





## INSTALLATION MANUAL

### KYROS Digital Electric Water Heater Wall-hung Unvented









DISPLAY TECHNOLOGY

ANTI-LEGIONNAIRES'

DISEASE

7 days / 24 hours PROGRAMMABLE







#### **WELCOME**

Dear Customer,

Thank you for choosing the KYROS electric water heater, with an exclusive electronic temperature programmer and made with the highest quality materials.

The KYROS water heaters have exceeded the most stringent quality controls in order to comply with the most rigorous requirements for safety.

Thanks to its exclusive ROINTE Fuzzy Logic Energy Control technology, the electric water heater achieves the maximum energy saving.

Before using the electric water heater we recommend you read this manual carefully in order to obtain proper operating information.

#### IMPORTANT THIS MANUAL SHOULD BE LEFT WITH THE UNIT AFTER INSTALLATION



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#### 1. INTRODUCTION

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The "RD TFT Series" is a high quality unvented enamelled steel domestic hot water cylinder suitable for domestic hot water systems where the cold mains water supply has a maximum supply pressure of 0.9 MPa. Reduced performance is available at lower pressures but the units are not suitable for pressures lower than 0.15 MPa and flow rate of 20 litres per minute.

Rointe offers the possibility to acquire all the necessary safety equipment to comply with legislation governing the installation of such systems.

#### 2. TECHNICAL SPECIFICATIONS

| TECHNICAL SPECIFICATIONS                     |                             |            |            |            |            |  |  |
|--|-----------------------------|------------|------------|------------|------------|--|--|
| MODEL NUMBER                                 | KWI050DHW2                  | KWI075DHW2 | KWI100DHW2 | KWI150DHW2 | KWI200DHW2 |  |  |
| Storage capacity (l)                         | 50                          | 75         | 100        | 150        | 200        |  |  |
| Power (W)                                    | 2,400                       | 2,400      | 2,400      | 2,400      | 2,400      |  |  |
| Depth (mm)                                   | 404                         | 404        | 404        | 580        | 580        |  |  |
| Width (mm)                                   | 404                         | 404        | 404        | 580        | 580        |  |  |
| Overall height incl T/P valve                | 785                         | 1,035      | 1,270      | 1,160      | 1,220      |  |  |
| Height excl T/P valve                        | 685                         | 935        | 1,170      | 960        | 1,120      |  |  |
| Weight when full (kg)                        | 68                          | 100        | 132        | 194        | 256        |  |  |
| Cold feed/hot draw off connections (mm)      | 15                          | 15         | 15         | 22         | 22         |  |  |
| Maximum water supply pressure (MPa)          | 0.9                         | 0.9        | 0.9        | 0.9        | 0.9        |  |  |
| System operating pressure (pre-set) (MPa)    | 0.6                         | 0.6        | 0.6        | 0.6        | 0.6        |  |  |
| Expansion vessel charge pressure (MPa)       | 0.15                        | 0.15       | 0.3        | 0.3        | 0.3        |  |  |
| Expansion relief valve set pressure (MPa)    | 0.6                         | 0.6        | 0.6        | 0.6        | 0.6        |  |  |
| Temperature and pressure relief valve settin | ngs:                        |            |            |            |            |  |  |
| Lift pressure (MPa)                          | 0.7                         | 0.7        | 0.7        | 0.7        | 0.7        |  |  |
| Lift temperature (°C)                        | 90                          | 90         | 90         | 90         | 90         |  |  |
| INS  | INSTALLATION KIT (OPTIONAL) |            |            |            |            |  |  |
| 0.3 MPa pressure reducing valve              | •                           | •          | •          | •          | •          |  |  |
| 0.6 MPa expansion relief valve               | •                           | •          | •          | •          | •          |  |  |
| Expansion vessel ltr                         | 8                           | 8          | 12         | 12         | 18         |  |  |
| 15mm to 22mm Tundish                         | •                           | •          | •          | •          | •          |  |  |
| Isolation valve                              | •                           | •          | •          | •          | •          |  |  |
|  | PERFORM                     | MANCE      |            |            |            |  |  |
| Heat up time 15 to 65 °C (min)               | 73                          | 110        | 117        | 175        | 235        |  |  |
| Reheat time for 70% of contents (min)        | 51                          | 77         | 82         | 123        | 165        |  |  |

#### 2.1. Component Check List

The KYROS water heater comes with the following components, please check through the components supplied and ensure that all parts are present:

- Water Heater with sheathed heating elements, digital thermostat, TFT screen and manual reset thermal cut-out
- T/P valve 0.7 MPa 90°C and electrolytic fittings
- Installation and user manual

Please contact our customer service department to know how to acquire the safety fittings.

