



Installation Manual and Operating Instructions

Gas Water Heaters

GWH 10-2 G... | GWH 13-2 G... | GWH 16-2 G...



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1 Key to symbols and safety instructions

1.1 Explanation of symbols

Warnings



Warnings in this document are framed and identified by a warning triangle which is printed on a grey background.



Electrical hazards are identified by a lightning symbol surrounded by a warning triangle.

Keywords indicate the seriousness of the hazard in terms of the consequences of not following the safety instructions.

- **NOTICE** indicates that material damage may occur.
- **CAUTION** indicates that minor to medium injury may occur.
- **WARNING** indicates that serious injury may occur.
- **DANGER** indicates possible risk to life.

Important information



Important information in cases where there is no risk of personal injury or material losses is identified by the symbol shown on the left. It is bordered by horizontal lines above and below the text.

1.2 Safety information

If you smell gas:

- ▶ Close the gas supply valve.
- ▶ Open the windows.
- ▶ Do not operate any electrical appliances or switches (on/off).
- ▶ Extinguish other sources of ignition.
- ▶ Go to a different location and call the gas supplier or an authorised technician.

If you smell combustion gases:

- ▶ Turn off the heater.
- ▶ Open doors and windows.
- ▶ Notify an authorised technician.

Assembly, modifications

- ▶ The assembly and modifications to the heater can only be performed by an authorised installer.
- ▶ Do not modify the pipes which conduct combustion gases.
- ▶ Do not close or reduce air circulation vents.

Maintenance

- ▶ We recommend the system be serviced regularly to ensure it functions reliably and safely.
- ▶ The installer is responsible for the safety and environmental compatibility of the installation.
- ▶ The heater should be serviced annually.
- ▶ Only original spare parts must be used.

Explosive and highly inflammable material

- ▶ Do not use or store flammable materials in or near this appliance.

Combustion air and surrounding air

- ▶ To avoid corrosion, the combustion air and surrounding air must be free from harmful substances (e.g. halogenated hydrocarbons which contain chlorine and fluorine compounds).
- ▶ Do not use or store aerosols in the vicinity of this appliance while it is in operation.

Information to the customer

- ▶ Inform the customer about how to operate the heater.
- ▶ This appliance is not intended for use by persons (including children) with reduced physical sensory or mental capabilities.
Children should be supervised to ensure they do not play with the appliance.
- ▶ Caution customers against performing modifications or repairs themselves.

To be installed and serviced only by an authorised person

The "authorised installing person" is responsible for:

- ▶ Correct commissioning of this appliance.
- ▶ Ensuring the appliance performs to the specifications stated on the rating label.
- ▶ Demonstrating the operation of the appliance to the customer before leaving.
- ▶ Handing these instructions to customer.
- ▶ Flue and ventilation guidelines must be followed.

THIS APPLIANCE IS NOT FOR USE AS A POOL OR SPA POOL HEATER. THIS APPLIANCE IS ONLY TO BE INSTALLED INDOORS.

Do not modify this appliance.

Equipped with a flue gas safety device.

Not suitable for commercial recirculating systems.



WARNING:
This appliance may deliver water at high temperature. Refer to the Plumbing Code of Australia (PCA), local requirements and installation instructions to determine if additional delivery temperature control is required.

2 Technical Characteristics and Dimensions

2.1 General Description

The appliance has been AS/NZS 5263.1.2 tested.

Model	GWH 10/13/16 -2 G...
Category	CONTINUOUS FLOW
Type	INTERNAL

Table 1

This product complies with the Lead-Free requirements of the National Construction Code Volume 3.

2.2 Explanation of Model Code

Type	l/min	Series	Ignition	Gas Types
GWH	10	2	G	NG / LP gas
GWH	13	2	G	NG / LP gas
GWH	16	2	G	NG / LP gas

Table 2

2.3 Package contents

- Gas heater
- Fixing Brackets
- Flexible water pipes
- Gas regulator
- Fluing guidelines
- Heater documentation

2.4 Description of the heater

Hot water unit for internal wall mounting only.

Natural draft appliance, requires adequate air supply.

No 240 volt required.

Available in Natural Gas or LP Gas.

- Hydrogenerator produces a small voltage to ignite and control the water heater
- Water enters the hydrogenerator
- The turbine spins with the water flow through the unit
- A small voltage is generated by the turbine
- The voltage causes the ignition control unit to light a temporary pilot
- The water pressure opens the main burner gas valve and the pilot ignites the main burner, the pilot then goes out
- The water flows through the heat exchanger where it is heated.

On / Off switch to allow customer to activate the appliance.

Safety devices

- Flame rod to check for accidental extinction of the burner flame
- Over temperature switch to prevent overheating
- Flue safety device to shut of unit if flue spillage

Easily accessible water inlet filter.

Internal flue diverter, connection to external flue.

Fluing to be purchased by external supplier (refer to Bosch for details of supplier).

