



USER GUIDE

RF ELECTRONIC PROGRAMMABLE ROOM THERMOSTAT
7 DAY

When replacing any part on this appliance, use only spare parts that you can be assured confirm to the safety and performance specification that we require. Do not use reconditioned or copy parts that have not been clearly authorised by Keston.

For the very latest copy of literature for specification and maintenance practices visit our website www.co.uk where you can download the relevant information in PDF format.

June 2016
UIN 216243 A01



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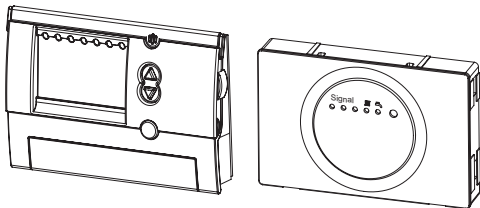
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The national regulations and respective safety instructions are to be observed.
Interferences and changes to the device will lead to cancellation of the warranty.

RF Electronic Programmable Room Thermostat, 7 Day

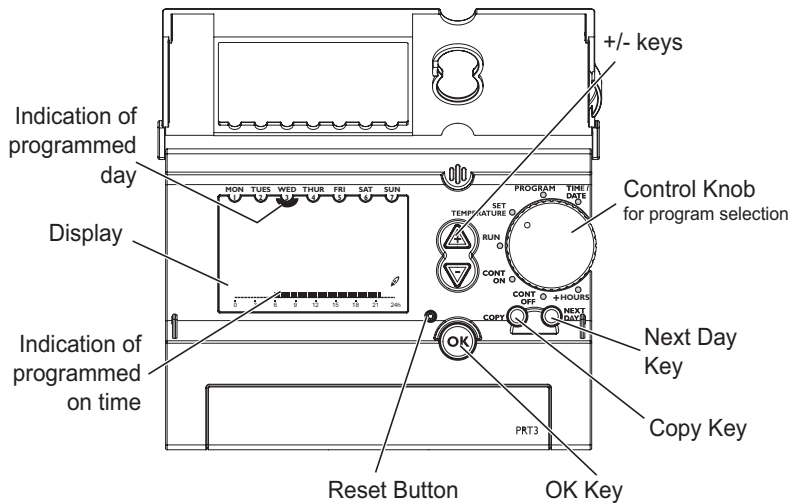
Suitable for the **KESTON C RANGE**



The Keston C Range RF Programmable Room Thermostat features the following:

- *Summer/Winter Time (GMT/BST) automatically updated*
- *7 day timed control of central heating by Opentherm (saves energy & reduces costs by operating at lower temperature)*
- *Room Temperature Control*
- *Radio Frequency Communication (no wiring)*
- *Simple User Interface*
- *English Language boiler fault messages and suggested corrective actions*
- *Timed pre-heat (to save energy and reduce costs)*
- *+ Hours Mode*
- *Holiday Mode*

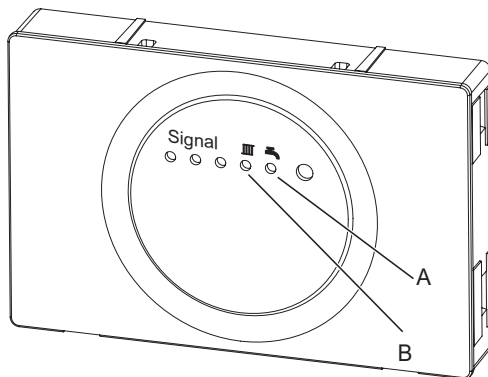
RF ELECTRONIC PROGRAMMABLE ROOM THERMOSTAT, 7 DAY



Note.

If a battery symbol is blinking, the display is blinking or the display is blank then replace batteries.

RECEIVER UNIT (BOILER MOUNTED)




1. During normal operation light (A) is on for Hot water Operation.
2. During normal operation light (B) is on for Central Heating Operation.
3. If the Reset Button is pressed on the room thermostat the signal lights on the receiver unit will light. If less than 4 lights are on either the room thermostat is too far from the boiler or the batteries in the room thermostat need replacing.

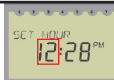
At the same time "M-050 S-050" is shown on the room thermostat. The number is another indicator of signal strength - the lower the number the better.


SETTING THE TIME AND DATE

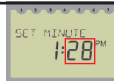
Note. Summer/Winter time automatically updated.


