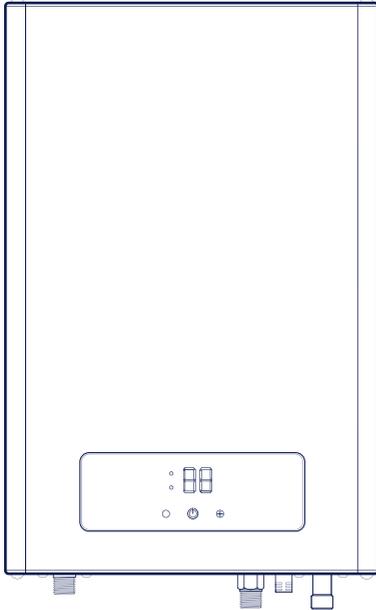


Gasmate

Canopus Series

Instantaneous Gas Water Heater

Installation and Warranty Manual



Models:

FGI - HF112 - LPG

FGI - HF116 - LPG

FGI - HF120 - LPG

Gasmate
Canopus Series



**90% Recyclable
Materials**



**Indoor or
Outdoor**



**Multiple Hot
Points**



Solar Ready

www.kwikot.com



powered by **Haier**

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Please read this manual carefully before using the product.
The company reserves the right to provide the final interpretation of this manual.
The product appearance is subject to the actual product.

Please note that no further notice will be provided in the event of product technology or software upgrades.

This product conforms to Directive WEEE 2012/19/EU.
The crossed-out waste bin symbol on the appliance indicates that, at the end of its working life, the product should be disposed of separately from regular household waste. It must be taken to a waste disposal centre equipped with dedicated facilities for electrical and electronic equipment or returned to the retailer when a new replacement product is purchased.

The user is responsible for ensuring the product is disposed of properly at the end of its life at an appropriate waste disposal centre. The waste disposal centre, which uses specialized treatment and recycling processes to effectively dismantle and dispose of the appliance, helps protect the environment by recycling the materials used to manufacture the product.

For more information about waste disposal systems, contact your local waste disposal centre or the retailer where the product was purchased.

Safety Precautions

Dear customer(s):

Thank you for choosing our product. To help you better understand this manual and use the product effectively, and to prevent personal injury or property damage, please carefully read and follow the safety symbols and instructions provided in this manual.



Warning

Violations may result in serious personal injury or death.



Attention

Violations may result in serious personal property damage.



Forbidden

Actions or operations that are strictly prohibited.



Observe

Actions or operations that must be followed.

Safety instructions (to be followed at any time)



Installation, the first ignition, and maintenance work must be carried out exclusively by SAQCC registered LP Gas installer as per SANS 10087.1 2013 in strict accordance with the instructions provided in this manual.



Please unplug and drain the water from the internal pipes when freezing conditions are expected. Do not tamper with or interfere with any sealed components. The hot water from the water heater is for sanitary purposes only and must not be used for drinking or any other consumption purposes.

Do not use the damaged power wire and power socket, and clean the dust on the power plug and power socket in time. Do not touch the plug with wet hands, prevent the water heater, plug, socket, remote control from being wet.



Ensure the product is connected to a dedicated 230V~/50Hz power supply and socket with proper earthing. The power socket must comply with local standards. If the product is not in use for a long time, please unplug it. If the power cord is damaged, to avoid danger, it must be replaced by the manufacturer's service department or qualified personnel.



If the water heater, plug, socket, remote control, or similar components are accidentally soaked in water, they must be inspected and approved by a professional designated by the company before reuse to ensure safety and prevent electric shock.



Using any type of gas that does not comply with the requirements stated on the water heater nameplate is strictly prohibited.

	<p>If you detect a gas leak or smell gas, you should follow these steps:</p> <ol style="list-style-type: none"> 1) Close the gas valve and immediately open the doors and windows; 2) Do not attempt to repair the water heater or use any other appliances; 3) Do not touch any electrical switches or outlets; 4) Do not use any communication devices indoors; 5) Call the gas company or service centre from outside and follow their instructions. 6) If you cannot reach these services, call the fire department.
	<p>Do not cover the water heater exhaust vent with any object. Do not place flammable or explosive materials near the water heater.</p>
	<p>The water heater can operate regularly in a well-ventilated indoor environment with a temperature range of 0°C~50°C. When installing the water heater, ensure that the distance between the combustible materials and the exhaust pipe is at least 50mm from the non-insulated ceiling. A smoke pipe must be installed for the water heater, and the end of the pipe must extend at least 100mm beyond the wall, with the exhaust directed directly outdoors.</p>
	<p>The water heater is designed for indoor installation. Do not install it in an outdoor or indoor enclosed area. Do not touch the valves and pipes that supply hot water, and do not touch the exhaust pipe during or after the water heater is working, to prevent burns.</p>
	<p>After the installation of the product, after the first use or after the product is drained, it is necessary to fill the water first. Then, ventilate and power up after the water flows out. Be sure to test and confirm the water temperature before use, and only use it when it is at an appropriate temperature. Children must take showers under the guidance of an adult. Be careful not to burn yourself with hot water. This product is equipped with an electric auxiliary heating antifreeze protection device. When the water temperature drops below 6°C, the antifreeze heating function will automatically activate once the power is connected. When the outdoor temperature is lower than -15°C, please drain the water. (It is recommended to use a water heater with a heating anti-freezing device in cold weather areas during winter.) In extremely cold conditions, the water heater cannot prevent freezing of the inlet and outlet pipes. Therefore, take appropriate measures based on local conditions, such as wrapping insulation materials around the pipes. If the heater is used again after the water has been drained, fill the water first and then power on.</p>