2.5 Dimensions

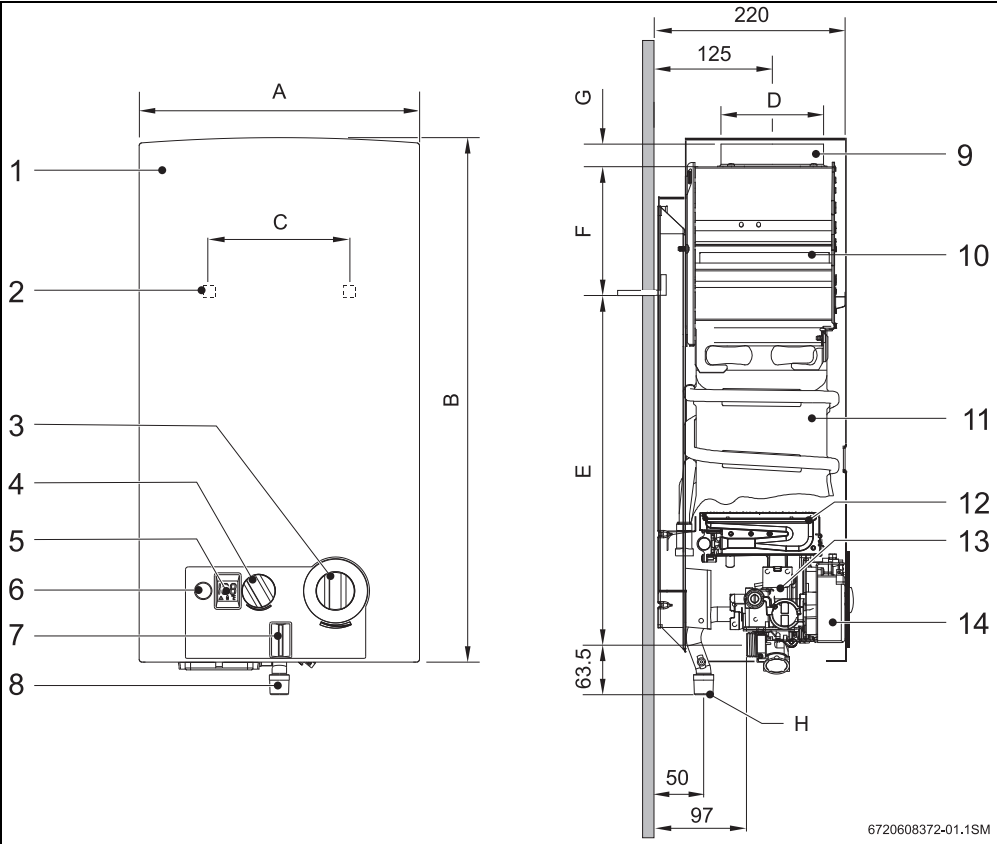


Fig. 1

- [1] Front cover

[2] Opening in rear panel for mounting on the wall

[3] Temperature/volume selector

[4] Gas adjustment

[5] Digital display

[6] Switch/LED - Low water pressure indicator

[7] LED - Burner status check
- [8] Gas connection

[9] Connection collar for flue

[10] Draught diverter

[11] Copper Heat exchanger

[12] Burner

[13] Gas valve

[14] Ignition unit

Dimensions (mm)	A	B	C	D	E	F	G	H (Ø)	
								Natural gas	LP gas
GWH10...	310	580	228	115	463	60	25	20	15
GWH13...	350	655	228	140	510	95	30	20	15
GWH16...	425	655	334	140	540	65	30	20	15

Table 3 Dimensions

2.6 Functional diagram of the heater

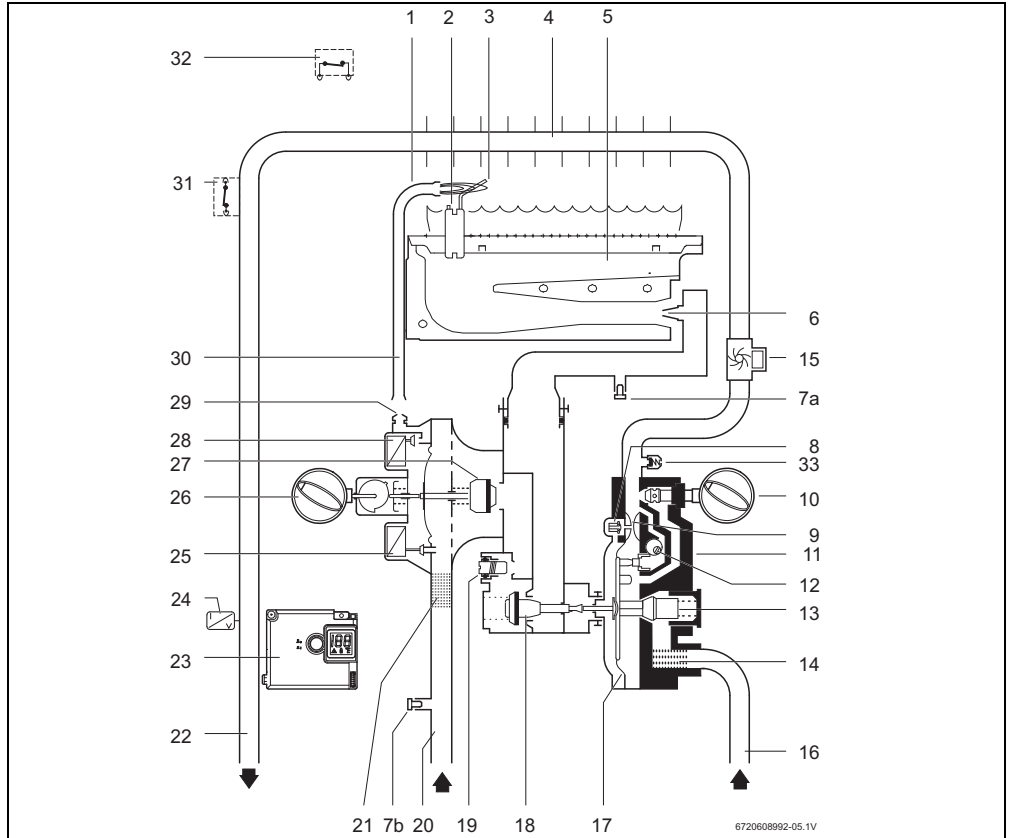


Fig. 2 Functional diagram

- | | |
|------------------------------------|----------------------------------|
| [1] Pilot burner | [17] Diaphragm |
| [2] Ignition Electrode | [18] Main gas valve |
| [3] Ionisation probe | [19] Maximum gas adjusting screw |
| [4] Heat exchanger | [20] Gas supply pipe |
| [5] Main burner | [21] Gas filter |
| [6] Injector | [22] Hot water pipe |
| [7a] Burner pressure test point | [23] Ignition unit |
| [7b] Gas inlet pressure test point | [24] Temperature sensor |
| [8] Slow ignition valve | [25] Servo valve |
| [9] Venturi | [26] Power selector |
| [10] Temperature/volume selector | [27] Gas valve |
| [11] Water valve | [28] Pilot valve |
| [12] Plunger | [29] Pilot injector |
| [13] Water flow regulator | [30] Pilot gas pipe |
| [14] Water filter | [31] Overtemperature switch |
| [15] Hydrogenerator | [32] Flue gas safety device |
| [16] Cold water pipe | [33] Relief Valve/Drain screw |

