashing. Use UP/DOWN buttons to select desired number of days and tap OK again. Temperature will be flashing. Select the desired temperature using UP/DOWN buttons and tap OK to complete set up. Screen will now revert back to home screen and suitcase will now be showing. To check how many days and or time is left before holiday mode ends tap the UP / DOWN button once. NOTE: if you tap the SET button during the holiday mode period, holiday mode will be cancelled and the thermostat will revert back to manual mode.
	Child lock to stop unwanted tampering or temperature changes. To activate or turn off simply hold the DOWN button for 5 seconds until the padlock appears / disappears.
	When the flame is showing, power is going to heating. The flame will show until the set temperature is achieved. If the set temperature is below the actual temperature the flame will not show as there is no need for the heating to be on.
	External NTC sensor / Floor sensor, (not air sensor) is being used to measure main temperature on screen. NOTE: Air or floor or both sensors can be selected (see advanced options B for setting options). WHEN USING UNDERFLOOR HEATING IT IS IMPORTANT TO USE FLOOR SENSOR ONLY.

Read this section on automated program settings fully before trying to program the thermostat.

- NOTE: The thermostat does not turn on or off it simply changes the set / desired temperature 6 times per day on a 7 day cycle.
- NOTE: When programming the thermostat you must work in a linear time line from zone 1 - 6 and not jump back and forward in time.
- NOTE: If you do not want the heating to come on in any part of the day / zone simply set a low temperature for that zone and the thermostat will not turn the heating on unless the temperature drops below the set temperature.
- NOTE: For ease of programming you can select a 5+2 (factory default), 6+1 or 7 day cycle setting. For more information on this or how to change see advanced options A6.
- NOTE: When programming the thermostat if the screen is left untouched for 10 seconds the thermostat will save changes made and revert back to the home screen. This time can be increased in advanced options A - A5 up to 30 seconds before the thermostat saves and reverts back to home screen if more time is needed.

- START:** To program each zone hold down SET for 5 seconds and the time will flash and zone 1 will appear in top right corner. The times and temperatures you put into the next 6 zones will be copied across to all days showing across the top right of the screen. Follow the next 3 steps below to work through and set all 6 zones for these days without delay, (it can be helpful to have your time and temperatures for all zones written down first).
- NOTE: If you have selected 0 (=5+2) in advanced setting A - A6 you will have days 12345 showing across top right of screen at this stage, if you selected option 1 (=6+1) you will have days 123456 showing or if you selected optio 2 (=7) you will have days 1234567 showing. The times and temperatures you put into the next 6 zones will be copied across to all days showing on your screen. In step 5 below you will complete the missing days 6,7 or 7 if you selected options 0 or 1 in advanced options A - A6
- 1:** Change the hours using UP/DOWN buttons for when you want to wake up (zone 1 time) and tap SET to move to minutes.
 - 2:** Minutes will flash next, change these again for when you want to wake (zone 1 time) and once correct tap SET to move to temperature.
 - 3:** Set temperature will now flash. Change the temperature to the desired temperature and tap SET again to move / set up next zone..
 - 4:** You will now see Zone 2 appear in the top right and the hours will be flashing again. Repeat steps 1 - 3 above for all 6 zones.
- # If you selected option 0 (=5+2) or 1 (=6+1) in advanced option A - A6 go to instruction step 5 below.
 # If you selected option 2 (=7) in advanced options A - A6 you are finished.
- 5:** Once you complete zone 6 and tap SET you will now see zone 1 reappear top right but the days will change to weekend days. Days 6+7 or only 7 will now be showing. You now need to repeat steps 1-3 above for all 6 zones. These are your weekend zone settings. These days are typically programmed differently to the weekday

6: Once you have completed time and temperature for all 6 zones for the weekend days simply tap SET and you have finished.

To use the automated mode simply make sure the AUTO symbol is showing and the time and day is correct. The below diagram / table gives a general idea on how we would suggest programming your thermostats 6 zone times and temperatures daily cycle.

Zone 1-Wake	Zone 2-leave	Zone 3-lunch	Zone 4-leave	Zone 5-dinner	Zone 6-sleep
6:00 24°C	8:00 16°C	11:00 24°C	13:00 16°C	17:00 24°C	23:00 18°C

Depending upon what type of heating and flooring installed it may be necessary to make changes to the advanced option settings A and / or B to allow optimum control of the heating by this thermostat.

