LA PREMIERE

CENTRAL HEATING COOKER For burning wood and solid fuel.

Models

82.904/82.914

82.906/82.916

Total Output (BTU/hr) . wood

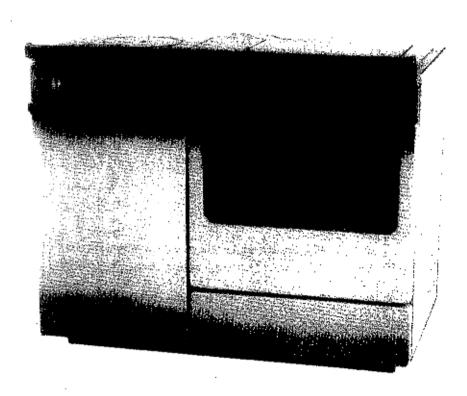
67.000

87,000

. solid fuel

71.000

91.000



PLEASE READ AND UNDERSTAND THOROUGHLY BEFORE COMMENCING INSTALLATION.

IMPORTANT:

FRANCO-BELGE recommends that the installation of all their products is undertaken only by qualified heating engineers who are experienced in solid fuel

The installation must be in accordance with current Building Regulations and Codes of Practice.

NOTE TO INSTALLER:

Please ensure that these instructions are handed to the user upon completion of the installation.



CONTENTS

1 . Technical details.	, p. 1
2 . Description 2 - 1 Description of the appliance	
3 Assembly and installation 3 - 1 Siting the cooker 3 - 2 The chimney 3 - 3 Connection to chimney 3 - 4 Connecting the central heating circuit 3 - 5 Electrical connection for models 82.904/82.906 3 - 6 Positioning of the grates 3 - 61 Lifting mechanism 3 - 62 Grate bar 3 - 63 Top plate shield for 82.904/82.914 only 3 - 7 Lower oven compartment door 3 - 8 Adjustment of the ash pan door	p. 4 p. 55 p. 56 p. 66 p. 66 p. 66 p. 66
3 - 9 Adjustment of the thermostat	. p. 6 . p. 7 . p. 7
4. Operating instructions 4. 1 Fuel. 4. 2 Operating tools 4. 3 Lifting mechanism. 4. 4 Operation 4. 41 Checks prior to lighting. 4. 42 Lighting. 4. 43 Loading. 4. 44 De-ashing. 4. 45 Heating regulation. 4. 46 Slow burning. 4. 47 Restoring the fire 4. 48 Cooking regulation. 4. 49 Summer use. 4. 5 Fault diagnosis 4. 6 Operation of the flue draught control box	. p. 8 - 9 p. 9 p. 9 p. 9 p. 10 p. 10 p. 10 p. 10 p. 10 p. 11 p. 11 - 12 p. 12 p. 12
5. Maintenance 5 - 1 Lifting mechanism. 5 - 2 Heat exchanger and flue ways	

GUARANTEE:

The water jacket of the cooker is guaranteed for a period of five years from the date of purchase. Damage due to low temperature corrosion will invalidate this guarantee. In order to avoid this, the appliance must be run so as to maintain the boiler water temperature at a minimum of 50°C; a four-way mixing valve must be incorpored in the system (ensure that it cannot be set to close off the primary flow) or a thermostat must be fitted on the gravity return (see section 3 - 4).

In order to constantly improve our products, our appliances are subject to modifications by our sales or technical services without any prior notice.

I. TECHNICAL DETAILS

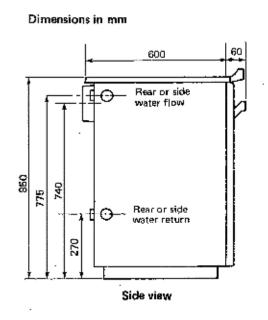
(1) When burning dry seasoned wood.		82.90	4/82.914	82,906/82,916				
		Total heat output (Btu/hr)	Maximum water heating output (Btu/kr)	Total heat output (Btu/hr)	Maximum water heating output (Btu/hr)			
Grates in top	etes in top Wood(1) 44.00		32.000	59.000	47.500			
position	Solid fuel	55.500	42.000	75.00 0	63.000			
Grates in lowest	Wood(1)	67.000	53.000	87.000	73.000			
position	Solid fuel	71.000	57.000	91.000	77.000			

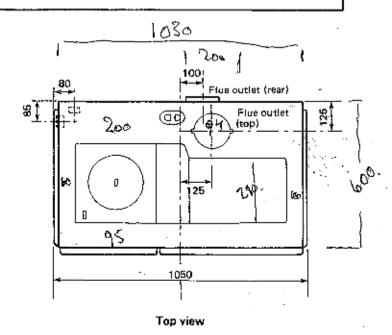
Water outputs are measured at a flue draught of 0,06" water gauge and on a loading cycle of 31/2 hours for solid fuel.

		82,904	82.906	
Capacity of water	r jacketlitres	22	25	
Weight	kg	330 -	335	
Dimensions	Width	1050 600 850		
Firebox	Width	. 300 447 440		
Oven .	Width	410 400 320		
Flue outlet O/D ((2)	1	153	
Distance from flo	or to centre of back flue outlet	7	740	
Flow and return t	tappings		- 42 SP Female	
Recommended ch	nimney draught	0,05 t	80,0 o	
	ting element	2,	515	

FOR GREAT BRITAIN ONLY:

(2) A draught control box is supplied as standard to fit to the top flue outlet collar. The I/D of the top section of the control box is 210 mm (see section 3 - 3).