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#### 3. GENERAL REQUIREMENTS

**3.1.** The **KYROS** domestic hot water cylinder **MUST** be installed by a competent person in accordance with section **G3** of the current **Building Regulations**.

**3.2. Important** - It is important that the installer reads and understands these instructions, unpacks and familiarises themselves with the equipment before commencing the installation. Failure to observe these installation instructions could invalidate the warranty.

**3.3. Water supply** – The water supply to the cylinder should be potable water direct from a public mains water supply with any water treatment equipment functioning correctly.

For optimum performance the unit should be fed via a 15 mm or 22 mm diameter supply pipe direct from the mains water entry point to the property with supplies a maximum pressure of 0.9 MPa. The unit can operate with a minimum supply pressure of 0.15 MPa and a flow rate of at least 20 litres per minute, but flow from the outlets will be low if several outlets are used simultaneously. The cylinder control equipment is factory set to limit the system operating pressure to 0.3 MPa. The maximum supply pressure into the pressure-reducing valve is 0.9 MPa.

**3.4. Taps and fittings** - All taps and fittings incorporated in the unvented system should have a rated operating pressure of 0.7 MPa or above.

**3.5.** Location – The unit is designed to be vertically wall mounted, indoors, in a frost-free environment. When choosing a suitable location for the cylinder, consideration should be given to the routing of the discharge pipe to a convenient point and also the availability of an adequate power supply for connecting the sheathed heating elements.

The wall onto which the cylinder is mounted should be of good sound masonry construction capable of holding the weight of the cylinder when full of water (see *technical specifications* for weights).

The position of the cylinder should be such that easy access is provided for servicing the controls and replacing the sheathed heating element should the need arise.

Pipe runs should be made as short as possible and lagged to prevent heat loss.

To allow for servicing and repairs the unit must be mounted at least 540 mm above any surface or object, so that access can be gained to electric connectors and the heating elements may be removed (see Fig 1).

The unit should be mounted close to an external wall so that the discharge pipe D2 can be routed to a safe visible place.

The tundish should be mounted in a visible location so that it may easily be inspected.



Fig 1 - Minimum margins for servicing and repairs.



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The distance between holes for the wall mounting depends on the model, see the following table for reference:

| Model                                | KWI050DHW2 | KWI075DHW2 | KWI100DHW2 | KWI150DHW2 | KWI200DHW2 |
|--------------------------------------|------------|------------|------------|------------|------------|
| Horizontal width between holes       | 350 mm     |
| Height between upper and lower holes | 340 mm     | 573 mm     | 768 mm     | 490 mm     | 670 mm     |

**3.6. Storage and handling** – If the cylinder is not being installed immediately, it should remain in its box with all pipe end protective caps in situ to prevent damage. We recommend that the cylinder be transported to its installation position with the outer box in place.

**3.7. Pipework connections** – All pipework connections to the cylinder MUST be made in accordance with Fig 2.

**3.8.** Safety – This product is not intended to be used by persons (including children) with reduced physical, sensory, or mental capacities, or have no experience or knowledge of the product, except if they are supervised or instructed in the use of the product by a person who is responsible for his or her safety. Children must be supervised at all times to ensure that they do not play with the product.

#### 4. PLUMBING INSTALLATION

**4.1. Connections.** Connections MUST be made to the cylinder in accordance with Fig 1, and Fig 2. A drain cock (not supplied) should be fitted in the position shown in Fig 2 to facilitate draining of the cylinder.

**4.2. Electrolytic fittings** – It is a must for the electrolytic fittings to be fitted with the water heater. If not, the guarantee will be void. Check the T/P Valve to see if it is connected with the electrolytic fittings. If not, please contact us.

