2.5 litre Boiling Water Dispenser Installation and User Instructions



Please read and understand these instructions before starting work. Please leave this leaflet with the user following installation.

WARNING

This boiling water heater must only be installed by qualified persons.

PACK CONTENTS

Heater, fixing screws and plugs, installation and user instructions.

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INTRODUCTION

Thank you for choosing this product. The boiling water heater is manufactured to the highest standards and has been designed to meet all the latest relevant safety specifications.

This water heater must be installed (sections 1 to 5), commissioned (section 6) and maintained (sections 7 to 8) by a competent person. Please read and understand these instructions prior to installing your water heater. Following installation and commissioning the operation of the heater should be explained to the user (section 10) and these instructions left with them for future reference.

This appliance can be used by children aged from 8 years and above if they have been given supervision or instruction concerning use of the appliance in a safe way and if they understand the hazards involved. Cleaning and user maintenance shall not be made by children unless they are older than 8 and supervised. Keep the appliance and its cord out of reach of children aged less than 8 years.

Appliances can be used by persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.

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COMPONENT CHECKLIST

Before commencing installation check that all the following components have been supplied with your water heater.

- # Wall mounting bracket
- # No.12 x 2" screws (2 off)
- # No.8 x 1" screw (1 off)
- # No.12 x 2" wall plug (2 off)
- # No.8 x 1" wall plug (1 off)
- # 15mm x 15mm straight push-fit connector (fitted)
- # 15mm x 15mm 90° elbow push fit connector (fitted)

TECHNICAL SPECIFICATION

CONNECTIONS

Inlet connection -	15mm ext. diameter			
Water entry point -	bottom and rear			
Cable entry point -	bottom and rear			
ELECTRICAL				
Model numbers				
Boiling water heater	94 200 100			
Electrical rating	2.3/2.5kW@230/240V			
Nominal capacities	2.5 litres			
Weight (full)	8.4kg			
Rated pressure				
Minimum supply pressure	0.05MPa (0.5 bar)			
Maximum supply pressure	1.0MPa (10 bar)			
Enclosure rated	IP X2			
Nominal commissioning times (minutes) to temperature ready:	16 minutes			

STANDARDS AND APPROVALS

Complies with the requirement of EN 60335-2-35.

Nemko approved for electrical safety.

Complies with European Community Directives (CE).

Complies with UK water regulations, kiwa approved.

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1.0 IMPORTANT INSTALLATION POINTS

1.1 This product stores and dispenses water at or close to boiling point at all times it is switched on. Due caution must be taken when choosing a location for the product to minimise misuse. Locate the unit over a draining board **NOT** over the sink or basin.

1.2 Push fit connectors **DO NOT** grip chromed or stainless pipe.

1.3 This product is a vented water heater. The vent pipe must never be blocked or obstructed, it must be a minimum of 15mm outside diameter pipe. Where the vent pipe length exceeds 3m the pipe diameter should be increased. The vent pipe must be laid to a continuous fall and discharge in a safe and visible position; it must discharge via a tundish or finish a minimum of 20mm above a draining board. The vent pipe material must be capable of conveying boiling water. The vent pipe must never be connected directly to a soil pipe.

1.4 Wherever possible the unit should be supplied directly from a rising main. If fed from a cold water feed cistern, the cistern must comply with the Water Regulations Guide (clause

R27.2). It should be noted that water quality may be reduced when supplied from a cistern and additional forms of water pre-treatment may be necessary.

1.5 In hard water areas, heated water will produce lime scale which will be deposited within the heater. If this is not regularly removed it will impair the operation of the heater. Where rapid and excessive scale build up is likely to occur the use of a proprietary scale reducing device may be beneficial.

1.6 The installation must be carried out in accordance with the relevant requirements of:

- # The appropriate Building Regulations either The Building Regulations (England & Wales), The Building Regulations (Scotland) or Building Regulations (Northern Ireland).
- # The Water Fittings Regulations or Water Byelaws in Scotland.

1.7 The product will adjust for ambient (room) temperatures of between 1°C and 40°C.

1.8 When not in use care must be taken to prevent the unit from freezing; if thought to be frozen it must not be switched on. It must be left to thaw and must then be thoroughly inspected to ensure it is totally undamaged.

1.9 The unit is not suitable for installation in an area where a water jet could be used.

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2.0 INSTALLATION - MOUNTING

2.1 The unit must be vertically wall mounted using the bracket supplied.

2.2 <u>Figure.1</u> details the outside dimensions of the unit. It is recommended that the unit is positioned above the draining board. If this is not possible consideration should be given to any spillages that may occur under the appliance. The heater should be positioned at a height to suit the items being filled (flasks, pans, cups etc.). This is likely to position the base of the unit 250mm above the work surface.

