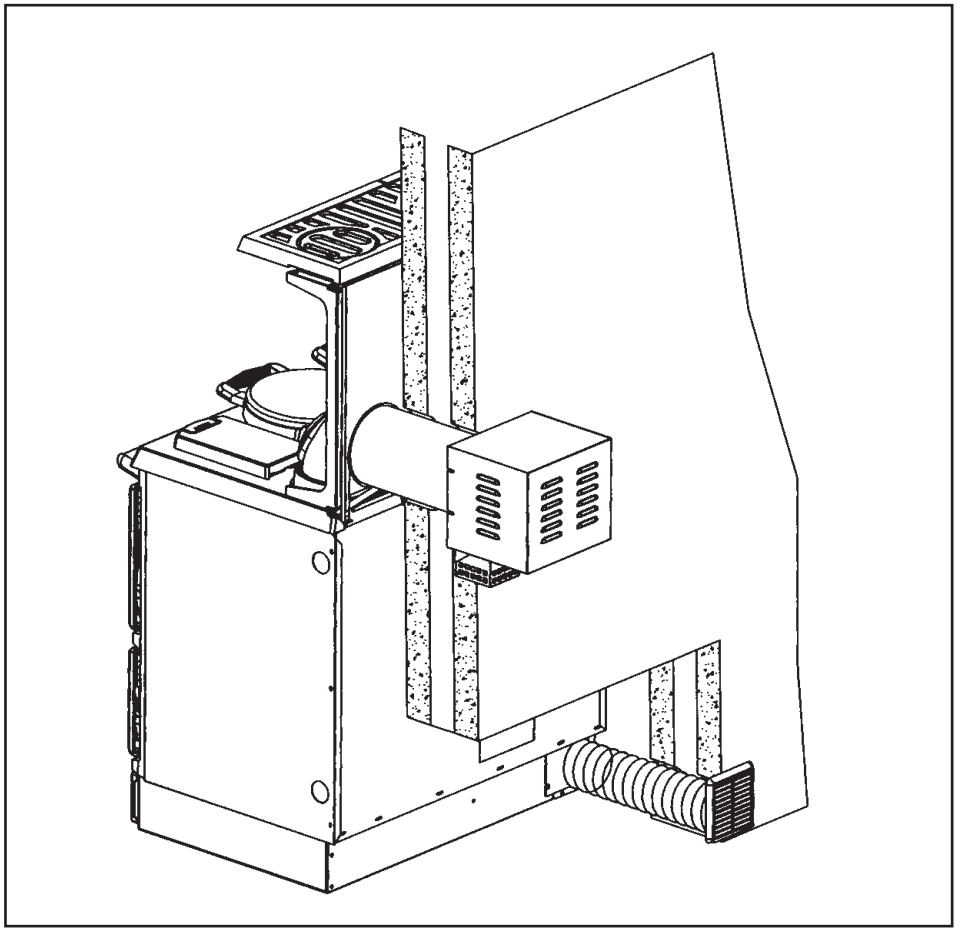
STANLEY

BRANDON COOKERS
OIL & GAS /
BOILER & NON BOILER