Product Installation

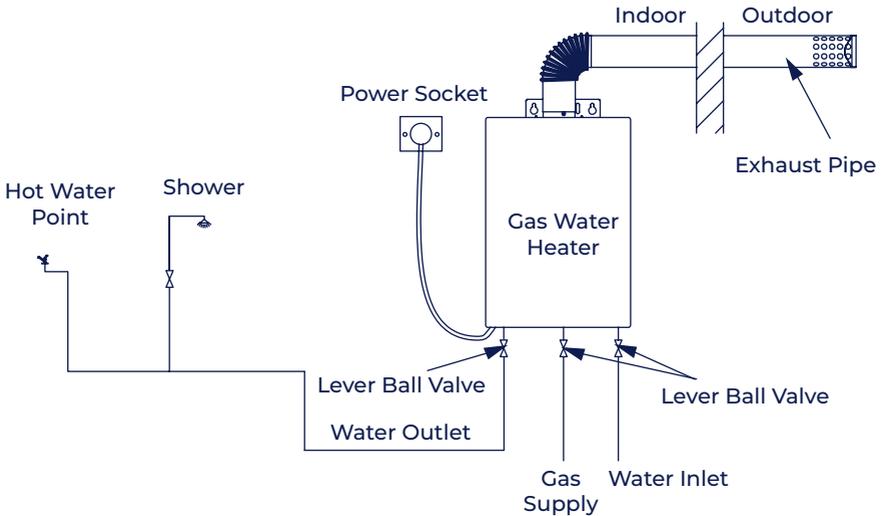
1. It is prohibited to install water heaters in shielded indoor areas, TV towers, or places with strong electromagnetic interference (within a kilometre radius).
2. It is forbidden to install water heaters in bedrooms, basements, living rooms, bathrooms, closed cabinets, or near narrow corridors or safety exits. It must be installed in a well-ventilated area.
3. It is forbidden to install the water heater outdoors where wind and rain can extinguish the flame, and low temperatures can damage the unit. (Use of weather covers are advised to assist in preventing this).
4. It is forbidden to install the water heater near the kitchen stove.
5. If the water heater is installed on a combustible material wall, a heat-resistant (metal) panel must be installed between the water heater and the combustible material wall. The thickness of the heat-resistant (metal) panel must be at least 0.8mm.
6. The obligation to install the water heater at a minimum height of 1,30 m. In cases where this is not possible, other means of unauthorized direct access shall be installed.
7. Indication that, following installation of the water heater, the installer shall instruct the user in the operation of the water heater and the safety devices and shall give at least the instructions for use to the user.

ADJACENT MATERIAL COMPOSITION

	NON-COMBUSTIBLE		COMBUSTIBLE	
SIDE	10 cm	100 mm	15 cm	150 mm
TOP	25 cm	250 mm	30 cm	300 mm
FLOOR	30 cm	300 mm	30 cm	300 mm
FLOOR	60 cm	600 mm	60 cm	600 mm
FRONT	zero	zero	1 inch (25 mm) fireproof insulating panel required	

Installation Instructions for the Ventilation Duct

1. When the exhaust pipe passes through a combustible material wall, it must be covered with insulation material with a thickness greater than 20mm.
2. The outlet of the exhaust pipe should be inclined downward by 3° to 5° to facilitate the drainage of condensed water and to prevent rainwater from flowing back.
3. The turning angle of the exhaust pipe should be no less than 90°, and the turning radius should be no less than 90mm. (One elbow is equivalent to the resistance loss of 2 meters of straight pipe.) Ensure there is no air leakage at the connection of the extended exhaust pipe to allow the exhaust gases to be vented outside. (The maximum length of the exhaust pipe is 5 meters, and the maximum number of bends is 3.)
4. A stop valve must be installed near the water heater to cut off the water and gas supply during maintenance.
5. The water heater is not intended to be connected to flues that are likely to be affected by heat (e.g. plastic ducts or ducts with internal plastic coatings)
6. Exhaust pipe should be used with the included flue pipe. If it needs to be extended, it is recommended to buy from Kwikot after sale or use the same grade (0.3mm thick SUS304 stainless steel) or higher grade material smoke pipe.



Installation Instructions for the Gasmate Gas Water Heater Unit

1. Mark the positions for drilling holes on the wall. Drill three holes with a 10mm diameter and a depth of 40mm. Insert the 10mm plastic expansion plugs into the holes.
2. Insert the installation screws into the two plastic expansion plugs at the upper end. Hang the unit in place, then insert the installation screw into the remaining plastic expansion plug at the lower end. Tighten all three screws to securely fix the unit.

Installation Instructions for the Gas Inlet Pipe

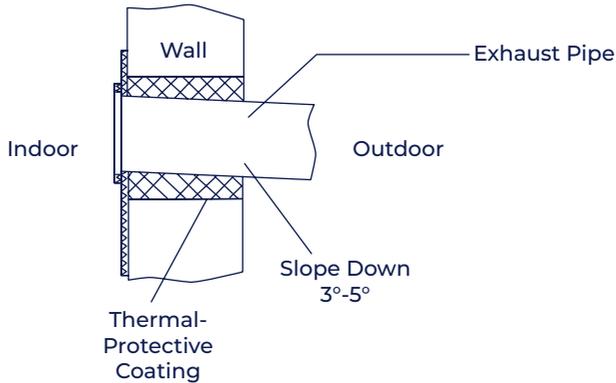
1. The specifications of the gas connector are G1/2 pipe threads.
2. When using liquefied petroleum gas (for liquefied petroleum gas models only), it is necessary to use qualified gas pressure regulators as per SANS 1539 and piping as per SANS 10087.1 2013 to ensure the safety and proper functioning of the water heater.
3. After installing the gas pipe, open the gas supply valve to ensure the water heater operates normally. Apply soapy water to the connections to check for gas leaks. Pressure test the gas line as per SANS 10087.1.

Installation Instructions for the Inlet and Outlet Water Pipes

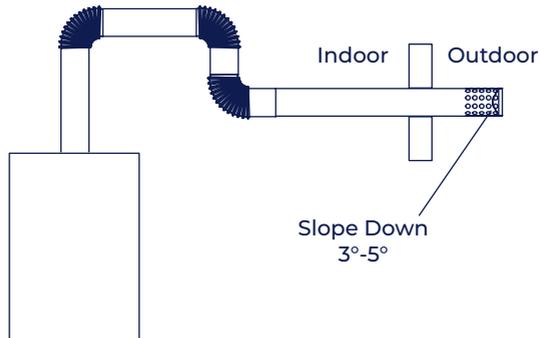
1. The cold water pipe interface has G1/2 pipe threads and is connected to the cold water supply pipe. Before making the connection, flush the pipe to remove any dirt. Cold water pipes must be equipped with a stop valve.
2. The hot water pipe interface has G1/2 pipe threads and is connected to the hot water supply pipe. The length of the hot water pipe should not be less than 1 meter, but it should not be excessively long, and the number of bends should be minimized. For remote water supply, it is recommended to install a stop valve.
3. The pressure relief valve protects the water system from excessive pressure. When the inlet pressure exceeds 10 bar, the pressure relief valve will release pressure through its outlet, allowing a small amount of water to be discharged.

