



GASMATE

Instantaneous Gas Water Heaters



**INSTRUCTION, INSTALLATION
& WARRANTY MANUAL**

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& WARRANTY MANUAL**



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1. PRODUCT APPLICATION

The Kwikot Gasmate Instantaneous Gas Water Heaters, are suitable for the supply of hot water for kitchen sinks and prep bowls, laundry wash troughs, bathroom wash hand basins, and the larger 11 litre and 14 litre for showers and baths.

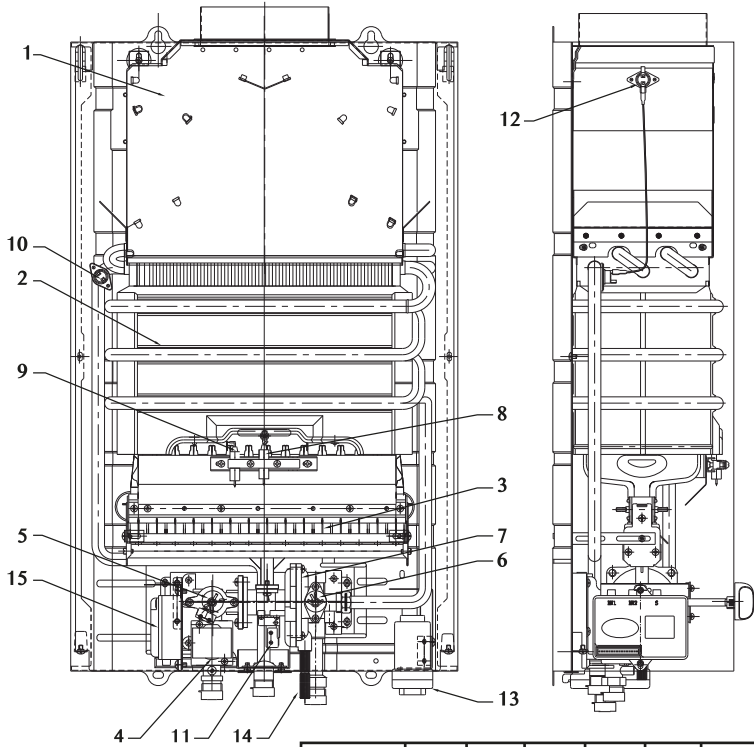
2. PRODUCT SPECIFICATIONS AND TECHNICAL DATA

Separate units are available for the supply of natural gas or LPG gas. All units are of a natural flue type, automatic water control operation with a flow stabilizing device, and efficient combusting system with pulse ignition. The battery ignition by 2x D Cell Torch Batteries provides the power to open the gas solenoid and fire the igniters when the unit detects water flow. Once the gas is ignited the igniters cease firing and the water heats up immediately.

TECHNICAL DATA TABLE

MODEL		5ℓ	11ℓ	14ℓ
Water Heating Energy Efficiency Class		A	A	A
Water Heating Energy Efficiency (η_{WH})	%	87,3	74,5	72,1
Sound Power Level (L_{WA})	Db	51	58	59
Nox Emissions	mg/kwh	212	227	196
Gas Category		II2H3+	II2H3+	II2H3+
Type of Unit		B11BS	B11BS	B11BS
Type of Installation		Internal	Internal	Internal
Maximum Heat Input	kW	10,1	21,1	26,8
Maximum Heat Output	kW	8,9	18,9	23,8
Pmax Efficiency	%	89,0	89,0	88,8
Burner Injectors G20(number of & size)	n°xΦ	6 x 1.00	10 x 1.15	16 x 1.02
Gas Pressure G20	kPa	2,0	2,0	2,0
Maximum Gas Flow Rate G20	m ³ /h	1,07	2,23	2,83
Burner Injectors G31(number of & size)	n°xΦ	6 x 0.66	10 x 0.72	16 x 0.66
Gas Inlet Pressure G31	kPa	3,7	3,7	3,7
Maximum Gas Flow Rate G31	Kg/h	0,79	1,65	2,09
Maximum Working Pressure	bar	10	10	10
Minimum Working Pressure Δt 25°C	bar	0,4	0,4	0,4
Minimum Working Pressure Δt 50°C	bar	0,2	0,2	0,2
DHW Flow Rate Δt 25°C	l/min	5,1	10,8	13,7
DHW Flow Rate Δt 50°C	l/min	2,6	5,4	6,8
Power Supply Voltage (2 x 1,5V DC)	V/Hz	3	3	3
Weight Empty	Kg/h	5	9	13
CE Certification		0461BT0927	0461BT0927	0461BT0927