**4.3. Cold water supply** – For best results, the cylinder should be fed by an uninterrupted supply pipe into the pressure reducing valve (PRV) with a maximum supply pressure of 0.9 MPa. The cylinder should not be used on any system with a supply pressure below 0.15 MPa and a flow rate of less than 20 litres per minute.

**4.4. Temperature and pressure relief valve** – The temperature and pressure relief valve (T/P Valve) is supplied. Once the T/P valve is fitted should not be removed from the cylinder or tampered with in any way. The valve is pre calibrated to lift at 0.7 MPa or 90 degrees centigrade and any attempt to adjust it will invalidate the warranty and could affect the safety performance of the unit.

The outlet of the T/P valve should be routed in 15 mm copper piping in a downward direction alongside the water heating unit to the tundish in a frost-free environment. The outlet of the expansion relief valve must be T'd into this pipe before the tundish so that any water exiting either valve can be seen draining through the tundish- see figure 2 and 3.

**4.5. Pressure reducing valve** – The pressure reducing valve should be installed in the cold water supply to the water heating unit with the arrow pointing in the direction of water flow as shown in figure 2. This can be connected to a maximum supply pressure of 0.9 MPa.

**4.6. Expansion relief valve** – This must be installed between the pressure reducing valve and the water heating unit in accordance with Figure 2. No other valve should be fitted between this valve and the cylinder. The expansion relief valve contains a non return valve.

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**4.7. Expansion vessel** – A suitable expansion vessel with a pre-charge pressure of 0.15 or 0.3 MPa is available in an optional kit for fitting to all water heating units in the range. The expansion vessel **MUST** be fitted to the safety group. The expansion vessel **MUST** be positioned with the entry point at the bottom – see Figure 2.

**IMPORTANT:** Regular checks must be carried out to ensure that the expansion vessel is correctly pressurised to 0.15 or 0.3 MPa at all times. – see Figure 2.

**4.8. Tundish** – The tundish must not be positioned above or in close proximity of any electrical current carrying devices or wiring. The installation should conform with the requirements of item 4.10 below.

#### 4.9. Connection arrangement for TFT KYROS Cylinder





#### 4.10. Discharge arrangement.

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The tundish must be installed in a position so that it is clearly visible by the user. In addition, the discharge pipe from the tundish should terminate in a safe place where there is no risk to persons in the vicinity of the discharge, be of metal, and:

(a) Be at least one pipe size larger than the normal outlet size of the safety device unless its total equipment hydraulic resistance exceeds that of a straight pipe 9 m long, i.e. discharge pipes between 9 m and 18 m equivalent resistance length should be at least two sizes larger then the normal outlet size of the safety device, between 18 m and 27 m at least three sizes larger and so on. Bends must be taken into account in calculating the flow resistance. Refer to the diagram, tables and worked example detailed below.

(b) Have a vertical section of pipe at least 300 mm long below the tundish before any elbows or bends in the pipework.

(c) Be installed with a continuous fall

(d) Have discharges visible at both tundish and the final point of discharge, but where this is not possible or practically difficult, examples of acceptable discharge arrangements are:

Ideally below a fixed grating and above the water seal in a trapped gully.

• Downward discharge at low level, (i.e. up to 100 mm above external surfaces such as car parks, hard standings, grassed areas, etc.) are acceptable providing that where children play or otherwise come into contact with discharges, a wire cage or similar guard is positioned to prevent contact whilst maintaining visibility.

• Discharge at high level, e.g. into a metal hopper and metal down pipe with the end of the discharge pipe clearly visible (tundish visible or not) or onto a roof capable of withstanding high temperature discharges of water and 3 m from any plastic guttering system that would collect such discharges (tundish visible).

Where a single pipe serves a number of discharges such as in blocks of flats, the number served should be limited to not more than six systems so that any installation discharging can be traced reasonably easily. The single common discharge pipe should be at least one pipe size larger than the largest individual discharge pipe to be connected. If unvented hot water storage systems are installed where discharges from safety devices may not be apparent (i.e. in dwellings occupied by blind, or disabled people), consideration should be given to the installation of an electrically operated device to warn when discharge takes place.

