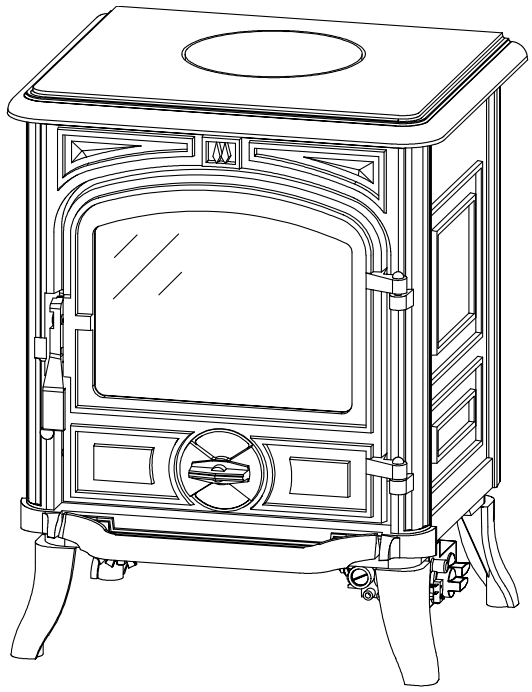
BELFORT
FLUELESS GN

Gas stove - Pr EN 00062012

Model : 154 03 05

Natural gas (type G20)
Category I_{2H}



Description of the appliance

Installation instructions

Operating instructions

Spare parts

Warranty certificate

Document n°1187-4 ~ 25/02/2005

Technical manual

to be saved

by the user

for future reference

FRANCO BELGE

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FRANCO BELGE congratulates you on your choice.
FRANCO BELGE, which has been granted the ISO 9001 certification, guarantees the quality of its appliances and is committed to meet its customers' needs.
FRANCO BELGE, which can boast a 75-year experience in the industry of heating devices, uses state-of-the-art technologies
to design and manufacture its whole range of products.
This document contains instructions on how to install your appliance and make full use of its functions, both for your comfort and safety.

CONTENTS

This appliance is a gas stove.

WARNING

This appliance must be installed in compliance with the rules in force by a competent engineer.
The appliance must not be operated if the window is cracked or broken.
The safety pilot on the burner must not be adjusted and must not be put out of operation.
Incorrectly installed gas appliances can be dangerous and possibly cause serious accidents.
The manufacturer's responsibility shall be limited to the supply of the appliance.

1. Description of the unit

1.1 Package

The package will contain the following parts:
- Belfort Stove Flueless inc. Burner
- Coals kit (FC 0305)
- Remote Control

1.2 Specifications

Model	Belfort
Gas	Natural
Type/Category	G20/I2H
Heat Input (gross) kW	3.5
Heat Input (net) kW	3.1
Supply Pressure mbar	20
Burner Pressure mbar	18
Gate Rate (max.) m^3/hr	0.330
Gate Rate (min.) m^3/hr	0.180
Injector	220
Weight kg	55

1.3 Dimensions

1.4 Operating principle

The appliance is designed for operating only with the door closed.

The Belfort Flueless is designed to be used only with natural gas (type G20).

Heat is mainly diffused by radiation through the window and by hot air diffusion around the body of the appliance.

The pilot light is on constantly.

The appliance is fitted with a 'Flame Supervision Device' (FSD). If the burner should become accidentally extinguished, the FSD will automatically cut off the gas supply.

The system is not adjustable, and should not be rendered inoperative.