Installation of the Exhaust Pipe

1. Cut an exhaust pipe hole in the wall.
2. Insert the exhaust pipe through the hole.
3. Seal the gap between the wall and the exhaust pipe using fireproof and waterproof fillers.
4. Connect the air outlet of the water heater and the connecting pipe (included) using an elbow joint. Attach the other end of the connecting pipe to the exhaust pipe. Ensure all connection points are wrapped with flame-retardant aluminium foil tape to prevent leakage.

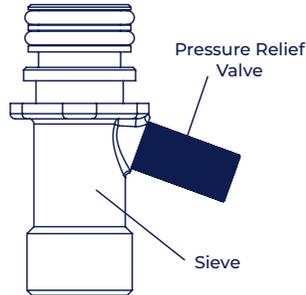


The Installation method in rainy or strong wind area



Cleaning Instructions for the Gasmate Gas Water Heater

1. After the water heater has been used for a period of time, gently wipe the exterior shell with a damp cloth. Avoid using chemical cleaners to prevent discolouration of the shell
2. Remove the water filter, rinse off any dirt with water, and reinstall it. (For cleaning instructions, please refer to the section on the installation of the cold water pipe.)



Basic Operation

Power On the Water Heater

1. Insert the power plug into the dedicated power socket with 230V~/50Hz.
2. Press the button to turn on the water heater and set the desired temperature.
3. Open the hot water tap. The display will show the operating status, the water heater will ignite, and the water temperature will rise quickly to the temperature set by the user

Power Off the Water Heater

1. Close the hot water tap. The water heater will automatically stop working, and the fan will turn off after the heat exchanger has been cooled
2. If you do not plan to use the water heater for an extended period, please unplug the power plug, turn off the gas valve, close the cold water valve, unscrew the filter and pressure relief valve, and drain any remaining water from the machine to prevent scale build-up and protect against freezing.

Temperature Setting

1. Set the temperature using the [+] / [-] buttons on the control panel.
2. The hot water temperature can be set when the water heater is powered on but not yet producing hot water.

For Your Safety

Important: Read these instructions for use carefully so as to familiarize yourself with the appliance before connecting it to its gas supply. Keep these instructions for future reference. **This appliance is adjusted to operate on LPG only.**

If you smell gas:

- Turn off gas supply at bottle
- Extinguish all naked flames;
- Do not operate any electrical appliances
- Ventilate the area
- Check for leaks as detailed in this manual
- If odour persists, contact your dealer or gas supplier immediately

Do not tamper or modify the appliance.

Burn-back (fire in burner tube or chamber)

In the event of a burn-back, where the flame burns back to the jet, immediately turn the gas supply off at the control valve on the panel. After ensuring the flame is extinguished, wait for 1 minute and re-light the appliance in the normal manner. Should the appliance again burn back, close the control valve and call a service technician. Do not use the appliance again until the service technician has declared that it is safe to do so.

Gas-Pressure Regulator

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

Important information for the user

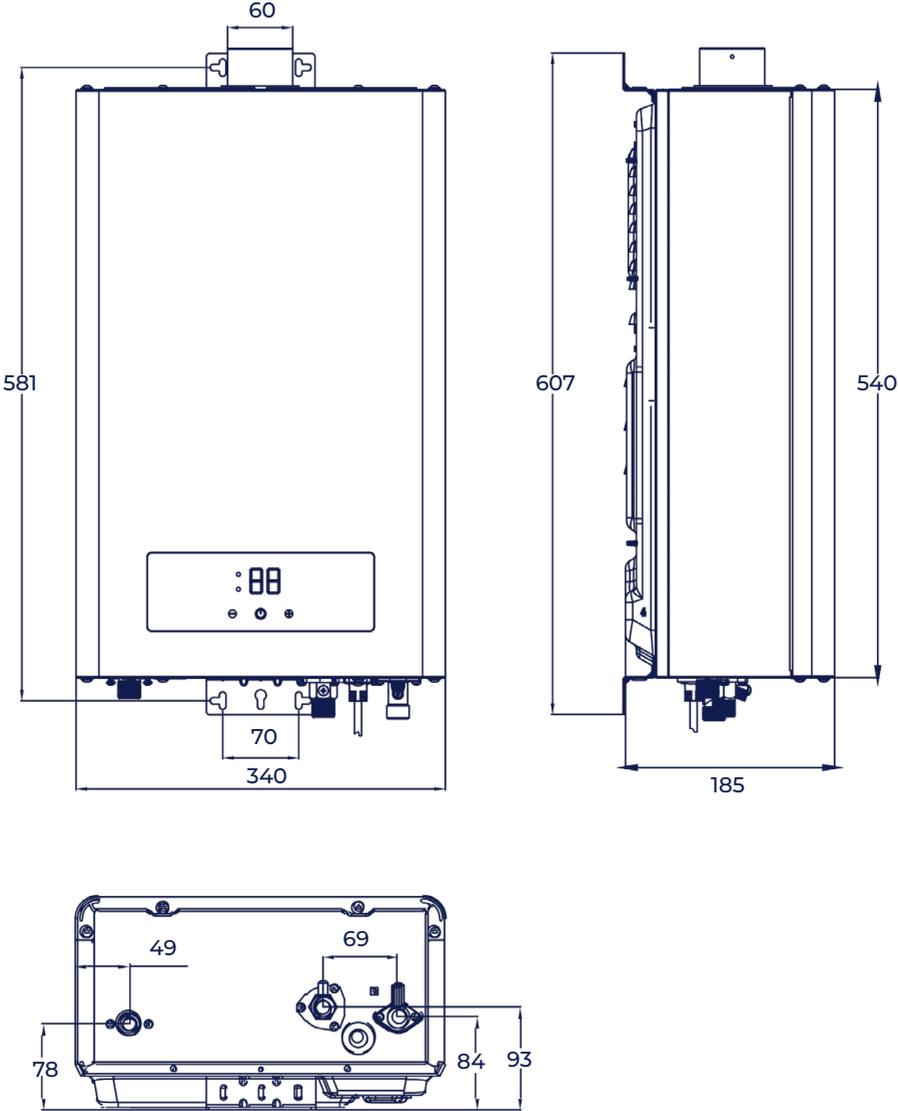
This appliance may only be installed by a registered SAQCC Gas installer. All registered installers are issued with a card carrying their registration number. Ask to be shown the card before allowing the installation work to commence and make a note of the Installer registration number. Upon completion 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 acceptance of the installation and be provided with a Certificate of Compliance (COC). You should only sign for acceptance of the installation when the installation is completed to your satisfaction. **Note that your invoice and COC is required in the event that you wish make a guarantee claim.**

Important information for the installer

This appliance may only be installed by a gas installer registered with the South African qualification and certification committee (SAQCC). The appliance must be installed in accordance with the requirements of SANS 10087-1 for use with LPG, and any fire department regulations and/or local by-laws applicable to the area. If in doubt, check with the relevant authority before undertaking the installation. Before installation, advise the client whether the chosen gas water heater is suitable for their intended requirements/application and recommend any potential changes that may be required to best suite the clients needs. 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.