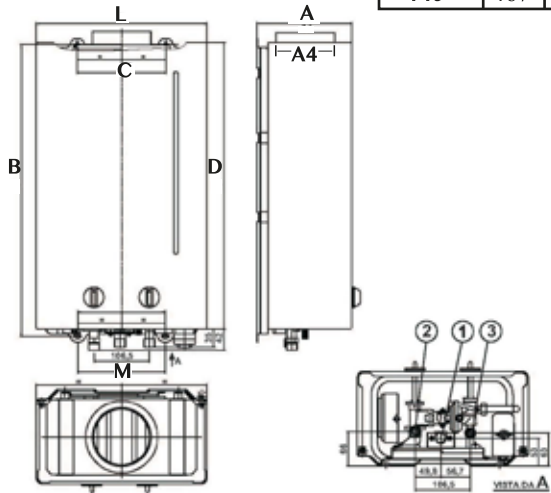
1. **Incorporated Draught Inverter** – ensures correct combustion even when the draught changes in the flue.
2. **Heat Exchanger** – in pure electrolytic copper with thermal covering that ensures maximum transmission of heat to the water.
3. **Multi-gas Burner** – high technology that fully exploits the gas consumed.
4. **Ignition Safety Valve** – equipped with an electric system allowing the gas to come out of the burners only in safe conditions – presence of flame.
5. **Power Adjustable Dial** – for manually setting the required power.
6. **Temperature Selector** – for setting the required hot water temperature.
7. **Hydraulic Device** – automatically activates the water heating mechanisms when a hot water tap is opened and also acts as a safety system, since it opens the gas flow to the burner only when water is circulating in the exchanger.
8. **Electronic Ionisation Probe** – for detecting the presence of a flame.
9. **Burner Ignition Electrode.**
10. **Temperature Limiting Thermostat.**
11. **Ignition Micro-switch.**
12. **Flue Gas Control Device** – turns the water heater off in case of insufficient draught or the presence of obstructions in the fume exhaust.
13. **Battery Box.**
14. **Hydraulic Drain Valve.**
15. **Electronic Control Module.**



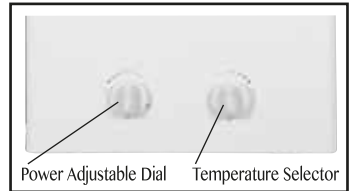
MODEL	A	B	D	C	L	A4	M
5ℓ	129	452	450	55	280	Ø80	55
11ℓ	181	560	550	170	328	Ø110	170
14ℓ	187	660	650	220	400	Ø130	220

(All measurements are in mm)

1	Hot Water Outlet	R ¹ / ₂ "
2	Gas Inlet	R ¹ / ₂ "
3	Cold Water Inlet	R ¹ / ₂ "



Control Dials



3. INSTALLATION INSTRUCTIONS AND PROCEDURES

Important Information for the Installer:

This appliance may only be installed by a gas installer registered with the South African Qualifications and Certification Committee (**SAQCC**). (Refer to a sample of the **COC** certificate on page 11). The appliance must be installed in accordance with the requirements of **SANS 10087-1** for use with LPG, **SANS 827** for use with Natural Gas and any fire department regulations and/or local bylaws applicable to the area. If in doubt, check with the relevant authority before undertaking the installation. Upon completion of the installation, you are required to fully explain and demonstrate to the user the operational details and safety practices applicable to the appliance and the installation.