2.7 Electrical diagram

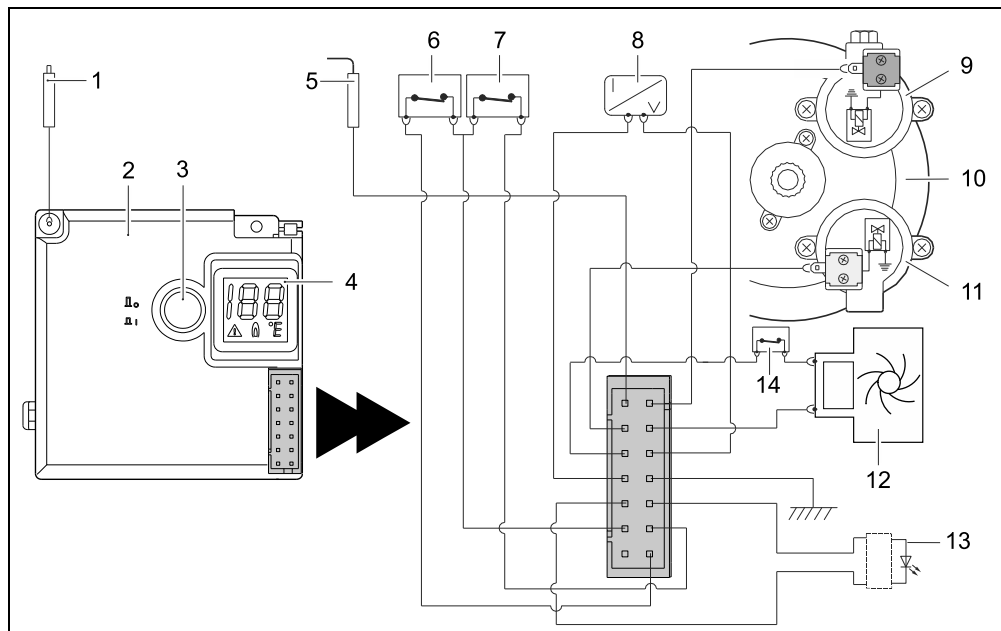


Fig. 3 Electrical diagram

- | | |
|---|--------------------------------------|
| [1] Ignition electrode | [8] Temperature sensor |
| [2] Ignition unit | [9] Pilot solenoid (Normally Closed) |
| [3] Switch/LED - Low water pressure indicator | [10] Diaphragm valve |
| [4] Digital display | [11] Main Solenoid (Normally Open) |
| [5] Ionisation probe | [12] Hydrogenerator |
| [6] Flue gas safety device | [13] LED - Burner status check |
| [7] Overtemperature switch | [14] Microswitch |

2.8 Function

This gas heater is equipped with automatic electronic ignition to simplify operation.

- To activate, just turn on the switch (Fig. 9).

After this, automatic ignition occurs whenever a hot water tap is opened. First, the pilot burner is lit and approximately four seconds later the main burner ignites. The pilot burner flame is extinguished after the main burner lights.

This is a way of saving a great amount of energy as the pilot burner only operates for the minimum necessary time to ignite the main burner.

2.9 Technical characteristics

Technical characteristics	Units	GWH10	GWH13	GWH16
Gas Consumption				
Nominal Gas Consumption	MJ	79	100 (NG)	127
			97 (LP gas)	
Supply pressure				
Natural gas H	kPa	1.13	1.13	1.13
LP gas	kPa	2.75	2.75	2.75
Number of injectors		12	14	18
Water data				
Maximum permissible pressure	kPa	1000	1000	1000
Temperature selector in fully clockwise position				
Temperature rise	°C	50	50	50
Flow range	l/min	2.2 - 4.6	2.2 - 6.2	2.2 - 8.6
Minimum operating pressure	kPa	35	35	50
Minimum pressure for maximum flow	kPa	50	60	80
Temperature selector in fully anti-clockwise position				
Temperature rise	°C	25	25	25
Flow range	l/min	4 - 10	4 - 13	4 - 15
Minimum operating pressure	kPa	45	45	50
Minimum pressure for maximum flow	kPa	100	140	170

Table 4

3 Regulations

Any local by-laws and regulations pertaining to installation and use of gas-heated appliances must be observed.

This appliance must be installed in accordance with the manufacturers installation instructions, AS/NZS5601 and all Local Building & Gas fitting regulations

It is recommended that for sanitary fixtures used for the purpose of personal hygiene, that a temperature limiting device be fitted (such as a tempering valve) as per AS/NZS 3500.1.9.3.

This appliance must not be installed in a bedroom, bathroom, toilet, or combined living/sleeping room as per AS/NZS5601 5.12.5.2.

Failure to install this appliance in accordance with these installation instructions will void the warranty.

Fluing is required to be installed in a vertical plane only, with no bends. Please refer to fluing guidelines.

4 Installation



DANGER:

This appliance must not be installed in a bedroom, bathroom, toilet or combined living/sleeping room in accordance with AS/ NZS5601.



DANGER: Explosion Risk

► Always turn off the gas cock before carrying out any work on components which carry gas.



The gas installation, connection of the flue and supply pipes, as well as the initial startup are to be performed exclusively by an authorised person.



This appliance should only be installed in applications where cold water temperature does not exceed 40 °C.



The use of these heaters with water supply pressure values below 50 kPa is not recommended. This appliance requires a minimum flow rate of 2.5lpm to operate. Sufficient flow must be provided to ensure correct operation of the appliance.



Installation in a marine environment should be avoided.



Not suitable for pool, spa pool or solar application.
Not suitable for commercial recirculating systems.

4.1 Important information

- ▶ Install in accordance with AS/NZS5601, AS/ZS3500.4.2, and all local building, water and gas fitting regulations particularly with regard to ventilation requirements.
- ▶ Do not place articles on or against this appliance.
- ▶ Install gas and water isolation valves as close as possible to the heater.
- ▶ After finishing the gas piping system, the pipes must be thoroughly purged and leak-tested. To avoid damaging the gas valve by excess pressure, this test must be performed with the gas valve of the heater closed.
- ▶ Check if the heater corresponds to the type of gas provided.
- ▶ Ensure adequate operating gas pressure and water pressure (see technical data in the table 4).

4.2 Selection of the place of installation

Requirements regarding the place of installation

- Comply with the specific instructions for each State.
- Install the gas heater in a well-ventilated location where it will not be exposed to temperatures below zero. Ensure combustion gases are flued to outside atmosphere in accordance with AS/NZS5601.
- To avoid corrosion, the combustion air must be free from harmful substances. Examples of particularly corrosive substances: halogenated hydrocarbons contained in

solvents, paints, glues, hairsprays and various domestic detergents. If necessary, take adequate measures.

- Install the appliance in accordance with the minimum installation clearances indicated in Fig. 4.
- The gas heater must not be installed over a heat source.
- Do not obstruct the openings at top and bottom of appliance.
- Top and bottom areas must be clear from any obstacles at least 300 mm.