1. Turn the **Control Knob** to the "TIME/DATE" position

2. Press the ▲ and ▼ keys to change the **Hours** to the current time and to enter press the  key




3. Press the ▲ and ▼ keys to change the **Minutes** to the current time and to enter press the  key




4. Press the ▲ and ▼ keys to change the **Year** to the current year and to enter press the  key



5. Press the ▲ and ▼ keys to change the **Month** to the current month and to enter press the  key (note, January = 1)



6. Press the ▲ and ▼ keys to change the **Day of the Month** to the current day of the month and to enter press the  Key

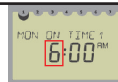


7. Turn the **Control Knob** to the required operating condition: "RUN", "Cont On" or "Cont Off"

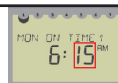
SETTING THE PROGRAM

1. Turn the **Control Knob** to the "PROGRAM" position

2. Press the **▲** and **▼** keys to change the **Hours** figure for **Monday's 1st On Time** and to enter press the **OK** key



3. Press the **▲** and **▼** keys to change the **Minutes** figure for **Monday's 1st On Time** and to enter press the **OK** key



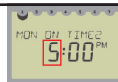
4. Press the **▲** and **▼** keys to change the **Hours** figure for **Monday's 1st Off Time** and to enter press the **OK** key



5. Press the **▲** and **▼** keys to change the **Minutes** figure for **Monday's 1st Off Time** and to enter press the **OK** key

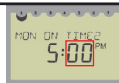


6. If you do not wish to set any further times for Monday press the **Next Day Key** (and move to point 10). Otherwise, press the **▲** and **▼** keys to change the **Hours** figure for **Monday's 2nd On Time** and to enter press the **OK** key

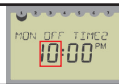


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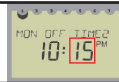
7. Press the ▲ and ▼ keys to change the **Minutes** figure for **Monday's 2nd On Time** and to enter press the **OK** key



8. Press the ▲ and ▼ keys to change the **Hours** figure for **Monday's 2nd Off Time** and to enter press the **OK** key



9. Press the ▲ and ▼ keys to change the **Minutes** figure for **Monday's 2nd Off Time** and to enter press the **OK** key






Note. If you would like to set a 3rd On period then continue programming in the same manner. Otherwise press the **Next Day** key.

10. If you would like to have the same On and Off times for Tuesday as for Monday then press the **Copy** key and then the **OK** key. To move to Wednesday press the **Next Day** key, continuing in the same manner. If you would like to have different times for Tuesday, then enter them in the same manner as for Monday. When programming for Sunday is complete turn the control knob to the RUN position to activate the program.

11. Turn the **Control Knob** to the required operating condition: "RUN", "Cont On" or "Cont Off"

SETTING THE ROOM TEMPERATURE



1. Turn the **Control Knob** to the “**SET TEMPERATURE**” position

2. Press the  and  keys to change the Temperature and to enter
press the  key



3. Turn the Control Knob back to the required mode of operation:
“**RUN**”, “**CONT ON**” or “**CONT OFF**”

4. Turn the **Control Knob** to the required operating condition: RUN, CONT ON or
CONT OFF

Note. It is also possible to change the Room Temperature Set Point just by pressing the  and  keys (without turning the control knob). This is a temporary change, which will be reset for the next programmed on period.

SETTING THE RF PROGRAMMABLE ROOM THERMOSTAT TO RUN IN AUTOMATIC MODE

(using the programmed on and off times)

1. Turn the **Control Knob** to the '**RUN**' position

SETTING THE RF PROGRAMMABLE ROOM THERMOSTAT TO BE CONTINUOUSLY ON

1. Turn the **Control Knob** to the '**CONT ON**' position

SETTING THE RF PROGRAMMABLE ROOM THERMOSTAT TO BE CONTINUOUSLY OFF

1. Turn the **Control Knob** to the '**CONT OFF**' position




SETTING + HOURS

Note. Use of the '+ Hours' function will ensure the boiler operates continuously for up to 5 hours.

If used during an off period, the boiler will then operate for up to 5 hours.

If used during an on period less than 5 hours prior to an off period, it can extend the on time.














1. Turn the **Control Knob** to the "+ HOURS" position

2. Press the  and  keys to set the required + Hours time and to enter press the  key. Setting the time to 0 will disable this function.

3. Turn the **Control Knob** to the required operating condition: RUN or CONT OFF

ADVANCED FEATURES

A. HOLIDAY MODE

1. Ensure the knob is in the "RUN" position then press the  key for more than 3 seconds
2. Press the  and  keys to change the **Year** to the year the holiday will **start** in and to enter press the  key
3. Press the  and  keys to change the **Month** to the month the holiday will **start** (note, January = 1) and to enter press the  key
4. Press the  and  keys to change the **Day of the Month** to the day of the month the holiday will **start** and to enter press the  key
5. Press the  and  keys to set the length of the holiday and to enter press the  key

To delete a previously set holiday period, change the number of days to 0

cont. . . .

ADVANCED FEATURES

B. TIMED PRE-HEAT

When Domestic Hot Water preheat is switched on the boiler control the boiler will preheat from the beginning of the first timed on central heating period of the day to the end of the last timed on central heating period of the day, so as to provide more efficient water delivery. This function is disabled when the preheat switch is set to off.