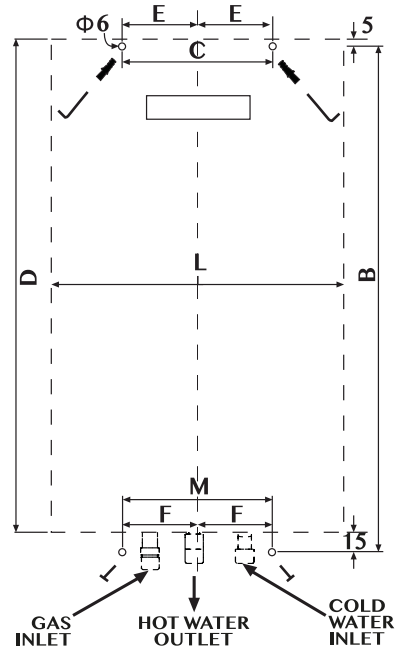
a. Place of Installation

- Ensure that the water heater unit that is to be installed is the most suitable for the application required. For instance the 5 litre unit will not be suitable for bathing or showering.
- Ensure that the water heater unit that is to be installed is compatible with the gas supply. There are different units for natural gas and LPG gas.
- Check the water pressure supply in accordance to the Product Specification Table on page 1.
- The room where the unit is to be installed must meet all the requirements and regulations of current local regulations. This unit is an “open chamber” type and must only be installed and operated in permanently ventilated areas. An insufficient supply of combustion air will compromise normal operation and the evacuation of fumes. The fumes under these conditions are extremely harmful to health if dispersed in the domestic environment. Therefore the place of installation must be free of dust, flammable materials, objects and corrosive gases.
- Position the unit as close as possible to the hot water tap/mixer where the hot water is to be drawn off at the sink etc, but never above a cooking top i.e. a stove. It must also be situated as close as possible to the flue or the start of the flue gas exhaust pipe.
- The external casing of the unit must be removed before the start of the installation (see External Casing Assembly on page 5).

b. Wall Mounting

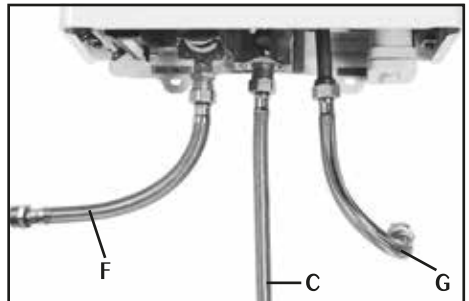
- Fix the wall plugs ($\varnothing 6\text{mm}$) and hooks on the wall in a central position vertical to the appliance as shown on the figure diagram (to the right)
- Mark the position of the bottom screws.
- Hang the unit on the hooks and tighten the screws for fixing the unit to the wall.
- Connect the hot and cold water flexible tubes (not supplied), remembering to check the tightness. To avoid circulation problems, do not remove the cold water inlet filter.

MODEL	B	D	C	L	M	E	F
5ℓ	452	450	55	280	55	27.5	27.5
11ℓ	560	550	170	328	170	85	85
14ℓ	660	650	220	400	220	110	110



c. Gas and Water Connections

- Connect the hot and cold water flexible tubes (not supplied) to the bottom of unit, remembering to check the tightness. To avoid circulation problems, do not remove the cold water inlet filter
- The hot water pipes must be as short as possible. Insulate long sections to prevent heat loss.



- Carry out the relevant connections according to the image below and the symbols on the unit, cold water (F) and hot water (C). Avoid constrictions and unnecessary bends. It is advisable to use pipes of at least $\frac{1}{2}$ " diameter and $\frac{3}{4}$ " in the case of low water pressure. Avoid the creation of air pockets in the hot water piping and bleed the water pipes.
- When connecting the gas supply to the unit, install a gas cock suitable for the gas delivery. The diameter of the gas connection (G) pipe must be $\varnothing 15\text{mm}$ external.

