

### SALES & SERVICE



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# Instruction, Installation & Warranty Manual



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Please read this booklet as it contains importantinformation about the correctinstallation and opetation of the Kwikboil unit. Failure to install the Kwikboil correctly will deem the Product Warranty null and void

#### IMPORTANT NOTES

- 1.1 The kwikboil is designed and manufactured to operate at a maximum incoming mains cold water pressure of 1000kPa.Should the water pressure exceed 1000 kPa, an inline pressure reducing valve must be fitted.
- 1.2 The Kwikboil 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. Children should be supervised to ensure that they do not play with the appliance.
- 1.3 Please ensure that the mains cold water supply is connected to the indicated water inlet connection of the Kwikboil (at the base of the solenoid valve) and that the unit vent connection always has a free flow of air into and out of the boiling water chamber.
- .4 The Kwikboil is a simple technologically advanced electronic automatic boiling water system and operates differently and more efficiently to other mechanical systems. Please familiarise yourself with the filling and operating modes of this electronic system as explained on Page 4 and 5 of the Manual.

- 1.5 The Kwikboil system facilitates a boiling water temperature adjustment for different altitude installations. A temperature trim pot is located in the electronic controller (PCB) Should a temperature adjustment be necessary, the procedure is detailed on Page 10 of the Manual.
- 1.6 The Kwikboil unit produces boiling water and care should be taken at all times when using it.
- 1.7 Instructions are also available on the internet and via website www.kwikot.com

#### 2. WATER QUALITY

Caution is suggested if the Boiling Water Unit is to be connected to a water supply with.a high content of silica of calcium. Water supplies of this nature may be detrimental to the unit's operation and may cause the warranty to become void. For further information relating to the guidelines of water quality, contact your local service agent for advice.

#### 3、INSTALLATION

This Boiling Water Unit shall be installed by a qualified service person. The installation must comply with the local building regulations and the relevant wiring and plumbing regulations.

#### 3.1 LOCATION

This unit is designed for interior installation only and is NOT WEATHERPROOF. If the unit is to be installed outside, it must be protected from the weather and from freezing.

#### 3.2 OPENING THE UNIT

To remove the jacket from all models, remove the retaining screws on the sides and pull the jacket forward.

#### 3.3 MINIMUM CLEARANCES

All units require a minimum clearance of 50 mm on all sides, however, we recommend you leave sufficient clearance for servicing.

#### 3.4 MOUNTING

The Kwikboil, when installed is suspended from mounting screws located into keyhole slots at the back of the unit (refer to the dimension specification diagrams on pages 5,6 and 7 or the template on the carton). Be sure that the mounting screws are securely inserted into the keyhole slots. The screws MUST be anchored in such a way, that they will hold the weight of the unit when filled with water, (refer to the weight table on Page 8).

# 3.5 WATER SUPPLY CONNECTION

Mains cold water supply ( refer to pressure table on Page 9 for operating water pressures ) must be piped and connected to the  $\frac{1}{2}$  BSP inlet fitting located on the left hand side underneath the unit. An accessible isolating valve must be installed near the unit.

This unit contairis a strainer on the water inlet connection. To ensure continuing satisfactory operation, it is suggested that the inlet strainer be serviced every six months. Where poor water quality is present it is recommended to install an additional auxiliary filter.

For rear entry connection, it is recommended that you use a braided flexible hose with a 90° elbow for ease of connection.

## 3.6 VENT/OVERFLOW CONNECTION

Connect a 15 mm (1/2") pipe to the vent/overflow connection. (1/2" BSP). This pipe must have a continuous fall, not exceeding 3 metres in length, or contain no more than 4 bends.

During the normal operation of the Kwikboil the vent/overflow connection may discharge small quantities of steam and condensate, so it is ESSENTIAL that the drain pipe is attached to the vent/ overflow connection. This drain pipe must discharge to waste at a point where no scald injury or inconvenience is caused.