In case of a frost risk:

- ▶ Turn off the heater.
- ▶ Drain the heater (see section 5.7)

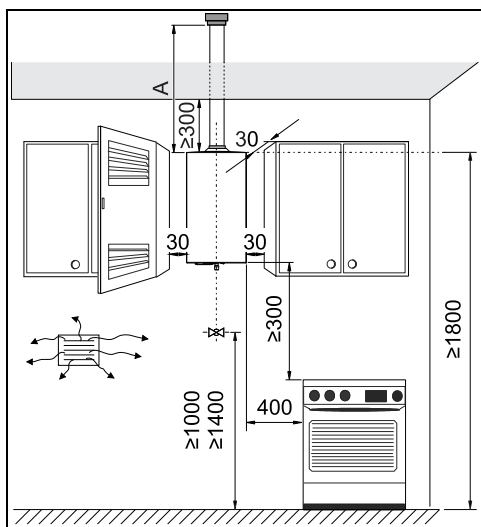


Fig. 4 Minimum clearances (in mm)

[A] ≥ 1800 mm



DANGER:

Ventilation requirements as per AS/NZS5601. Ensure not installed in a negative pressure environment. Negative pressure tests are required upon installation to ensure adequate ventilation.

Combustion gases



Use single or twin skin flue in accordance with AS/NZS5601.



DANGER: Make sure that all flue connections are sealed.

- ▶ Fit the flue pipe with an approved flue cowl.
- ▶ Failure to follow this requirement may cause dangerous exhaust gases to enter living space which may result in personal injury or loss of life.



DANGER:

All parts of flue must be vertical.
Please refer to fluing instructions.
Document number 6721830064.



CAUTION:

Ensure that the flue is installed to the requirements of AS/NZS5601, including the requirement to terminate the flue above the roof level.

If any of these conditions cannot be met, a different location must be selected.

Surface temperature

The maximum surface temperature of the heater is less than 85 °C, with the exception of the flue piping. No special protection measures are required for flammable construction materials or built-in furniture items.

Air intake

The place where the heater is to be installed must have an adequate air supply as per AS/NZS5601.

4.3 Heater mounting

- ▶ Remove the temperature/flow selector and the gas selector knobs.
- ▶ Unscrew the cover fixing screws.
- ▶ With a simultaneous movement forwards and upwards, release the cover from the two lugs at the back.
- ▶ Fix the heater vertically, using fixings appropriate for the material & weight.



CAUTION:

Never support the gas heater on the water or gas connections.

4.4 Water connection

It is advisable to purge the water pipes before connection, because the presence of dirt may reduce the flow and, in extreme cases, cause a blockage.

- ▶ Identify the cold water pipe (Fig. 5, [A]) and the hot water pipe (Fig. 5, [B]), so as to avoid any possible cross-connection.
- ▶ Connect the water pipes to the water valve using the connection accessories provided.

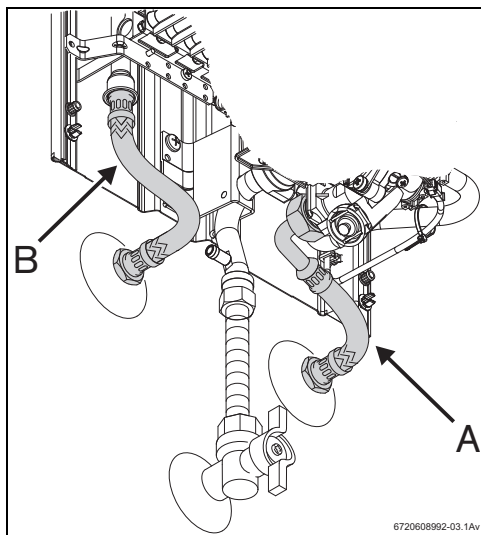


Fig. 5 Water connection



CAUTION:

The water inlet isolation valve must be a Gate or Ball Valve, a Stop Cock or Non-Return Valve must not be fitted.

4.5 Hydrogenerator operation

The hydrogenerator (hydrodynamic generator or HDG) is located in the water circuit between the water valve and the heat exchanger. This component has a turbine that rotates when water flows past its blades. This movement is transmitted to an electric generator which powers the heater ignition unit. The electrical voltage value supplied by the HDG is approximately 3.0 VAC.

4.6 Pressure Relief

The pressure relief (Fig. 2, [33]) will release pressure from the system whenever the value exceeds 1500 kPa.

4.7 Gas connection



DANGER:

If local regulations are not followed, a fire or explosion could result causing property damage, personal injury, or loss of life.



Size gas supply as per AS/NZS5601. Incorrect gas pipe sizing will not be covered by the warranty.

Gas regulator

The appliance is supplied with a gas pressure regulator that must be installed on the heater before attaching the gas supply line (see Fig. 6). This is a requirement for both NG and LPG installations.



Refer to directional arrow on regulator to ensure correct orientation when fitting.

- Use sealing tape to assure the complete tightness of the installation.

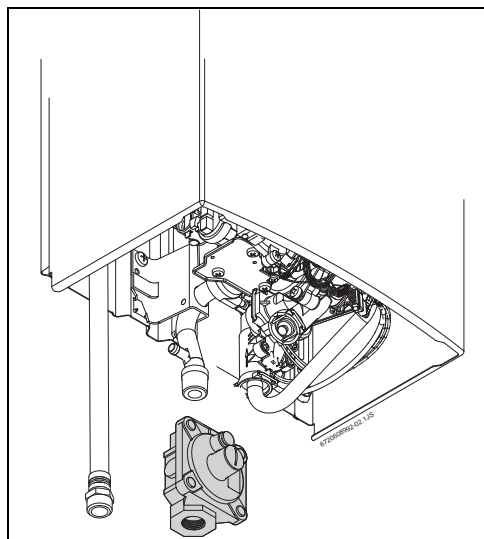


Fig. 6 Gas regulator

4.8 Flue connection

- Please refer to the fluing guideline supplement for further requirements and instructions.

Typical flue installation

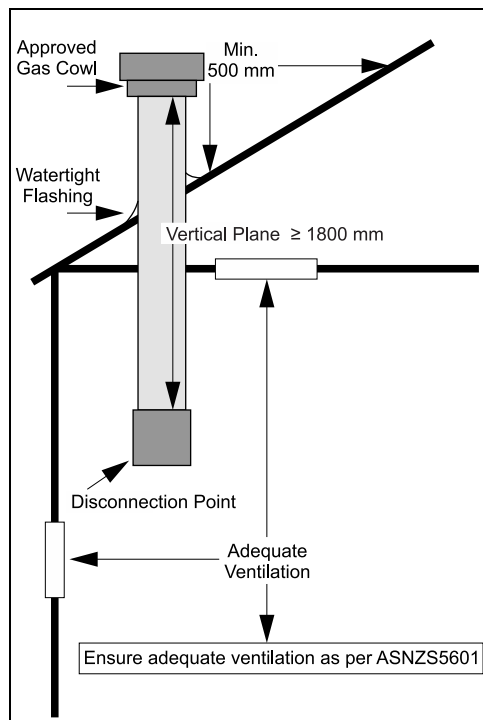


Fig. 7 Flue connection



WARNING:

Do not use an unlined masonry chimney as the flue for this appliance.

