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HEATING / HOT WATER / VENTILATION

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# QUANTEC REGULAR Kompact<sup>ErP</sup> High Efficiency Boiler



USER'S INSTRUCTIONS

**Quantec 16RK<sup>ErP</sup>** - G.C. No. 41-416-19

**Quantec 24RK<sup>ErP</sup>** - G.C. No. 41-416-20

These instructions are to be left with the User



[www.johnsonandstarley.co.uk](http://www.johnsonandstarley.co.uk)

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### THESE INSTRUCTIONS SHOULD BE LEFT WITH THE USER AFTER INSTALLATION

#### The Benchmark Scheme

Johnson & Starley Ltd is a licensed member of the Benchmark Scheme which aims to improve the standards of installation and commissioning of domestic heating and hot water systems in the UK and to encourage regular servicing to optimise safety, efficiency and performance.

Benchmark is managed and promoted by the Heating and Hotwater Industry Council. For more information visit [www.centralheating.co.uk](http://www.centralheating.co.uk)

Please ensure that the installer has fully completed the Benchmark Checklist on the inside back pages of the installation instructions supplied with the product and that you have signed it to say that you have received a full and clear explanation of its operation. The installer is legally required to complete a commissioning checklist as a means of complying with the appropriate Building Regulations (England and Wales).

All installations must be notified to Local Area Building Control either directly or through a Competent Persons Scheme. A Building Regulations Compliance Certificate will then be issued to the customer who should, on receipt, write the Notification Number on the Benchmark Checklist.

This product should be serviced regularly to optimise its safety, efficiency and performance. The service engineer should complete the relevant Service Record on the Benchmark Checklist after each service.

The Benchmark Checklist will be required in the event of any warranty work and as supporting documentation relating to home improvements in the optional documents section of the Home Improvements.

**In the interest of continuous development Johnson and Starley reserve the right to change specification without prior notice. Johnson and Starley prides itself on it's ability to supply spare parts quickly and efficiently.**

## 1. GENERAL INFORMATION



### WARNING: THIS APPLIANCE MUST BE EARTHED

STATUTE LAW DEFINES THAT ALL GAS APPLIANCES MUST BE INSTALLED BY COMPETENT PERSONS, i.e. GAS SAFE REGISTERED INSTALLERS.

GAS SAFE MEMBERSHIP ENQUIRIES TEL: 0800 408 5500 IN ACCORDANCE WITH THE GAS SAFETY (INSTALLATION AND USE) REGULATIONS (CURRENT EDITION).

FAILURE TO COMPLY WITH THESE REGULATIONS MAY LEAD TO PROSECUTION.

- 1.1 Part of the installation and commissioning of this appliance is related to instructions for use by the heating engineer to the user where specific requirements may occur.
- 1.2 The QuanTec Regular Kompact is a wall mounted, room sealed, condensing boiler, featuring full sequence automatic spark ignition and fan assisted combustion. Due to the high efficiency of the boiler, condensate is produced from the flue gases and this is drained to a suitable disposal point through a plastic waste pipe at the base of the boiler. A condensate 'plume' will also be visible at the flue terminal.

## 2. USER'S IMPORTANT INFORMATION

- 2.1 The user must read these users instructions and understand the functions of the boiler. If unsure ask the installer to explain.
- 2.2 **YOUR GUARANTEE**  
To activate your guarantee return the guarantee card to Johnson & Starley Ltd. This will register the appliance and activate the guarantee.
- 2.3 Ensure the appliance is serviced annually as failure to do so will invalidate the guarantee.
- 2.4 On completion of service the Benchmark Checklist should be filled in as part of the guarantee conditions.
- 2.5 Keep all literature for the appliance in good condition and near to the boiler.
- 2.6 **This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.**
- 2.7 **Children should be supervised to ensure that they do not play with the appliance.**
- 2.8 Keep the appliance accessible at all times. Do not store items around the boiler if it is situated within a cupboard.