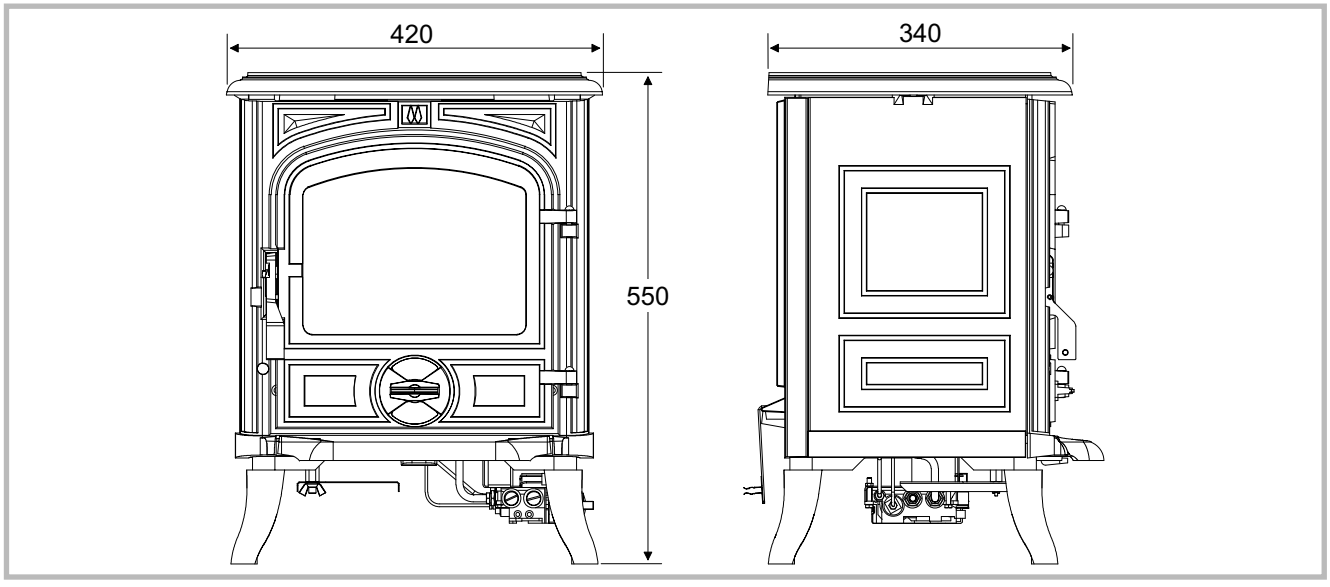


Figure 1 - Dimensions in mm

1.5 Safety advice

This appliance has a ceramic Fire-bed layout, this contains Refractory Ceramic Fibres which are manmade vitreous silicate fibres. Excessive exposure to these materials can cause irritation to eyes, skin and respiratory organs. Hence we recommend that when handling these materials the release of dust should be kept to a minimum. During installation and servicing we recommend that a HEPA filtered vacuum be used to remove any dust and soot in and around the fire. If any of the ceramic fire-bed components need to be replaced we recommend that the removed parts be sealed in a heavy duty polythene bag, and be labeled as RCF waste. RCF is not “Hazardous waste” and can be disposed of at a licensed tipping site for the disposal of industrial waste.

The appliance incorporates an Oxygen Depletion Sensor (ODS) Monitoring system. This is located on the front of the burner, and must not be adjusted by the installer. This ODS system must not be put out of operation, and if any parts require changing, only original manufacturer parts shall be used.

The Belfort Flueless is designed to be used only with natural gas (type G20).

This appliance has been designed, tested and approved to meet standards in place for product use, performance and safety. Installation of your stove must comply with current building regulations. Franco Belges therefore recommend that a CORGI engineer be employed for this task. Taking particular notice of “thermal inversion” The engineer will provide you with information about the safety limits of the installation and should fix a notice plate in a place where it can be readily seen, eg: next to the electricity meter.

This appliance is designed as an efficient heating device and consequently all body parts become very hot in use. Except for the control knob and control access door, which are designed to stay cool, all other parts are working surfaces and should not be touched.

The glass and frame on this appliance acts as a fireguard conforming to BS: 1945 – 1971 and satisfies the Heating Appliance (Fireguards) regulations 1991. No part of the window or frame should be permanently removed. **It does not give full protection for young children or the infirm,** extra protection should be considered for these conditions conforming to BS 6539 or BS 6778.

Bearing in mind that the heat given off by this appliance may affect articles placed close to it, curtains should not be placed within 30 cm.

The appliance is not designed as a dryer. It is therefore strictly forbidden that the appliance be used in such a manner. Do not place any articles within 30 cm of this appliance as this may result in damage to the articles.

The blockage of the top front is strictly forbidden. Do not put any clothes or similar at this opening.

The installation must be carried out in accordance with the following regulations:

The Building Regulations issued by the Department of the Environment, the Building Standards (Scotland) (Consolidation) Regulations issued by the Scottish Development Department.

BS 1251, BS 5440 part 1, BS 5871 part 2, BS 6461 part 1, BS 6891 and BS 8303.

In the Republic of Ireland the installation must also conform to the relevant standards, particularly in regard to ventilation. Refer to documents IS813, ICP3, IS327 and any other rules in force.

This appliance must be installed in accordance with the rules in force and used only in a sufficiently ventilated space.

1.6 Principle of Operation

This Belfort Flueless Gas Stove has a gas burner installed that gives very clean combustion. However, should any problems be encountered it also has a number of safety features included.

PYROLYTIC MESH - this is situated under the top plate of the stove. This mesh increases the time that the burnt products stay in contact and hence, assists in achieving a more complete combustion.

OXYGEN DEPLETION SENSOR - this is incorperated into the ignition pilot on the burner. This monitors the air condition in the room and will cut off the gas to the product before the air condition in the room reaches any harmful levels.

THERMOSTATIC CONTROL - the control tap that is used on this stove has a Thermostat built in. This will prevent the room temperature from raising beyond a comfortable level if the stove is left unattended.

None of these safety features should be tampered with or made un-operable, if replacement parts are needed then only parts supplied by Franco Belge should be used.

2. Installation instructions

The appliance should only be installed by a professional engineer, in the strict application of normal practices and all safety precautions. The installation must be carried out according to the Standards and the Building Regulations.

2.1 Check the stove

- Check the stove immediately after reception.
- Ensure that the appliance conforms to the type of gas distributed and the method of venting away the combustion products as per the indications on the appliance's information plate and the gas setting label affixed to the appliance when it leaves the factory.
- The appliance is adjusted and sealed in accordance with category (G20).
- Notify the vendor if there is any damage or fault.

2.2 General Fitting Notes

Flueless Gas Stoves are only intended for installation as secondary, and should not be installed as a primary heating source.

2.3 Ventilation

The premises should be in accordance with the building regulations.

The Belfort Flueless gas stove is rated at less than 3.1kW. This therefore necessitates the appliance to be fitted in a room with an internal volume of no less than 33 m^3. The appliance also requires 100 cm^2 of additional permanent ventilation, direct to outside. In addition to this, there is a further requirement for the room to have an openable window or louvre as specified under BS 5440: part 2.

2.4 Clearance requirements

The stove must stand on a fireproof hearth, which must be of a non-combustible material with a minimum thickness of 12 mm and extend 150 mm in front of the stove.