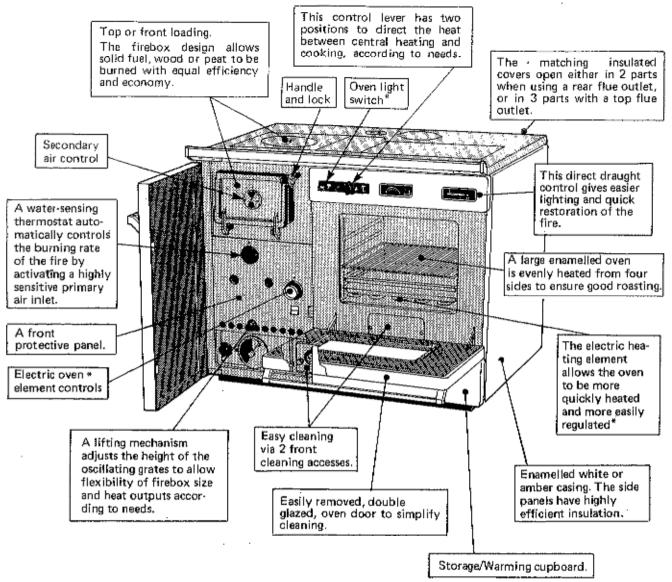




II DESCRIPTION

2 - 1 Description of the appliance.

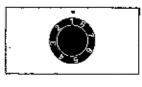
The FRANCO-BELGE solid fuel central heating cookers provide central heating, domestic hot water and cooking for all the family from just one kitchen unit.



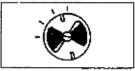
^{*} models 82.904 and 82,906 are fitted as standard with oven light and electric element. These electric parts are available as optional extras to retrofit on models 82.914 and 82,916

All internal parts of the water jacket are manufactured from high quality 6 mm steel and its special design provides a large heat exchange area.

2 - 2 Operating principles.



The thermostat automatically regulates the burning rate and helps to maintain a constant predetermined water temperature. If the water temperature falls, the thermostat opens an air inlet which boosts the fire. Similarly, as the water temperature rises, the inlet closes to damp down the fire and maintain a constant water temperature.



SECONDARY AIR CONTROL:

When burning solid fuel with high volatile contents (e.g. household coal, soft coal), the secondary air inlet allows a more complete combustion of the volatiles produced.

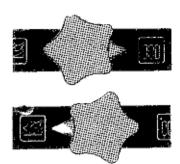


The on/off switch allows the operation of the electric heating element placed at the bottom of the oven. Thus, the oven thermostat can regulate the temperature of the oven by controlling the operation of the heating element.

(* see paragraph 2 · 1)

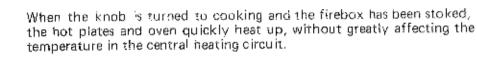


The draught spinner on the ashpan door introduces additional air for lighting the fire, boosting the output after slow burning and providing extra heat when using the oven and hot plates for cooking. Thus, it is possible to maintain the heat output into the central heating, as well as providing additional heat for cooking and baking.



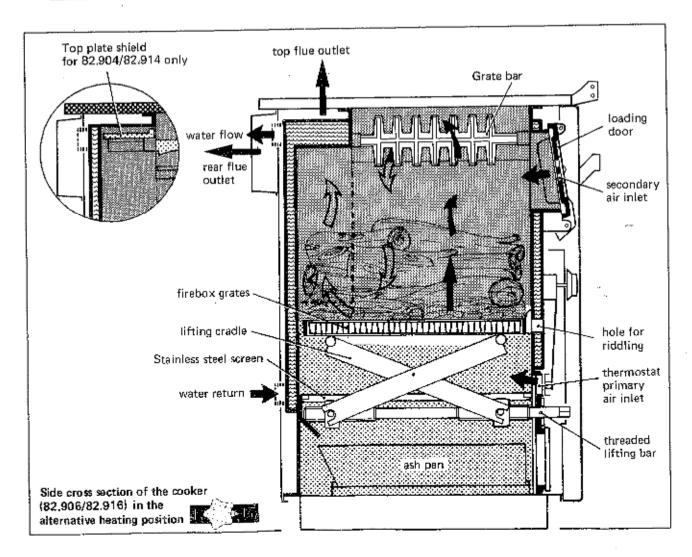
The two position heating/cooking control knob :

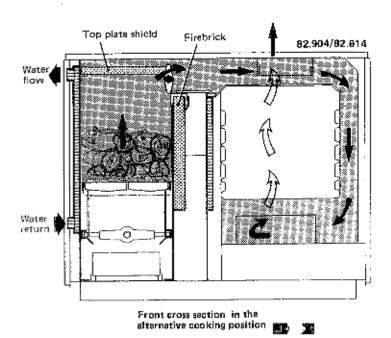
When the knob is turned to heating, most of the heat is absorbed by the heat exchanger and transferred to the central heating circuit.

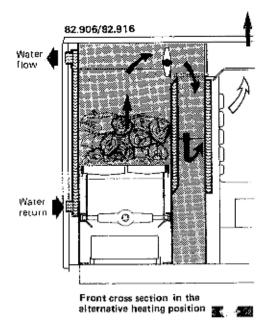




The direct draught control gives easier lighting and quick restoration of the fire by opening a cast iron damper to allow a direct flow of the hot gases to the chimney.