## 3. SAFETY INFORMATION



### GAS LEAKS

**DO NOT OPERATE ANY ELECTRICAL SWITCHES  
OR USE A NAKED FLAME**

**TURN OFF GAS SUPPLY AT THE METER  
VENTILATE THE AREA BY OPENING THE DOORS & WINDOWS  
EVACUATE THE HOUSE AND DO NOT RE-ENTER.**

**CALL THE NATIONAL GAS EMERGENCY SERVICES ON  
TEL: 0800 111999**

- 3.1 If there is a water leak or fault with the appliance, switch off the boiler and contact your Gas Safe installer.
- 3.2 Under NO circumstances should the appliance be tampered with. This will invalidate your guarantee.

## 4. BOILER CONTROL PANEL

ITEM	DESCRIPTION
K1	CH - Central Heating +
K2	CH - Central Heating -
K3	Installer information
K4	Reset
K5	Summer/Winter mode
K6	Installer function only
K7	Installer function only

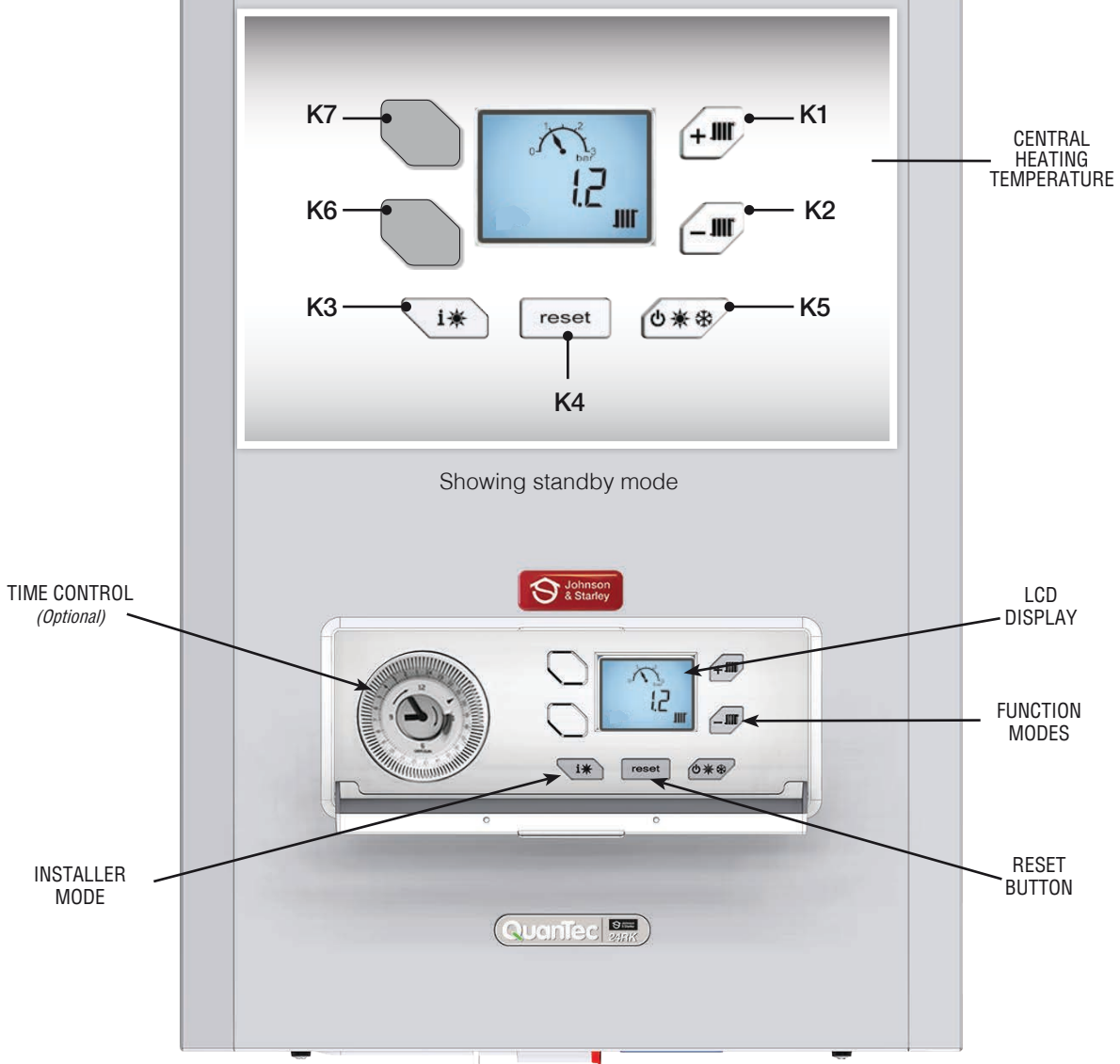


FIGURE 1. QUANTEC RK USER CONTROL PANEL

## 5. TO LIGHT THE BOILER

If a programmer is fitted refer to separate instructions for the programming before continuing,