4.9 Testing

- Turn on the gas and water isolation valves and check all connections for leaks. If all connections are sound then follow procedures set out in Section 6 for adjustment of Gas Pressures.

5 Operating instructions



Open all water and gas isolation valves.
Purge the pipes.



CAUTION:

The front stainless steel panel in the burner and pilot burner area may reach high temperatures, with risk of burning in case of contact, and must not be removed.

5.1 Digital display - description

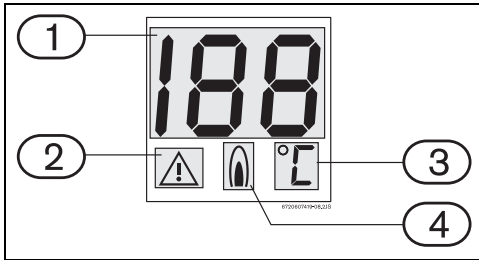


Fig. 8 Digital display

- [1] Temperature/error code
- [2] Malfunction indicator
- [3] Temperature measurement units
- [4] Heater in operation (burner turned on)

5.2 Before starting up the heater



CAUTION:

- ▶ Initial startup must be performed by an authorised gas fitter who will provide the customer with all the necessary information for optimum operation of the gas heater.

- ▶ Check if the gas indicated on the rating plate is the same as the one used at the location.
- ▶ Open the gas valve.
- ▶ Open the water valve.

5.3 Turning the heater on and off

Turning on

- ▶ Press the switch , position .



Only press switch with no water flowing (activation of the switch with water flowing will result in an **F0** fault. Turn the flow off then on to clear fault).

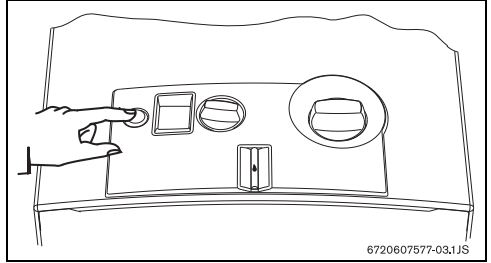


Fig. 9

Turn Hot Tap on, LED light on = Main burner on

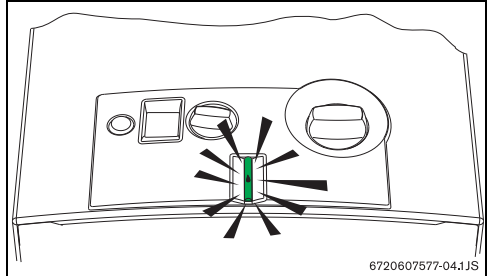


Fig. 10

Turning off

- ▶ Press the switch , position .

5.4 Water flow

If the red LED starts flashing during operation, check the water flow.

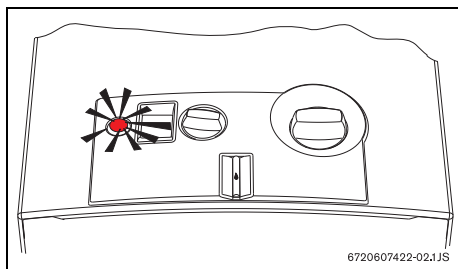


Fig. 11

5.5 Gas adjustment

Lower water temperature.

Use less gas.

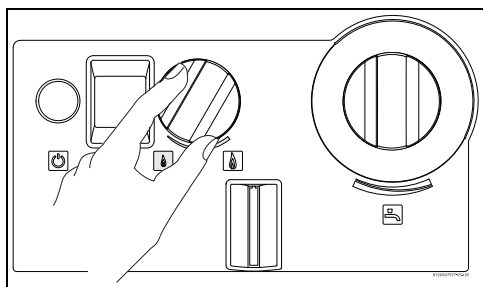


Fig. 12

Higher water temperature.

Use more gas.

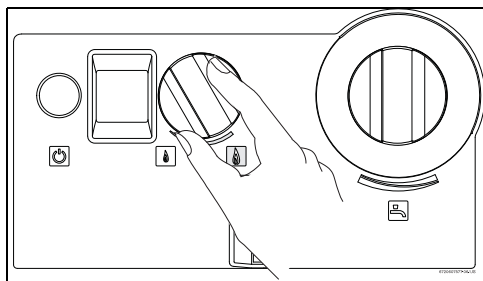


Fig. 13

5.6 Temperature/flow adjustment

- Turn anti-clockwise
Increases flow and decreases water temperature.

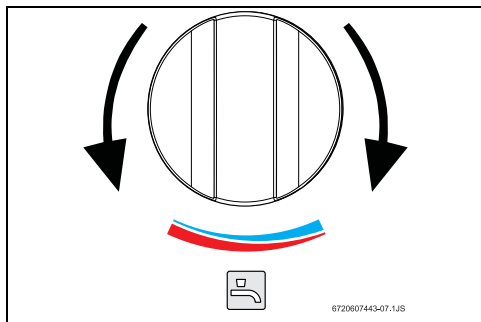


Fig. 14

- Turn clockwise.
Decreases flow and increases water temperature.

Regulating the temperature to the minimum required value reduces energy consumption.



CAUTION:

The temperature on the display is not precise, always check before bathing children or elderly people.

5.7 Draining the appliance

There are two ways to drain the appliance if there is a risk of freezing.

After turning off the inlet water valve and gas supply, open a hot water tap to relieve pressure then proceed as follows:

Water valve draining (see fig 14)

- Remove the fixing lock [1] from the filter screw cap [2] situated in the water valve.
- Remove the filter screw cap from the water valve.
- Carefully remove the water filter [3].
- Empty all the water contained in the heater.

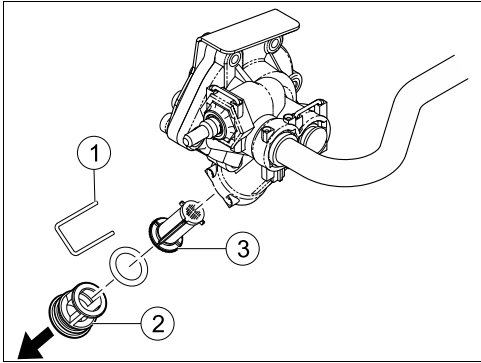


Fig. 15 Draining

- [1] Lock
- [2] Filter screw cap
- [3] Water filter

Cold water inlet pipe drain (see fig 15)

- Remove the pressure relief screw (no. 1) situated in the water inlet pipe.
- Drain all the water contained in the heater.