Product Dimensions

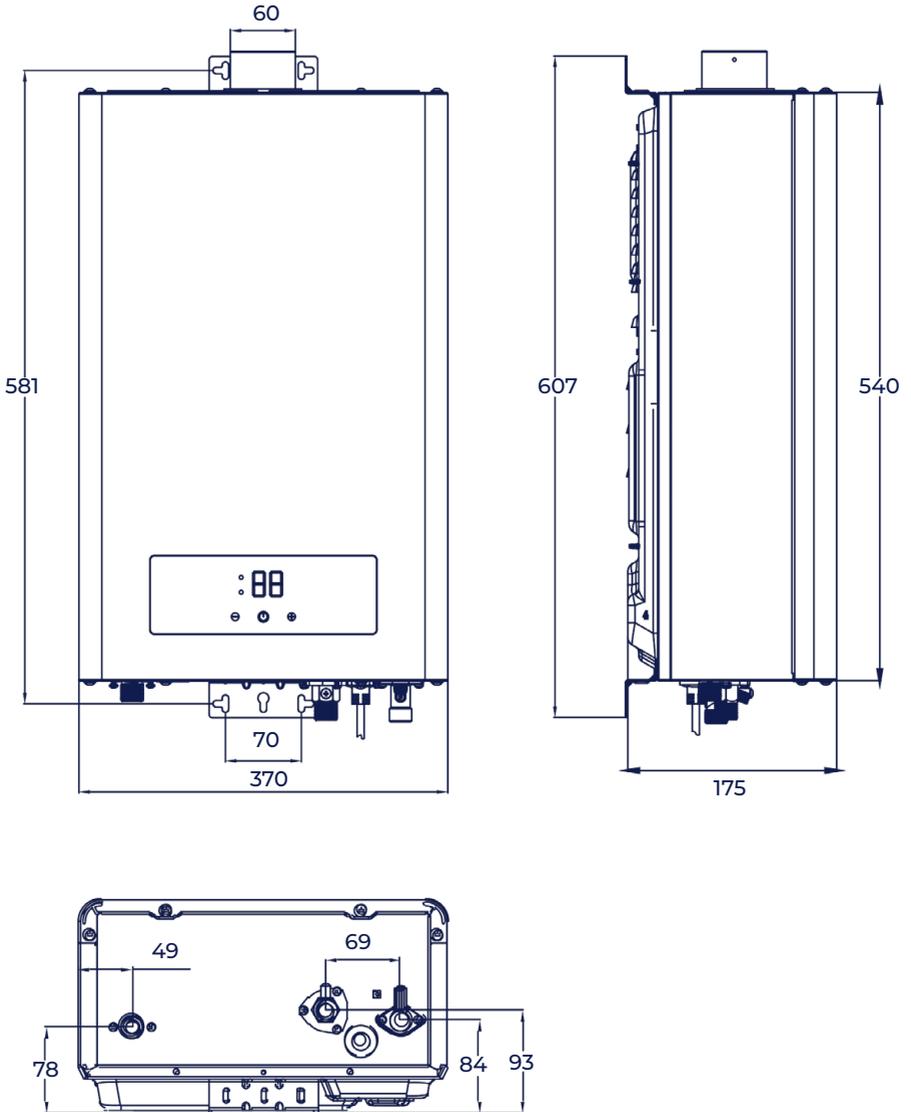
Model No: FGI - HF112 - LPG



The images are for reference only. Please check the actual machine for final details.