- 3.1 Check that the electric supply to the boiler is on.
- 3.2 Set the mode control to winter using 'K5'.
- 3.3 Set the Heating temperature control to 'max' using 'K1'.
- 3.4 Check that all external controls, e.g. programmer, room thermostat and cylinder thermostat, are ON.
- 3.5 The boiler will commence the ignition sequence supplying heat to the central heating, if required.

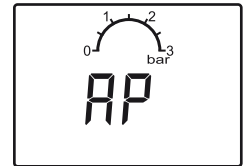


FIGURE 3.

NOTE: In normal operation the boiler status display will be.

### DISPLAY CODES



Call for heat



Burner on low



Medium



High



Temperature of supply



## 6. OPERATING FUNCTIONS

### 6.1 OPERATING THE CENTRAL HEATING

When the boiler fires in CH mode it fires for 1 minute, modulating the boiler. The display will flash showing the radiator, the small flame and temperature. A flame symbol increases with the demand for heat. Once temperature is reached the display will go back to standby.

Approximate flow temperatures for the boiler thermostat settings are:

Button Setting	CH Flow Temperature °C
Minimum	40°C
Maximum	80°C

## 6.2 TO SHUT DOWN THE BOILER

Set the mode to OFF

To relight the boiler repeat the procedure detailed in 'To light the boiler'.

## 6.3 FROST PROTECTION

If no system frost protection is provided and frost is likely during a short absence from home, leave the heating controls (if fitted) at a reduced temperature setting. For longer periods, the entire system should be drained.

If the system includes a frost thermostat then, during cold weather, the boiler should be turned OFF at the time switch (if fitted) ONLY. The mains supply should be left switched ON, with the boiler thermostat left in the normal running position.

4. Turn the filling loop isolation valves to the open position. The system will now fill.

5. Wait for pressure gauge dial to reach 1 to 1.5 bar.

6. Close the filling loop isolation valves.

7. Disconnect the filling loop at left hand side and angle upwards.

8. Attach the two caps as shown on point 2.

## 6.4 CONDENSATE DRAIN

The condensate drain must not be modified or blocked.

Blockage of the condensate drain, caused by debris or freezing, can cause automatic shutdown of the boiler.

If freezing is suspected and the pipe run is accessible an attempt may be made to free the obstruction by pouring hot water over the exposed pipe and clearing any blockage from the end of the pipe. If this fails to remedy the problem the assistance of a Gas Safe Registered Engineer or in IE a Registered Gas Installer (RGII) should be sought.

## 7. RESET BOILER

Press the reset button twice. See Table 1 Button K4.

## 8. SERVICING & MAINTENANCE

It is recommended that a full maintenance check be carried out annually on the appliance. It is also recommended to take out a further service agreement on the expiry of the guarantee period.

You can obtain further information on this from your gas supplier.

The appliance should be checked /serviced by a GAS SAFE registered installer.

If you require service on your appliance please contact your local installer or gas supplier.

On completion of the service the installer should fill in the service section at the rear of the BENCHMARK checklist. All installers registered with GAS SAFE carry an identification card. This card will have an ID number which should be recorded in your service checklist.

If you have any queries regarding your installer you can contact GAS SAFE by telephone on 0800 408 5500.

The appliance should be serviced at least once a year by a Gas Safe Registered Engineer or in IE a Registered Gas Installer (RGII).



## 10. CLEANING

For normal cleaning simply dust with a dry cloth.

To remove stubborn marks and stains, wipe with a damp cloth and finish off with a dry cloth.

DO NOT use abrasive cleaning materials.

## 11. ESCAPE OF GAS

Should a gas leak or fault be suspected contact the National Gas Emergency Service without delay. Telephone 0800 111 999

Do NOT search for gas leaks with a naked flame.

