

F900 SERIES

User, installation and servicing instructions

BRATT PAN

G9881

Read these instructions before use

7	DATE PURCHASED:
	MODEL NUMBER:
	SERIAL NUMBER:
	DEALER:
	SERVICE PROVIDER:

T100914

REV. 1

Dear Customer,

Thank you for choosing Falcon Foodservice Equipment.

This manual can be downloaded from <u>www.falconfoodservice.com</u> or scan here



IMPORTANT: Please keep this manual for future reference.

Falcon Foodservice Equipment HEAD OFFICE

Wallace View, Hillfoots Road, Stirling. FK9 5PY. Scotland.



WEEE Directive Registration No. WEE/DC0059TT/PRO

At end of appliance life, dispose of appliance and any replacement parts in a safe manner, via a licensed waste handler. Appliances are designed to be dismantled easily and recycling of all material is encouraged whenever practicable.



- These instructions are only valid if the country code appears on the appliance. If the code does not appear on the appliance, refer to the technical instructions for adapting the appliance to the conditions for use in that country.
- Installation must meet national or local regulations. Attention must be paid to: gas safety (installation & use) regulations, health and safety at work act, local and national building regulations, fire precautions act.
- To prevent shocks, all appliances must be earthed.
- This equipment is for professional use only and must be used by qualified persons.
- The installer must instruct the responsible person(s) of the correct operation and maintenance of the appliance.
- Only competent persons are allowed to service or convert the appliance to another gas type.
- Gas appliances must have a stop cock fitted in the supply pipe work. The
 user must be familiar with the location and operation of this device in order
 to turn off the supply of gas in the event of an emergency.
- Unless otherwise stated, parts which have been protected by the manufacturer must not be adjusted by the installer.
- Take care when moving an appliance fitted with castors.
- The appliance must be serviced regularly by a qualified person. Service intervals should be agreed with the service provider.

CONTENTS

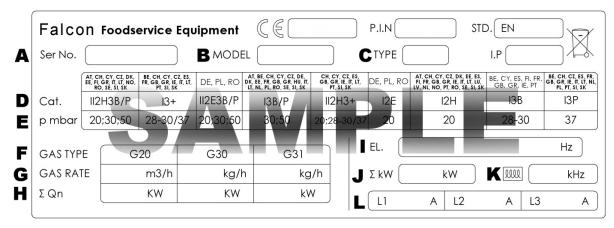
Section 1: General reminders and notes

1.1.	General reminders	6
1.2.	Technical data	7 - 8
1.3.	Construction	8
1.4.	Installation conformity	8 - 9
1.5.	Special requirements for the installation site	9
Section	on 2: Positioning, installation and maintenance	
2.1.	Positioning	9
2.2.	Installation	10
2.2.1.	Connection to water supply	10
2.2.2.	Gas connection procedures	10
2.3.	Checking gas system operation	10 - 11
2.3.1.	Control of gas inlet pressure	11
2.3.2.	Control of primary air flow	11
2.3.3.	Control of pilot burner	12
2.3.4	Operation control	12
2.4.	Commissioning and testing	12
2.5.	Conversion to other gas types	12 - 13
2.5.1.	Replacement of injectors for main burners	13
2.5.2.	Replacement of injectors for pilot burner	13
2.6.	Maintenance of appliance	13
2.6.1.	Troubleshooting	13 - 14
Section	on 3: Use and cleaning	
3.1.	Warnings and hints for user	14
3.2.	Instructions for use	15
3.2.1.	Basic operation	15
3.3.	Cleaning and care of the appliance	15 - 16
3.3.1.	Daily cleaning	16
3.4.	Special procedures in case of long inactivity	16
3.5.	Special procedures in case of failures	16
Section	on 4: Figures and details	
4.1.	Unit dimensions and connection positions	17
4.2.	Measuring inlet pressure	18
4.3.	Gas cock detail	19
4.4.	Pilot burner	20
4.5	Main hurner	20

4.6.	Primary air regulation	21
4.7.	Knob for water inlet	21
4.8.	Controls	21

APPLIANCE INFORMATION

This appliance has been CE-marked on the basis of compliance with the relevant EU directives for the heat inputs, gas pressures and voltages stated on the data plate.