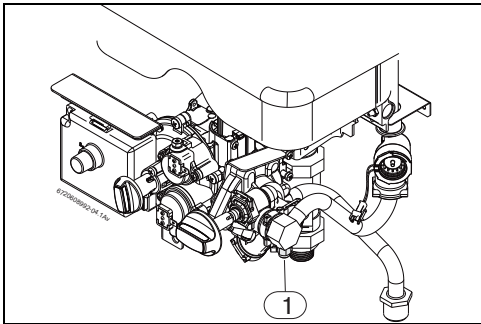


Fig. 16 Draining

- [1] pressure relief screw

6 Commissioning

6.1 Inlet pressure adjustment



DANGER:

The following procedures must only be performed by a qualified technician.

Burner pressures have been adjusted in the factory, however adjustment may be required upon installation.

Attach a manometer to the inlet pressure test point [1] located on the gas inlet pipe [2].

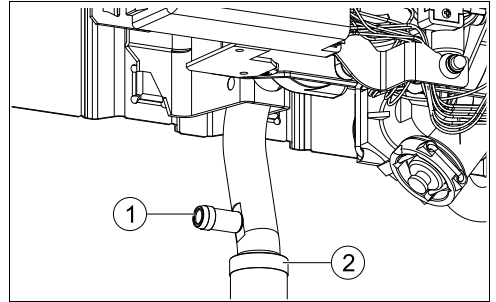


Fig. 17 Gas inlet pressure test point

Inlet gas pressure should be adjusted at the appliance regulator to 1.13 kPa for Natural Gas and 2.75 kPa for LP gas.

These measurements must be set while the unit is operating, with the water valve fully clockwise (minimum flow) and the gas valve fully anti-clockwise (maximum gas).

6.2 Burner pressure adjustment

Accessing the adjusting screw

- ▶ Remove the front cover from the heater (see 4.3).

Connecting the manometer

- ▶ loosen the burner test point captive screw (Fig. 18).
- ▶ Connect the manometer to the burner pressure measuring point.

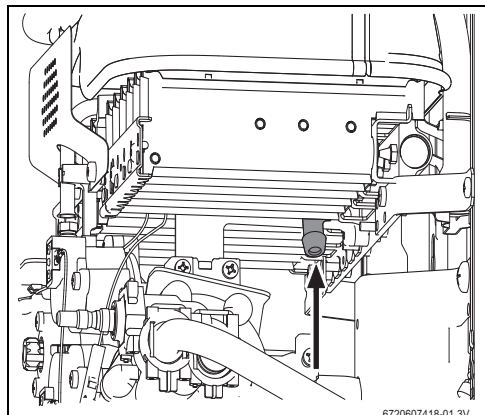


Fig. 18 Pressure measurement point

Maximum gas flow adjustment

- ▶ Remove the seal from the adjusting screw (Fig. 19).
- ▶ Turn on the heater with the gas adjustment set to maximum (anti clockwise) and the water flow adjustment set to minimum (clockwise).

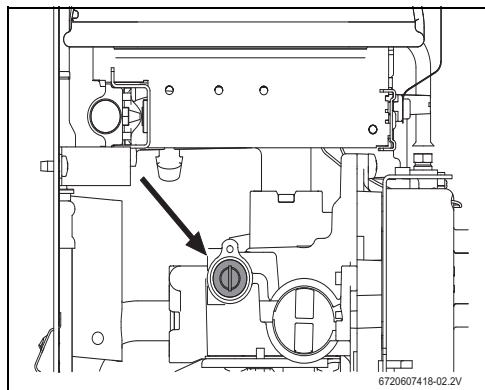


Fig. 19 Maximum gas flow adjusting screw

- ▶ Open various hot water taps.

- ▶ Using the adjusting screw (Fig. 19), regulate the gas pressure until the values indicated in the table 5 are achieved.
- ▶ Seal the adjusting screw once again.

Minimum gas flow adjustment



The minimum gas flow adjustment is performed automatically after the adjustment of the maximum gas flow.

		Natural gas H	LP gas
MAX Burner Pressure (kPa)	GWH10	0.69	2.00
	GWH13	0.66	1.90
	GWH16	0.44	2.20

Table 5 Burner pressure

6.3 Conversion to a different type of gas

It is not recommended to convert these units to a different gas type.

7 Maintenance



DANGER:

Failure to perform maintenance procedures can lead to appliance malfunction, errors, service calls and loss of warranty.

To ensure that gas consumption and the environmental load (pollution, etc.) remain as negligible as possible over time, we recommend the appliance be maintained on an annual basis.

These jobs can only be done by a qualified technician.



Maintenance must only be performed by a qualified technician. Maintenance information is contained in a service manual available to licenced technicians upon request from Bosch.

7.1 Flue gas safety device



DANGER:

The probe must never be turned off, modified or replaced with a different part under any circumstances.

Operation and precautions

This probe verifies the condition of flue gas evacuation and, in case of malfunction, it automatically turns off the heater. This

prevents combustion gases from entering the room where the gas heater has been installed. The probe restarts after a reset period.

If the heater turns off during operation:

- ▶ Ventilate the room.
- ▶ After 10 minutes, turn on the heater once again.
Call a qualified technician if the same thing happens again.

**DANGER:**

The user must never touch the flue gas safety device.

Service Checklist

Water valve

- Diaphragm, replace if required
- Water throttle, greased, O-rings replaced if required
- Water filter, cleaned, replaced if required
- Sleeve, greased, replaced if required
- Water governor, clean

Gas valve

- Pilot burner cleaned
- Flame rod cleaned
- Main burner, injectors and venturies cleaned

Hydrogenerator

- Inlet clear of obstructions

Heat exchanger

- Fins cleaned
- Water connections checked and tightened

Gas pressure

- Burner pressures checked and adjusted
- Check inlet operating pressure

Flue

- Check for obstructions and tightness
- Negative pressure test

8 Problems

8.1 Problem/cause/solution

Assembly, maintenance and repairs must be performed by qualified technicians only. The following chart offers solutions to possible problems.