FAN FLUE KIT

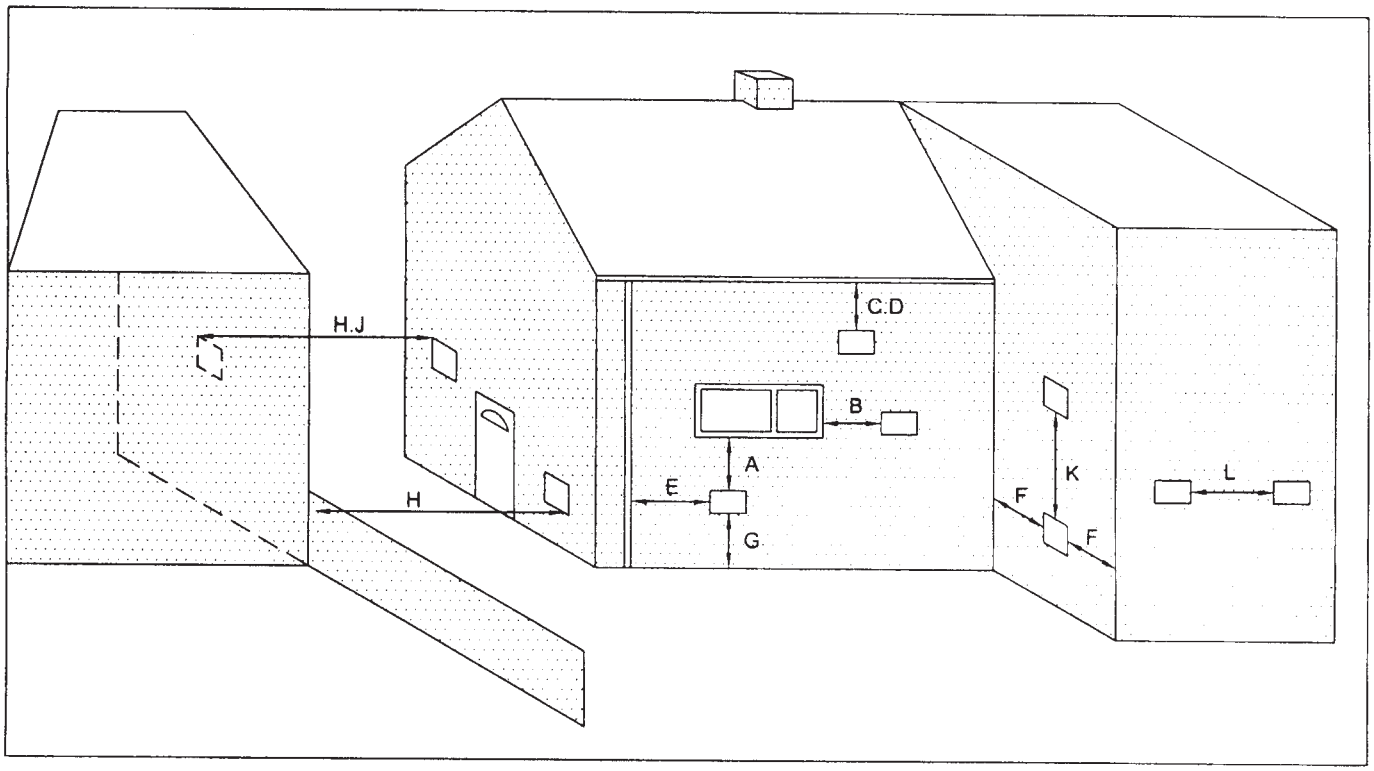


INSTALLATION MANUAL

TABLE OF CONTENTS

PAGE NO.