d. Flue Gas Exhaust

- The size of the flue gas exhaust must be Ø80mm for the 5 litre unit, Ø110mm for the 11 litre unit and Ø130mm for the 14 litre unit.
- The mass flows for calculating the flue are given in the Product Specifications & Technical data on page 1.
- Flue gas exhaust check: with the unit operating at normal power, using a cold mirror or any other approved measuring device, check the tightness of the entire flue gas exhaust system.

e. External Casing Assembly

- Firstly remove the gas and temperature selector knobs by pulling them off.
- Undo the screws fixing the casing to the body of the unit and remove the casing.
- Follow the reverse procedure when placing the casing back onto the body of the unit.

f. Checks and Commissioning

- Check the tightness of the gas and water connections.
- Start the unit and leave it on for 15 minutes whilst checking its correct operation.
- Instruct the user on how to use the water heater, go through the safety instructions and procedures, and handover this manual to the user.

g. Fume Exhaust Safety Device (fume thermostat)

- The unit's safety device ensures the correct exhaust of flue gases, therefore do not deactivate it or carry out any operation on it.
- If the safety device cuts out when the water is started, check the flue gas outlet, checking the exhaust with a cold mirror or with any suitable approved measuring device.
- In the case of a fault, only use original replacement parts, otherwise the safety device may not work properly.
- Fume thermostat replacement must be carried out by a qualified technician by:

Remove the faulty fume thermostat by undoing the two screws.

Install a new thermostat.

Fix the fume thermostat back in place without over tightening the screws.

NB. Remember to make an air inlet opening in the room where the water heater is installed, as required by regulations.

4. USER INSTRUCTIONS

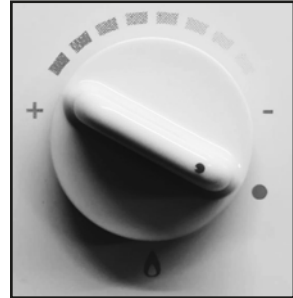
It is most important that the user familiarize themselves with the working of the unit.

a. Preliminary Checks

- Make sure the hot water tap/s are closed.
- Open the water heater gas cock located on the gas connection to the unit.
- Make sure the 1.5 V batteries (2x D Cell Torch Batteries) are in place, with the correct polarity (+ and -), and that the safety seal has been removed.
- Make sure that the batteries are sufficiently charged.

b. Manual Setting of the Burner Power

With the power adjustment dial it is possible to select the water heater power minimum (-) or maximum (+), and intermediate positions according to the required water heating level. By turning the dial to the plus (+), the unit heats the water at maximum power. If the temperature is too high, for example in summer or when a reduced delivery of hot water is not required, turn the Power Adjustable Dial to minus (-), thereby almost halving the power and gas consumption. In position (●), the unit is deactivated. See dial image on the right.



c. Temperature Setting

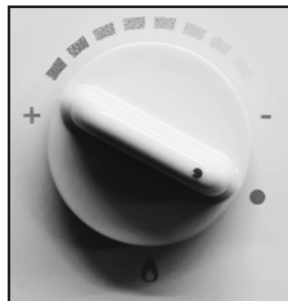
The water temperature can be easily set with the temperature selector. Turn the dial to the right to increase the temperature, or left to decrease the temperature.

d. Hot Water Delivery

- After making the abovementioned adjustments, the unit is ready to operate in a completely automatic way. On opening the hot water tap an intermittent discharge is generated on the ignition electrode, causing the burner to light.
- The ionization probe inserted in the burner controls the correct flame presence. In the case of no gas or anomalies with the burner going out, the control system attempts automatic relighting. The unit stops if the flame does not light after a few seconds. Therefore it is necessary to eliminate the cause or the element preventing the gas from reaching the unit, e.g. inadvertent closing of the gas cock, gas bottle is empty, etc.
- The shutdown of the unit is deactivated by opening or closing the hot water tap.
- Repeat the operation if hot water delivery is not restored after eliminating the cause and opening the hot water tap. If the fault persists, contact Tel: 0861594568.
- The presence of a flame in the burner can be seen in the window.

e. Water Heater Shutdown

The burner goes out automatically when the domestic hot water demand ceases. No steps are necessary to carry out another lighting stage. To completely shutdown the unit, turn the Power Adjustable Dial to (●). See dial image on the right. In the case of a prolonged shutdown, close the gas cock ahead of the unit.



f. Preventative Measures

Hard water can result in the build up of scaling inside the unit making the transmission of heat more difficult. The higher the water temperature, the higher the probability of scale build up. It is advisable to set the water temperature lower, which will reduce scale build up, prolong the service life of the unit and save on gas.