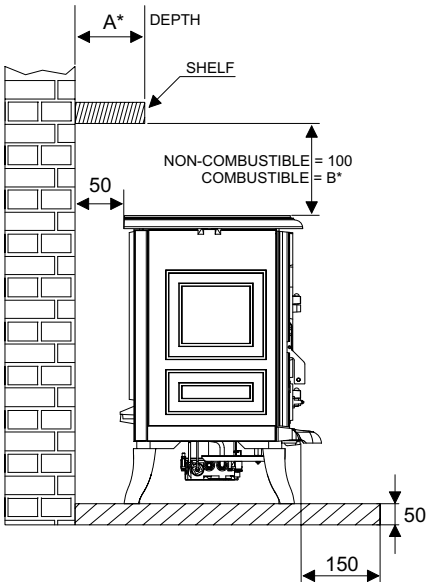
The hearth must not be capable of inadvertent covering by a rug or carpet. This may be achieved by either the hearth being 50 mm above the level of the floor, or a fender or kerb around the hearth to a height of 50 mm.

The appliance must not be fitted against a rear wall constructed from a combustible material; a gap of 300 mm should be given all round the stove before combustible materials may be used in the wall construction.

If the appliance has to be located in an opening, the minimum clearance from non-combustible materials is shown in the figure.

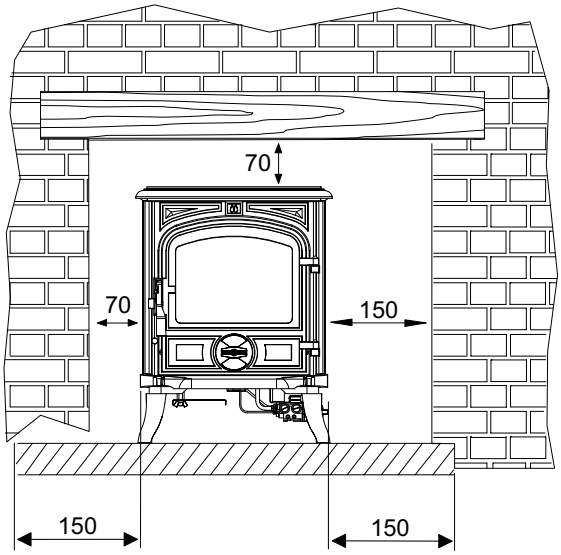
The stove must be located at least 280 mm from any combustible materials.

A combustible shelf may be fitted over the appliance, if in the case of a 150 mm or less deep shelf, there is at least 280 mm clearance above the top of the stove. The shelf depth may increase at the same rate as the increase in clearance.



A	B
100	250
150	280
200	330
250	350
300	400

(i.e. a shelf depth of 200mm would require a clearance of 330mm).



If the appliance has to be located in an opening, there must be a clearance of at least 70 mm at the left hand of the appliance, 50 mm at the back of the appliance and 70 mm above from any non-combustible materials. This distance must be extended to a mininum clearance of 100 mm from any combustible materials.

There should ideally be a minimum gap of 150 mm at the right hand side of the stove (this will ensure the best possible access to the control knob). This measurement may be reduced to a minimum gap of 100 mm if needed however extra care should be taken when operating the control knob when the appliance is hot.

2.5 Connecting the gas supply

It is important to ensure that all pipework installed is fitted in accordance with BS6891 and is capable of supplying sufficient gas flow and pressure to meet the minimum pressures quoted in the front of this manual. 8 mm pipe may only be used for the final connection to the stove, or within 1 meter of the appliance. An 8mm nut and olive is supplied with the stove for the final pipe joint.

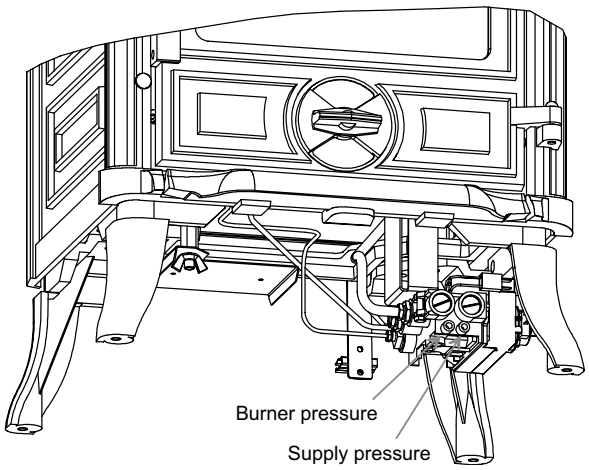
A gas supply isolation tap must be installed in the supply pipework in a location that is easily accessible, such that the appliance may be isolated if necessary.

Check the tightness of the pipes using soapy water or detergent.

Do not make any connections to the appliance until all supply pipes have been purged to expel any dust or debris. View on under side of stove to show final connection of 8 mm pipe to stove.

Although a gas soundness test is made on all appliances before they leave the factory, the appliance should be tested for soundness before operating the stove. This is to ensure that the burner has not been damaged in transit.

2.6 Pressure Testing



The gas pressure to the stove must be measured at the burner test nipple.

For Natural gas this is 18 mbar (G20) measured with the appliance in the full rate position.