## 12. TROUBLE SHOOTING

ERROR CODES		
<b>E01</b>	Ignition lockout	Check other as appliances work
		Reset boiler
		Contact installer
<b>E02</b>	False flame lockout	Contact installer
<b>E03</b>	Overheat lockout	Ensure water in heating system
		Bleed radiators & check system pressure
		Check radiator valves are open
		Reset boiler
		Contact installer
<b>E05</b>	Fan Fault	Contact installer
<b>E08</b>	Flame Circuit Failure	Contact installer
<b>E09</b>	valve feed back ERROR	Contact installer
<b>E12</b>	EEPROM lockout	Contact installer
<b>E15</b>	Sensor drift lockout	Ensure water in heating system
		Bleed radiators & check system pressure
		Check valves are open
		Reset boiler
		Contact installer
<b>E16 E17 E18</b>	Sensor Stuck Lockout	Ensure water in heating system
		Bleed radiators & check system pressure
		Check valves are open
		Reset Boiler
		Contact installer
<b>E21</b>	ADC Lockout	Contact installer
<b>E33</b>	Return Thermistor Fault	Contact Installer
<b>E34</b>	Low Power Supply Lockout	Contact installer or Electrician
<b>E35</b>	Flow Thermistor Fault	Contact Installer

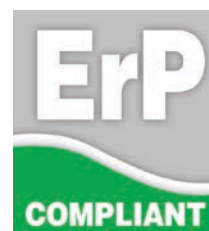
FAULT CODES		
<b>F07</b>	Exhaust gas temperature too high	Ensure water in heating system
		Bleed radiators & check system pressure
		Check radiator valves are open
		Wait 15 minuets, turn power OFF & ON
		Contact installer
<b>F13</b>	Remote Reset Lockout	Turn power OFF and ON
		Press Reset
		Contact Boiler
<b>F53</b>	Flue Temperature Sensor error	Contact installer



## 13. ENERGY RATING ErP TECHNICAL DATA FICHE

Ecodesigns energy related products directive requires our appliance to be fully compliant with the ErP regulations. Our unit has a label which shows the level of efficiency for the boiler, CO<sub>2</sub> & NO<sub>x</sub> emissions and db noise emissions. This will help the householder understand the energy efficiency within the home and help reduce energy consumption.

This regulation covers all products used in the installation. Once an installation has been completed the installer will supply a final label incorporating all the items used in the install. It shows the details of the systems overall efficiency. For further information about the ErP Directive visit the Johnson and Starley Ltd website or email our helpline on [erp@johnsonsandstarley.co.uk](mailto:erp@johnsonsandstarley.co.uk)



### EU Regulations No. 811/2013 and No. 812/2013 supplementing Directive 2010/30/EU.

TABLE 1. ErP TECHNICAL DATA			16RK	24RK	
PRODUCT DATA	SYMBOL	VALUE	VALUE	UNIT	
Condensing boiler	-	Yes	Yes	-	
Low temperature boiler	-	No	No	-	
B11 Boiler	-	No	No	-	
Cogeneration space heater	-	No	No	-	
Combination Heater	-	No	No	-	
Rated heat output	$P_{rated}$	16	23	kW	
Seasonal space heating energy efficiency	$\eta_s$	94	94	%	
Energy efficiency class	A				
<b>USEFUL HEAT OUTPUT</b>					
At rated heat output and high temperature regime	$P_4$	16.3	23.4	kW	
At 30% of rated heat output and low temperature regime	$P_1$	5.5	7.8	kW	
<b>USEFUL EFFICIENCY</b>					
At rated heat output and high temperature regime	$\eta_4$	88.8	87.9	%	
At 30% of rated heat output and low temperature regime	$\eta_1$	98.8	99.1	%	
<b>AUXILLARY ELECTRICITY CONSUMPTION</b>					
At full load	$e_{l_{max}}$	0.025	0.068	kW	
At part load	$e_{l_{min}}$	0.013	0.048	kW	
In standby mode	$P_{SB}$	0.007	0.007	kW	
<b>OTHER ITEMS</b>					
Standby heat loss	$P_{SB}$	0.099	0.099	kW	
Ignition burner power consumption	$P_{ign}$	0	0	kW	
Sound power level indoors	$L_{WA}$	46	46	dB	

1. High temperature regime means 60°C return temperature at heater inlet and 80°C feed temperature at heater output.
2. Low temperature means for condensing boiler 30°C, for low temperature boilers 37°C and for other heaters 50°C return temperature (at heater).