Product Dimensions

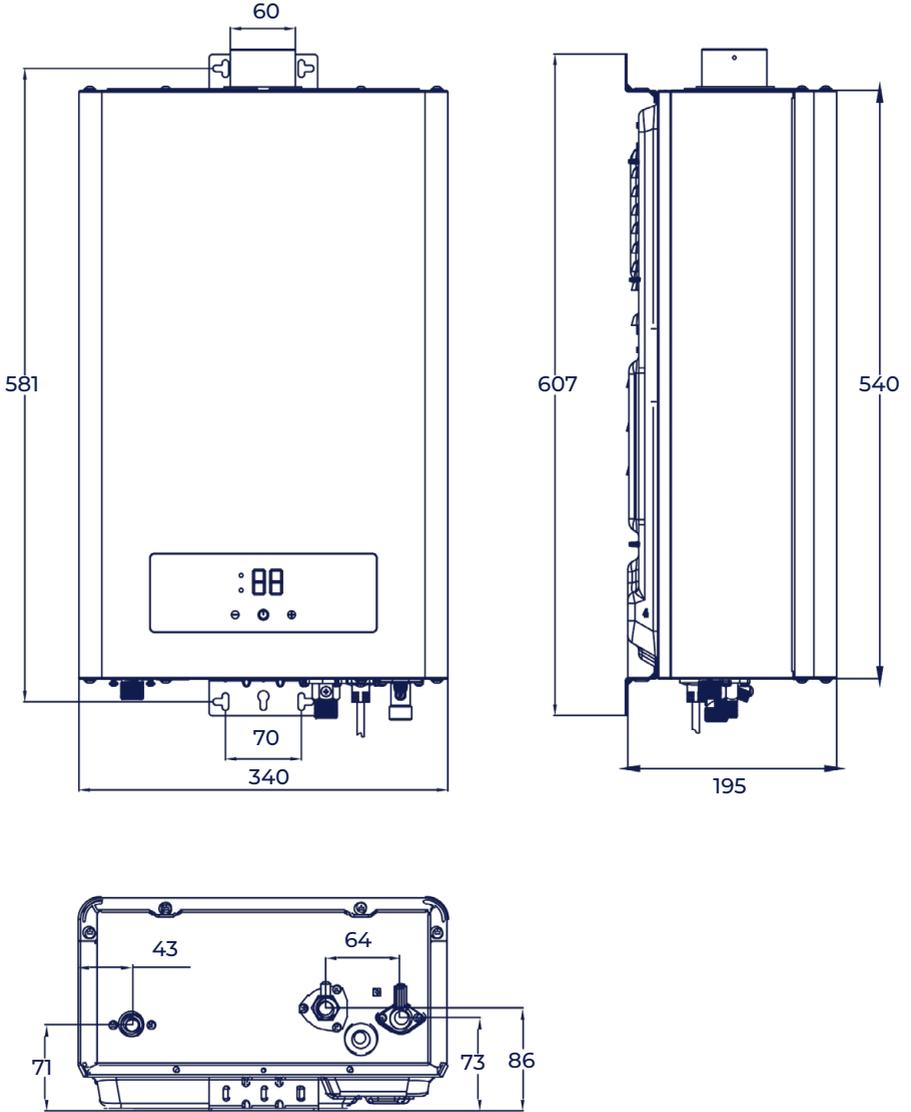
Model No.: FGI - HF116 - LPG



The images are for reference only. Please check the actual machine for final details.

Product Dimensions

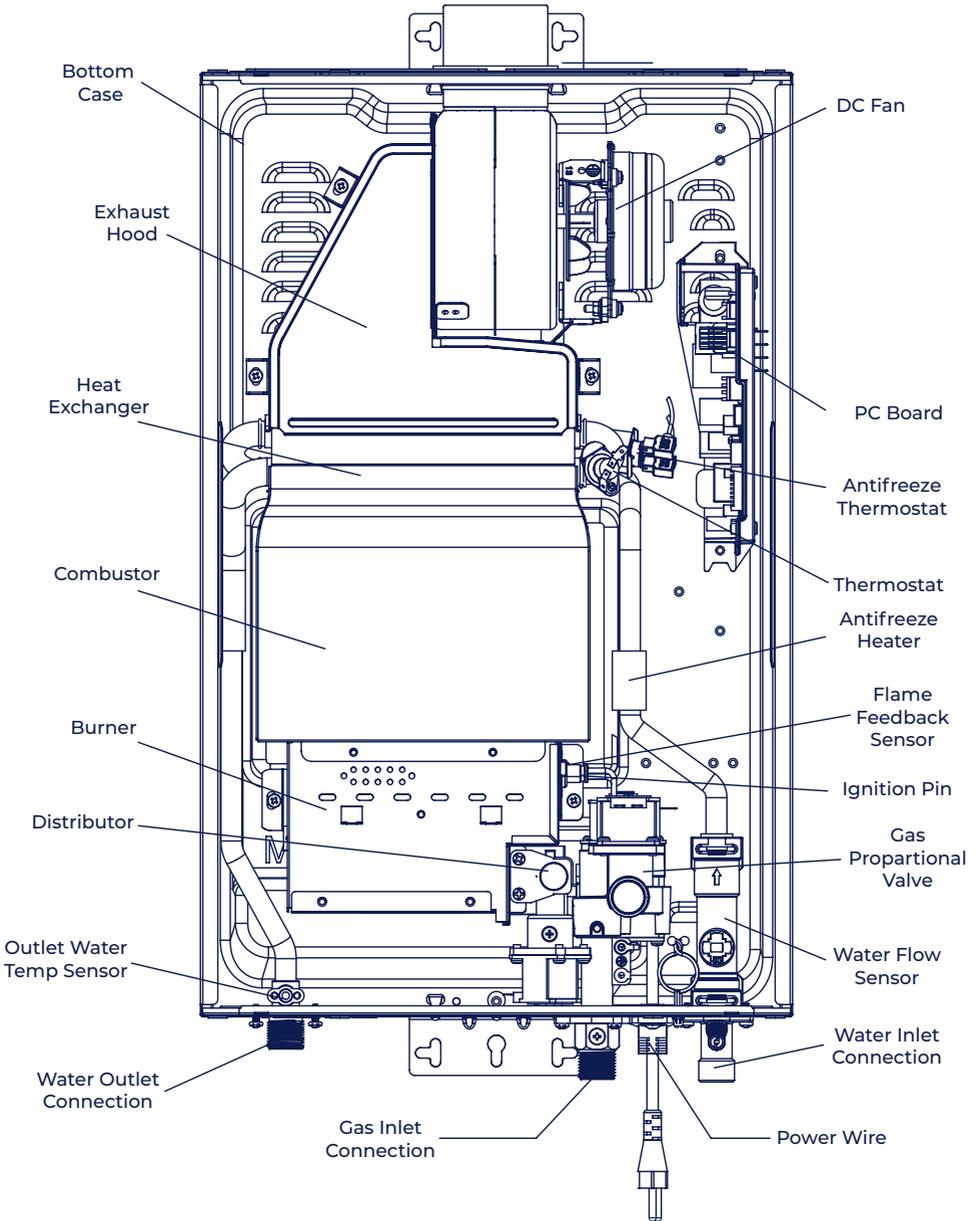
Model No.: FGI - HF120 - LPG



The images are for reference only. Please check the actual machine for final details.