III ASSEMBLY AND INSTALLATION

3 - 1 Siting the cooker

The room in which the cooker is to be installed must satisfy all local regulations.

These will stipulate an adequate fresh air inlet of at least 55 sq. in. This must be situated in such a way, that in adverse wind conditions the air flow cannot be reversed as this may suck air out of the room in which the unit is installed.

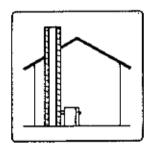
3 - 2 The chimney

The chimney must be in good condition and must satisfy all local heating regulations.

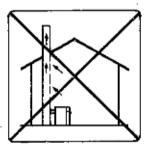
These are some essentials for a good chimney :



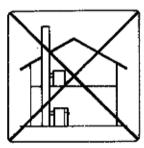
To be cleaned and swept regularly to avoid build up of soot or tar.



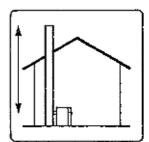
To be well insulated, to remain warm under all conditions and to hold heat to give a stable draught.



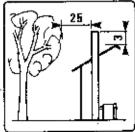
To be airtight.



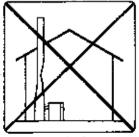
To be independent not be shared with any other appliance and not exhaust into a large void at the base.



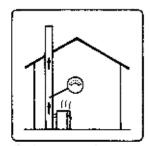
To be at least 14 ft high to ensure satisfactory performance.



To be at least 3 ft above any obstructions within 25 ft radius or use a suitable cowl to avoid down draughts.



To have a fairly constant cross section without sudden bends.



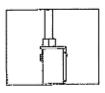
To have an optimum depression between 0.05 ins. and 0.08 ins. w.g.

NB. Optimum diameter of the chimney according to its height:

- 7" I.D. (180 mm) for 26 ft high (8 m)
- 8" I.D. (200 mm) for 20 ft hight (6 m)

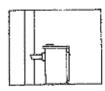
NB. Under no circumstances should asbestos, flexible or single skin flue be used.

3 - 3 Connection to chimney.



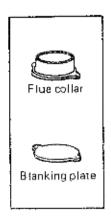
VERTICALLY from the top of the unit. It is recommended that the insulated flue pipe is connected to the top outlet via the draught control box, which is designed to accept twin wall stainless steel insulated flue.

The draught control box can be dismantled to give access for flue cleaning.



HORIZONTALLY from the back of the unit. There is a rear flue connection provided but it is not possible to use the draught confro box in this position. Provision should therefore be made to fit a draught regulator.

Important: When the rear flue connection is used, cut out the insulation plate covering the rear panel.



Don't forget to fit with an airtight seal the flue collar and the blanking plate which are supplied and packed in the firebox.

Caution: Sufficient access must always be left for chimney sweeping and appliance cleaning.

3 - 4 Connecting the central heating circuit.

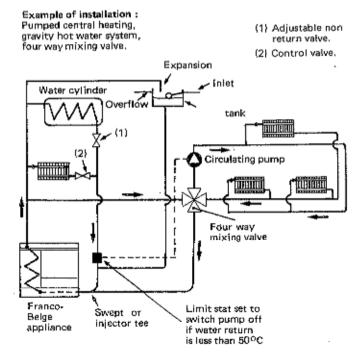
In any installation, relevant building codes and practices must be observed. The appliance is not designed as a pressure vessel, so the circuit must be left open to the atmosphere and must not be constructed to allow any pressure build-up to occur. A gravity circuit MUST be provided, as a fail safe heat loss in the event of a circulating pump failure or a power cut. To achieve this, ensure that large diameter pipes leading to upstairs radiators have a direct flow from the boiler, or install a big hot water cylinder with large diameter heat exchanging coil, situated above the cooker.

The layout of the heating circuit can be designed in any fashion that suits the house, as the pump will ensure circulation of hot water to all points, but the hot water cylinder or a small heating circuit must be engineered to work by gravity. Use 1 inch min. I.D. pipe (28 mm) to the cylinder, ensure that the cylinder has a 3/4 inch min. I.D. coil wound from top to bottom, and that the inlet is above the boiler and the outlet is above the return tapping of the boiler. An expansion tank open to the atmosphere must be provided to ensure that no pressure build-up can occur, and this should be connected to the highest point of the circuit by 1" I.D. pipe (28 mm). If the system is going to be left unattended during winter periods, anti-freeze should be added. In the case of an installation coupled to an automatic boiler, this should not be necessary.

N.B. This model has optional water tappings on the rear or the left hand side of the cooker. Ensure unused tappings are blanked off using the plugs supplied.

IMPORTANT: In order to avoid condensation and low temperature corrosion of the water jacket, the return water temperature must not fall below 50°C. A four way mixing valve should be used but it must be fitted in such a way as to prevent the primary flow from being restricted (see guarantee).

In addition a thermostat should be fitted on the gravity return to switch the circulating pump off if the water temperature falls below 50°C.



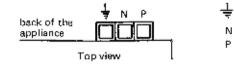
3 - 5 Electrical connection (for models 82,904 and 82,906)

Connect the 3 pole terminal block situated at the rear of the cooker to the mains. Use a three core cable which is capable of carrying a load of 2.515 kW. This can be connected to a fused 16 amp. plug.

