

# **ARCHWAY**

## **GAS BAIN MARIE**

**FOR USE ON NATURAL, PROPANE AND BUTANE GAS**  
**INSTALLATION, SERVICING AND USER INSTRUCTIONS FOR:**

### **MODELS**

2PW/NG – 2PW/LPG  
4PW/NG – 4PW/LPG  
6PW/NG – 6PW/LPG  
G2W/NG – G2W/LPG  
G3W/NG – G3W/LPG

**Please read these instructions carefully before using  
appliance, and retain them for future use.**

**These instructions must be passed on to the end user.**

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## **INSTALLATION INSTRUCTIONS:**

### **CONDITIONS OF INSTALLATION:**

#### **IMPORTANT:**

This appliance must be installed, commissioned and serviced by a qualified and registered gas engineer as defined by the regulations in force in the country of installation.

This appliance must be installed in accordance with current regulations and used only in a well-ventilated space and sited on a non-combustible level surface. Any walls or kitchen furniture surrounding this appliance must be of non-combustible materials. Refer to chart on page 9 for clearance requirements. The appliance flue must not be obstructed or blocked. This appliance is only for professional use and shall only be used by trained and competent persons. Remove all plastic coating from the whole of the appliance before installation. Ensure appliance is level. The type of gas to be used must correspond with the gas noted on the data badge of the appliance (located at the rear of appliance).

It is the law that all gas appliances are installed and serviced by a qualified installation engineer in accordance with the installation instructions, and should conform to the following requirements:

Gas Safety (Installation & Use) Regulations 1998.

Health & Safety at Work Act 1974.

BS 6173: Code of Practice for Installation of Gas Catering Appliances.

BS6891.

Fire Precautions Act 1971.

BS 5440: Flues, Air Supply for Gas Appliances of input not exceeding 70kW (1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> family gases).

Institution of Gas Engineers publications: IGE/UP/1, IGE/UP/2 and IGE/UP/4.

Local and National Building Regulations.

All rooms require an openable window or equivalent while some rooms will require a permanent vent in addition to an openable window. The appliance should not be installed in a room of a volume less than 6m<sup>3</sup>. If there are other fuel burning appliances in the same room BS5440 Part 2 should be consulted to determine the air requirements. In addition an efficient extraction hood should be sighted over the appliance to collect; smoke, fumes and products of combustion. This must be discharged to atmosphere all in accordance with BS5440 Part 1 and 2. The installation should allow for a sufficient flow of fresh air for gas combustion. Liquefied petroleum gas (LPG) appliances must not be installed or used below ground floor level.

Failure to observe these requirements will invalidate the warranty and may lead to prosecution.

**Warning: This appliance must be earthed.**

#### **VENTILATION:**

Sufficient fixed ventilation is required for this appliance. The fixed ventilation must comply with current local regulations in force, in the country of installation.

It is recommended that a room or internal space be provided with a minimum free area of 5cm<sup>2</sup> for every 1kW above 7kW.

### **GAS CONNECTION:**

The gas main serving this appliance must be fitted with an approved ON/OFF isolating gas cock as a means of isolating the appliance for emergency shutdown or for servicing. The inlet connection at the rear of the appliance is a 1/2" BSP Female. If a flexible connection is used, it must be suitable for commercial catering appliances and fitted with a restraining wire. It must not exceed 1.5 metres in length. The connection and supply must comply with local regulations. The gas supply tubing or hose must comply with national requirements in force and must be periodically examined and replaced if necessary.

**Warning: Black domestic hoses are not suitable for this appliance.**

### **LEAK TEST AND PRESSURE TEST:**

1. Turn OFF main gas supply.
2. Loosen the pressure test point screw, which is located on the side of control valve (access from base of unit) and fit a pressure gauge to the pressure test point.
3. Turn on the main gas supply and check for gas soundness with a suitable leak detection fluid.
4. Ignite the pilot burner, as described under the lighting instructions, and turn to 'On' position. Check that the gas pressure is correct (refer to data sheets).
5. Turn off the gas, remove the pressure gauge, and tighten the pressure test screw.