## 13. KEEP YOURSELF SAFE

Throughout the year it's important to make sure that your gas appliances, such as a warm air heater, gas fire, cooker and boiler are working safely and correctly. Did you know Gas Safe Register is the only official list of engineers who are legally allowed to do work on gas and the gas appliances in your home? By law, all gas engineers must be on the Gas Safe Register. The Register is there to help protect you from unsafe gas work.

In the right hands, gas is safe, but badly fitted and poorly maintained appliances can cause gas leaks, fires, explosions and carbon monoxide poisoning. Carbon monoxide is a highly poisonous gas. You can't see it, taste it or smell it, but it can kill quickly with no warning but a carbon monoxide alarm would give you piece of mind but is no substitute for an annual service.

Make sure you get your gas appliances regularly serviced and safety checked every year, by a Gas Safe registered engineer. Annual maintenance not only helps keep your heating and hot water working properly; it helps keep you and your family safe. If you're a tenant, your landlord must arrange this every 12 months and provide you with a Landlord's Gas Safety Record.

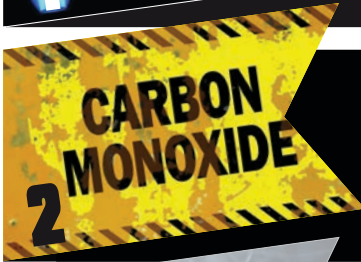
You can set a free reminder at [www.StayGasSafe.co.uk](http://www.StayGasSafe.co.uk) and Gas Safe Register will text or email you when your appliances are due their next check.

All Gas Safe registered engineers carry a Gas Safe Register ID card. Before any gas work is carried out always check the card and make sure the engineer is qualified for the work you need doing. You can find this on the back of the card.

### YOUR 5 POINT CHECKLIST



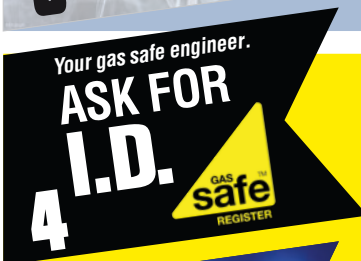
SMELL GAS CALL  
**0800 408 5500**



Signs of  
carbon  
monoxide



For the safety of your family.  
Alarms cost as little as £15  
**BEAT THE SILENT KILLER!**



Always ask your gas engineer for his  
Gas Safe identification card..  
Keep those cowboys **OUT!**



All of your gas appliances  
need regular annual safety checks.  
Failure to do so could be fatal for you and your family.  
**Keep them safe.**



For gas safety advice or to find and check an engineer visit the Gas Safe Register website at [www.GasSafeRegister.co.uk](http://www.GasSafeRegister.co.uk) or call the free helpline on 0800 408 5500.

# ENERGY SAVINGS

We all wish to make savings on our energy bills and at the same time be warm and cosy in our homes. As fuels costs rise, having an efficient and cost effective heating system is vital. You have made your first step in reducing your carbon dioxide emissions now look at other ways to help you make extra saving on those fuel bills. Here are a few ways which can help you make those savings.

### HEATING SAVINGS

1. Fit thermostatic radiator valves to give you better control. Make your boiler provide heat where you need it.
2. Turn the room thermostat and radiator thermostat down by 1°
3. Close curtains at night to cut down draughts from the windows and stop the heat escaping.
4. Insulation and draught-proofing on windows and doors.
5. Rooms which are not in use, turn off the radiator.
6. Do not cover or hang curtains in front of the radiators.



### ELECTRICAL SAVINGS

1. Switch off appliances which are not in use.
2. Unplug chargers and adapters.
3. Don't leave TV's Stereo's etc. on stand-by.
4. Turn off lights in rooms not being used.
5. When cooking use a lid on the pan to hold in the heat and turn the temperature down.



### WATER SAVINGS

1. Fit a water saving shower head to save energy.
2. Turn down the temperature on your washing machine and only do a full load.
3. Fill up the dishwashers.
4. Make sure taps are turned off and not dripping - can waste 5,500 litres of water a year.
5. Have a shower instead of a bath and take shorter showers.
6. Turn off the tap when cleaning your teeth.





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