Warning Notice – The discharge will consist of scalding water and steam. Asphalt, roofing felt and non-metallic rainwater goods may be damaged by such discharges.



Figure 3 - Typical discharge pipe arrangement.



| SIZING OF COPPER DISCHARGE PIPE "D2" FOR COMMON TEMPERATURE RELIEF VALVE OUTLET SIZES |    |   |   |  |  |  |
|---|----|---|---|--|--|--|
| Valve outlet size<br>(diameter, inches)<br>(mm)                                       |    | Min size of<br>discharge pipe D2<br>from tundish (mm) | Max resistance<br>allowed, expressed<br>as a length of<br>straight pipe, i.e. no<br>elbows or bends | Resistance created<br>by each elbow or<br>bend (m) |  |  |
| G1⁄2  | 15 | 22<br>28<br>35  | up to 9<br>up to 18<br>up to 27   | 0.8<br>1.0<br>1.4                                  |  |  |
| G¾ 22   |    | 28<br>35<br>42  | up to 9<br>up to 18<br>up to 27   | 1.0<br>1.4<br>1.7                                  |  |  |
| G1  | 28 | 35<br>42<br>54  | up to 9<br>up to 18<br>up to 27   | 1.4<br>1.7<br>2.3                                  |  |  |

#### Worked example

The example below is for a ½"diameter temperature relief valve with a discharge pipe (D2) having 4 22 mm elbows and a length of 7 m from the tundish to the point of discharge.

The maximum resistance allowed for a straight length of 22 mm copper discharge pipe (D2) from a  $\frac{1}{2}$  diameter temperature relief valve is: 9.0 m.

Subtract the resistance for 4 No 22 mm elbows at 0.8 m each = 3.2 m.

Therefore, the maximum permitted length equates to: 5.8 m.

5.8 m is less than the actual length of 7 m, therefore, calculate the next largest size.

Maximum resistance allowed for a straight length of 28mm pipe (D2) from a  $1\!\!/\!\!2$  diameter temperature relief valve equates to: 18 m.

Subtract the resistance for 4 No 28 mm elbows at 1.0 each = 4 m.

Therefore the maximum permitted length equates to 14 m.

As the actual length is 7 m, a 28 mm diameter copper pipe will be satisfactory.



#### 5. ELECTRICAL INSTALLATION

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#### WARNING: THIS EQUIPMENT MUST BE EARTHED.

All electrical wiring must be carried out by a competent person and in accordance with the **current I.E.E. Wiring Regulations.** All pipework should be earthed!

**5.1. The sheathed heating elements** - Two parallel 1.2 or 1.5kW 230v 50Hz sheathed heating elements are pre fitted to the cylinder at the factory. They are wired in accordance with the instructions given in Figure 4.

#### 5.2. Wiring diagram

a) The power supply to the heater must be via a double pole isolator switch or controller, having contact separation of at least 3 mm, to comply with BS 6141 and must be fully earthed. In case of an electric problem, check that the wiring follows the diagram below:

i. The Earth wire is connected to the terminal on the cylinder marked with the earth symbol.

- ii. The Live wire is connected to the high temperature cut-out terminal.
- ii. The Neutral wire is connected to the high temperature cut-out terminal.



Figure 4 - Assembly schematic.



### WARNING: DO NOT SWITCH ON THE ELECTRICITY SUPPLY UNTIL INSTRUCTED TO DO SO IN THE COMMISSIONING PROCEDURE AND ONCE THE UNIT IS FULL OF WATER. 6. FILLING AND COMMISSIONING

6.1. Check that the expansion vessel charge pressure is 0.15 or 0.3 MPa.

6.2. Check that all water and electric connections are correctly configured.

**6.3.** Open the main stopcock and fill the unit. Open successive hot taps starting with the tap furthest from the heater. Leave each tap open for a few moments to allow all air and debris from the system to exit. Close all of the taps.