2.3 Sufficient room should be left around the heater for access for maintenance and servicing. The top should not be covered as this will reduce the efficiency of the unit.

2.4 Ensure that the wall can support the full weight of the unit (see <u>TECHNICAL</u> <u>SPECIFICATIONS</u>) and that there are no hidden services (electricity, gas or water) below the surface of the wall.

2.5 Using the backplate mark the fixing positions and water and vent entry points. Drill and plug the fixing positions. Fix the mounting bracket to the wall using the two No. 12x2" screws provided (confirm suitability of all screws and plugs for use with the wall, if unsuitable due to wall type provide alternative fixings)

2.6 If rear entry services are to be used the necessary holes for these should be prepared prior to hanging the unit onto its bracket.

2.7 Remove the front cover by unscrewing the top and bottom cover fixing screws bottom and top. Hang the unit onto the wall mounting bracket. Secure anchor point to the wall with the No.8 x 1" screw (provided).

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Figure 1

MODEI	ODEL DIMENSIONS (mm)														
	A	B	C	D	E	F	G	Н	Ι	J	K	L	М	N	0
]	NLEI				CABLE ENTRY					FRACKE	FRACKE	DUTLET
Main 2.5L	445	290	190	85	115	101	49	46	59	96	50	342	52.5	169	152

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3.0 INSTALLATION - WATER SUPPLY

3.1 Select appropriate push fit connector for chosen entry position: Bottom entry water - 15mm x 15mm 90° elbow. Rear entry water- 15mm x 15mm straight.

Note: Stainless or chromed pipes **DO NOT** provide secure connections with push fit fittings (use copper pipe at joints).

3.2 Push the connector fully home (28mm engagement) onto the solenoid valve inlet spigot. To remove a push fit connector the collar (collet) should be pushed towards the body of the fitting whilst pulling the connector off the pipe.

3.3 If the inlet pipe run is horizontal and beneath the unit ensure it does not prevent access to the case screws.

3.4 Connect the inlet pipe to the push fit connector ensuring it is fully pushed home (28mm engagement). After connection **DO NOT** make soldered joints in the pipe work close to the heater, as the heat may damage the connector or the water heater itself.

3.5 A WRAS listed isolating valve should be fitted to the cold supply to facilitate servicing the heater.

3.6 Push fit connectors are supplied to allow either bottom or rear entry of services.

4.0 INSTALLATION - VENT PIPE

4.1 Select appropriate push fit connector for chosen entry position: Bottom entry vent - 15mm x 15mm straight Rear entry vent - 15mm x 15mm 90° elbow

4.2 Push the connector fully home (28mm engagement) onto the vent pipe connection.

4.3 Connect the vent pipe to the push fit connector ensuring it is pushed fully home (28mm engagement). Refer to the vent pipe requirement detailed in <u>IMPORTANT INSTALLTION</u> POINTS. If a bottom entry vent pipe is used the pipe must terminate below the unit, in a safe visible position. After connection **DO NOT** make soldered joints in the pipe work close to the heater, as the heat may damage the connector or the water heater itself.

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5.0 INSTALLATION - ELECTRICAL REQUIREMENTS

WARNING:

5.1 This appliance must be earthed.

5.2 The installation, supply cable and circuit protection must conform to the latest BS7671 "Requirements for electrical installations" (IEE Wiring Regulations).

5.3 The appliance must only be connected to a 230/240 V ac supply. A double pole isolating switch, with a contact separation of at least 3mm in each pole, must be incorporated in the electrical supply.

The supply should be fused 13Amp.

5.4 If the unit is to be unused for significant periods of time running costs can be reduced by switching the unit off. It is recommended that this is done automatically by incorporating a suitable timeswitch in the supply to the unit. The use of accessory no. 95 970 124 is recommended. The timeswitch can then be set to switch the unit on for a suitable period to allow it to heat up before it is next to be used. **Note:** A timeswitch must be capable of switching 13 Amps resistive load.



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Figure 2: Wiring Diagram (2.5kW) page 8

6.0 COMMISSIONING

6.1 The electronic control system of the unit has a self commissioning and calibration function. Once the heater is installed and all services have been connected the appliance should require no further adjustment before use.

6.2 Check that all electrical, water and vent pipe connections have been made and are secure.

6.3 Replace the cover and secure with the fixing screws. Ensure the tank discharge tube is centrally located in the outlet spout. Turn on the water then the electrical supply.