The heating element and oven light operate at the rated voltage of 220 volts-AC. Before operating the appliance, ensure that the line tension corresponds.

important - The appliance must be earthed.

The manufacturers decline any liability, should this safety measure not be observed.



earth

phase

neutral

3 - 6 Positioning of the grates

3 - 61 Lifting mechanism

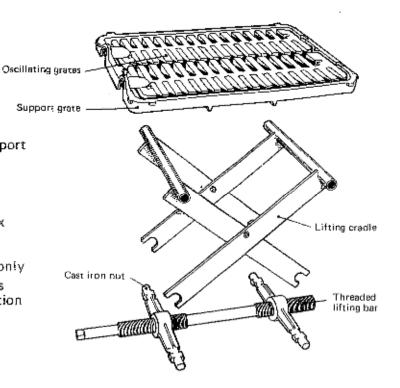
Before lighting the cooker, check the correct position of the different parts of the lifting mechanism (see diagram below).

The oscillating grates must be placed on the support grate with the narrowest gaps at the top and the tapering section towards the bottom.

3 - 62 Grate bar

Place the grate bar at the right top of the firebox (see cross section page 3)

3 - 63 Top plate shield for 82.904/82.914 only Slide the top plate shield on the two rear fittings provided at the top of the firebox (see cross section page 3).



3 - 7 Lower oven compartment door :

If required a handle for the door is packed inside the unit.

3-8 Adjustment of the ashpan door.

Once the door seal has bedded in, it may be necessary to adjust the door to regain the airtight seal.

- a) Remove the stop (1)
- b) Unscrew the lever (2)
- c) Replace the stop (1)

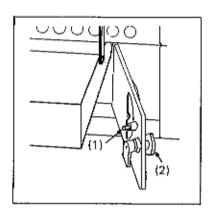
3 - 9 Adjustment of the thermostat.

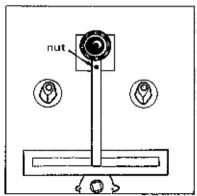
Remove the front protective panel by lifting it up.

Then set the thermostat in position 6. When the water temperature reaches 60°C/146°F, the damper should be closed.

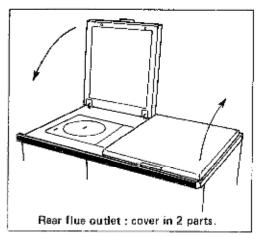
If adjustment is necessary, this is done by altering the nut on the lever arm. (Anticlockwise, the damper is opened/clockwise, it will be closed).

After adjustment, check that the water temperature is maintained at 60°C/146°F.

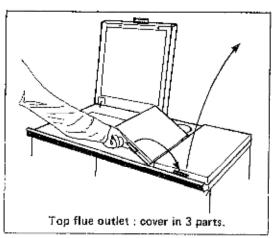




3 - 10 Covers and top plate.



Locate the lugs on the covers in the holes at the rear of the top plate



Before leaving the factory, the top plate is protected with a blue plastic coating which must be peeled off before lighting.

3 - 11 Guard rail, firebox and oven door handles

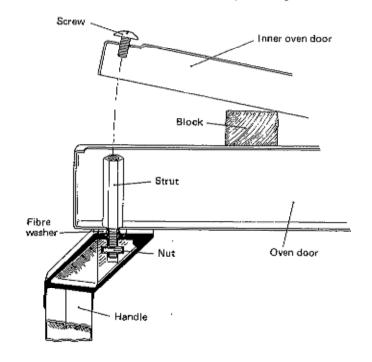
The guard rail, firebox and oven door handles are not fixed on the cooker to avoid damage during transit.



Fit the guard rail and the firebox door handle with the screws supplied.

To fit the oven door handle:

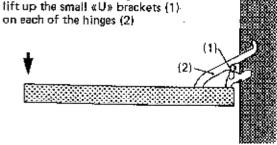
- remove the oven door as show below
- remove the two screws and hold the inner door half open with a block
- unscrew the struts and place the nuts into the slot of the handle supports
- centre the handle before screwing up the struts
- fit the inner oven door and replace the oven door.

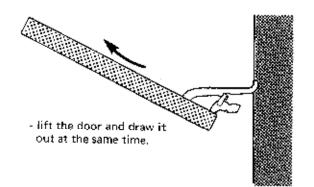


3 - 12 Removing the oven door

With the door open :

- . press down on front edge
- . lift up the small «U» brackets (1).





To replace it, reverse the procedure. Check the smooth working of the door.

IV - OPERATING INSTRUCTIONS

4 - 1 Fuel

a) Wood

In general any type of wood is suitable for use in a Franco-Belge as long as the fuel is seasoned for a minimum of 3 years and dried to a moisture content of less than 20 %.

The large variations found in different types of wood are due to the specific density of each fuel, Hard woods such as oak or eim burn steadily giving an even heat over a relatively long period of time. Soft woods such as pine release their heat very rapidly but their burning duration is very short. This makes soft woods ideal for initial lighting or when quick heating of the appliance is required (e.g. cooking or rapidly heating domestic hot water), but they should not be used for slow burning periods.

N.B.

The importance of burning dry seasoned wood cannot be overstressed as wet fuel may lose up to 50 % of its possible heat value, resulting in inadequate central heating and slow unresponsive cooking; together with rapid clogging of the flue-ways and chimney, which is dangerous and a fire hazard.