**6.4.** Turn off the mains water supply to the cylinder and drain the system through the drain cock.

6.5. Refill the cylinder with hot taps open and close when water flows freely.

**6.6.** Manually lift (by rotating the knob) both the expansion relief and the temperature and pressure relief valves for a short period to remove trapped air from behind the valve seating and to check the correct function of the discharge arrangement.

6.7. Check all joints for leaks and rectify as necessary.

**6.8.** With the heater full of water, switch on the electricity supply. Check that the cylinder heats the water and the thermostat operates. Turn on the hot taps to check that warm water is delivered.

**6.9.** Check that while the unit is heating up, no water exits from either the expansion relief valve or the temperature and pressure relief valve. If water does exit through the valves check the expansion vessel pressure and installation.

**6.10.** Increase the temperature to maximum and allow the unit to heat and the temperature to stabilise. Check that no water discharges from the valves. Turn on the hot taps to drain the heater of hot water. Set the thermostat to the required temperature and allow the heater to reheat ready for use.

#### 7. SERVICING AND MAINTENANCE

7.1. Servicing and maintenance must only be carried out by a competent unvented hot water heater installer or by Rointe authorised personnel.

**7.2.** Before any work whatsoever is carried out on the installation, it MUST first be isolated from the mains electricity supply.

7.3. Only use spare parts authorised by Rointe. The use of other parts will invalidate the warranty.

**7.4.** Drain the cylinder – When draining the cylinder, always switch off the water heater. Turn off the water supply at the stopcock (see Fig 2). Connect a hosepipe to the drain cock (see Fig 2) and route it to a convenient gully. Open the drain cock and all hot taps that are served by the cylinder. The cylinder may take several minutes to empty completely.

**7.5.** The magnesium anode must be checked at least once a year, and must be replaced if worn or defective.



**7.6.** Remove the cartridge from the pressure reducing valve. Check the strainer and if necessary remove any debris from in front of it. Replace the cartridge.

7.7. Check the charge pressure in the expansion vessel and top up as necessary. The charge pressure should be 0.15 or 0.3 MPa.

**7.8.** Close the drain cock, disconnect the hose, refit the heating element and close all hot water taps before reopening the stopcock. Allow the cylinder time to fill whilst checking for any leaks. Release any air from the system by opening each hot water tap individually, starting with the one furthest from the cylinder.

**7.9.** Manually lift the expansion relief and temperature and pressure relief valve one at a time, every 12 months (more frequently in hard water areas) to prevent debris from building up behind the valve seat. Whilst carrying out this operation, check that the discharge to waste is unobstructed. Check that each valve seals correctly when released. As the valves are pre-calibrated, they require no further maintenance.

**7.10.** Finally, when the heater is full of water switch on the mains electricity supply to the water heater. As the system heats up, check again for any leaks and rectify as necessary.

**7.11.** In the event of the manual reset cut-out operating, isolate the heater from the mains supply, investigate and identify the cause of the operation of this cut-out, rectify the fault before manually resetting the cut-out via the reset button on the cut-out. Finally switch the mains electricity supply back on.

#### 8. FAULT FINDING

| FAULT  | POSSIBLE CAUSE  | REMEDY   |
|--|---|--|
| No hot water   | <ol> <li>Mains supply off.</li> <li>Strainer in pressure reducing<br/>valve blocked.</li> <li>Pressure reducing valve<br/>incorrectly fitted.</li> </ol>  | <ol> <li>Open stopcock.</li> <li>Turn water supply off, remove<br/>strainer and clean.</li> <li>Re-fit correctly.</li> </ol>   |
| Water from hot taps is cold                                | <ol> <li>Programmer if fitted is not<br/>switched on.</li> <li>High limit thermostat has tripped.</li> </ol>  | <ol> <li>Switch on the programmer.</li> <li>Check and re-set.</li> </ol>   |
| Intermittent water discharge<br>through tundish on warm-up | <ol> <li>Expansion vessel has lost its<br/>charge pressure.</li> </ol>  | <ol> <li>Turn off stopcock, open a hot<br/>water tap, check vessel charge<br/>pressure and recharge.</li> </ol>  |
| Continuous water discharge                                 | <ol> <li>Pressure reducing valve not<br/>working.</li> <li>Expansion relief valve not seating<br/>correctly.</li> <li>Temperature and pressure relief<br/>valve not seating correctly.</li> </ol> | <ol> <li>Check pressure from pressure<br/>reducing valve if greater than 0.3<br/>MPa replace cartridge.</li> <li>Manually lift the valve once or<br/>twice to clear any debris from the<br/>seat otherwise replace valve.</li> </ol> |

Notice: Disconnect electrical supply before removing any electrical equipment cover.