In areas where freezing occurs in winter, the water could freeze inside the unit and cause damage. To prevent this in the case of imminent frost, close the water cock at the inlet of the unit, open a hot water tap located at a lower level e.g. bidet, release the unit's drain valve so that air can enter the unit and water can be released. The drain valve is located at the bottom of the unit and can be accessed without removing the outer casing.

5. SAFETY INSTRUCTIONS AND PROCEDURES

Read these instructions carefully so as to familiarize yourself with the unit before it is connected to the gas source (container/cylinder). Keep these instructions for future reference.

The instantaneous water heater should not be tampered with by any unauthorized or uncertified person.

Important Information for the User:

This appliance may only be installed by a registered SAQCC gas installer. All registered installers are issued with a card carrying their registration number. Ask to be shown the card before allowing the installation work to commence and make a note of the installer registration number for future reference. Upon completion of the installation, the installer is required to explain the operational details of the appliance together with the safety instructions.

You will be asked to sign an acceptance of the installation and be provided with a completion certificate for safekeeping. You should only sign for acceptance of the installation when the installation is completed to your satisfaction. Retain the invoice from the installer in the event you may have to make a guarantee claim against the installation.

NB. This unit operates either on Natural Gas or LPG gas, not on both.

If you smell gas:

- Turn off the gas supply at the container/cylinder.
- Extinguish all naked flames.
- Do not operate any electrical appliances
- Ventilate the area.
- Check for leaks.
- If the gas smell persists, contact a gas service technician.

Burn-back (Fire in the burner tube or chamber):

In the event of a burn-back where the flame burns back to the jet, immediately turn off the gas supply at the control valve on the panel. After ensuring the flame has been extinguished, wait for a minute and relight the unit in the normal manner. Should the unit again burn-back, close the control valve again and contact a gas service technician. Do not use the unit again until the technician has rectified the problem and has declared it is now safe to do so.

Gas Pressure Regulator:

This unit requires an operating pressure of 2,8kPa at the unit. A suitable LPG regulator that complies with the requirements of **SANS 1237** must be installed.

6. SERVICE AND MAINTENANCE

Use a cloth and soapy water (dishwashing liquid) to clean the external casing and dry with a soft cloth. Do not use abrasive detergents, solvents and scourers. Scourers will scratch the casing and remove the indicator settings around the dials.

To prolong the lifespan of the unit, it is advisable to have it checked and cleaned on the inside once a year by a after sales service technician.

7. PRODUCT WARRANTY

Electrolux SA Pty Ltd (“**Electrolux**”) warrants that its instantaneous gas water heaters are free from manufacturing defects. This is the only warranty given by **Electrolux** in respect of its instantaneous gas water heaters. **Electrolux** gives no other warranty or representations, whether express or implied. No amendments or additions to the warranty shall be binding on **Electrolux**.

Electrolux makes no warranty or representation in respect of the installation of instantaneous gas water heaters. Claims in respect of the installation of instantaneous gas water heaters must be referred to the applicable installer, who shall be solely liable under any installation warranties given.

The two year warranty covers the instantaneous gas water heater only and does not cover any other part or parts used in the installation, which may become damaged as a consequence of the failure or defect of the instantaneous gas water heater. **Electrolux** will repair, or at its own discretion, replace the faulty part with a new one or re-manufactured one.