**Note:** Those parts which have been protected by the manufacturer or his agent must not be adjusted by the installer.

## **USER INSTRUCTIONS:**

Refer to these instructions before using this appliance. The instructions must be passed on to the end user.

### **Filling & Draining Water:**

- Fill with water to a depth of no more than the MAX symbol located at the rear of the water well. Note: Inspect water level on a regular basis to prevent water drying out.
- Drain water regularly using the drainage tube provided. Note: Allow water to cool before draining.
- Always close drainage valve and replace the safety nut after draining the water.

Warning: DO NOT allow the water to dry out. This appliance **must not** be used whilst empty.

## **LIGHTING INSTRUCTIONS:**

1. Turn on the gas supply.
2. Turn 'ON/OFF' knob slightly counter-clockwise towards the pilot flame & ignition position '❄' until reaching stop.
3. Press down the knob and hold for 5 seconds (gas flows only to pilot burner).
4. Continue pressing down while turning further counter-clockwise to the pilot flame position '❄' (this activates the piezo).
5. Continue to hold down for 15 seconds after pilot burner has been lit.
6. Release the knob and check that the pilot flame stays on. (If pilot does not light, the procedure may be immediately repeated while holding the knob down).
7. Upon lighting, release knob and turn further counter-clockwise to the ON position '⬠' (both pilot and main burner should now be lit).
8. To adjust flame from high to low, use the temperature knob. **Note:** when water has reached correct temperature the main burner will modulate to the low flame and then eventually cutting off, leaving only the pilot flame. When the water temperature drops, the main burner will automatically switch on accordingly.
9. To turn off burner and pilot, turn ON/OFF knob clockwise until reaching the OFF position 'O'

## **CLEANING:**

Keep this appliance clean with a wet non-abrasive soapy cloth.

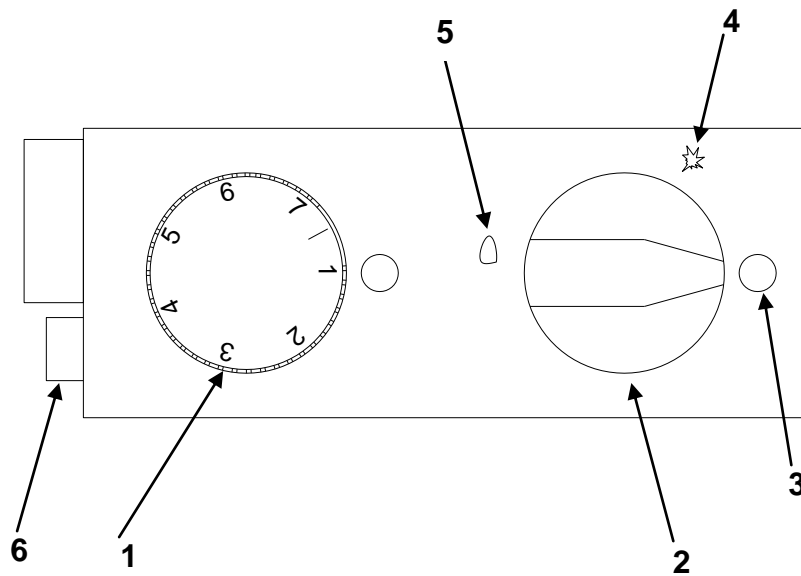
## **MAINTENANCE:**

A qualified person should service this appliance once a year. Should the pilot lights, burners or any other item fail to operate; in the manor intended, do not tamper with the controls but call in a qualified service engineer to rectify the fault.

## **GAS LEAK OR FAULT:**

**WARNING:** If a gas leak or fault exists or is suspected, turn OFF the gas supply from the main gas isolating cock and consult your Local Gas Board or a qualified installation/servicing engineer.

## Valve detail



1. Temperature knob
2. ON/OFF Knob
3. Off Position
4. Pilot Flame and Ignition Position
5. Burner On Position
6. Test Point Screw (access from underneath Bain Marie)

### Please note:

Those parts which have been protected by the manufacturer or his agent must not be adjusted by the user.