Ensure that the vent/overflow line remains open because the Kwikboil tank is not designed to be pressurised. It is recommended to install an air break in the vent/overflow drain line, no more than 300 mm from the Kwikboil unit.

#### 3.7 DRAIN CONNECTION

There is a drain screw located on the underside of the unit to completely drain the tank for servicing.

Before removing the drain screw, ensure the appliance has been switched off and the water is not hot enough to scald.

#### CAUTION:

This unit is not suitable for installation in an area where a water jet could be used. This unit must no not be cleaned using a water jet.

#### 3.8 TAP OUTLET

To prevent damage during transportation, the tap is bubble wrapped and placed inside the carton.

The tap is fitted to the threaded tap outlet extension with an "o" ring seal fitted and fixing screw to secure in the vertical position.

#### PLEASE NOTE:

Installation and maintenance of the Kwikboil Boiling Water Unit shall be carried out by a suitably qualified service person.

#### 3.9 ELECTRICAL REQUIREMENTS

All models 230 Volts AC, 50HZ, Single Phase

#### **ELEMENT RATING**

- · 1800Watts-2.5 Litre
- · 2000Watts-5 to 10 Litre
- · 2400Watts-15 Litre
- · 3000Watts-25 Litre

A flexible cord complete with a plug is supplied on all models. Do not loosen the cord grip or pull excess cord into the Kwikboil. If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or similarly qualified persons in order to avoid a hazard.

CAUTION:
THIS APPLIANCE MUST BE
EARTHED

#### OPERATION

When the installation is complete, first turn on the water supply and then switch on the power, which will engage the solenoid valve and the unit will automatically begin to fill and the heating sequence will commence.

The water is heated in small quantities, so boiling water is available at all times.

The electronic control unit constantly controls the water level and the watertemperature.

#### 4.1 MODE 1 OPERATION:

To follow through the sequence of events in order, it is necessary that we consider the unit is switched on for the first time.

When the unit is swithed on, the controller scans the Level Probe condition, and having established that, then executes a sequence of events particular to that mode.

- 1. 1. The Controller scans the Level Probe condition. Both Probes (low and high)will be found to be in an OPEN condition i.e. no water present. This then places the unit in MODE 1 condition.
- The solenoid valve is then energised and the "SL" LED on the PC-Board will light up indicate power sent to the solenoid valve, allowing water to enter the tank.

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- 3. Water continues to enter the tank until 5. Steps 2 to 4 are repeated until such such time as the low Level Probe becomes "CLOSED", i.e. water is present, up to the end of the Low Level Probe the "LL" LED on the PC-Board will light up to indicate this condition.
  - time as the High Level Probe be comes "CLOSED" (unit is now full) and the "HL" LED will light up indicating this condition i.e.water is present.
- 4. The solenoid valve is then de-energised stopping the flow of water into the tank and the "SL" LED will go off on the PC-Board.
- 5. The Controller then steps into MODE 2 new line condition.

#### 4.2 MODE 2 OPERATION:

- 1. The element is energised and the "HT" LED on the PC-Board will light up indicating power sent to the element, allowing heating of the water to take place . 3. Cooling continues to take place through
- 2. The continued heating results in the water reaching the set point detected by Termistorthe ready lightwill the turn on.
- 3. The Solenoid Valve is then energised, allowing ambient water to enter the tank thus reducing the water temperature a maximum. of 2deg and results in a shift away from the set point, again detected by the Thermistor.
- 4. When this occurs, the Solenoid vavle is then de-energised, stopping the flow of water into the tank.

#### 4.3 MODE 3 OPERATION:

- 1. The Element remains energised, allowing heating of water to take place, resulting in the water attaining set point. detected by the Thermistor.
- 2. The Element is then de-energised allowing cooling ofwater to take place.
- heat loss via the tank insulation until set point minus 2°C is reached, detected by the Thermistor.
- 4. The Element is then energised, allowing heating of water to take place.
- 5. Steps 1 to 4 are repeated untill such time as the water is drawn from the unit, at which time the controller then steps back into MODE 2

#### 4.4 KWIKBOIL DIAGNOSTICS

This Kwikboil is fitted with self diagnostics and indicative LED Lights.