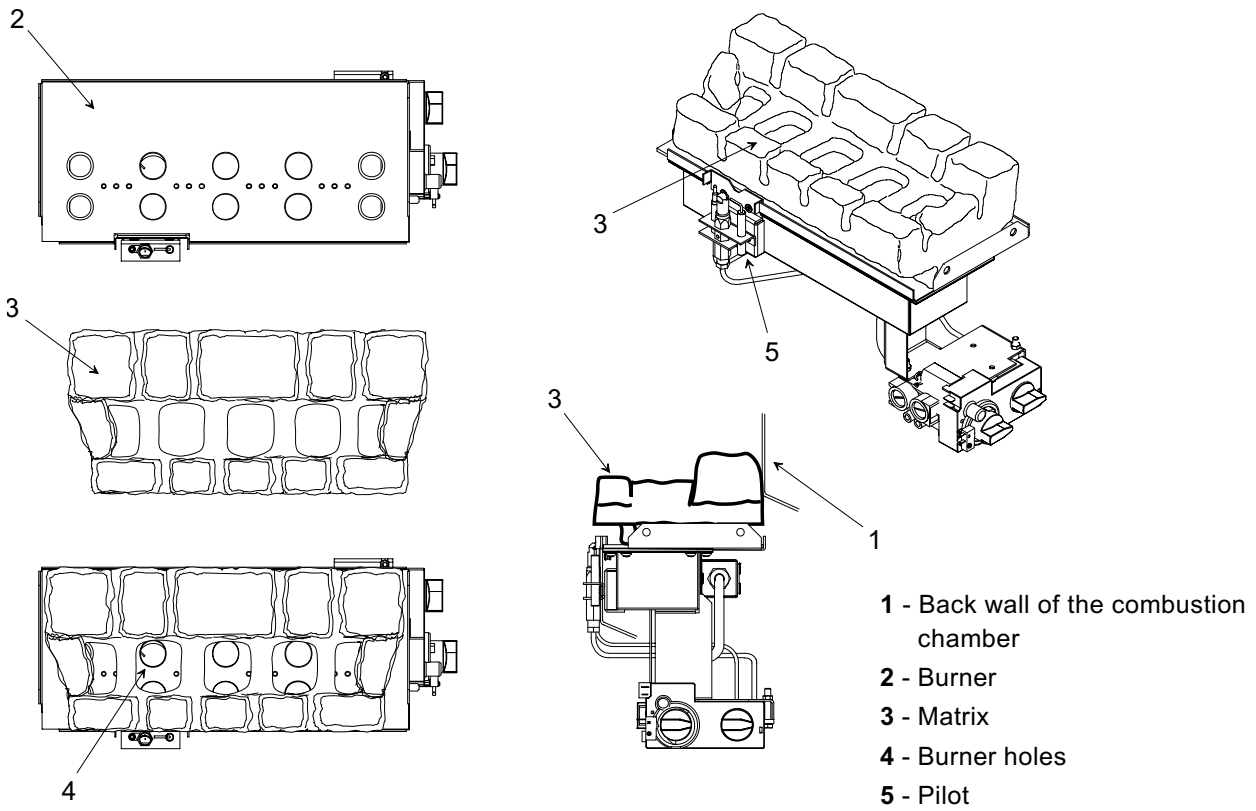
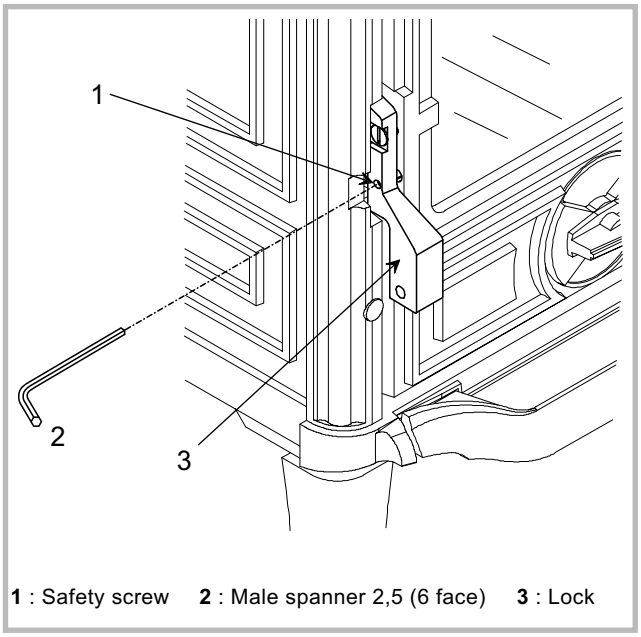


Figure 2 - Fitting the ceramic matrix (coals kit)