NOTE: Never burn wet or unseasoned wood. If possible mix solid fuel with the wood.

b) Peat

Same specifications as wood. The moisture content must be less than 20 %. Failing to respect the before mentioned points on seasoning fuel or moisture content will void the quarantee.

c) Solid fuels

As with wood, solid fuels vary considerably; not only in their burning characteristics, but also in their heat values

A household coal is relatively «soft». This makes it an easy fuel to light which is responsive to air controlled regulation. The output, although greater than wood is low in comparison with other solid fuels. Whilst relatively cheap, the disadvantage with this fuel is its impurities which produce thick dense smoke which can quickly clog the flue ways and chimney, and frequent attention must be paid to keep them clean.

Smokeless fuels, such as Homefire, Coalite and Sunbright, are amongst the highest in heat value of solid fuels. Their hardness and density makes them more difficult to light and relatively slow in reacting to control by air regulation but the lack of impurities makes this type of fuel far cleaner and less attention has to be paid to the flueways and chimney.

If you are restricted to using smokeless fuels, they must have a long flame to allow quick response when cooking. Your local merchant should be able to assist you in choosing the most suitable fuel for your needs.

In general, most owners of Franco-Belge appliances find that by mixing their fuels, they will obtain the best results for their individual situation.

Trial and error will tell you which mixture of fuels works best for you. So please experiment with mixtures of small quantities before placing your bulk order!

Selection of suitable solid fuels:

To ensure satisfactory performance of the appliance, we recommend the use of the following solid fuels:

- Fuels suitable for central heating and cooking :
- . House coal, grade 1 only (trebles and doubles)
- . Coalite
- . Homefire
- . Sunbrite doubles

- Fuels suitable for central heating only :
 - . Housewarm
 - . Coalite nuts
- . Phurnacite
- . Rexco (Royal)
- . Rexco nuts (in Scotland Rexcobrite)
- . Anthracite French nuts
- . Anthracite Stove nuts
- . Welsh stean coal large nuts

NOTE: If using bituminous coat, it must be of grade 1 quality and size.

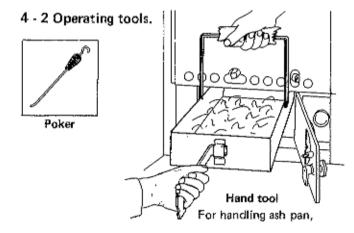
WARNING: When burning bituminous coal, care must be taken when opening the firebox for loading or inspecting the fire.

We do not recommend the use of the following solid fuels: Some smokeless fuels are not designed for the appliance due to their small size:

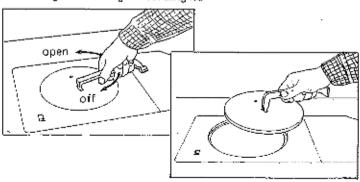
- Anthracite
- . Stovesse
- . Beans
- Peas
- Grains
- Weish steam coal small nuts
- Sunbrite singles

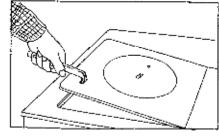
Coals disintegrating under heat and those producing large amounts of ashes are not recommended for use in these appliances.

Guarantee: The use of unsuitable fuels will invalidate the guarantee.

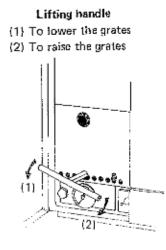


for lifting and locking the loading lid



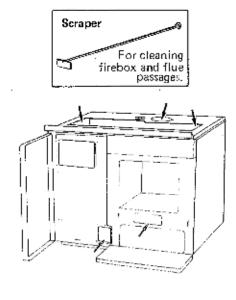


and raising the left inset plate above firebox.





Riddling handle



4 - 3 Lifting mechanism

Choose the height of the firebox grates according to the heating requirements of individual needs (see technical details page 1).

If an intermediate output is required, place proportionally the grates on an intermediate level.

The adjustment of the height of the grates is done by turning the threaded lifting bar located on the front of the cooker (see cross section page 3).

Use the lifting handle on the threaded lifting bar to alter the grates : anticlockwise, the grates will lower/clockwise, they will raise.

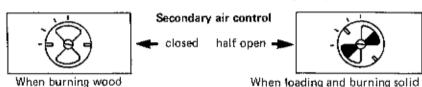
4 - 4 Operation

4 - 41 Checks prior to lighting

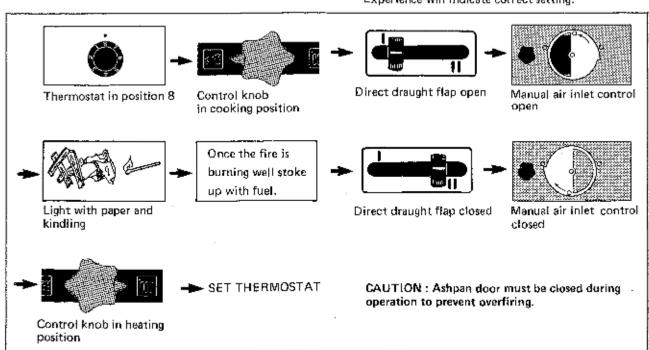
Before lighting the cooker, check the following points :

- . the water circuit is filled and has been tested for leaks,
- the cleaning access traps are closed (access plate on top and front access trap below the oven door, and beside the ash pan door).
- . all the grates are in their correct positions,
- . the blue protective film on the top plate is peeled off,
- the cooking/heating control knob and the direct draught flap move freely,
- . the thermostat and its air inlet flap have been adjusted,
- all chimney seals are airtight and the draught control box mechanism is free.