## **SERVICING:**

### **REPLACEMENT OF BURNERS:**

- 1) Turn OFF main gas supply.
- 2) Unscrew base panel from the back and underneath of the appliance.
- 3) Remove base panel with complete gas assembly from the body.
- 4) Undo brass nut which supports the injector holder.
- 5) Undo fixing screw and nut, located at the back of the burner.
- 6) Slide the burner away from the injector.
- 7) Fit a new or cleaned burner in reverse manner to step 4

### **REPLACEMENT OF CONTROL VALVE:**

- 1) Turn OFF main gas supply.
- 2) Unscrew Base panel from the back and underneath of the appliance.
- 3) Remove base panel with complete gas assembly from the body.
- 4) Remove Base panel from the body.
- 5) Unscrew gas inlet pipe (loosen bracket at rear first).
- 6) Unscrew thermocouple from valve.
- 7) Unscrew gas burner pipe from valve.
- 8) Unscrew pilot pipe from valve.
- 9) Remove thermostat sensor from the water well .
- 10) Unscrew valve from bracket.
- 11) Fit new control valve.
- 12) Reassemble the appliance in reverse order. Ensure all gas pipe work has been purged, leak tested and the gas pressure has been checked.

### **REPLACEMENT OF THERMOCOUPLE:**

- 1) Turn OFF main gas supply.
- 2) Unscrew Base panel from the back and underneath of the appliance.
- 3) Remove base panel with complete gas assembly from the body.
- 4) Unscrew the thermocouple from the control valve.
- 5) Unscrew nut holding the thermocouple to the pilot bracket and remove.
- 6) Fit replacement and reassemble in reverse order. Do not over tighten the nut connected to the control valve. Hand tighten first, then, using a spanner turn nut a further half turn.

### **REPLACEMENT OF SPARK ELECTRODE:**

- 1) Turn OFF main gas supply.
- 2) Unscrew Base panel from the back and underneath of the appliance.
- 3) Remove base panel with complete gas assembly from the body.
- 4) Remove electrode wire from electrode.
- 5) Undo fixing nut holding the electrode and remove.
- 6) Replace electrode with new one and reassemble appliance in reverse order.

### **REPLACEMENT OF PILOT BRACKET:**

- 1) Turn OFF main gas supply.
- 2) Unscrew Base panel from the back and underneath of the appliance.
- 3) Remove base panel with complete gas assembly from the body.
- 4) Unscrew the thermocouple from the pilot bracket and remove.
- 5) Unscrew the pilot pipe from the pilot bracket and remove.
- 6) Unscrew electrode from pilot bracket and remove.
- 7) Fit replacement and reassemble in reverse order.

### **REPLACEMENT OF PILOT INJECTOR:**

- 1) Turn OFF main gas supply.
- 2) Unscrew Base panel from the back and underneath of the appliance.
- 3) Remove base panel with complete gas assembly from the body.
- 4) Unscrew the pilot pipe from the pilot bracket and pull away from bracket.
- 5) Pull pilot injector out of bracket.
- 6) Fit replacement and reassemble in reverse order.

### **REPLACEMENT OF BURNER INJECTOR:**

- 1) Turn OFF main gas supply.
- 2) Unscrew Base panel from the back and underneath of the appliance.
- 3) Remove base panel with complete gas assembly from the body.
- 4) Unscrew burner injector from brass holder and remove.
- 5) Fit replacement, using gas sealing compound, and reassemble in reverse order.

## **CONVERSION TO ANOTHER GAS:**

Conversion of this appliance must be carried out by a qualified, registered gas engineer only. Archway Sheet Metal Works will be able to advise you about converting this appliance from natural gas to liquefied petroleum gas (LPG) or vice versa.