The self diagnostic features programmed into the PC-board enables the unit to determine if a component is faulty or if there is a fault in heating and/or filling modes i.e. no water connected.

A further added safety feature to the unit is a third Level water probe in the tank. This will enable the PC-board to detect if the normal operating water level probe is faulty or dirty and will prevent the machine from overflowing.

Diagnostic faults are indicated on the front LED's of the face plate and on the PC-board with the respective component LED, e.g. "SL" meaning solenoid valve. The respective LED will flash when a fault is detected.

#### Fault 1: "NOWATER CONDITION FAULT"

This fault occurs when the unit goes through its filling modes and does not detect water filling into the tank after a set time period. The cause of this fault could be due to no water connection to the unit, a faulty level probe or faulty solenoid valve.

This fault will be indicated on the PC Board by flashing the "SL" LED on the PC-board and by flashing the "POWER LED" on the front face plate eq.



This fault can be corrected by identifying the cause (refer to Fault Finding Guide) and resetting the unit.

#### Fault 2: "NOTHEATING FAULT"

This fault occurs when the PC-board has detected no change in the water temperature. The first possible cause of this fault could be due to the element not working, the element thermal cut out then needs to be reset. The second possible fault could be a lose power connection.

This fault will be indicated on the PC-board by flashing the "HT" LED and by flashing the "POWER" and "READY" LED's similtaniously on the frontface plate eq..

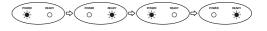


This fault can be corrected by identifying the cause (refer to Fault Finding Guide) and resetting the unit.

#### Fault 3: "THIRD LEVEL PROBE DETECTED FAULT"

This fault occurs when the third water level probe has detected that the water level is higher than the normal operation. This is normaly caused by a faulty or scaled up level

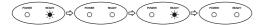
This fault will be indicated on the PC-board by flashing the "FL" LED and by flashing the "POWER" LED and "READY" LED in a sequence as follows eq..



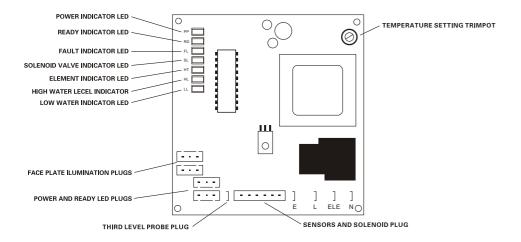
This fault can be corrected by removing the water level probe and cleaning it or replacing the part. A detailed cleaning procedure can be found on our website at www.Kwikot.com. The unit will remove itself out of this fault mode once normal operation has been restored.

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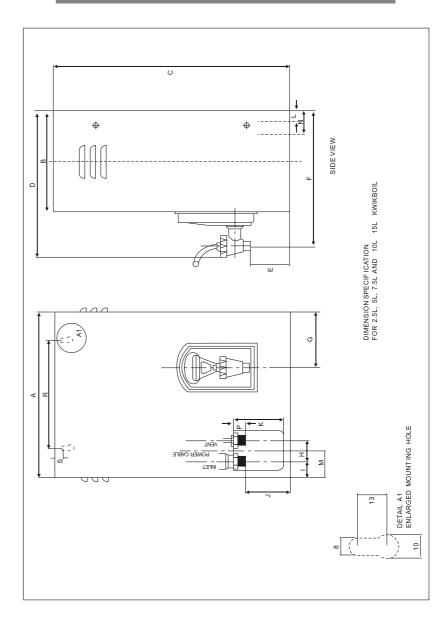
# Fault 4: "FAULTY OPEN CIRCUIT THERMISTOR" This fault will occur when the thermistor is faulty and not detecting the tempreture of the water. This fault will be indicated on the PC-board by flashing the "FL" LED and by flashing the "READY" LED on the front face plate as follows eg.