4 - 42 Lighting



When burning wood When loading and burning solid fuel with high or smokeless fuels. volatile contents. If the chimney draught is low, open the secondary air control more. Experience will indicate correct setting.



Remark: Should a small quantity of black water appear as a result of condensation when the unit is first lit. Do not be concerned, close the 4 way valve and check that the low limit stat is set correctly. As the system heats up, gradually open the 4 way valve. Should the problem persist, contact your installer to check the good working of the 4 way valve and low limit stat.

4 - 43 Loading

The cooker may be loaded through the top or the front. To obtain the best result and a long burning period, the firebox should be loaded with fuel to within 2" (5 cm) of the top of the right inside water jacket (or of the firebrick for 82,904 and 82,914)

NOTE: When burning solid fuel with high volatile contents, the firebox must not be loaded entirely. It is recommended to load it step by step to arlow all the volatile contents to be freely exhausted.

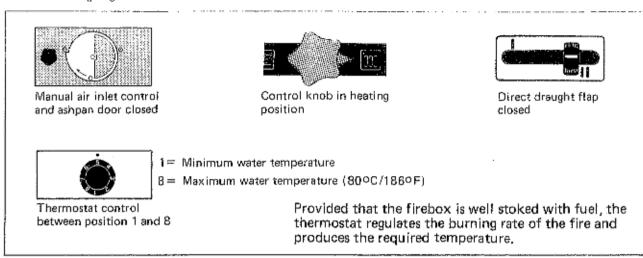
4 - 44 De-ashing

The cooker may be de-ashed only when the oscillating grates are in the lowest position.

Lower the firebox grates if necessary and slide the riddling handle into the front holes as shown in paragraph $4\cdot 2$

De-ash every morning and if required before each loading of fuel. Remove ashes daily.

4 - 45 Heating regulation

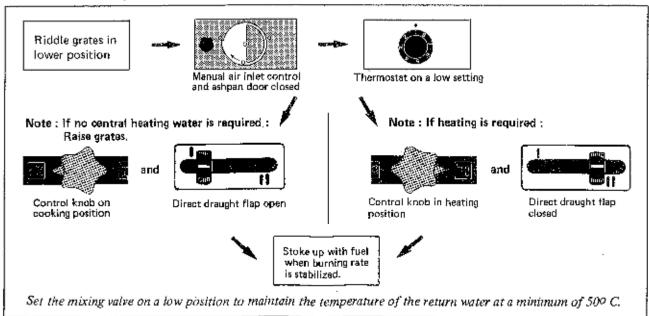


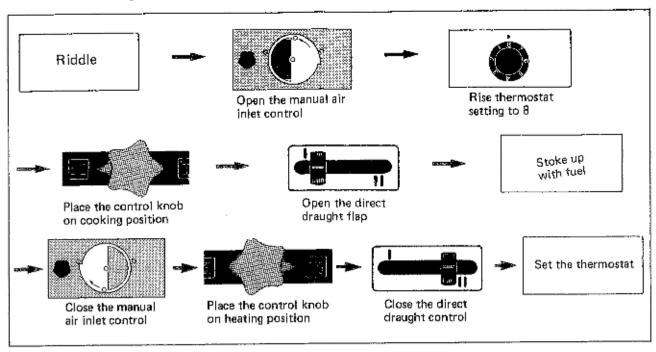
 Thermostat control on position
 2
 3
 4
 5
 6
 7
 8

 Water temperature
 20°C/66°F
 30°C/86°F
 40°C/106°F
 50°C/126°F
 60°C/146°F
 70°C/166°F
 80°C/186°F

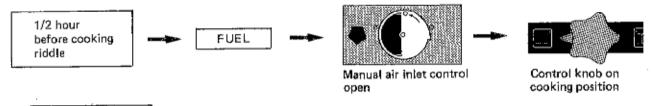
NOTE: After every long burning period, run the appliance hot for at least 30 minutes to remove any residual tar and moisture.

4 - 46 Slow burning.





4 - 48 Cooking regulation.



Hot plate cooking.

→ If full use of the hot plate is required: Turn the control knob to cooking position

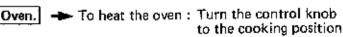
This will allow the whole hot plate area to be heated without heating the oven. IMPORTANT! The direct draught lever must be returned to normal running position after use.

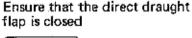


Open the direct draught flap

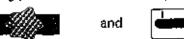


- → When the appliance is turned to central heating position, the area directly above the firebox will become hot enabling a kettle to be kept simmering.
- → When there is a low fire, the hot plate will heat quicker by raising the firebox grates to the top position.
- When using the oven, the hot plate will in any case be ready for use.





and



→ The temperature of the oven can be seen from the thermometer on the front panel.

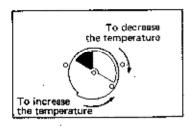
TABLE OF TEMPERATURES

Position on the thermometer = Average temperature in the middle of the oven.