1.1. GENERAL REMINDERS

Read the warnings contained in this manual carefully as they provide important information concerning safety during installation, use and maintenance.

Keep these instructions for future use! Only trained personnel should use the equipment.

The appliance should be used only for the purpose for which it has been specifically designed; other uses are improper and hence dangerous.

During operation, surfaces can become hot.

Unplug appliance in the event of failure or improper operation.

Provision should be made for regular servicing in order to maintain performance of the equipment.

All important information about the appliance required for technical service is located on the technical data plate. Refer to Section 3.6.

In the event of technical assistance being required, the problem must be described in as much detail as possible so that a service technician can assess the nature of any such event. PPE should be worn during installation and maintenance operations.

Warning!: Follow the fire prevention regulations very carefully.

WARNING!: THE UNIT SHOULD NOT BE USED AS A FRYER!

1.2 TECHNICAL DATA

		Gas part			
Model	Outer	Qn	Gas	G20	G30
	dimensions	kW	connection	H _i = 9,45	H _i = 12,68
	cm			kWh/m³	kWh/kg
				m³/h	kg/h
80 litre	80X90X90	22	R ½"	2.3	1.73

Cooking Pan Characteristics

Model Dimensions (mm)	Pan capacity	Angle of	Drain minimum
	(Max. Level)	pan rotation	width (mm)

Technical data (injector table)

Cat.: II2H3+ TYPE OF CONSTRUCTION "A"

Model		80lt
Rated po	ower (kW)	22
Minimur	m power (kW)	"ON/OFF"
	sumption = 9,45 kWh/m3) in m3/h	
_	= 12,68 kWh/kg) in kg/h	2,3
		1,73
Injector	Pilot G20 20mbar: Rated power	40
Ø	Minimum power	4 x 270
In 1/100 mm	Pilot	"ON/OFF"
	G30 28-30/37 mbar: Rated power Mini. power	25
		4 x 120
		"ON/OFF"
Primary	distance "H" G20	20
	G30	30

Ta	bl	e	5a
ıu	v	•	vu

Nominal main pressure for the different types of gas Gas family 2 – Natural 20 mbar 28-30/37 mbar

Table 5b

Operation permissible Gas family 2 – Natural from 17 mbar from 20/25 to 35/45 mbar

Table 5c

Operation non permissible Gas family 2 – Natural from 17 to 25 mbar from 20/25 mbar

Table 5d

Operation non permissible Gas family 2 – Natural 25 mbar

if pressure is higher than: Gas family 3 – Propane from 35/45 mbar

1.3 CONSTRUCTION

Robust stainless steel structure mounted upon adjustable legs.

Exterior panels are stainless steel 18/10.

Stainless steel pan, pan base is 304 grade.

Stainless steel pan lid (AISI 304).

Hand-tilting of pan.

Pan is heated by four stainless steel burners.

Gas is supplied via control as detailed in Section 4.3

Main burner is lit by means of a pilot with fixed injector.

Thermostat temperature adjustment is from 100°C to 290°C.

Stainless steel flue.

The following components are included as standard:

Safety thermostat, piezo ignition, burner, pilot, plug, thermocouple and control knob.

1.4. INSTALLATION CONFORMITY

When installing the unit, it is necessary to follow and comply with the following regulations:

Current regulations at time of installation.

Municipal and/or territorial building regulations and fire prevention prescriptions;

Current accident prevention guidelines;

Standards for the use of combustible gas;

Standards for gas-fired systems utilizing natural or propane gas;

Standards relating to gas-fired cooking appliances and equipment for large-scale catering.