#### 9. USER INSTRUCTIONS

Thank you for choosing the Rointe Digital Water Heater, your KYROS unvented hot water cylinder has been designed to give many years of trouble free service.

Next, we will describe the functionality of the KYROS digital water heater, with touch button control and TFT display.

#### 9.1. Front panel description



9.1.1. Main information display



| NUMBER | FUNCTION                        |
|--------|---------------------------------|
| 1      | PROGRAMMING                     |
| 2      | DAYS OF THE WEEK                |
| 3      | TIME OF DAY                     |
| 4      | TEMPERATURE SELECTED            |
| 5      | LOCKING THE CONTROL PANEL       |
| 6      | MANUAL/AUTOMATIC FUNCTION       |
| 7      | COMFORT/ECONOMY/ANTI-FROST MODE |
| 8      | HEATER ELEMENT ON               |



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#### 9.2. Switching On & Off (Stand-by)

By pressing the key , we can switch the water heater on or off. The following image will appear on the screen when switched on:



After 3 seconds, the main information display will be shown. By pushing the button again the water heater will go into standby mode with the word "Standby" appearing followed by the Rointe logo.

#### 9.3. Setting the day and time

By pressing the button 💮 for 3 seconds, we can access the time and date adjust feature to adjust the time and date of our water heater.

Pressing the button (), flashes up the hours, minutes and days of the week according to the number of times it is pressed. With the buttons (-) and (+) we can alter the current settings.

To leave the time and date adjust feature, wait 30 seconds or press () after the date select.

#### 9.4. Blocking the control panel

By pressing the keys — and +, at the same time for 3 seconds, we block the control panel, the control panel symbol is activated, and the keys will not respond when pressed. The following symbol will appear on the screen if any button is pushed:

To unblock, press again the keys (-) and (+), at the same time for 3 seconds.

#### 9.5. Temperature selection

By pressing  $\bigcirc$  or  $\bigcirc$  we change the temperature. When the water temperature is lower than the one set, the water heater comes on, the  $\neg$  symbol appearing.

#### 9.6. Manual/Automatic functions

By pressing (MAT) we change between the Manual and Automatic functions.

When the Manual function is selected, the symbol M appears on the display. When the Automatic function is selected, the symbol A appears on the display.

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#### 9.6.1. Manual function

This enables to choose between the modes of operation COMFORT, ECO and ANTI-FROST, changing the temperature as indicated in Section 1.5.

| ICON | MODE       | TEMPERATURE RANGE |
|------|------------|-------------------|
| ¢.   | COMFORT    | 55°C-73°C         |
| Ċ    | ECO        | 40°C-54.5°C       |
| *    | ANTI-FROST | 8°C               |

#### 9.6.2. Automatic function

This mode activates the programming set on the water heater.

#### 9.7. Menu/Programming function

Pressing (NEW) for 3 seconds allows you to program the water heater directly:

- 1. Select the COMFORT temperature setting (55°C to 73°C), using and +. The symbol  $\diamondsuit$  and the temperature will flash.
- 2. Press (and we can select using (-) and (+) the ECO temperature (40°C to 54.5°C). The symbol ( and the temperature will flash.
- 3. After pressing the button ( ) once again, the days of the week will start flashing and show as SEL1, SEL2, SEL3.... We can go forwards and backwards using the button ( ) and ( ). Press ( ) to select the day or days that we wish to program.
- 4. Pressing (∞), takes us to the hours we wish to program. To change the hours use the or +, buttons. The hours selected will show as (0h, 1h, 2h,...). By pressing the () button, we can select hour by hour the mode required: COMFORT, ECO or OFF.
- 5. To finish the programming, press (\*\*\*) or leave it for 30 seconds without pressing any buttons.