<i>Model</i>	<i>Gas Type</i>	<i>Supply Pressure</i>	<i>Injector Size</i>	<i>Injector Part No.</i>	<i>Conversion Kit Part No.</i>
2PW/NG	G20	20mbar	110 (1.1mm)	BM002	D40300
4PW/NG	G20	20mbar	110 (1.1mm)	BM002	D40301
6PW/NG	G20	20mbar	110 (1.1mm)	BM002	D40302
G2W/NG	G20	20mbar	110 (1.1mm)	BM002	D40303
G3W/NG	G20	20mbar	110 (1.1mm)	BM002	D40304
2PW/LPG	G30	28-30mbar	75 (0.75mm)	BM005	D40305
4PW/LPG	G30	28-30mbar	75 (0.75mm)	BM005	D40306
6PW/LPG	G30	28-30mbar	75 (0.75mm)	BM005	D40307
G2W/LPG	G30	28-30mbar	75 (0.75mm)	BM005	D40308
G3W/LPG	G30	28-30mbar	75 (0.75mm)	BM005	D40309
2PW/LPG	G31	37mbar	75 (0.75mm)	BM005	D40305
4PW/LPG	G31	37mbar	75 (0.75mm)	BM005	D40306
6PW/LPG	G31	37mbar	75 (0.75mm)	BM005	D40307
G2W/LPG	G31	37mbar	75 (0.75mm)	BM005	D40308
G3W/LPG	G31	37mbar	75 (0.75mm)	BM005	D40309

**Note:** Each conversion kit includes the required injectors and a Data Badge.

**Appliance Data: CAT I<sub>2H</sub>**

NATURAL GAS	MODEL		
	2PW - G2W	4PW	6PW- G3W
Injector Size (mm Dia)	110 (1.1mm)	110 (1.1mm)	110 (1.1mm)
Heat Input (kW)	2.2	2.2	2.2
Heat Input Low Setting (KW)	1	1	1
Burners	Stainless Steel	Stainless Steel	Stainless Steel
Supply Pressure (mbar)	20	20	20
Total Gas Rate (m <sup>3</sup> /h)	0.23	0.23	0.23

**Appliance Data: CAT I<sub>3P</sub>**

PROPANE GAS	MODEL		
	2PW - G2W	4PW	6PW- G3W
Injector Size (mm Dia)	75 (0.75mm)	75 (0.75mm)	75 (0.75mm)
Heat Input (kW)	2.2	2.2	2.2
Heat Input Low Setting (KW)	0.8	0.8	0.8
Burners	Stainless Steel	Stainless Steel	Stainless Steel
Supply Pressure (mbar)	37	37	37
Total Gas Rate (kg/h)	0.157	0.157	0.157

**Appliance Data: CAT I<sub>3+</sub>**

BUTANE GAS	MODEL		
	2PW - G2W	4PW	6PW- G3W
Injector Size (mm Dia)	75 (0.75mm)	75 (0.75mm)	75 (0.75mm)
Heat Input (kW)	2.2	2.2	2.2
Heat Input Low Setting (KW)	0.9	0.9	0.9
Burners	Stainless Steel	Stainless Steel	Stainless Steel
Supply Pressure (mbar)	29	29	29
Total Gas Rate (kg/h)	0.16	0.16	0.16

Dimensions of appliance	2PW - G2W	4PW	6PW- G3W
Width (mm)	385	445	710
Depth (mm)	630	630	630
Height (mm)	350	350	350
Weight (Kg)	17	20	25
Inlet Connection	1/2" BSP	1/2" BSP	1/2" BSP
<b>Clearance Required Around Appliance</b>			
Sides (mm)	80	80	80
Above (mm)	800	800	800
Behind (mm)	80	80	80

### SPARE PARTS LIST

<b>PARTS DESCRIPTION</b>	<b>PART NO.</b>
Control Valve	GV30
Thermocouple	G011BM
Pilot Injector NG	G028
Pilot Injector LPG	G028L
Pilot Bracket	G010
Pilot Pipe	BM020
Electrode	G029
Electrode Wire	BM010
Burner	BM001
Burner Injector NG	BM002
Burner Injector LPG	BM005