Problem	Cause	Solution
The heater does not ignite and digital display is turned off.	Switch turned off.	Check switch position.
Slow and difficult ignition of the burner.	Reduced water flow.	Call a qualified technician.
Red LED in switch flashes.	Reduced water flow.	Call a qualified technician.
Water at low temperature.		Check the temperature selector position and adjust it according to the desired water temperature. Insufficient gas supply. Call a qualified technician.
Water is not heated, no flame.	Insufficient gas supply. Gas Cylinders may be empty	If sufficient gas appears to be available call a qualified technician.
Digital display shows “E9”.	Temperature limiter has tripped	Wait 10 minutes and restart the heater. If the problem persists, call a qualified technician.
Digital display shows “A4”.	Flue gas safety device has tripped	Vent the area. Wait 10 minutes and restart the heater. If the problem persists, check: - Is fluing correct? - Adequate ventilation? - Negative pressure environment? Call a qualified technician.
Incorrect temperature information in the appliance digital display.	Insufficient contact of the temperature sensor.	Call a qualified technician.
Digital display shows “E1”.	Water temperature sensor has tripped (outlet water temperature above 85 °C).	Reduce the water temperature using the gas and/or temperature adjustment selector. If the problem persists, call a qualified technician.
Digital display shows “A7”.	Temperature sensor incorrectly connected.	Call a qualified technician.
	Temperature sensor defective.	Call a qualified technician.
Digital display shows “E0”.	Ignition failure.	Refer to EA solution. Call a qualified technician.

Table 6

Problem	Cause	Solution
Digital display shows “EA”.	There is spark but the main burner does not ignite, heater blocked.No ionisation probe signal.	Check: • Gas supply, position of valves, empty LP gas cylinders.
Digital display shows “F0”.	Power was activated with a hot water tap running.	Turn the water off and on. If the problem persists, call a qualified technician.
Digital display shows “F7”.	False Flame.	Check for water tightness of flue. Ensure no rain ingress. Call a qualified technician.
Reduced water flow.	Insufficient water supply pressure.	Call a qualified technician.
	Dirty taps or mixers.	Call a qualified technician
	Gas valve blocked.	Call a qualified technician
	Heat exchanger blocked (limescale).	Call a qualified technician

Table 6

9 Environmental protection

Environmental protection is a basic company strategy of Bosch. The quality of our products, profitability and environmental protection are equal-ranking goals for us. Laws and regulations concerning environmental protection are strictly observed. We use the best possible technology and materials, under economic considerations, to protect the environment.

Packaging

We participate in the recycling program of the respective country to ensure optimal recycling. All of our packaging materials are environmental-friendly and can be recycled.

Old appliances

Old appliances contain valuable materials that should be recycled. The assemblies can be easily detached and synthetic materials are marked accordingly. The assemblies can therefore be sorted out and passed on for recycling or disposal.

pH	Saturation Index (LSI) (langelier)	Total Hardness	Chlorides	Sodium	Iron
6.5-9.0	+0.4 to -1.0 at 65 °C	200 mg/l	250 mg/l	180 mg/l	1 mg/l

Table 7

10 Water quality

All Bosch water heating appliances are constructed from high quality materials and components and all are certified for compliance with relevant parts of Australian and New Zealand gas, electrical and water standards.

Whilst Bosch water heaters are warranted against defects, the warranty is conditional upon correct installation and use, in accordance with detailed instructions provided with the heater. In the case of the water supplied to the heater, it is important that the water quality be of acceptable standard.

The water quality limits/parameters listed in water quality table are considered acceptable and generally, Australian and New Zealand suburban water supplies fall within these limits/parameters.

In areas of Australia and New Zealand where water may be supplied, either fully or partly, from bores, artesian wells or similar, one or more of the important limits may well be exceeded and the heater could, therefore, be at risk of failure.

Where uncertainty exists concerning water quality, intending appliance users should seek a water analysis from the water supplying authority and in cases where it is established that the water supply does not meet the quality requirements of the water quality table, the Bosch warranty would not apply.

Water quality table

Maximum levels

11 Warranty details

Robert Bosch (Australia) Pty Ltd Thermotechnology Division

Voluntary Repair or Replacement Warranty

All Bosch products are carefully checked, tested and certified to Australian and New Zealand standards.

Important Note: Mandatory Australian Consumer Law statement

If you have purchased your product in Australia, you should be aware that:

This warranty is provided in addition to other rights and remedies held by a consumer at law. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Important Note: New Zealand law

If you have purchased your product in New Zealand, you should be aware that:

This warranty is supplemental to any other rights and remedies you have under the Consumer Guarantees Act 1993 NZ, unless your purchase is made for commercial purposes, in which case Bosch excludes all consumer guarantees implied in the Consumer Guarantees Act 1993 NZ in respect of your product.

Warranty

Bosch warrants, at its option, to repair or replace your water heater or relevant part thereof (**Product**) if such Product are faulty or defective in manufacture or materials during the warranty period specified below.

The warranty period commences on the date of purchase. If the date of original purchase cannot be determined, then the warranty period will commence six (6) months after the date of manufacture stamped on the Product. Bosch may require evidence to verify the date of purchase.

This warranty only covers repair or replacement of defective Product (including labour costs where indicated). It does not cover:

- any costs incurred by the end user in normal or scheduled maintenance of the Product; or
- subject to any law to the contrary, any damage to property, personal injury, direct or indirect loss, consequential losses or other expenses arising from breach of this warranty. Any end user concerned with this exclusion should consider the "Important Note: Mandatory Australian Consumer Law statement" above

Warranty Period and Coverage

Bosch will provide warranty service for Product purchased and installed in Australia and New Zealand as follows.

Components	The period after purchase within which the fault must appear	What Bosch will do (see below for definitions)
Domestic Use (see below for definition)		
All components	Year [1 to 2]	Parts & Labour
Heat exchanger	Year [3 to 10]	Parts only
Commercial Use (see below for definition)		
All components	Year [1]	Parts & Labour
Heat exchanger	Year [1]	Parts only

Table 8

"**Parts & Labour**" means free of charge repair and/or replacement, including labour.

"**Parts only**" means a replacement heat exchanger, free of charge. All installation and repair labour costs are the responsibility of the owner.

"Domestic use" warranty period applies to Product installed to supply hot water for use by individuals in domestic dwellings. For Product used for all other uses, the commercial use warranty period will apply. This includes, without limitation, installations such as centralised or bulk hot systems, hotels, sporting complexes, caravan parks, laundry facilities, restaurants and cafes.

For "Parts only" warranty, the end user will be charged for service call costs and service technician fees in effecting the replacement.

For valid claims within "Parts & Labour" warranty periods, the end user will not be charged for costs associated with making a warranty claim, including service call costs, any service technician fees or the cost of replacement parts and freight, provided that:

- the Product is located within the usual operating area of an authorised service technician; and
- the Product has been installed according to the installation instructions so as to provide adequate service access

If the Product is not located within the usual operating area of an authorised service technician, the end user will be required to pay the service call costs associated with a service call under this voluntary warranty.

Notwithstanding the above, if the Product has not been installed in accordance with the installation instructions in regards to access, or has been otherwise installed in location where service access is difficult, the end user will be required to pay charges associated with the difficult access. This includes, but is not limited to, the removal of walls or doors to gain access and the use of specialised equipment to move the Product or components to safe working levels. Where the Product cannot be safely accessed, Bosch may refuse to service the Product under this voluntary warranty.