Pos. 1 = 800C/1800FPos. 2 = 100°C/230°F Pos. 5 = 290°C/ 600°F Pos. 6 = 370°C/ 760°F Pos. 7 = 450°C/ 920°F

Pos. 3 = 150 oC/320 oFPos. 4 = 200 ° C / 420 ° F $Pos. 8 = 520 \circ C/1060 \circ F$

 Regulation of the oven temperature is obtained by opening or closing the manual air inlet control:



Electric oven heating element (for models 82.904 and 82.906 only)

- → To operate the heating element, turn on the on/off switch which will light up. (see page 2). Set the oven thermostat to the required temperatures, turn it clockwise to obtain higher temperatures.
- When starting the appliance from cold, the use of the heating element will help to quickly increase the oven temperature. As soon as the heat coming from the fire is adequate, the oven thermostat will automatically switch off the heating element.
- When baking for long periods or when there is a low fire, the use of the heating element helps to avoid any fall in the oven temperature.
- → When the electric oven heating is no longer required, turn the oven thermostat anticlockwise back to the off position and push the on/off switch to the off position.

NOTE: As with any solid fuel cooker, there is no substitute for experience, and with a little time and patience you will soon learn what controls are necessary.

4 - 49 Summer use

Provided the installation has a large hot water cylinder and a heat leak radiator on gravity circulation, the appliance can be used for cooking and domestic water heating in summertime.

The grates should be raised to the top position to reduce the capacity of the firebox and the water heating output,

CAUTION:



Control lever must always be in cooking position.

If the cooker is not to be used for any length of time, it should be cleaned thoroughly, debris removed and the flue disconnected. This will ensure adequate ventilation and avoid «sweating» and associated problems.

All moving parts must be cleaned and lubricated to prevent seisure.

4 - 5 Fault diagnosis.

	1	2	3	4	. 5	6	7	8	9	10	11
Likely Cause	Inadequate Draught	Excessive Draught	Draught too variable	Condensation	Insufficient Air Entering Kitchen	Restriction In Flue	Fuel	Operator Error	Chimney Construction	Rate of Burning	Thermostat Failure
Difficulty in maintaining fire	•				•		•	•			•
Difficulty in obtaining oven temperature	•						•	•		•	
Únstable oven temperature		•	٠)			•		•	
Unresponsive fire	•						•				
Smoke and smell in kitchen	•				•	•				,	
Smoke emitted when loading	•					•					
Rapid sooting-up of chimney and flue ways	•						•		•	•	
Fire goes out overnight	•						•		•		
Fire burns out overnight		•		·		i					•
Uncontrollable burning rate			•					. 7	•••		•
Difficulty in obtaining water temperature	•		1				•			•	•
Overnight burning performance dependent on weather conditions			•								
Smoke emitted when door is slammed	ļ				•						
Moisture in ashpan and under cooker				•							
Large amounts of clinker forming							•			•	

Inadequate draught.

The chimney should be checked with a draught meter and if below the recommended level, look for air leak or a constantly cold chimney.

If the connecting flue pipe terminates in a large chimney and no evidence of air leaks can be discovered, a chimney liner should be considered.

If the inadequate draught is due to a poor geographic position, consult your dealer to consider an electric draft inducing fan.

2 - Excessive draught.

If top flue the cooker should have been supplied with a draught control box to help regulate the chimney draught. If the control box gives inadequate control, fit a draught stabiliser.

3 - Draught too variable.

This could be caused by a cold chimney with excessive heat loss but it is more likely that the cause is turbulence at the chimney terminal.

Raise the height of the chimney or fit a suitable cowl.

4 - Condensation.

Condensation is often mistaken for a leaking water jacket and can be very persistent. Each water jacket is tested thoroughly in the factory and it is highly unlikely that a leak could be the cause.

Condensation is caused by:

- a) A poor chimney which allows the flue gases to cool rapidly, thereby condensing steam in the flue;
- b) Wet wood fuel being used;
- c) The return water temperature being too low.

Remedy :

- a) Consider lining chimney;
- b) Dry and season wood well before burning it. See section on fuels;
- c) To minimise the possibility of condensation, always allow your Franco-Belge to warm up slowly and never operate the circulating pump until the system is heating with the return temperature no more than 15°C below the flow temperature and in any case, no less than 50°C.

If condensation still persists, allow the fire to burn slowly for a full 24 hour period heating the domestic hot water only. Then try the pump again.

If the return temperature is always 20°C below the flow temperature with the pump on, it is likely that the 4 way mixing valve is not being used correctly. This indicates that insufficient hot water is being directed into the return.

Condensation normally appears only when the system is first used and sometimes at the begining of the winter season when the heating is first put on. In both cases, allow the heat to build up very slowly and condensation will be kept to a minimum or not experienced at all.

Continual condensation will reduce the life of the water jacket and invalidate your guarantee. It should therefore be avoided at all costs.

If condensation occurs after the pump has been turned on, this will be due to the heating circuit cooling the system too quickly. The solution is to switch off the pump, allow the system to reheat fully and turn on only half the radiators when the pump is switched on. Gradually, turn on the remainder of the radiators, one by one, allowing plenty of time for the return water to keep up temperature.

5 - Insufficient air entering kitchen.

See section 3 - 1

6 - Restriction in flue.

Apparent if the cooker has normal flue draught and reaches temperature quickly but smokes when being loaded or when a large volume of air is admitted to the fire (e.g. when ash pan door is opened).