6.4 The LED indicator will flash to indicate the unit is in its "self commissioning" mode. The water in the unit will not be hot enough to use at this stage (do not draw water off).

6.5 The LED indicator will continue to flash until the unit has reached boiling and has "selfcalibrated". At this point the LED indicator will remain illuminated. If for any reason the calibration procedure is interrupted it will restart after a short delay but may result in the calibrated temperature being too low. If this occurs switch the electrical supply OFF for several seconds and then switch ON. The calibration sequence will reset. Wait for the LED indicator to remain illuminated.

6.6 The unit is now ready to use, however, it is recommended that the first few fills be drawn off and discarded to ensure the freshness of the water.

6.7 The tap sealing washer pressure has been already set. If the tap drips after commissioning adjust the spring tension so that the handle is just loose.

- a. Remove the tap bezel after removing the two screws securing it.
 Note: To remove the bezel the handle will have to be operated. This will cause water to discharge from the outlet (see Figure 3 item 9).
- b. Tighten the tap headwork nut (turn clockwise) until the handle is just loose. Replace bezel and securing screws.
 Note: Excessive adjustment will dismantle the tap, if heated this would result in the uncontrollable release of boiling water (see Figure 3 item 7).

6.8 Check for leaks.

6.9 **IMPORTANT NOTE**: Each time the unit is switched off then switched on it will always go through the same cycle 6.4 - 6.5.

Water should never be drawn off the unit until commissioning is complete and the LED indicator remains constant.

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7.0 MAINTENANCE

Note: Maintenance must be carried out by competent persons. Competent - i.e. Trained, experienced, qualified. Disconnect the electrical supply before removing the cover.

WARNING: Electronics control by switching "n" (neutral), in some instances neutral terminations will be at 230 volts with respect to earth.

7.1 This product incorporates an electronic scale conditioning function which will reduce the rate of scale deposition in hard water areas. However, some deposits may still occur in the storage tank; these should be periodically removed.

7.2 The amount of usage of the unit will also determine the quantity of scale build up. A regular inspection of the tank every 6 to 12 months will provide longer life of the product and optimum performance (removal of the steam plate assembly will give access to the storage tank).

7.3 The front cover and spout will require a periodic wipe to clean any marks/splashes from use.

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8.0 FAULT FINDING

Your water heater should give trouble free operation, however should a fault occur, the table below should allow most faults to be identified.

SYMPTOM	POSSIBLE CAUSE	ACTION
Power light continuous single pulse but unit remains operational	Scale is detected or the unit requ cleaning	Arrange for the unit to be cleaned and de- scaled, continue to use
Power light continuous single pulse and the unit shuts down	More scale detected	The unit requires cleaning and de-scaling
Power light continuous single pulse and the unit shuts down	No water detected	Check water supply to the unit is available and turned on
Power light continuous triple pulse and the unit shuts down	A fault is detected	Call an engineer
No indicator lights	 If no water or heat - no to unit If hot water available - power to indicator diod 	no connected and switched on and the primary cutout has not
Water flows from vent and primary cutout operates	 Solenoid valve fault Level sensor fault Electronic control fault Low water pressure 	 Check operation of solenoid valve. Replace if necessary Check level system Check connections to electronic control. Replace if necessary Increase inlet pressure
Steam from vent pipe and primary cutout operates	 Control thermistor faul circuit Electronic control fault Scale build up 	100°C)
Drips from outlet	 Incorrect spring tension Scale: Debris under tap Damaged tap seal Scale on tap outlet spon 	2. Remove and clean as necessary
Water "runs on" when tap released	 Scale on tap outlet spot Scale debris under tap s Damaged tap seal 	seal2.Replace and clean as necessary3.Replace tap seal
Stale taste to water	Unit left unused for several days	Empty and allow to refill before use
Tap sticks open	Dirt around handle pivot	Clean with a stiff paint brush

Fault finding should only be carried out by a competent person.

For any faults that cannot be identified using the Fault Finding chart please contact After Sales Service, telephone (0344) 871 1535.

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9.0 SPARE PARTS

The following comprehensive list of spare parts is available for your water heater. Please refer to the rating label on the right hand side of your heater before ordering to ensure the correct spare parts are obtained.

Do not replace with parts not recommended in this document - it will invalidate your warranty and may render the installation dangerous.