Safety requirements; Standards relating to gas systems for appliances used in professional kitchens and communal facilities;

The regulations of the gas supply company or agency;

Electricity board regulations concerning safety;

The regulations of the electrical power supply company or agency and any other local legislation with regard to equipment operation.

1.5. SPECIAL REQUIREMENTS FOR THE INSTALLATION SITE

The appliance belongs to the installation class A1 (no direct connection of a chimney or flue exhaust system is required). It is very important for the environment in which it is installed to be well-aired.

In addition, it is good policy to position the unit below an extractor hood so that cooking vapours can be removed rapidly and continuously.

The gas supply system must be equipped with an isolation control that can be shut down in the event of servicing or an emergency.

This unit requires two water connections: one for hot and one for cold water. Each line must be fitted with an on-off valve.

Warning! The shut-off valves must both be located close to the appliance, within easy reach for the user.

SECTION 2 – POSITIONING, INSTALLLATION and MAINTENANCE

2.1. POSITIONING

Remove all packaging and check that appliance is in perfect condition. If visible damage is detected, do not connect the appliance and notify the service agent immediately.

Remove all PVC protection from the exterior panels.

Dispose of packaging according to regulations.

Maintain a distance of 300mm between the rear (flue) of unit and the wall. There are no particular dimensions regarding side distances from other equipment or walls, however it is advisable to leave enough space in case of maintenance and/or repairs. It is advisable to fit suitable heat insulation if unit is in direct contact with walls made of combustible material.

The appliance must stand level. Small differences in level can be eliminated by screwing or unscrewing the adjustable feet: A significantly uneven or sloping stance can affect the operation of the appliance adversely.

2.2. INSTALLATION

Warning! Only qualified technicians install, maintain and test this appliance.

Warning! Before connecting any part of the unit to main supplies, make sure that the latter is equivalent the requirements stated in the technical data plate, if the appliance has been designed for these supplies.

2.2.1. CONNECTION TO WATER SUPPLY

Water inlet pressure must be between 50 and 300kPA, otherwise a pressure regulator must be installed before the appliance.

A water tap is connected to the appliance.

The water connection must be in conformity with regulation at time of installation.

2.2.2. CONNECTION TO GAS SUPPLY

The choice of the gas piping depends on the diameter required for the type of gas, appliance and installation and should be performed in conformity with current regulations.

The gas supply can either be fixed or quick-release; if flexible pipes are employed they must be made from stainless material and not be affected by corrosion.

The gas inlet is located at the rear on the lower right side of the appliance.

When the unit has been connected, carry out a leak test on all the fittings connecting the appliance to the main supply. It is advisable to use a leakage spray, otherwise treat parts with foam that does not cause corrosion; no bubbles should develop. Also, carry out a leak test on the rapid cut-off valve.

Warning! Flames are strictly prohibited for leakage tests!

2.3 CHECKING THE OPERATION OF THE GAS SYSTEM

Check that the appliance has been prepared (category and type of gas) equivalent to the family of gas available on site. If not, it is necessary to convert the appliance to whatever is available. Refer to Section 2.5.

The appliance must be used with the correct injectors for its thermal power rating (Refer to Section 1.2).

The operation of the appliance with its heating capacity depends on the inlet pressure and the calorific power of the gas.

The pressure range (inlet pressure) within which the appliance is allowed to operated is stated of the paragraph "Technical Data". The appliance shall not be operated out of the given pressure range. If pressure should differ from the figures stated in Section 1.2, Table 5b, advise gas supplier or the company which has installed the system.

Power rating with G30

The power rating is achieved by using the injectors indicated in the table without any preliminary regulation.

The possibility of operation depends on the supply pressure available:

Admitted if inlet pressure is within the range 20-35 and 25-45 mbar.

Non-admitted if the pressure is lower than 20-25 mbar or higher than 35-45 mbar. Inform installer and do not start operation before the cause has been found and eliminated.

Power rating with G20

The power rating is achieved by using the injectors indicated in the table without any preliminary regulation.