Advanced options A

1: To make changes to Advanced Option A settings first turn off the thermostat. When screen is blank hold SET for 5 seconds and A1 will appear on screen.

2: To move through the settings A1 to AE, tap SET to select the next setting. Once you have the desired setting use the UP/DOWN buttons to make changes to the settings parameters as per the table below. To move on to the next setting tap SET or to save and exit tap the POWER button.

NO	Setting Options	Data Setting / Function	Factory Default
A1	Temperature Calibration	-9--+9°C - Display temperature can be calibrated if needed.	-1
A2	Start/stop working temperature difference setting	0.5-5°C - The number of degrees or temperature before the thermostat turns off or on above or below the current set temperature.	1°C
A3	Child / Button lock	0: - Half lock, only power button still works. 1: - Full lock, all 5 buttons will not function.	0
A4	What state the Thermostat will turn back on or off after power cut.	0: - Thermostat to turn back on or off as per how it was prior to the power cut. 1: - Thermostat to switch off after power cut. 2: - Thermostat to switch on after power cut.	0
A5	Backlight On / Screen inactivity timeout.	5~30s: The length of time the back light will stay on. Or the time the screen will stay in programming mode until the screen reverts back from programming mode to home screen.	10
A6	Automated Program Day synchronization options.	0 = 5day+2day \1= 6day+1day \ 2 = 7days all the same. These options group days of the week to help make programming the automated cycle easier. Example, option 0 = 5 days (week days 1,2,3,4,5 the same) + 2 days (weekend day 6,7 the same).	0
A7	Minimum Set Temperature.	1-10°C - Lowest possible temperature user can set in manual, holiday or automated modes.	5°C
A8	Maximum Set Temperature.	20-70°C Maximum possible temperature user can set in manual, holiday or automated modes.	35°C
A9	Low Temperature Protection.	1-10°C - If the thermostat is off and temperature drops below Low Temperature Protection setting the thermostat will turn heating on to maintain this minimum temperature to help protect from ice, frost and freezing temperatures.	5°C
AA	High Temperature Protection (for external sensor only. NOTE: Only if Advanced options B-BN is set to N3 will this setting be activated).	20°C-70°C - If the external sensor detects a temperature above the High Temperature Protection setting the thermostat will turn the heating off and the flame will flash to warn user of high temperature even if the air sensor or set temperature is showing below this temperature. NOTE: Only if Advanced options B - BN is set to N3 will this setting be activated.	45°C
AB	High Temperature Protection Differential.	1-9°C - The temperature or number of degrees the external sensor needs to drop down below the High Temperature Protection setting before the thermostat turns the heating back on.	2°C
AC	Open Window / Sudden Temperature Drop Energy Saving.	Off=(-) or 10-20°C - If air sensor detects sudden drop in air temperature by set number of degrees / temperature the thermostat will turn off the heating to save power for a set length of time specified in advanced options A - AD below.	-- (=off)
AD	Open Window / Sudden Temperature Drop Off Time.	10-20min - Length of time the heating will turn off before tuning back on to save power if sudden drop in air temperature is detected, also see setting A - AC above.	10
AE	Reset Thermostat to Factory Default Settings.	To reset the thermostat simply enter into setting AE and make sure Ao in top right of screen is flashing. Then hold down OK for 5 seconds until the screen briefly shows all symbols together and then turn off. The unit is now reset to its original factory default settings. .	A0

Advanced options B

1: To make changes to Advanced Option B settings first turn off the thermostat. When screen is blank hold OK for 5 seconds and BN will appear on screen.

2: To move through the settings BN to BO, tap SET to select the next setting. Once you have moved to the desired setting use the UP/DOWN buttons to make changes to the settings parameters as per the table below. To move to next setting tap SET or to save and exit tap the POWER button.

NO	Setting Options	Data Setting / Function	Factory Default
BN	Sensor Type / Internal = Air External = Floor	N1: Internal sensor N2: External sensor N3: Internal + External sensor - (When setting N3 is selected, Internal sensor controls temperature and external sensor limits max temperature to high temperature protection setting, see Advanced options A - AA for max temperature setting details).	N1
BC	Descaling function	0:Disable descaling function. 1:Enable descaling function / for water heater use only.	0
BO	Not in use.	Programmer use only / Not in use	Not in use.

Sensor Fault Codes

E1 = Problem with internal / air sensor.

E2 = Problem with or missing external / floor sensor.