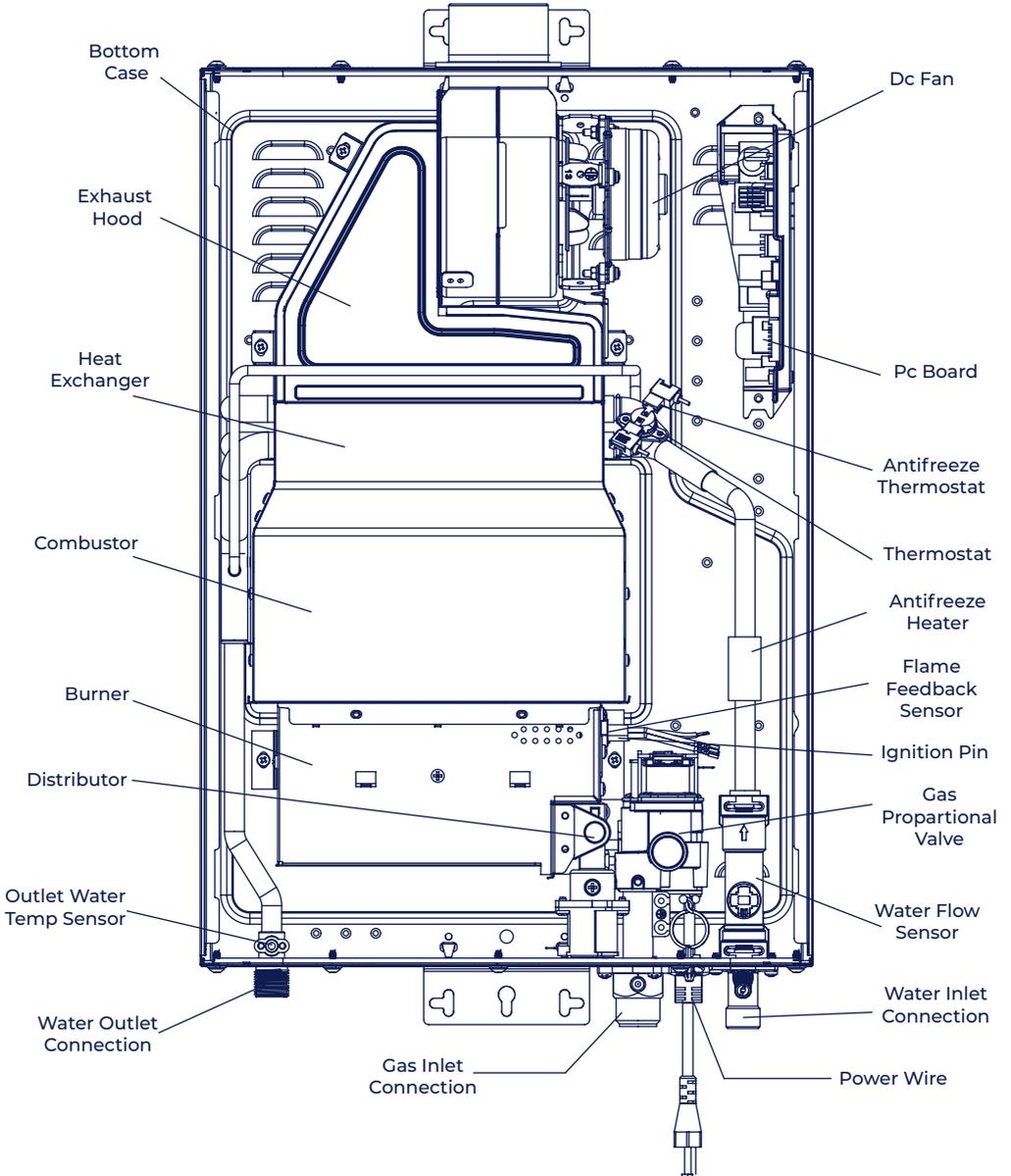
Product Composition

Model No.: FGI - HF112 - LPG



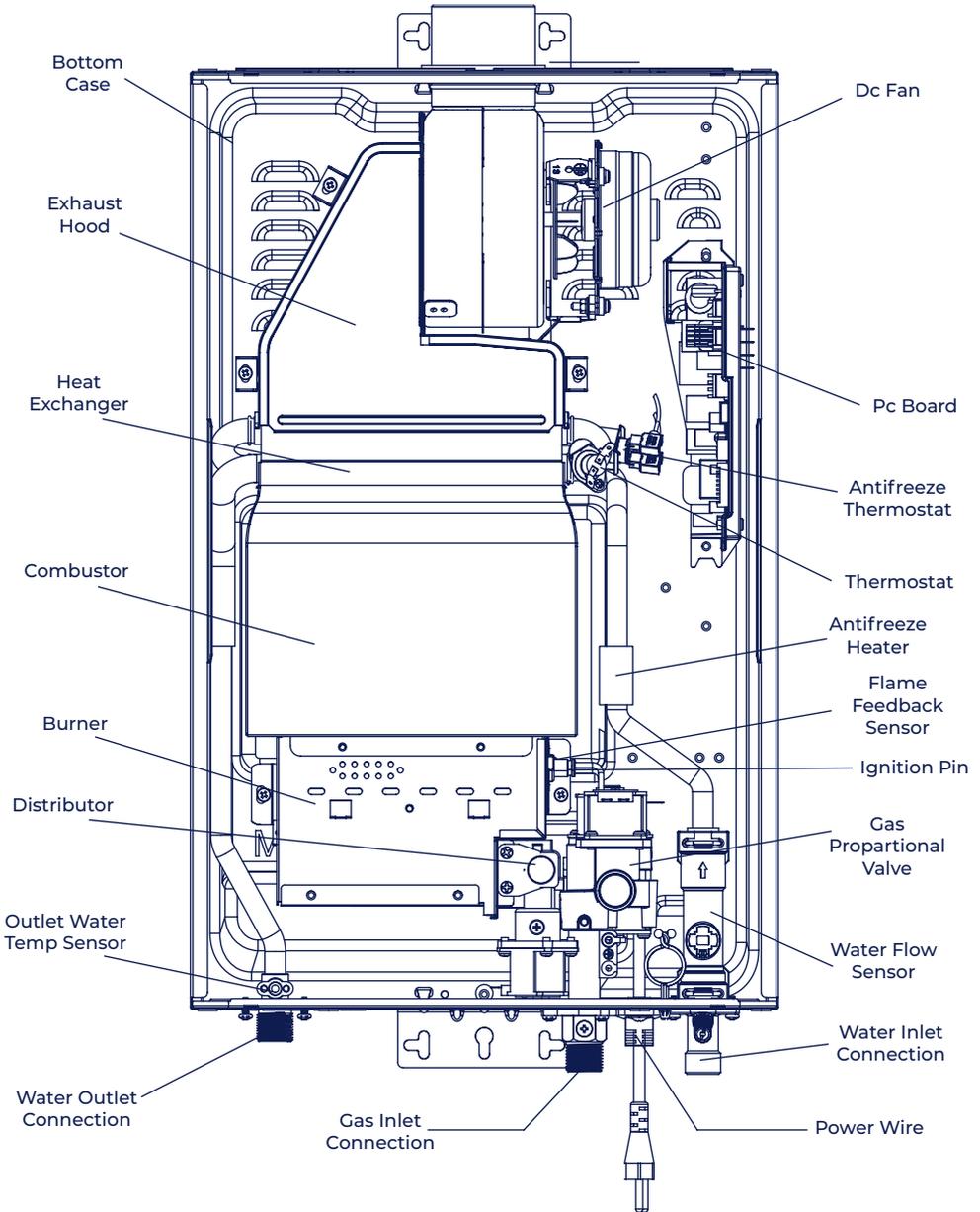
Product Composition

Model No.: FGI - HF116 - LPG



Product Composition

Model No.: FGI-HFI20-LPG



Product Parameter

MODEL NUMBER		FGI-HFI12-LPG	FGI-HFI16-LPG	FGI-HFI20-LPG
Normal Gas Consumption	Kg/h	24	31	38
Water Pressure Max.	kPa	1000	1000	1000
Water Pressure Min.	kPa	100	150	150
Gas Inlet Pressure	kPa	2.8	2.8	2.8
Test Point Pressure	Pa	1200	1200	1200
Number of Injector	Psc.	7	7	8
Diameter of Injector	mm	1.2	1.2	1.35
Electrical Rating	W	25	30	38
Anti-freezing heating capacity	W	56	56	56
Heat Output	kW	21	28	35
Water Heating Capacity (at 25°C rise)	L/min	12	16	20
Water flow rate to activate the water heater	L/min	2.3	2.3	2.3
Water flow rate to keep water heater running	L/min	1.7	1.7	1.7
Relief valve pressure setting	kPa	1000 - 1500	1000 - 1500	1000 - 1500
Power Supply	AC	230V~/50Hz.	230V~/50Hz.	230V~/50Hz.
IP Protection	/	IPX2	IPX2	IPX2
Ignition	/	Direct ignition without pilot		
Gas Inlet Connection	/	G"1/2		
Water inlet /outlet connection	/	G"1/2		
Net Weight / Gross Weight	Kg	10.6/13.4	11.5 / 14.3	12 / 14.5
Product Dimensions	mm	540 340 165	540 370 155	540 340 175
Packing Dimensions	mm	707 524 282	710 565 262	760 515 120

Table Summarizing Error Codes

E1	Ignition failure	Check Gas Pressure, no gas or gas pressure is too low. Press the ON/OFF button to reset the appliance. If the issue persists, contact a dealer or a qualified service technician.
E2	False Flame	Reset the appliance: Press the ON/OFF button to reset. If the issue persists, contact a dealer or a qualified service technician.
E3	Fan failure	Contact a dealer or a qualified service technician.