1.	Element assembly (incorporating start dry cutout).	95 607 952
2.	Element assembly sealing gasket	95 611 816
3.	Primary cutout (vent pipe).	95 612 001
4.	Solenoid valve assembly	95 605 877

5.	Level sensor assembly.	95 606 971
6.	Circuit board	95 615 007
7.	Outlet tap headwork (inc. handle).	95 605 071
8.	Outlet tap cup seal.	95 611 731
9.	Bezel for tap & cover.	95 605 072
10.	Steam condenser assembly 2.5ltr	95 607 015
11.	Cover assembly & screws	95 614 310
12.	Condenser sealing gasket .	95 611 817
13.	"O" ring kit.	95 611 002
14.	Manifold assembly 2.5ltr.	95 607 206
15.	Outlet spout plastic - tank	95 604 668
16.	Outlet spout - cover.	95 604 001
17.	Push fit connector 15x15 straight	95 607 509
18.	Push fit connector 15x15 elbow	95 607 510
19.	Tank	95 608 926
20.	Tank drain & seal.	95 608 929
21.	Start dry cutout (element)	95 612 691
22.	Solenoid valve coil	95 605 839
23.	Fitting kit 2.5ltr Model (not shown)	95 607 024
24.	Wiring harness 4-way (not shown)	95 612 006
25.	Wiring harness complete (not shown).	95 607 209
26.	Thermistor control/steam (not shown)	95 612 696
27.	Steam plate assembly 2.5ltr	7 030 857

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Figure 3: Spares page 13

10.0 USER INSTRUCTIONS

10.1 Once installed the filling and the heating cycles of the unit are completely automatic.

10.2 To dispense water, place a suitable container under the outlet spout and pull the tap handle down and towards (or pushed away) the user. The water dispensed will at all times be boiling or close to boiling point so due caution must be taken when using the product.

10.3 The tap handle is spring loaded so that when released it will spring back to the "off" position (no flow).

10.4 The boiling water dispenser is fitted with two neon indicators. The upper red LED indicates POWER ON. The lower LED indicates TEMPERATURE READY. When the LED is flashing, the unit is commissioning (DO NOT DRAW OFF WATER). When the LED is continuously on, the unit is ready to be used.

10.5 If the store of hot water is completely withdrawn, the flow rate from the outlet tap will reduce to the filling rate of the heater (leave for 2 minutes before drawing any more water off). This slow flow rate allows the incoming water to be instantly reheated, it does not indicate a fault with the water heater.

10.6 If the unit is not used for a few days the water may become "stale". In these instances it is advisable to draw off the contents and discard the water at least twice to remove the "stale" water. This will ensure that "freshly" boiled water is used to make your drinks etc.

10.7 Similarly, if left unused it is possible that some scale residue will collect in the outlet tap. This will cause the outlet water to appear "milky" for a short while. If this condition occurs it is recommended that the first few cups are drawn off and discarded.

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Warranty

This product warranty guards against faulty materials and manufacture for a period of two years from the date of purchase provided that:

- 1. The unit has been installed by a competent person in accordance with the Installation, User Instructions, all relevant Codes of Practice, Regulations in force at the time of installation and that all necessary controls and safety valves have been fitted correctly.
- 2. Any valves and controls are of the recommended type and specification.
- 3. The appliance has not been modified or tampered with in any way, and has been regularly maintained as detailed in the Installation and User Instructions.
- 4. The appliance has been used only for heating potable water.

The appliance warranty does not cover against damage by frost, and the inner container with integral heating element is not covered against excessive scale build-up.

This warranty in no way affects the statutory rights of the consumer.

Our policy is one of continuous product development and, as such, we reserve the right to change specifications without notice.

Environmental Information

Our products are manufactured from many recyclable materials. At the end of their useful life they should be disposed of at a Local Authority Recycling Centre in order to realise the full environmental benefits.

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Spares Stockists

Advanced Water Company Ltd

Unit 5D, Enterprise Way, Vale Park, Evesham, Worcestershire WR11 1GS Tel: 01386 760066 Fax: 01386 760077

Electric Water Heating Co.

2 Horsecroft Place, Pinnacles, Harlow, Essex CM19 5BT Tel: 0845 0553811 E-Mail: sales@ewh.co.uk

SPD

Units 9 & 10 Hexagon Business Centre, Springfield Road, Hayes Middlesex UB4 0TY Tel: 020 8606 3567

Parts Center

Tel: 0845 270 9800 www.partscenter.co.uk

Newey & Eyre Specialists Products Division Please contact your local branch

UK Spares Ltd Unit 1155, Aztec West Almondsbury, Bristol, BS32 FTF Tel: 01454 620500

William Wilson Ltd. Unit 3A, 780 South Street Whiteinch, Glasgow, G14 054 Tel: 0141 434 1530 Alternatively, please contact your local supplying merchant or wholesale branch.



Technical advice, specification and service Tel: (0344) 871 1535 page 16