The possibility of operation depends on the supply pressure available:

Admitted if supply pressure is within the range 17 and 25 mbar

Non-admitted if the pressure is lower than 17 mbar or higher than 25 mbar. Inform installer and do not start operation before the cause has been found and eliminated.

The power rating for the maximum position is obtained in all the burners when the right injectors have been installed. Compare the injectors installed with those indicated in Section 1.2.

There is no the minimum power because the main burners work in ON/OFF.

Request the heat value to the gas supply board and control the injectors according to the data indicated in Section 1.2.

2.3.1 CONTROL OF THE GAS INLET PRESSURE

The feed pressure is measured using a liquid pressure gauge (eg: a U-shaped pressure gauge, minimum definition 0.1 mbar). The supply pressure can be measured directly at the inlet pressure intake on the gas feed pipe. The inlet pressure intake can be reached by opening the lower front panel once the two side screws have been removed. Refer to Section 4.2.

Undo or remove pressure intake screw

Connect U-shaped pressure gauge

Start the appliance according to instructions

Measure inlet pressure

Disconnect U-shaped pressure gauge and tighten sealing screw

Warning! The sealed adjuster screws on the gas solenoid valve must not be tampered with, otherwise any guarantee rights shall be forfeited immediately.

2.3.2 CONTROL OF PRIMARY AIR FLOW

Primary air can be considered correctly adjusted if no flame lift is ensured when the burner is cold and the injector lights when the burner is hot.

The distance recommended for primary air regulation is indicated in Table 4.

2.3.3 CONTROL OF PILOT BURNER

Start the pilot burner according to instructions. If the pilot is adjusted correctly, the ignition flame will contact the thermocouple evenly and the flame will have a perfect appearance. Otherwise it is necessary to check if the correct injectors have been installed (see table 4).

2.3.4 OPERATION CONTROL

Start the appliance according to instructions for use.

Control that the appliance does not leak.

Control combustion safety in the regulation range by passing from maximum to minimum

Control that the regulation of the pilot flame is correct (use of correct injectors).

Control progressive ignition and correct regulation of main burner flames.

2.4 COMMISSIONING AND TESTING

Once all the connections have been made, the appliance and the overall installation must be checked following the directions given in this manual.

Check in particular:

That the protective film has been removed from the external surfaces;

That connections have been made in accordance with the requirements and directions indicated in this manual;

That all safety requirements in current standards, statutory regulations and directives have been met:

That the water and gas connections are leak-free;

That the electrical connection has been performed according to standards.

Now the burner can be lit by following instructions for use and these points:

Progressive ignition of the burner;

even flame;

flame security: check these points at both minimum and maximum output.

Check flue gas exhaust is not clogged and that they are expelled without any hindrance.

The test report must be completed in full and submitted to the customer who should then sign in acceptance. With effect from this moment, the appliance is covered by the manufacturer's warranty.

2.5. CONVERSION TO OTHER TYPES OF GAS

To adapt appliance to another gas type, for instance from G20 to G30, it is necessary to control if main burner injectors and by-pass screws have been installed properly; in addition, it is also necessary to replace the oven pilot burner injector (Refer to Section 1.2 Technical Data).

All injectors needed for different types of gas are supplied with unit.

2.5.1. REPLACEMENT OF INJECTORS FOR MAIN BURNERS

To access injectors, remove water inlet tap knob, control panel and pan-tilting hand wheel.

2.5.2. REPLACEMENT OF INJECTORS FOR PILOT BURNER

Undo screw (E) and replace injector (D) with appropriate injector (Refer to Section 1.2 – Technical Data).

With a size 12 key, undo injector and replace it with injector to suit gas supply (Refer to Section 1.2 – Technical Data).

Control the correct distance "H" for primary air (refer to Section 4.6).

ATTENTION! After each conversion, the unit must be tested to ensure that there are no leakages and that it operates correctly.

2.6. MAINTENANCE OF THE APPLIANCE

Warning!: All maintenance operations shall only be performed by a technically qualified service centre!