The two year warranty period which applies, will be calculated from the date of installation, of the original instantaneous gas water heater, provided that documentation of proof of the installation is furnished. If the installation date is not available or cannot be proved, the date of manufacture, as determined from the information on the label on the unit, shall be deemed to be the commencement date of the warranty.

If **Electrolux** carries out repairs or replacements, the warranty will not start afresh or be extended, irrespective of how many repairs or replacements are carried out. The warranty period will still be calculated from the installation date of the original installed instantaneous gas water heater, or manufactured date of the original installed instantaneous gas water heater, as the case may be.

Components removed during warranty repairs, will remain the property of **Electrolux**.

Warranties are applicable only in South Africa, Namibia, Botswana, Swaziland and Lesotho and are subject to instantaneous gas water heaters being used for water, which is of the quality equivalent to water supplied by authorities in Metropolitan areas in South Africa.

A warranty will only be honoured if:

- a. The applicable warranty is still in force/valid.
- b. The instantaneous gas water heater is installed, used and maintained in accordance with **Electrolux's** specifications and instructions.
- c. Where applicable, all other products used in the installation must comply with **SANS**. Non-compliant **SANS** products will result in forfeiting the warranty.

8

8. COC (CERTIFICATE OF CONFORMITY)

CERTIFICATE OF CONFORMITY FOR GAS INSTALLATIONS: OCCUPATIONAL HEALTH AND SAFETY ACT, 1993
Regulation 17(3) of the Pressure Equipment Regulations, 2009



Liquefied Petroleum Gas Safety Association of Southern Africa

Certificate of conformity by an authorised person

Certificate No: **Nº**

Installer details and declaration: I, _____ declare that I am an authorised person for gas installations with the registration number _____ and ID number _____
 Address: _____ Telephone number (____) _____ Cell No: _____
 _____ email: _____

I further declare that I inspected and tested the installation at: Street _____ Stand No: _____
 Name of Building _____ Name of Farm _____ Farm No: _____
 Township/ Municipality/ District _____
 Name of Gas supplier: _____ Amount of Gas stored on premises: _____ kg
 and that in terms of regulation 17(3), the installation complies with the provisions of 17(2), and that the installation is safe. I am aware that I am liable to prosecution in the case of a false declaration
 Installer Signature _____ Date: _____

Owner/user details and declaration: I, _____ the owner/ user of the installation and equipment described below, confirm that I have been informed of the following: The safe handling and storage of LPG cylinders; The importance of ventilation when using gas equipment; Emergency action in the event of a gas leak or fire; Maintenance of the gas installation; Approved appliances and use instructions
 Signature _____ Telephone number (____) _____ Cell number _____

Please ensure that you read the contents of this certificate and have been made aware of the safe use of the LP Gas system

Installation details		Installation standards							
Installation Type		Domestic	Commercial	Industrial	Autogas	Filling			
Cylinder size	Qty	Tanks		Pipework type	Steel	Copper	Composite	CSST	HDPE
9 kg		Tons (LPG)		Surface					
19 kg		Volume (m ³)		Embedded					
48 kg		No: Installed		In roof					
Dumple				Buried					
Manifolds				Filling Site					
Vapour		Liquid		Pipe run in m					
Type:		Type:		Regulator Brand	Model No:	Regulator Brand	Model No:	Regulator Brand	Model No:
Type:		Type:							
Appliances		Type	Brand	Model No					
Note: For domestic and commercial installations, only appliances that comply with SANS 1539 may be installed. If in doubt, contact the appliance supplier or the LPGSASA		Type	Brand	Model No					
		Type	Brand	Model No					
		Type	Brand	Model No					

This section for use by Mentor (if applicable)

Name: _____ Registration Number: _____ Signature: _____ Date: _____

Document prepared by LPGSASA For assistance contact us at: Tel: (011) 886 9702 Fax: (011) 886 9770

Issue 1-2011



GASMATE
Instantaneous Gas Water Heaters



CE CERTIFICATION 0461BT0927



Liquefied Petroleum Gas
Safety Association of
Southern Africa

APPROVED

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Eastern Cape Division
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www.kwikot.com



GASMATE