2.7 Door Lock

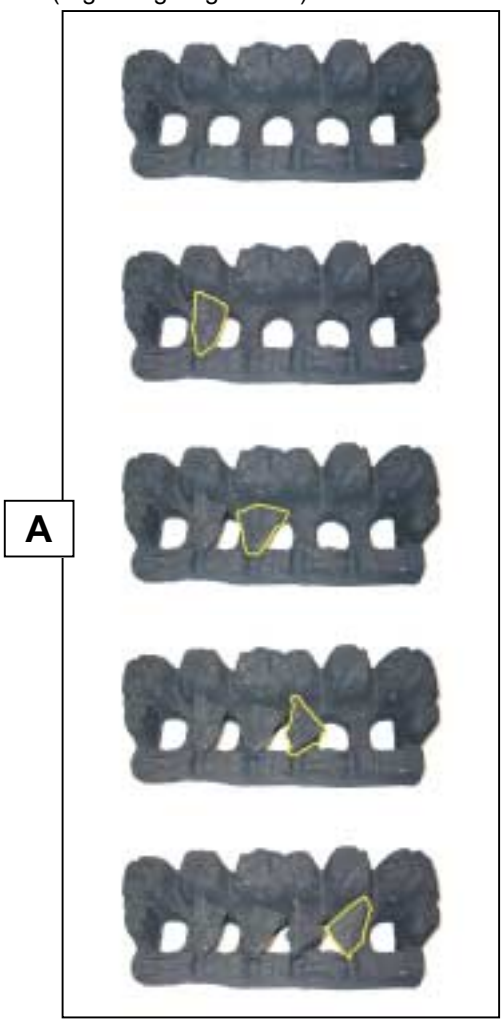


1 : Safety screw **2** : Male spanner 2,5 (6 face) **3** : Lock

Figure 3 - Door Lock

2.8 Ceramic Fuelbed Layouts

Only the ceramic coals supplied with this appliance are be used. The coals should only be laid as shown on this page. Replacement coals and ceramic are available from your dealer, but should be installed by a competent person (e.g. Corgi registered).



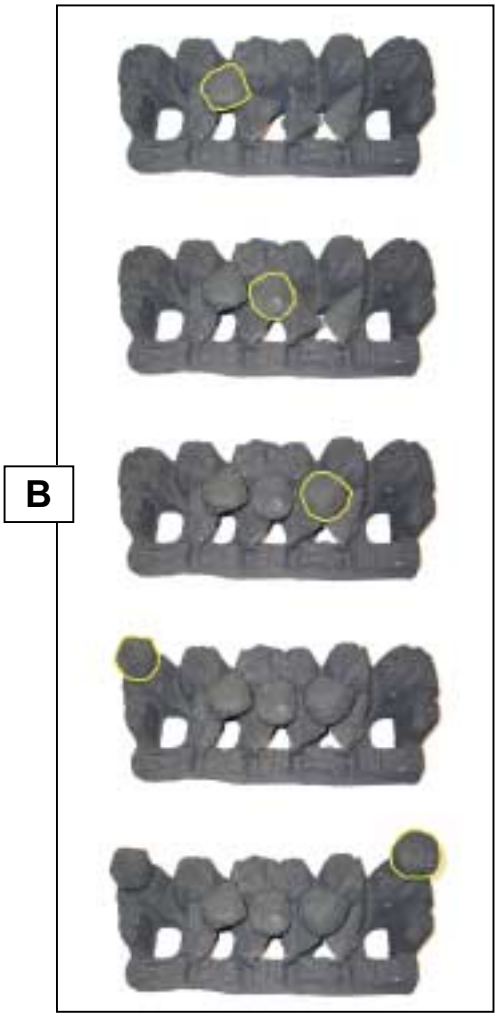
Please ensure that when fitting the matrix and coals, that you **DO NOT OBSTRUCT THE PILOT FRANCO BELGE** accept no responsibility for any injury sustained whilst handling hot ceramics.

Instructions for the layout of the prefixed ceramic matrix and loose coals for Belfort Flueless Stove.

• Coal Layout

Parts : 1 Ceramic mat, 12 Ceramic coals.

- Place the ceramic matrix on top of the ceramic mat, on the top of the burner body.
- Place 4 coals on top of the matrix as shown in (**A**).
- Place the remaining 5 coals as shown in (**B**).



2.9 Commissining the Stove

If there is a fan in the room (or adjacent rooms) the stove must be turrn on with the fan running on full power and all connecting doors between the fire and fan left open.

Check that the fan has no influence onto the stove.

The stove will produce an odour and/or smoke for the first few hours of use. Please ventilate the room.

Notes

3. Instructions for user

The appliance is adjusted and sealed in accordance with category (G20) I_{2H}

A qualified installer must connect and commission the appliance in accordance with the prevailing regulations; otherwise the guarantee is void.

Warning: You are strongly advised to protect unsupervised young children and handicapped people from the high temperature reached by the accessible operating surfaces and in particular the glass.

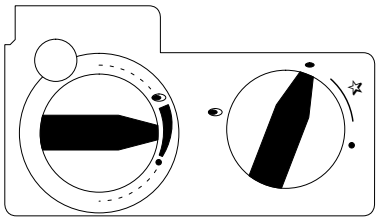
The ignition and adjustment knob is on the bottom right of the appliance. The pilot light is to the front of the burner, under the matrix.

3.1 Manual Tap

• Igniting the Pilot Light

Turn the Right-hand knob slightly anti-clockwise towards the ignition position until reaching stop, depress and hold for five seconds (only pilot gas flows).

Whilst still depressed, turn further in an anti-clockwise direction to activate the piezo. If the pilot does not light, repeated immediately.

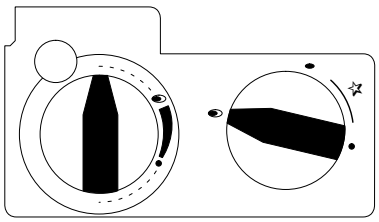


Continue to keep the knob depressed for a further 10 seconds, after the pilot has been lit.

Upon releasing the knob, the permanent pilot will remain lit, if not return to off position and repeat.

• Running the appliance at high output

Ignite permanent pilot as shown in “Igniting the pilot light”.

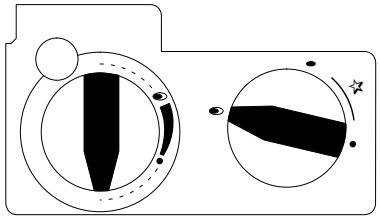


Turn the Right-hand control knob anti-clockwise to the setting, which shows the larger flame. Turn the Left-hand control knob anti-clockwise to the highest setting (large flame).