To ensure correct and safe operation, the appliance must be inspected and serviced at least once a year only. Maintenance includes also to control the components and tear of pipes, feeding pipes etc.

It is advisable to replace worn components during maintenance operations to avoid the need for other maintenance calls and unexpected failures.

It is also advisable to apply for a maintenance contract with the customer.

2.6.1. TROUBLESHOOTING

Warning! Only qualified service centre should perform the operations described below!

Warning! Before resetting safety thermostat, it is always necessary to eliminate the problem causing its activation!

Problem and possible cause

Access to components and operation

THE MAIN BURNER DOES NOT LIGHT UP!

The ignition plug is not fixed correctly or the connection is faulty.

The piezo igniter has been damaged.

There is a loss of gas supply pressure.

The injector is clogged or the gas cock is damaged.

The pilot burner turns off when control knob or igniter button is released

The thermocouple is not heated sufficiently by the pilot burner.

The gas cock is faulty

The pilot burner is on but the main burner does not light

Loss of pressure in the gas supply

The injector is clogged or the gas cock is damaged

The gas outlet holes are clogged

The heating pan temperature cannot be adjusted

The bulb is faulty.

The thermostat is faulty. Even normal use may cause operation inconveniences and failures. The most common problems are the following.

Ignition plug and thermocouple

Remove the lower front panel.

Remove the igniter cable and loosen the screws of pilot burner support

Replace the plug and install the new plug working in the opposite order.

Remove the thermocouple by loosening the screws of pilot burner support

Replace the thermocouple and install the new thermocouple working in the opposite order.

Unscrew gas pipe and undo thermocouple connections, remove bulb from its seat.

Undo both screws that fix the gas valve with a suitable spanner.

Install a new control and replace parts in reverse order.

SECTION 3 – USE and CLEANING

3.1. WARNINGS AND HINTS FOR USER

This manual contains all instructions required for proper and safe use of the unit.

Keep the manual in a safe place for future consultation!

This appliance is for catering use and must only be used by trained kitchen staff.

The appliance must always be observed during use.

Warning! The manufacturer shall not be held responsible for injuries or damage due to non-compliance with safety rules or improper use of the appliance by the operator.

Some operating conditions may be caused by an improper use of the appliance, it is important to train personnel properly.

All the installation and maintenance operations must be performed by fitters who are members of an official register.

Regular maintenance is required and customers are recommended to sign a service agreement.

In case of failures concerning the appliance, all outputs (gas and water) must be cut off instantly.

In case of recurrent failures contact a service technician.

3.2. INSTRUCTIONS FOR USE

Before using the appliance for the first time, thoroughly wash the interior of the pan.

Warning! Fill pan up to a maximum depth of 40mm below overflow, according to the maximum level mark, including the food to be cooked.

3.2.1. BASIC OPERATION

The appliance is equipped with a selector to start all cooking operations (see figure "Controls").

Here is a list of the procedures for a safe and correct use of the appliance.

The appliance can be started only once it has been filled.

PILOT BURNER LIGHTING

Starting from position press thermostat knob and turn leftwards to position; keep the thermostat knob pressed and press the ignition button several times.

Keep thermostat knob pressed for a few more seconds.

Release thermostat knob and control if the pilot burner is lit.

Repeat operation if the flame turns off.

MAIN BURNER IGNITION AND TEMPERATURE REGULATION

Once the pilot burner has been lit, turn the thermostat knob towards left to the desired temperature. The thermostat knob is numbered from 1 to 7; the temperatures corresponding to each position are the following:

Position	1	2	3	4	5	6	7
°C	100	125	150	180	210	250	290

The regulation of the thermostat causes automatic ignition and turning off of the main burner (ON/OFF regulation); only the pilot flame is lit. When the thermostat knob is turned to position the main burner is constantly off and only the pilot flame is on.

TURNING THE PILOT BURNER OFF

Press thermostat knob and turn to position to turn off pilot burner and prevent main burner from lighting.