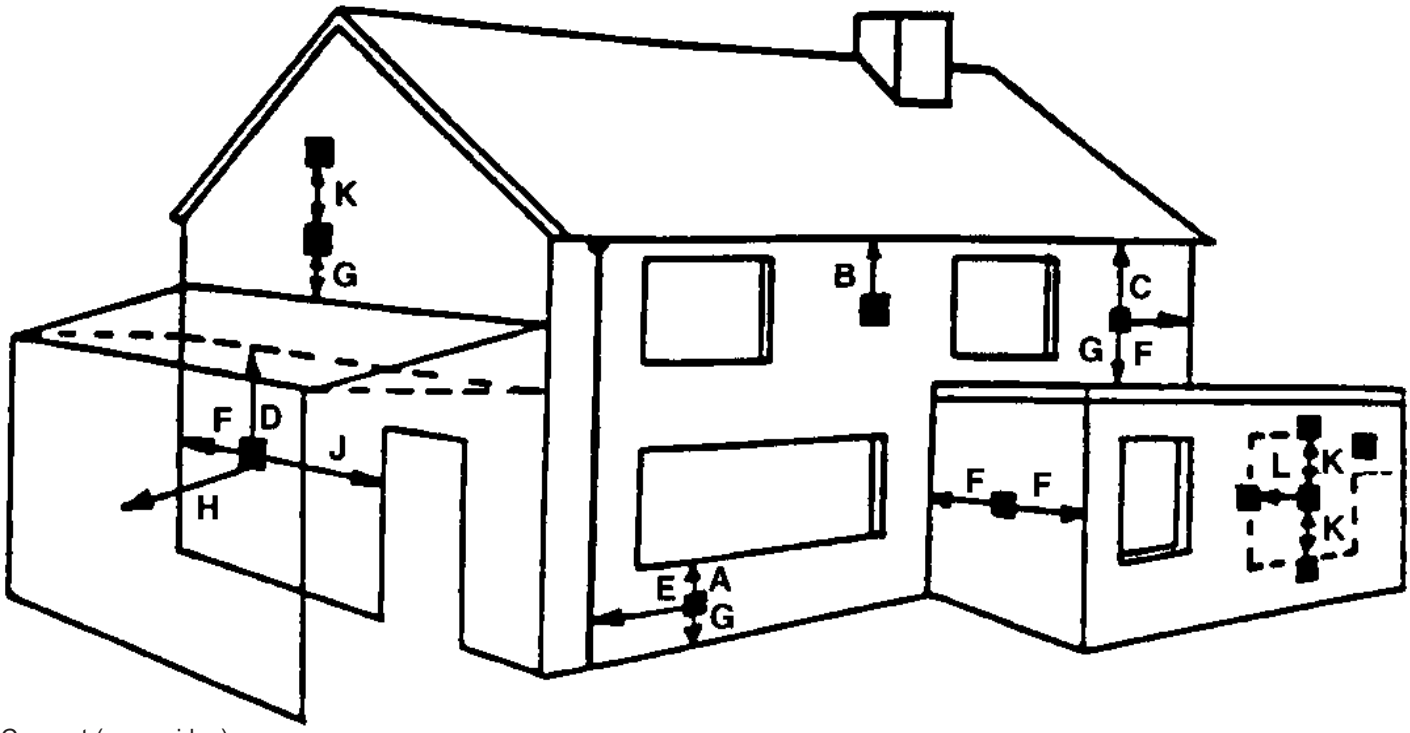
POSITION OF FAN FLUE TERMINAL FOR OIL FIRED COOKERS



OIL FIRED COOKERS		
A	Directly below an opening, air brick, window etc..	600
B	Horizontally to an opening, air brick, window etc..	600
C	Below a gutter, eaves or balcony with protection	75
D	Below a gutter or a balcony without protection	600
E	From vertical sanitary pipework	300
F	From an internal or external corner	300
G	Above ground or balcony level	300
H	From a surface or boundary facing the terminal	600
J	From a terminal facing the terminal	1200
K	Vertically from a terminal on the same wall	1500
L	Horizontally from a terminal on the same wall	750

Refer to part of the Building Regulations England and Wales, Irish Building Regulations. B.S. 5410 Part 1, and Part F of the Building Standards (Scotland) Regulations.

POSITION OF FAN FLUE TERMINAL FOR GAS FIRED COOKERS



Car port (open sides)

GAS FIRED COOKERS - MINIMUM DISTANCES TO TERMINALS ARE AS FOLLOWS:		
A.	Directly below an opening, air brick, window etc.	300
B.	Below a gutter, eaves or balcony with protection.	75
C.	Below a gutter or a balcony without protection.	200
D.	Below balconies or car port roof.	200
E.	From vertical drain and sanitary pipe work.	75
F.	From an internal or external corner.	300
G.	Above ground or balcony level.	300
H.	From a surface or boundary facing the terminal.	600
I.	From a terminal facing a terminal.	1200
J.	Horizontally to an opening, air brick, window etc.	1200
K.	Vertically from a terminal on the same wall.	1500
L.	Horizontally from a terminal on the same wall.	300

Refer to Part J of the Building Regulations, England & Wales, Irish Building Regulations. B.S. 5440 Part 2 and Part F of the Building Standards (Scotland) Regulations.