E4	Water sensor overheat protection	Inlet Temperature > 95°C: Check the temperature sensor. Outlet Temperature > 95°C: Check the temperature sensor.
E5	Outlet (Inlet) water temperature sensor failure	Contact a dealer or qualified service technician.
E6	Dry burning (over temperature) protection	Temperature Exceeds 85°C Detected: Check the water pressure. Press the ON/OFF button to reset. If the issue persists, contact a dealer or a qualified service technician.
E7	Display Panel	Contact a dealer or qualified service technician.
EF	Proportional valve or Solenoid valve failure	Contact a dealer or qualified service technician.
F2	Flue pipe outlet blockage	Check the Air Intake/Exhaust Flue Duct: Ensure the flue duct is not blocked or obstructed. Press the ON/OFF button to reset.
FC	Parametric failure	Contact a dealer or qualified service technician.

Maintenance

Instructions for Opening the Casing and Performing an Internal Inspection

Before performing any work on the appliance, ensure it is disconnected from the electric power supply and the gas valve is closed. Maintenance is essential for the safe and efficient operation of the appliance and ensures its durability. It should be carried out by an authorised person and according to the instructions provided by the manufacturer. Regular combustion analysis should be performed to check the appliance's operating efficiency and ensure that any pollutant emissions are within the limits set by current legislation.

Before starting maintenance work:

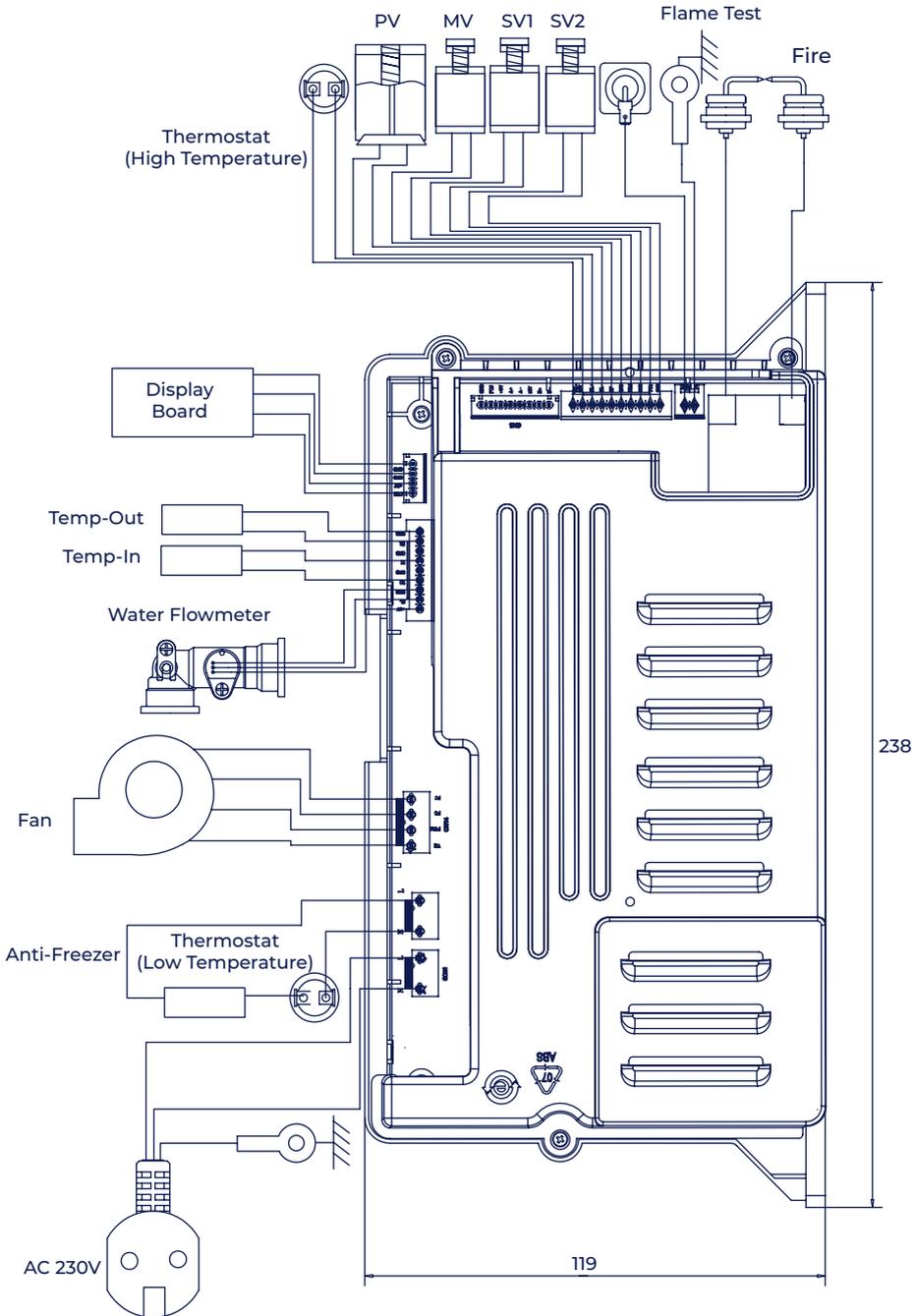
Disconnect the appliance from the power supply by turning off the external isolator switch. Close the gas valve, as well as the valves for the domestic hot water systems. Once maintenance is complete, the initial settings should be restored.