The appliance is now burning at its highest operating output.

• Running the appliance at low setting

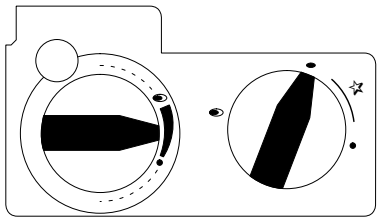
Ignite permanent pilot and run appliance at “High” setting for a minimum of 10 minutes as shown above.



With the Left-hand control knob at then highest setting, rotate in a clockwise direction to the lowest setting (filled circle).

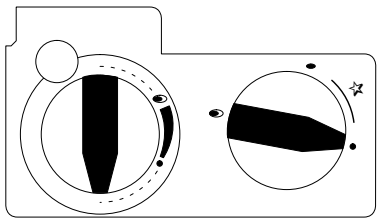
The appliance is now operating at its lowest operating output.

• Extinguishing the appliance back to permanent pilot setting



From any heat setting, turn the Right-hand knob in a clockwise direction to the “Pilot” position (the smaller flame).

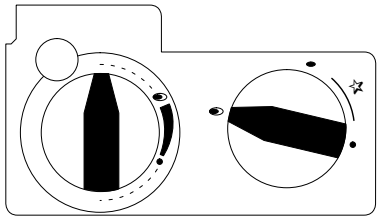
• Extinguishing the appliance fully

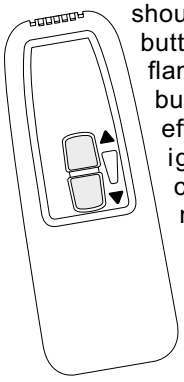


From any heat setting, turn to “Pilot” as in “Extinguishing the appliance back to permanent pilot setting”. Depress the same knob slightly and turn clockwise to “Off” position (filled circle).

3.2 Remote Control (Simple version)

Ignite the pilot as described for the “Advanced Manual Tap” above. Turn Right-hand control anti-clockwise until it is on the large flame setting. You are now able to use the remote control. To increase the flame, the top button should be depressed. Pressing the lower button on the handset will reduce the flame. It is also possible to turn the main burner all the way down so that it is effectively off, leaving only the pilot ignited. When using the remote control system, the appliance also maintains full manual control. Hence the stove can be operated using either the Manual Controls of the Remote Handset.





3.3 Recommandations

- Whenever you ignite the appliance, ensure that the pilot light's flame is long enough (2-3 cm) to light the burner rapidly. Too long a delay in ignition can become noisy and even dangerous. When the flame seems too short, notify your heating engineer so that he can clean the pilot light.
- Close the safety tap when the stove is not used.
- Under no circumstances should the appliance be operated with the door open or the door glass damaged.
- **If you smell gas : Do not smoke ! Avoid naked flames ; do not use electric devices**. Open windows and doors, close the gas tap and call your installer way from the scene.

Never look for gas leaks with a naked flame.

☞ **This appliance produces heat and may cause severe burns if touched.**

KEEP CHILDREN AWAY.

3.4 Safety devices

Burner safety : If there are faults in the gas supply or in lighting, the safety device (thermocouple) will shut down the gas tap automatically.

- It is advised for safety reasons to wait 5 minutes before lighting again the appliance.
- Eliminate any cause of the safety lock

Thermostatic switch (ttb) : In the event of a partial or total blockage the burner and the gas supply will be automatically cut. After cooling down, the thermostatic switch will be automatically reset

- Wait for around 10 min and re-light the appliance in accordance with section 'Lighting'.

☞ **In case of repeated burner cut off, due to a blockage, it is required to stop using the stove and check the complete system. We recommend that you engage the services of a professional engineer for the regular maintenance requirements.**

3.5 Maintenance

Appliance servicing must be done once a year during summer time by a qualified engineer to avoid any problem or fault during winter-time. This person will also check safety devices.

Clean the painted components and the glass with a sponge or a chamois leather to avoid dirt becoming encrusted. Do this when the appliance is cold using a suitable proprietary cleaner. Never use abrasive products.

Annual maintenance by a specialist ensures that the appliance will operate correctly during the heating seasons.

3.6 Servicing Instructions

The following outlines only the minimum work that should be performed on an annual basis. This service work, like any other work on the appliance, must only be done by a C.O.R.G.I registered engineer.

a) Open the door.

b) Remove all matrices from top of burner.

c) Remove mat from top of burner and discard.

d) Remove any debris from the top of the burner and any dirt, dust or hair from the venturi on the underside using a vacuum cleaner and brush.

e) Inspect the burner unit.

f) Perform an ignition check.

g) Perform a flame failure check

h) There should be no need to service the burner. If however this is required, then the engineer should check the setting pressure at inlet to burner; the correct pressure is shown on the data information plate.

i) Inspect the Pyrolytic Mesh for sooting, replace if there is evidence of excessive soot.

j) If it is necessary to remove the Pyrolytic Mesh, this can be achieved by removing the Top Plate of the Stove. These fastenings can be found either side of the top plate. The pyrolytic mesh can then be accessed and replaced.

k) Place new Ceramic mat on burner, brush off and replace matrix arrangement as shown in section 8, replacing any broken or damaged pieces.

l) heck seal on doors (including glass) and close the Doors.

m) Check the installation for gas leaks.0

If any parts need to be replaced use only genuine Franco Belges, standard parts.