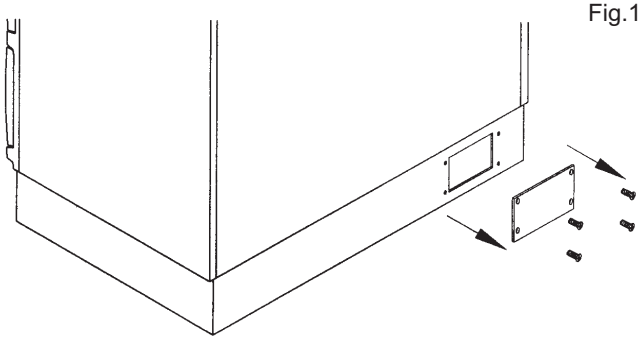
BRANDON FAN FLUE KIT ASSEMBLY AND INSTALLATION

SEE LIST OF CONTENTS WHEN ITEM NUMBERS ARE REFERRED TO:

Step 1

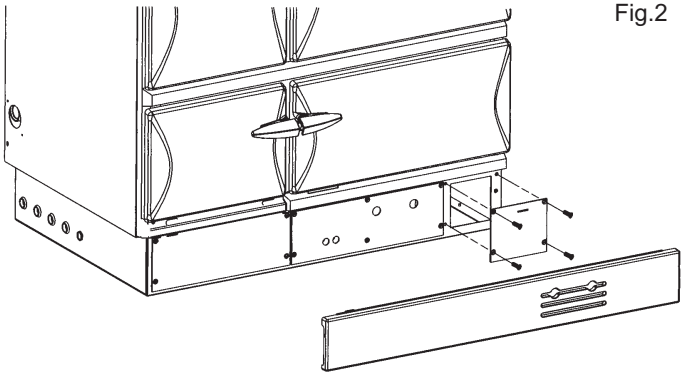
(a) Remove the plinth on the front of the cooker by sliding it across approximately 15 mm to the left and then pulling it straight out.
(b) Remove the air inlet blanking plate from the rear of the cooker.

Fig.1



(c) Remove the air inlet plate (slotted plate) on the front of the cooker

Fig.2



(d) Fit the blanking plate where the air inlet plate was removed from.

Step 2

(a) Fit the primary air spigot to the rear of the cooker where the blanking plate was removed from. (See Fig.3)
(b) Push the air inlet duct on over the primary air spigot.

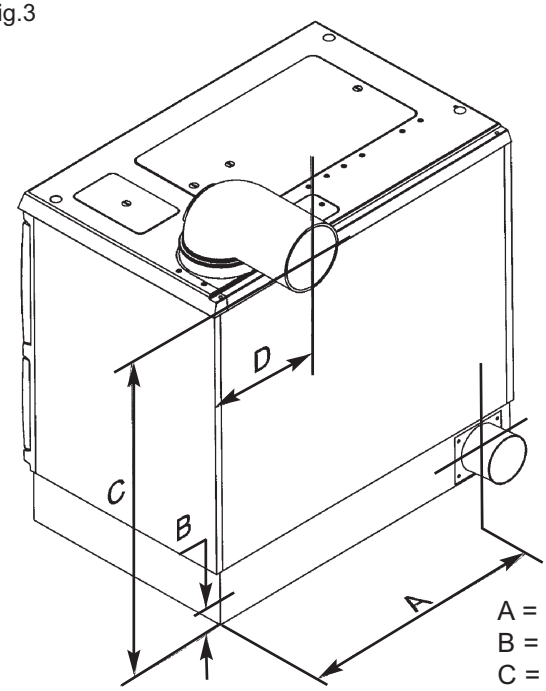
Step 3

(a) Make a 100mm (4”) diameter opening through the wall for the air inlet duct.
(b) Make a 175mm (7”) diameter opening through the wall for the flue pipe. (See Fig.3)

Step 4

Position the cooker against wall allowing for the minimum clearances. (see cooker clearances in the Installation and commissioning manual).

Fig.3



A = 788mm
B = 76mm
C = 1047mm
D = 130mm

Step 5

(a) Fit the sections of the flue together and place it through the wall.
(b) Fit the bend to the top of the cooker.
(c) Disassemble the fan flue to separate the wall plate.
(d) Fit the wall plate to the external wall.
(e) Seal all the flue components together using an approved refractory or suitable fire cement.