ADVANCED FEATURES

C. OPTIMISATION

This feature provides for greater comfort and economy of operation. The boiler will be switched on earlier than the programmed heating on time. This provides for the room temperature to be achieved at the programmed heating on time, rather than some time afterwards. The boiler will automatically only use the minimum energy required in order to achieve the desired room temperature.

To set an optimisation period, press the 'Copy' and 'Next Day' keys together for more than 3 seconds. Note that the programmed heating on time should be set for when the house is required to be at the set temperature and not to allow for warming up of the property.

The optimisation can then be set between 10 and 60. (Note that 00 = OFF)

It is advised that a setting between 10 and 30 should be used, to ensure the central heating does not switch on earlier than desired.

This number is multiplied by the difference between the actual temperature and the desired temperature to determine what time before the start of the 1st on period the heating should be switched on.

EXAMPLE 1:

If the optimisation period is set to 10 and the desired room temperature is 20°C at 6am and the actual room temperature is 19°C then the central heating will switch on $(20-19) \times 10 = 10$ mins early (i.e. at 5.50am)

EXAMPLE 2:

If the optimisation period is set to 30 and the desired room temperature is 20°C at 6am the actual temperature is 16°C then the central heating will switch on $(20-16) \times 30 = 2$ hours early (i.e. at 4.00am)

ADVANCED FEATURES

D. ENGLISH LANGUAGE ERROR DESCRIPTION

Boiler fault codes are identified on the display in plain English.

<i>L1</i>	OVERHEAT LOCKOUT
<i>L2</i>	IGNITION LOCKOUT
<i>L6</i>	FALSE FLAME LOCKOUTS
<i>L6</i>	TOO MANY REMOTE RESETS
<i>F1</i>	LOW WATER PRESSURE
<i>F2</i>	IGNITION FAULT
<i>F3</i>	FAN FAULT
<i>F4</i>	FLOW THERMISTOR FAULT
<i>F5</i>	RETURN THERMISTOR FAULT
<i>F6</i>	OUTSIDE SENSOR FAULT
<i>F7</i>	LOW MAINS VOLTAGE
<i>n/a</i>	HIGH MAINS VOLTAGE
<i>FR</i>	FLOW/RETURN REVERSED
<i>FU</i>	HIGH FLOW RETURN DIFFERENTIAL

For further information refer to boiler User Guide.

ADVANCED FEATURES

E. OPENTHERM

The unit uses the OpenTherm protocol to control the boiler flow temperature set point in central heating operation. This means that the boiler will run in its most efficient manner and offer significant savings in energy over standard room thermostats. It will also give more accurate and comfortable temperature control in the room where it is installed.

If the room temperature is close to its setpoint then the pump may run for extended periods without switching the burner on. This is normal operation which reduces gas consumption whilst maintaining the desired room temperature.

F. BUILT IN FROST PROTECTION

If the temperature in the room falls below 5°C, the boiler will fire to maintain the minimum 5°C setpoint regardless of whether the timer is in an “off” period or not.

G. LOCKOUT RESET

If the boiler is at lockout (OVERHEAT LOCKOUT, IGNITION LOCKOUT, NO WATER FLOW LOCKOUT, or LOCKOUT 6) it is possible to reset the lockout from the programmable room stat by pressing the  key for more than 3 seconds.

BATTERY REPLACEMENT

The unit required 2 x AA 1.5V Batteries.

Batteries should operate for approximately 18 months.

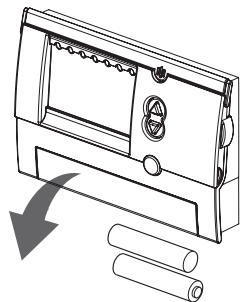
Only good quality 1.5V alkaline batteries should be used. DO NOT use rechargeable batteries as they only have a terminal voltage of 1.2V nom.

To replace batteries remove battery panel on the front of the room thermostat to gain access.

Note that if the batteries are removed for more than 30 seconds, the time, date, and set temperature will be lost.

If the batteries are not replaced and no signal is received by the receiver all 5 lights on the receiver on the boiler will flash on and off.

After 1 hour the boiler will operate in "Emergency Mode" with a continuous, but reduced temperature until the batteries are replaced.



Batteries - 2x 1.5V LR6/AA



WEEE DIRECTIVE 2012/19/EC

Waste Electrical and Electronic Equipment Directive

- At the end of the product life, dispose of the packaging and product in a corresponding recycling centre.
- Do not dispose of the unit with the usual domestic refuse.
- Do not burn the product.
- Remove the batteries.
- Dispose of the batteries according to the local statutory requirements and not with the usual domestic refuse.

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Keston pursues a policy of continuing improvement in the design and performance of its products. The right is therefore reserved to vary specification without notice.

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