The restriction may be a fall of soot or masonry in which case, chimney sweeping should cure the problem.

Aternatively, the problem may be caused by too many bends which are too acute in the chimney construction.

7 - Fuels.

See section 4 · 1

8 - Operator error.

By this, we mean that it may be that you need a little more time to get used to your cooker.

However, if you still have problems after persisting for some time, please get in touch with your dealer.

9 - Chimney construction.

The chimney's construction must comply with Building Regulations.

An inadequately insulated chimney will allow rapid cooling of the flue gases, causing excessive deposits in the chimney which will lead to condensation and eventually smoke emission from the cooker.

10 - Rate of burning.

All Franco-Beige appliances are designed to be efficient when burning slowly but they must be burned hot for 30 minutes after each slow burning period to prevent a residual build up of tar/soot in the flue ways (normally this would be achieved during cooking). However, you must not operate your Franco-Beige at maximum output for excessively long periods.

13 · Thermostat failure.

Whilst it is highly unlikely that the thermostat would fail, it is a possibility that should be investigated once the other likely causes have been looked into. Contact your dealer.

4 - 6 Operation of the flue draught control box (for Great Britain only)

The draught coatrol box is designed to slow down the flow of gases leaving the appliance and entering the flue. This is accomplished by restricting the square area of the chimney. It causes the gases created in the appliance to move slower and in so doing reduces the amount of combustion air entering the unit. The result is that the appliance will burn for longer periods.

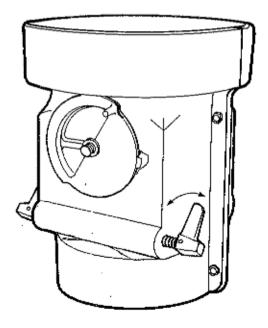
The flue box has two controls :

- the damper which is controlled by the levers situated on the sides of the flue box
- , the spinner air wheel situated at the front of the flue

If it is found that the appliance is burning too fast, close the flue damper to one of the four positions. Trial and error will determine which setting is best for your situation. When experimenting, start by putting the lever in the top position and close it notch by notch, as necessary. Always remember to open the damper to a vertical

position before attempting to reload with fuel.

The air wheel situated at the front of the flue box should only be used if the damper gives insufficient control. If this is the case, the air wheel may be opened little by little until the desired result is obtained. The air wheel must not be used for long periods and should be closed before refueling.



V - MAINTENANCE

5 - 1 Lifting mechanism

At least every 6 months, clean and lubricate the threaded connections of the lifting mechanism (see section 3-61) :

- · lower the firebox grates to lowest position
- remove the oscillating and support grates
- remove the stainless steel screen and the support cradle
- · using a wire brush, clean the threaded lifting bar and then lubricate the threaded section with the hot thread compound supplied (Ensure that the jubricant is fed into the roots of the thread).
- replace the support cradle, screen and grates.

5 - 2 Heat exchanger and flue ways

The appliance is most efficient when all the surfaces of the heat exchanger and flue passages are kept perfectly clean. If spot and ashes are allowed to build up, this can pit the walls of the water-jacket and shorten its life.

With this in mind, the following suggested maintenance schedule will help to keep your Franco Belge in good condition and at the peak of efficiency :

Daily: Run the cooker hot for at least 30 minutes (this will normally occur during cooking).

Weekly: If using wood, burn solid fuel once a week to belp reduce any tar build up.

Every 2nd week: Using the scraper provided, scrape down the water jacket to clear any tar or soot build up. 4 to 6 weeks : Clean all flue-ways surrounding oven and water jacket. Ensure that all parts removed for cleaning are replaced properly.

Every 6 months: Have the chimney swept and don't forget the connecting flue pipe and draught control box!

Increase the frequency of cleaning and servicing of the appliance to ensure efficient and trouble free running. If left unused for long periods (E.g. Summer months) clean the appliance thoroughly, disconnect flue pipe and block the chimney, leave all air inlets fully open. All hinges and pivots should be lubricated to prevent seizure.

To clean the flue ways:

- . Remove the oven door (see section 3 11)
- . Also remove the grates of the firebox
- . Use the scraper to clean all the inner walls (see page 8)
- . Remove the soot

Serious damage will occur to the appliance if these precautions are not taken rendering the guarantee void.

CAUTION: Any abnormal smell of fumes must be reported at once to your installer. As a precaution, put the fire out until an examination has been made.

VERSATILE HEATING SERVICE Racecourse Road, PAKENHAM AUS. 3810 VICTORIA Tel. 59/411541 - Tix. 38432+

COAL HEAT, INC. ALBURTIS.

PENNSYLVANIA 18011 Tel. 215.966.3556 - Tix. 291702+

HAMCO ENTERPRISES LIMITED TULLAMORE COUNTY OFFALY IRELAND Tel. 0506/21302, 51207 — Tix. 60809

FONDERIES FRANCO BELGES (F) 59660 MERVILLE

R.C. Hazebrouck 57 B 56 - 445750565 B C.C.P. LILLE 274.25 Tél. 28,48,30,00

Télex FRABEL MERVI 120427

FRANCO BELGE HEATING Ltd.

Unit T 344 Brookland Industrial Park Oyster Lane Byfleet - Weybridge Surrey KT 13 OYU Tel. (9323) 53822/3/4

Telex: 25737 FRABEL G.

imp. FRANCO BELGE edition 24 march 86 document no 44,8603