3.3. CLEANING AND CARE OF THE APPLIANCE

Correct operation is only guaranteed if these instructions are followed very carefully.

Any repair or maintenance operation must be performed by a qualified technician. We recommend that the appliance should be serviced at least annually. For this purpose, it is advisable to arrange a service contract with Serviceline.

Keep thermocouples clean and handle such parts carefully.

Inspect burner holes periodically; these must always be kept free of obstruction.

Never use an aggressive substance or abrasive detergent when cleaning stainless steel parts.

Avoid using steel pads as these may cause rust. For the same reason, avoid contact with materials containing iron.

Do not use sandpaper or abrasive paper for cleaning; in special cases use a powder pumice stone. In instances of particularly resistant staining, it is advisable to use an abrasive sponge type. (e.g. Scotch-Brite).

It is advisable to allow the pan to cool before any cleaning or maintenance commences.

3.3.1. DAILY CLEANING

Warning! When cleaning the appliance never use a direct jet of water. Infiltration could cause damage to components and affect warranty.

Clean pan with water and a detergent, rinse thoroughly and dry well with a soft cloth.

External surfaces should be washed down using a sponge soaked in hot water with a suitable proprietary cleaner added.

Always rinse all surfaces with clean water and dry thoroughly with a soft cloth.

3.4. SPECIAL PROCEDURES IN CASE OF PROLONGED INACTIVITY

If the unit is to stand idle for any length of time (e.g. holidays or seasonal closing) it must be cleaned thoroughly, leaving no trace of food or dirt.

Leave lid open so that air can circulate inside pan.

For added care after cleaning, external surfaces may be protected by applying a proprietary metal polish.

Be absolutely certain to shut off all utilities (gas and water).

Air the room appropriately.

3.5. SPECIAL PROCEDURES IN CASE OF FAILURES

If the appliance should not work properly during use, turn it off immediately and shut down all supplies (gas and water).

Apply to a service centre for help.

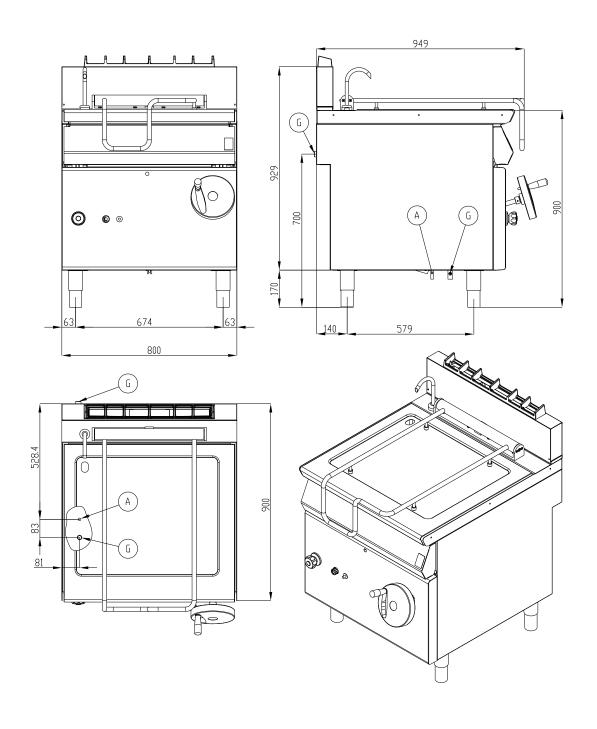
The manufacturer shall not be held responsible nor has any warranty commitments for damage caused by non-compliance with prescriptions or by installation not in conformity with instructions.

The same applies in case of improper use or different application by the operator.