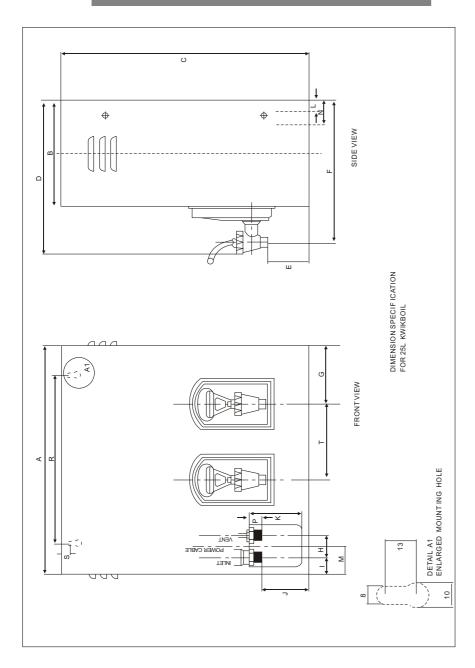
This fault can be corrected by checking for a loose connection or replacing the thermistor. The unit will remove itself out of this fault mode once normal operation has been restored.



# 4.5 DIAGRAM: DIMENSION SPECIFICATION 2.5;5;7.5;10;15L MODELS



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	KWIKBOIL SIZE					
DIMENSION (mm)	2.5 Litres	5 Litres	7.5 Litres	10 Litres	15 Litres	25 Litres
А	275	320	320	348	370	400
В	165	195	195	225	230	255
С	365	448	448	460	513	612
D	263	293	293	323	328	353
E	82	82	82	82	82	82
F	243	273	273	303	308	333
G	110	110	110	137	140	115
Н	44	44	44	44	44	44
I	28	28	28	28	28	28
J	90	90	90	90	90	90
К	93	93	93	93	93	93
L	18	18	18	18	18	18
М	49	49	49	49	49	49
N	45	45	45	45	45	45
Р	20	20	20	20	20	20
R	220	220	220	220	220	220
S	16	16	16	16	16	16
Т	N/A	N/A	N/A	N/A	N/A	135

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Nominal Storage Capacity	2.5 Litres	5 Litres	7.5 Litres	10 Litres	15 Litres	25 Litres
Approx.Weight(kg.) Empty	6.6	8.5	8.7	1.0	11.2	14.2
Approx.Weight(kg.) Full	10.7	16.3	18.3	25.5	30.4	47.2
Minimum Water Pressure kPa	20	20	20	20	20	20
Maximum Water Pressure kPa	1000	1000	1000	1000	1000	1000
Element Size Kw	1.8	2.0	2.0	2.0	2.4	3.0
Initial Draw-off (180ml cups)	15	30	45	60	100	150
Approx.Time for 1 Cup(in minutes)	6	7	7	10	11	11
Approx.Time to heat full capacity (in minutes)	14	22	29	37	47	60
Recovery(180ml cups per minute)	2	2	2	2	2.5	3

#### 5. TEMPERATURE ADJUSTMENT

A trim pot is located at the right rear of the control box. Access is provided by means of a 10 mm diameter hole.

All Electronic controllers are factory set to deliver water at a temperature of approximately 97  $^{\circ}$ C. lers are factory set to

When is temperature adjustment necessary?

When you replace the Electronic Controller.

When you change the Thermistor or an Element and Thermistor.

For different altitudes.

How do you adjust the temperature setting of the Electronic Controller?

- Drain water to the LOW LEVEL (discharge from the tap).
- Rotate the Trim Pot ANTI clockwise to it's MINIMUM SETTING.
- 3. Switch the unit ON and allow it to operate automatically for five minutes.
- Using a 3 mm wide screwdriver, rotate the Trim Pot CLOCKWISE to its MAXIMUM SETTING. The unit will now boil continuously.
- Rotate the Trim Pot ANTI CLOCKWISE, SLOWLY. until such time that the SOLENOID VALVE opens, allowing the water to flow into the tank.