#### 9.8. Screen brightness function

You can change the brightness of the screen by pushing the button (\*\*\*) for 3 seconds when the product is in manual mode. Entering this mode you will see the following screen:





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In ON mode you can increase or decrease the brightness of the screen by using the — and + buttons. You can change the "Standby" mode brightness by pushing the button (\*) to move the frame to the "STAND-BY" position. You can then adjust the brightness by pushing the same — and (+) keys.



To finish the programming wait for 10 seconds without pressing any buttons.

#### **10. ADVANCED FUNCTIONALITY**

#### 10.1. ANTI LEGIONNAIRE'S DISEASE

Our KYROS is designed with safety in mind, and all the anti legionnaires' disease regulations are complied with. Each day the water heater is automatically set to its maximum temperature for two hours. Whilst this mode is active, you will see the following screen:



#### **10.2. WATER HEATING PROGRESS**

Press  $(\infty)$  we can see the progress of the water heating process towards the user-established target temperature.

In this image, 100% of the water contained in the water heater is at the user-defined target temperature.





When the water in the tank is not yet at the user-defined target temperature indicated on the TFT screen, a percentage value is displayed. This represents the heating progress towards this target temperature.



#### 11. FUZZY LOGIC ENERGY CONTROL

This product includes Fuzzy Logic Energy Control Rointe technology to efficiently manage the energy consumption of the water heater.



#### 12. RECOMMENDATIONS

**12.1.** When a hot tap is turned on there may be a short surge of water, this is quite normal with unvented systems and does not mean there is a fault.

**12.2.** When you first fill a basin the water may sometimes appear milky. This is due to very tiny air bubbles in the water which will clear very quickly.

**12.3.** If water is seen dripping through the tundish at any time switch off the electricity supply immediately and call the installer or the Rointe customer service department on the number listed at the end of this guide.



#### 13. GUARANTEE

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**13.1.** Rointe guarantee all electrical and mechanical controls supplied with the cylinder for a period of 2 years from the date of purchase provided that they have been installed for their intended use by a competent person and have not been modified in any way.

**13.2.** In addition Rointe also guarantees the hot water cylinder for a period of 5 years from the date of purchase against faulty material or manufacture provided that:

- a) It has been installed by a competent person in accordance with this installation manual and all current regulations and codes of practice at the time of installation.
- b) It has been used solely for the purpose of heating potable water that complies with current (at the time of installation) UK standards and is not fed with water from a private source.
- c) It has not been modified in any way.
- d) It has not been subjected to excessive pressure or electrolytic action from dissimilar materials, or attack from any salt deposits.
- e) It has been installed indoors in a frost-free environment.
- f) The warranty card is completed and returned to Rointe within 90 days of installation.
- g) Electrolytic fittings must be properly installed.

This warranty is not transferrable. This warranty does not include claims due to frost or lime scale damage. Proof of purchase will be required against any claim. This guarantee does not affect your statutory rights.

For help about the KYROS please contact Rointe Technical Support:

Tel: 0143 259 8024

E-mail: support@rointe.co.uk

#### European Directive 2002/96/EC 🗡

Under the European Directive 2002/96/EC on waste electrical and electronic equipment (WEEE), the apparatus cannot be disposed in the usual council bins and containers. They must be separated to optimize the recovery and recycling of all of the components and materials and reducing the impact to human health and the environment. The symbol of the container crossed out over a horizontal line marks all of ROINTE's products to remind the consumer of the obligation to separate them on disposal. The consumer should contact the local authority or original point of sale to learn more about the correct disposal of this product.