SECTION 4 – FIGURES and DETAILS

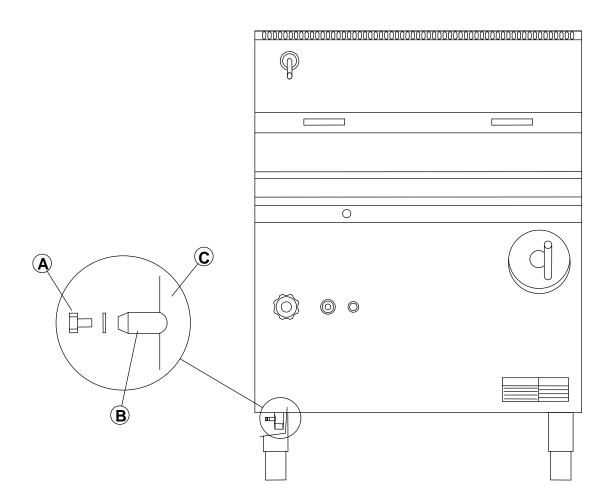
4.1 UNIT DIMENSIONS AND CONNECTION POSITIONS

- A. Water connection d.12
- G. Gas connection R $\frac{1}{2}$ " in conformity with ISO 7-1



4.2 MEASURING THE INLET PRESSURE

- A. Screw
- B. Pressure intake
- C. Gas tube



4.3 GAS COCK DETAIL

A. Bulb

B. Pilot output adjustment screw

C. Gas outlet for pilot

D. Pressure plug at inlet

E. Pressure plug at outlet

F. Minimum output adjustment screw

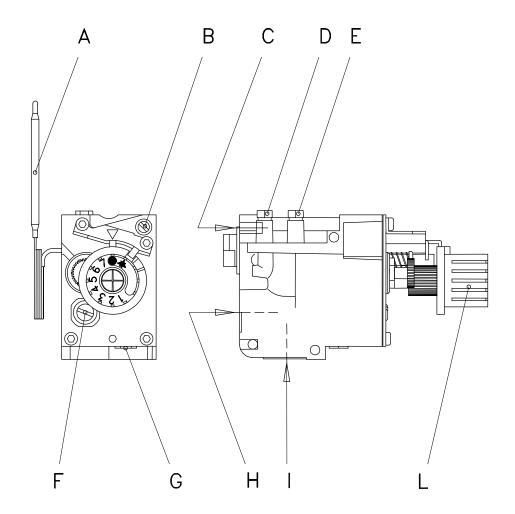
G. Maximum output adjustment screw

H. Gas outlet

I. Gas inlet

L. Control knob

IMPORTANT! The visible adjustment screws on the controls must not be recalibrated. These parts have been set and sealed in the factory.



4.4 PILOT BURNER

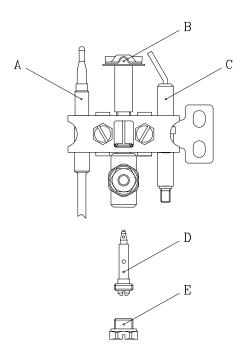
A. Thermocouple

D. Injector

B. Pilot burner

E. Tightness screw

C. Ignition plug

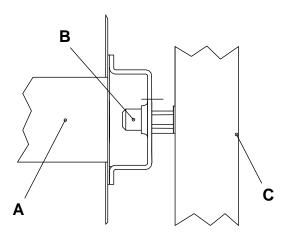


4.5 MAIN BURNER

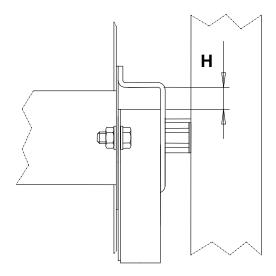
A. Burner

B. Injector

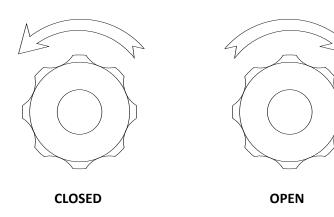
C. Injector pipe



4.6 PRIMARY AIR REGULATION



4.7 KNOB FOR WATER INLET



4.8 CONTROLS

- A. Control knob E. Maximum position
- C. OFF position F. Pilot burner
- D. Minimum position