#### 6. ROTATE THE TRIM POT ANTI

CLOCKWISE approximately 1/8 turn.

#### **IMPORTANT**

Temperature adjustmentmust be carried out by a qualified service person.

SYMPTOM	POSSIBLE CAUSE	SOLUTION
The unit does not fill with water	There is no power supply There is no water supply The filter is blocked Electronic Controller failure Solenoid Valve failure	Check the electrical supply. Check the water supply Check the filter, clean or replace. Test the Electronic Controller. Check resistance of the solenoid, Replace if broken
2.The unit fills water to low level and does not heat	Thermal cut-out tripped. Heating Element failure. Electronic Controller failure. Thermistor failure	Reset the Thermal cut-out. If the Heating Element is properly wired, then check its resistance. Test the Electronic Controller. Replace Thermistor
3.The unit boils continuously	Temperature is not correctly set. Electronic Controller failure. Thermistor failure.	Set the Temperature Adjustment Trim Pot. Test the Electronic Controller. Replace Thermistor.
4.The unit overflows	Incoming water pressure is too high Solenoid valve failure. Level probe failure.	Reduce incoming water pressure. Disassemble the solenoid valve and blow air through it. If air flows through, replace the solenoid valve. Clean the level probe. Replace the level probe.
5.There is no water from the tap.	The unit did not fill with enough water. The tap diaphragm is disconnected from its spindle.	See 1. &2. Above. Drain water out of the unit. When the unit is empty, disassemble and repair of the top
6.No electrical power to unit.	Power Supply failure.	Will restart automatically when electrical power is restored.
7.No water to unit	Mains water supply failure.	When water supply restored; 1.Continue to use as normal and the refilling process will automatically restart 2.Switch off electrical supply for 30 seconds & switch on again.

#### 7. SPARE PARTS LIST:

KB-ELE-1,8	1.8KW ELEMENT(2,5Lt.)
KB-ELE-2,0	2.0KW ELEMENT(5;7,5&10Lt.)
KB-ELE-2,4	2.4KW ELEMENT(15Lt.)
KB-ELE-3,0	3.0KW ELEMENT(25Lt.)
КВ-РСВ	PC BOARD
KB-VALVKIT	SOLENOID VALVEKIT
KT-TAP-O/ASS	OUTLETTAPASSEMBLY
KB-WAT-PROBE	WATERLEVELPROBE
KB-THERMIS	THERMISTORS
KB-SEALS	TANK/ELEMENTSEAL
KB-TAP-SPAC	TAPOUTLETSPACER
КВ-ТАР-Н	TAPHANDLE
KB-TAP-CAP	TAPCAP
KB-TAP-SHAF	TAPSHAFT
KB-TAP=SEAL	TAPSEAL
KB-TAP-SPRING	TAPSPRING
KB-DR-SCR	DRAIN SCREW
KB-DR-SEAL	DRAIN SEAL
KB-NUT-1/O	INLET/VENT NUT
KB-VENT-ISH	INLET/VENT SILICONE HOSE
KB-IN-STRAIN	INLETSTRAINER
KB-IN-NRVALV	INLET NON-RETURN VALVE
KB-PRV15	ITAP361 PRV 15mm
KB-SSTRAY	STAINLESSSTEELDRIPTRAY

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#### KWIKBOIL ELECTRIC BOILING WATER RANGE PRODUCT WARRANTY

Kwikboil units are guaranteed against faulty materials and / or workmanship in manufacture and Electrolux SA (Pty) Ltd. undertakes to repair or, at its sole discretion, replace the faulty unit or parts.