For invalid claims under this voluntary warranty, the end user will be liable for the costs of making the warranty claim including any service call costs.

Warranty Conditions

This voluntary warranty is subject to the following conditions:

- The Product must have been installed and correctly commissioned by an authorised and licensed installer in compliance with applicable Australian Plumbing and Gas Standards. Proof may be required of correct commissioning of the Product (such as certificate of compliance). Claims for failures due to incorrect installation or commissioning are not covered under this voluntary warranty and may be rejected by Bosch.
- Where a Product or part thereof is replaced or repaired under this voluntary warranty, the balance of the original voluntary warranty will apply. The replacement Product or part does not carry a new voluntary warranty.
- The Product must have its original serial numbers and rating labels intact.
- The warranty does not extend to any Product that have been completely or partially disassembled.
- These warranty terms cannot be amended except in writing by an authorised officer of Bosch.
- The warranty only applies to Product installed for an end user in Australia or New Zealand and purchased from Bosch or from a reseller where the Product have been originally sold by Bosch.
- Any claim made under this voluntary warranty meets the requirements set out below in the "How to Make a Warranty Claim" section.

Warranty Exclusions

This warranty will not apply to a defect or fault to the extent to which it arises:

- due to storage, handling or installation of the Product otherwise than in accordance with instructions provided for the Product by Bosch or without reasonable care, including installation of a Product which is of inappropriate size or type for the intended purpose;
- due to operation, use or maintenance of the Product otherwise than in accordance with instructions provided for the Product by Bosch or without reasonable care, including use of the Product with faulty or unsuitable plumbing, water pressure, power or gas supply;
- due to accidental damage or use of the Product for a purpose or in environmental conditions for which the Product were not designed or sold, or use of the products outside the specified or normal operating ranges for such Product.
- as a result of changes which occur in the condition or operational qualities of the Product due to climate or other environmental influence, foreign material contamination or water entry or as a result of exposure to excessive heat or solvents or because of use of non-potable water or bore water in the Product or damage as result of an Act of Nature including but not limited to storms, fires, floods and lightning strikes;
- from normal wear and tear or when replacement or repair of parts would be part of normal maintenance or service of the Product or where the damage is only to surface coating, varnish or enamel;

- as a result of repairs, alterations or modifications to the Product which have been performed by a person who is not suitably qualified and experienced to perform works on the Product; or
- from the use of any spare parts not manufactured, sold or approved by Bosch in connection with the repair or replacement of Product.

This voluntary warranty does not apply to damage that has been caused by continued use of a Product after it is known, or would have been known with regular servicing, it is defective.

Failure to service Product in accordance with recommendations in instruction manuals for Product may result in a warranty claim under this voluntary warranty being rejected by Bosch. Bosch alerts end users that instruction manuals for Product contain specific recommendations for servicing and safety checks to be carried out on Product.

Table 9

Wrong Deliveries and Transit Damage

Wrong deliveries, incorrect or damaged packing and transit damage claims are not warranty claims. Such cases should be directed to Bosch's Customer Service line in Australia on ph: 1300 307 037 or in New Zealand on ph: 0800 543 352.

How to Make a Warranty Claim

If a Product fails within the warranty period, the end user must stop using the Product and make a claim as soon as possible, in any event before the end of the Warranty Period (see Deadlines for Submitting Warranty Claims below).

To make a warranty claim under this voluntary warranty, call the Bosch Customer Contact Centre (in Australia on ph: 1300 307 037 or in New Zealand on ph: 0800 543 352). Please be ready to provide the model and serial number, date of installation, purchase details and a full description of the problem. Alternatively, for claims in Australia, you can post details of your claim to Robert Bosch (Aust) Pty Ltd, Attn TT Warranty Department, Locked Bag 66, Clayton Sth, Victoria, 3169. Claims received by post will take longer to process and we encourage you to call. Bosch may refer you to one of its Bosch Warranty Authorised Service Dealers.

Proof of purchase and purchase date, as well as proof of installation and proper commissioning by a licensed installer, may be required by Bosch or an authorised service technician.

All warranty service calls will be conducted by an authorised service technician during normal business hours. Bosch will not accept claims under this voluntary warranty for attendance and repair of the Product by third parties not authorised by Bosch.

Deadlines for Submitting Warranty Claims

Bosch aims to rectify genuine quality problems as a priority. This is generally achieved by investigating why defective products have failed and by introducing immediate corrective action measures to prevent re-occurring warranty failures. It is therefore critical that all warranty claims are promptly submitted to Bosch as soon as the product fails, and in any event before the end of the warranty period.

Product Liability and Product Safety

Bosch should be informed immediately about any potential product safety concerns within and outside the warranty period. Bosch is well aware of its product liability and product safety obligations and responsibilities. It is our aim to ensure appropriate product safety standards are met in order to avoid injury, loss and damage caused by defects in any Product.

Privacy

Bosch is required to seek personal information from an end user who seeks to make a claim under this warranty. Such personal information may be used by Bosch and/or any authorised service technician (who is authorised to process warranty claims and/or carry out warranty repairs on behalf of Bosch) for the purpose of processing such warranty claim and also for the provision of customer support and further information about Bosch's products and services (Purpose).

If an end user does not wish to provide Bosch and/or its authorised service technician with personal information, Bosch may be unable to process the end user's warranty claim or to provide the end user with additional customer support, services and information.

Bosch is committed to protecting the privacy of personal information and will act in compliance with applicable privacy laws, including the National Privacy Principles under the Australian Privacy Act 1988 (Cth) (as amended) and New Zealand's Information Privacy Principles described in the Privacy Act 1993 (NZ).

Bosch takes security measures in order to protect any personal information collected in the warranty claim process against manipulation, loss, destruction, access by unauthorized persons or unauthorized disclosure.

Bosch will not disclose any personal information to third parties other than for the Purpose or except as required by law.

An end user has the right to access the personal information Bosch or its authorised service technician hold about them. The end user can request to see, change or modify the personal information held about them, or withdraw consent for its usage, by contacting Bosch at the Bosch Contact Details below.

Bosch Contact Details

This warranty is offered by Robert Bosch (Australia) Pty Ltd (ACN 004 315 628) of 1555 Centre Road, Clayton, Victoria 3168. Please call the Customer Contact Centre on 1300 30 70 37 in Australia or 0800 543 352 in New Zealand if you have any queries in relation to this warranty or contact us using the online form at www.bosch-thermotechnology.com.au.



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