| DIMENSIONS AND TECHNICAL CHARACTERISTICS |   |               |               |               |               |               |
|--|---|---------------|---------------|---------------|---------------|---------------|
| REFERENCE                                |   | KWI050DHW2    | KWI075DHW2    | KWI100DHW2    | KWI150DHW2    | KWI200DHW2    |
| CAPACITY (L)                             |   | 50            | 75            | 100           | 150           | 200           |
| POWER (W) 230 V~                         |   | 2,400         | 2,400         | 2,400         | 2,400         | 2,400         |
| HEATING ELEMENTS                         |   | 2 x 1,200 W   |
| THERMAL LOSS at 65°C                     |   | 1,1           | 1,2           | 1,4           | 1,9           | 2,3           |
| PLACEMENT                                |   | Vertical      | Vertical      | Vertical      | Vertical      | Vertical      |
| WATER INTAKE (inches)                    |   | 1/2"          | 1/2"          | 1/2"          | 3/4"          | 3/4"          |
| EMPTY WEIGHT (kg)                        |   | 18            | 25            | 32            | 44            | 56            |
|  | Α | 615           | 865           | 1.100         | 900           | 1.070         |
|  | В | 685           | 935           | 1.170         | 960           | 1.120         |
|  | С | 404           | 404           | 404           | 580           | 580           |
|  | D | 404           | 404           | 404           | 580           | 580           |
|  | Е | 420           | 420           | 420           | 620           | 620           |
| DIMENSIONS (mm)                          | F | 120           | 120           | 120           | 178           | 178           |
|  | G | 340           | 573           | 768           | 490           | 670           |
|  | Н | 215           | 230           | 275           | 355           | 355           |
|  | Т | 555           | 803           | 1.043         | 845           | 1.025         |
|  | J | 160           | 160           | 160           | 235           | 235           |
|  | к | 350           | 350           | 350           | 350           | 350           |
| EAN CODE                                 |   | 8436045913654 | 8436045913661 | 8436045913678 | 8436045913685 | 8436045913692 |





### 14. INSTALLATION, COMMISSIONING AND SERVICE RECORD

К

|                | CUSTOMER DETAILS                 |                  |
|----------------|----------------------------------|------------------|
| NAME           |                                  |                  |
| ADDRESS        |                                  |                  |
| TEL No.        |                                  |                  |
|                | INSTALLER DETAILS                |                  |
| COMPANY NAME   |                                  | DATE             |
| ADDRESS        |                                  |                  |
| TEL No.        |                                  |                  |
| INSTALLER NAME |                                  | REGISTRATION No. |
|                | COMMISSIONING ENGINEER (IF DIFFE | RENT)            |
| COMPANY NAME   |                                  | DATE             |
| ADDRESS        |                                  |                  |
| TEL No.        |                                  |                  |
| INSTALLER NAME |                                  | REGISTRATION No. |
|                |                                  |                  |
|                |                                  |                  |

|                   | CYLINDER DETAILS |  |
|-------------------|------------------|--|
| MODEL             |                  |  |
| CAPACITY (litres) | SERIAL NO.       |  |



### SERVICE RECORD DETAILS

Before completing the appropriate Service Interval Record below, please ensure you have carried out the service as described in the manufacturer's instructions and in compliance with all relevant codes of practice.

It is recommended that your hot water system is serviced regularly and that your service engineer completes the appropriate Service Interval Record below.

| SERVICE 1 DATE:  | SERVICE 2 DATE:  |
|------------------|------------------|
| SERVICE ENGINEER | SERVICE ENGINEER |
| TEL NO.          | TEL NO.          |
| REGISTRATION NO. | REGISTRATION NO. |
| SIGNATURE        | SIGNATURE        |

| SERVICE 3 DATE:  | SERVICE 4 DATE:  |
|------------------|------------------|
| SERVICE ENGINEER | SERVICE ENGINEER |
| TEL NO.          | TEL NO.          |
| REGISTRATION NO. | REGISTRATION NO. |
| SIGNATURE        | SIGNATURE        |

| SERVICE 5 DATE:  | SERVICE 6 DATE:  |
|------------------|------------------|
| SERVICE ENGINEER | SERVICE ENGINEER |
| TEL NO.          | TEL NO.          |
| REGISTRATION NO. | REGISTRATION NO. |
| SIGNATURE        | SIGNATURE        |

| SERVICE 7 DATE:  | SERVICE 8 DATE:  |
|------------------|------------------|
| SERVICE ENGINEER | SERVICE ENGINEER |
| TEL NO.          | TEL NO.          |
| REGISTRATION NO. | REGISTRATION NO. |
| SIGNATURE        | SIGNATURE        |





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