3.7 Trouble shooting

The gas pilot will not ignite or stay lit ?

Ensure the gas is turned on at the appliance and the meter/cylinder.
Depress the control knob for at least twenty seconds once the pilot is alight to ensure the operation of the safety thermocouple valve.
Ensure that the pilot injector is not obstructed or blocked and it is free from any dust or dirt.
Ensure that the thermocouple has not been damaged in transit. This is a very delicate Electro-magnetic device.

The pilot is not burning or performing correctly?

Ensure the pilot flame is the correct size for the type of gas. The flame should be focused on the thermocouple probe.
The pilot flame will have been set correctly in the factory.

The Main Burner does not seem to be burning correctly ?

Ensure adequate gas pressure to the appliance. Test pressure by releasing the pressure test screw and applying a manometer. Ensure adequate volume of gas is being used. Once the fire is burning on maximum, turn off all other gas appliances in the house and calculate the fuel being burned from the gas meter.
Make sure that the burner is burning correctly. The

flame should be even across the top of the burner before any coals are placed on top.

Piezo-electric igniter : *The spark between the electrode and the head of the pilot light is not clean ; there is no spark when the lighter is operated.*

- Check the contact of the high tension cable of the spark plug. When the end of the cable is held at about 3 mm from the end of the spark plug, a spark should be produced when the piezo-elertric igniter is operated.
- Check that the insulation of the spark plug is not cracked, and replace the spark plug if necessary.

The thermocouple : *When the unit is started up, the pilot light flame goes out when the handle is turned from the "ignite" position to the "pilot light" position.*

- **The thermocouple is not at a high enough temperature, the pilot light flame is too short.**

- Check that the injector is not partially blocked.

To gain access to the injector, the coals and the burner must first be dismounted (3 screws).

- **Bad contact at the connection of the thermocouple to the valve.**

- Check the tightness of the screw. It should be reasonably tight.

- **Carbon deposit on the end of the thermocouple, which reduces temperature transmission.**

Clean the end of the thermocouple with emery paper.

4. Spare parts

Spare partlist

So certain parts of your stove must be replaced, use only parts manufactured by Franco Belge.

When ordering spare parts, specify **the stove type** and **serial number**, including the **colour index** (on the guarantee or identification plate), **the name** of the part and **the part number**.

Example : Stove “Belfort”, ref. 154 03 05, Top plate 352136.

N°	Codes	Description	Type	Qty
1	303718 EF	Blanking plate		01
2	352136 EF	Top plate		01
3	327801	Clamp		01
4	306290 EF	Back wall		01
5	240303	Support		01
6	100102	Clamp		01
7	202820	Support		01
8	243506	Supplementary diverter		01
9	243404	Draught diverter		01
10	310823 EF	L. side panel		01
11	310737 EF	R. side panel		01
12	359818 EF	Front plate		01
13	110404	Hinge pin	6X30	02
14	189713	Screw	M8X30	01
15	134258	Bushing		01
16	300118 EF	Leg		04
17	300480	Base		01
18	124412	Strut	M8X45	01
19	276007	Descriptive plate		01
20	122204	Winged nut	M8 BN213	01
21	307440 EF	Fuel retainer		01
22	188798	Glass		01
23	181632	Rope	DIAM 6	0,90 m
24	259015	Fixing plate		04
25	142881	Gasket		04
26	181614	Ceramic rope	DIAM. 9,5	1,94 m
27	309997 EF	Main door		01
28	189825	Screw	M 5X6	01
29	301541 EF	Door lock		01
30	100917	Cam pin		01
31	189849	Screw	M 6X16	01
32	327902 EF	Ash pan guide		01
33	105540	Burner NG		01
34	142883	Gasket		01
35	106040	Block gas		01
36	188321	Pilot NG		01
37	139637	Injector NG		01
38	72812	Coals kit		01
39	109727	Moulded coal		01
40	109728	Triangle coal		01
41	149985	Coal matrix		01
42	105006	Rope	DIAM 15MM	1,05 m
43	181617	Rope	15X2	2,00 m
44	202827	Support filters front		01