AGE OF BOILING WATER UNIT FROM DATE OF PURCHASE	WARRANTY COVERS ALL BOILING WATER UNIT . DOMESTIC COMMERCIAL OR INDUSTRIAL
Up to 12 calendar months from date of purchase	Free replacement of failed component, or if necessary, replacement of unit free of charge

The period of warranty is calculated from the date of installation as per the completed and submitted warranty card on page 16, or calculated from the date on the purchase tax invoice. In both instances this is to be verified by Electrolux SA (Pty) Ltd.

#### WARRANTY CONDITIONS

- The Kwikboil boiling water unit must be installed in accordance with the manufacturer's installation instructions, supplied with the unit and statutory requirements of the geographical area in which the unit is to be installed.
- 2. Where the failed component of the Boiling Water Unit is replaced under warranty, the balance of the original Warranty Period will remain effective. The replaced component or complete Boiling Water Unit does not carry a new warranty and the warranty period of the original unit is not extended for an additional period.
- 3. The warranty only applies to the Kwikboil Boiling Water Units and therefore, does not cover any plumbing or electrical parts supplied by the installer and is not an integral part of the Boiling Water Unit e.g. pressure control valve, stop cock, electrical switches or fuses.

#### WARRNTY EXCLUSIONS

REPAIR AND REPLACEMENT WORK WILL BE CARRIED OUT, AS SET OUT IN THE ELECTROLUX SA (PTY) LTD. WARRANTY ABOVE, HOWEVER THE FOLLOWING EXCLUSION MAY CAUSE THE BOILING WATER UNIT WARRANTY TO BECOME VOID AND MAY INCUR A SERVICE CHARGE AND COST OF PARTS (WHERE NECESSARY).

- Accidental damage; Acts of God; failure due to misuse; incorrect installation; attempts to repair the Boiling Water Unit other than by a Electrolux SA (PTY) Ltd, authorized agent or the Electrolux Service Department.
- 2. Where it is found that there is nothing wrong with the Boiling Water Unit; where the complaint is related to low or high water pressure (refer Installation Instructions and Owner's Guide); where there is no flow of boiling water due to faulty plumbing or a blocked filter, where water leaks are related to plumbing and not the Boiling Water Unit or Boiling Water Unit's components; where there is a failure of electricity or water supply. Where the Boiling
- Water Unit or a Boiling Water Unit component has failed directly or indirectly as a result of excessive water pressure.
- 4. Where the Boiling Water Unit is located in a position that does not comply with the manufacturer's installation instructions or relevant statutory requirements, causing the need for major dismantling or removal of cupboards, doors or walls.
- Subject to any statutory provisions to the contrary claims for damage to furniture, carpets, walls, foundations, or any other consequential loss either directly or indirectly due to leakage from a Boiling Water Unit.
- 6. Repairs to a Boiling Water Unit due to scale formation in the waterways when the boiling water unit has been connected to a harmful water supply.

THIS IS THE ONLY GUARANTEE GIVEN, AND IT EXPRESSLY EXCLUDES ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED IN LAW, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. NO AMENDMENTS OR ADDITIONS TO THE WARRANTY SHALL BE BINDING ON ELECTROLUX SA (PTY) LTD.

NB. Complete, Scan and Email to : ZA_insure@electrolux. com, or Post to P.O. Box 1016, Benoni, 1500
HOMEOWNER/CUSTOMER'S DETAILS Date of installation
Name:
Physical Address:
Postal Address:
, , , , , , , , , , , , , , , , , , , ,
Postal code
Contact Tel: ( Cell:
DETAILS OF NEW KWIKBOIL
Size 2.5Lt 5Lt 7.5Lt 10Lt 15LTt 25Lt
Serial Code/No: Date of purchase:
Purchased from:
NB! Retain the purchase invoice or delivery note while the product is still under the warranty period
INSTALLER'S DETAILS Was the unit installed by: Yourself(D.I.Y installation)
Qualified Plumber/Installer's Name: A qualified Plumber/installer
Contact Tel: ( Cell:

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B. <u>NOTES:</u>	 8. <u>NOTES:</u>	