General Recommendations

It is recommended that the following inspections be carried out at least once a year by a qualified person:

1. Inspect the seals in the water circuit and replace the gaskets if necessary, restoring the seal to perfect working condition.
2. Inspect the seals in the gas circuit and replace the gaskets if necessary, restoring the seal to perfect working condition.
3. Visually inspect the overall condition of the appliance. Visually inspect the combustion process and, if necessary, disassemble and clean the burner.
4. Following the inspection in item "3", disassemble and clean the combustion chamber if necessary.
5. Following the inspection in item "4", disassemble and clean the burner and injector if necessary. Clean the primary heat exchanger.
6. Ensure the following safety devices are operating correctly: Overheat thermostat.
7. Ensure the following gas safety devices are functioning correctly: Flame detection electrode (ionization).
8. Check the efficiency of the domestic hot water production process (test the flow rate and temperature).
9. Clean the filter in the cold water inlet.

Electric Diagram



Nameplate

MODEL: FGI-HF112-LPG

Model no	FGI-HF112-LPG
Flue type	Forced flue
Type of appliance	Type B
Gas type	LPG
Gas operation pressure	2,8kPa
Water pressure	0.02MPa - 1.0MPa
Hot water capacity	12l/min ($\Delta T=25^{\circ}C$)
Power supply	AC 230V~/50Hz
Rated power	21kW
Rated heat input	24kW
Gas consumption	1,7kg/h

MODEL: FGI-HF116-LPG

Model no	FGI-HF116-LPG
Flue type	Forced flue
Type of appliance	Type B
Gas type	LPG
Gas operation pressure	2,8kPa
Water pressure	0.02MPa - 1.0MPa
Hot water capacity	16l/min ($\Delta T=25^{\circ}C$)
Power supply	AC 230V~/50Hz
Rated power	28kW
Rated heat input	31,5kW
Gas consumption	2,27kg/h

Nameplate

MODEL: FGI-HFI20-LPG

Model no	FGI-HFI20-LPG
Flue type	Forced flue
Type of appliance	Type B
Gas type	LPG
Gas operation pressure	2,8kPa
Water pressure	0.02MPa - 1.0MPa
Hot water capacity	20l/min ($\Delta T=25^{\circ}\text{C}$)
Power supply	AC 230V~/50Hz
Rated power	35kW
Rated heat input	38kW
Gas consumption	2,8kg/h

Packing List

The following contents are included in the package. If any items are missing, please contact **Kwikot (Haier) SA** immediately.

Item	Quantity
Gasmate Gas Water Heater	1
Installation and user guide	1
Tapping Screw	3
Expansion dowel	3
Exhaust pipe	1

To validate the warranty (Please register online)

Kwikot (Haier) SA Pty Ltd warrants that its Gasmate Gas Water Heaters are free from manufacturing defects. This is the only warranty given by Kwikot in respect of its gas water heaters.

Kwikot gives no other warranty or representations, unless where explicitly implied in writing by authorized Kwikot personnel. No amendments or additions to the warranty shall be binding on Kwikot. Kwikot makes no warranty or representation in respect of the installation of gas water heaters. Claims in respect of the gas water heaters must be referred to the applicable installer, who shall be solely liable under any installation warranties given.

The installer is liable to advise the end user whether the respective gas water heater purchased is fit for purpose in the environment it is intended to be used and the correct size water heater is to be recommended for the end users required usage. The two year warranty covers the 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 gas water heater. A weather cover is compulsory to be installed for warranty requirements, especially in cases where the Gas Water Heater is expected to be exposed to the elements. Weather covers are supplied separately and available from Kwikot (Haier) Pty Ltd.

Kwikot will repair, or at its own discretion, replace the faulty part with a new or re-manufactured one. The two year warranty period will be calculated from the date of installation of the original gas water heater, provided that the Certificate of Conformity (COC) and any additional documentation of proof of the installation is furnished. Kwikot will not attend to any claim if the COC cannot be presented.

If Kwikot 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 gas water heater reflecting on the COC. Components removed during warranty repairs, will remain the property of Kwikot.

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

Damage due to freezing is not covered under warranty.
Please see manual for more information on protecting the unit.

A warranty will only be honoured if:

- a. The applicable warranty is still in force/valid.
- b. A valid COC of the Gas Water Heater is provided by the end user.
- c. The gas water heater is installed, used and maintained in accordance Kwikot specifications and instructions.
- d. Where applicable, all other products used in the installation must comply with SANS. Non-compliant SANS products will result in forfeiting the warranty.





Support



Warranty and Service Support

za_insure@kwikot.com

0861 594 568



Admin, Marketing and Product Queries

kwikot.marketinginfo@kwikot.com



Sales and Payment Queries

za_salesorders@kwikot.com

011 897 4600



Technical Queries

technical.info@kwikot.com

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3 Aberdeen Road,
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Benoni
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Western Cape
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Sheffield Business Park,
Philippi, Cape Town
(021) 690 2700

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814 Peter Close,
Springfield Park,
Durban
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Eastern Cape
39-41 Leadwood Crescent,
Fairview,
Port Elizabeth
(041) 399 4000



IPX2