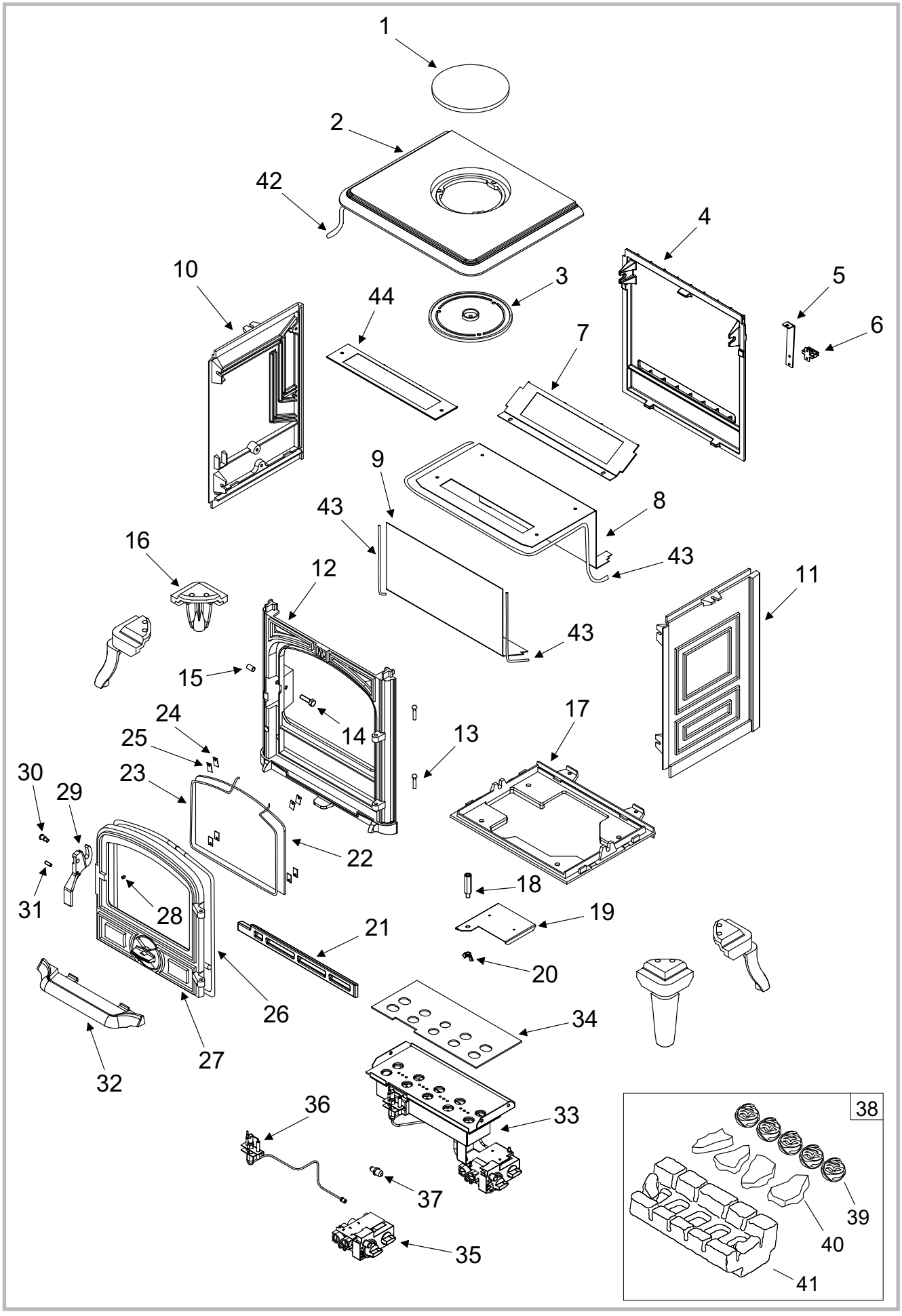


Figure 4 - Spare parts view

FRANCO BELGE

❧ Guarantee certificate ❧

❧ *Legal guarantee*

The specifications, dimensions and information shown on our documents are provided for information purposes only and under no circumstances are binding upon the vendor.
With the aim of constantly improving our equipment, all modifications considered as necessary by our departments may be made without notice.
The provisions of the present guarantee certificate are not excluding or limiting the owner of the equipment's rights, concerning the legal guarantee regarding faults or hidden vices which applies in all circumstances, in the conditions detailed in articles 1641and following of the civil code, and in the country in which the equipment was purchased.

❧ *Contractual guarantee*

Our equipment is guaranteed against faults and hidden vices subject to the following conditions:

1) *Installation and adjustment of the device by a professional installer.*
2) *Observance of the instructions provided in our technical documents and our installation/adjustment instructions.*
3) *The installation, use and maintenance of the device carried out in conformity with the applicable standards and legislation, and with the indications provided in the technical instructions accompanying the device.*

This guarantee covers the replacement, in our factory, of parts recognised as being defective from the outset by our "Guarantee Inspection" Department. Carriage and labour is at the user's cost. Moreover, if the repair or replacement of parts covered by the guarantee is found to be too costly vis-à-vis the price of the appliance, the decision to replace or repair the appliance will be taken by the vendor.
Our guarantee is for 2 (two) years for all appliances, with the exception of closed combustion fireplace and inserts for which our guarantee is 5 (five) years excluding the following:

1) *Indicator lights, fuses, electrical elements and fans.*
2) *Parts subject to wear or in contact with high temperatures namely: soles and burner grills, bottom plates baffles, ash pans, paintwork and surface treatments for decorative parts. Also excluded from this guarantee are seals and windows.*
3) *Any damage which may result from the use of the appliance with a fuel other than that stipulated in our instructions.*
4) *Damage occurring to parts caused by elements outside the appliance (down draught, storm damage, damp, abnormal pressure or vacuum, heat shocks, etc.).*
5) *Damage to electrical parts caused by plugging in and using the appliance on a mains system, the voltage of which (measured at the entrance to the appliance) is 10% above or below the nominal voltage of 220 V.*

❧ *Exclusion of liability*

In the case of a product manufactured at the client's request, under no circumstances may we, as a subcontractor, be considered liable vis-a-vis the client or third parties for defects arising from the installation or a design fault with the item in question.

✉ Name and address of the installer : _

_ _

☎ Telephone : _

✉ Name and address of the customer : _

_ _

Date of installation : __ __ / __ __ /__ __ __ __

Model of the appliance : ❑ **154 03 05**

Color : ❑ **Y**

Serial number : ___ ___ ___ ___ ___ ___

• This certificate has to be completed and kept carefully.

In case of claims, send a copy of this to :

STAUB FONDERIE, BP 73, 59660 MERVILLE, FRANCE.