Step 6

(a) Disconnect the wiring at the plug in terminal block in the fan flue.
(b) Remove the burner cover plate from the cooker behind bottom left door.
(c) Feed the plug in terminal strip through the air inlet duct from within the cooker.
(d) Make a hole in the air inlet pipe to allow the terminal strip be fed through.
(e) Re-connect the terminal block and secure the cable to the wall using appropriate fixings.
(f) Connect the air inlet terminal (item 4) to the flexible duct (item3) and secure the air inlet terminal to the wall making provision for the cable beside it.

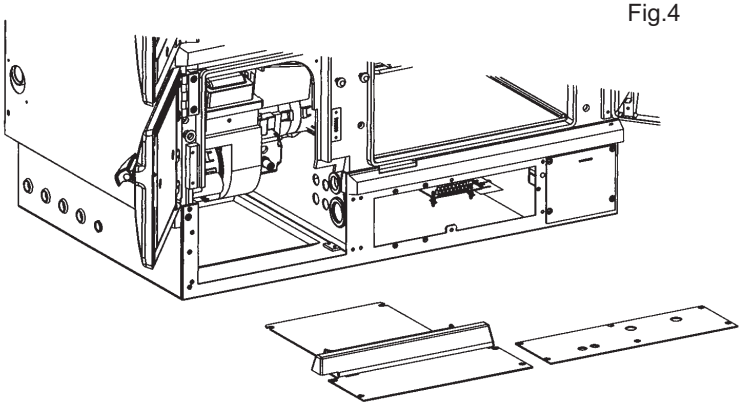
Note

All electrical connections and wiring should be carried out by competent persons.

Step 7

(a) Make the electrical connections as per “Electrical Connection Section”.

Fig.4



STEP 8

(a) Check that all fastenings and joints are tight, fully secured and sound.
(b) Check the correct cooker clearances and terminal locations are adhered to.

Step 9

When commissioning the cooker check the negative pressure in the flue at the elbow. Using the potentiometers on the circuit board in the junction box adjust the fan speed to achieve a pressure reading of 1.5mm (0.06”w.g.) minimum. The potentiometer marked VR2 controls the fan speed when in oven mode, the potentiometer marked VR1 controls the speed when in both boiler and dual mode. The speed in dual mode is 20% faster than that in boiler mode, when commissioning ensure that the speed is set so that the negative pressure in both dual and boiler mode is greater than or equal to 1.5mm (0.06”w.g.).

ELECTRICAL CONNECTION OF FAN FLUE TO BRANDON 100/80/60KOIL FIRED COOKERS.

* Connect the brown wire to terminal 6 on the cooker Pcb.
* Connect the neutral to any of the neutral terminals.
* Connect the earth to the earth block.
* Remove and discard the link from terminal 16 to terminal 1 in the boiler control box,
* Insert the grey wire to terminal 16 and the red wire to terminal 1 in the control box.
* Remove and discard the link from terminal 21 to terminal 1 in the oven control box,
* Insert the white wire to terminal 21 and the black wire to terminal 1 in the control box.

ELECTRICAL CONNECTION OF FAN FLUE TO BRANDON 100/80/60K GAS FIRED COOKERS.

* Connect the brown wire to terminal 6 on the cooker Pcb.
* Connect the neutral to any of the neutral terminals. Connect the earth to the earth block.
* Remove the wire from terminal 16 on the cooker PCB and place it in a terminal block along with the red wire and insert the grey wire into terminal 16.
* Remove the wire from terminal 21 on the cooker PCB and place it in a terminal block along with the black wire and insert the white wire into terminal 21

ELECTRICAL CONNECTION OF FAN FLUE TO BRANDON DRY/DHW COOKERS.

* Connect the brown, blue and earth wires to the fused terminal block in the cooker in the appropriate locations.
* Disconnect the live wire to the burner control box and place it in a terminal block along with the white wire, then the black wire is connected to the burner control box in place of the live wire which was previously removed.

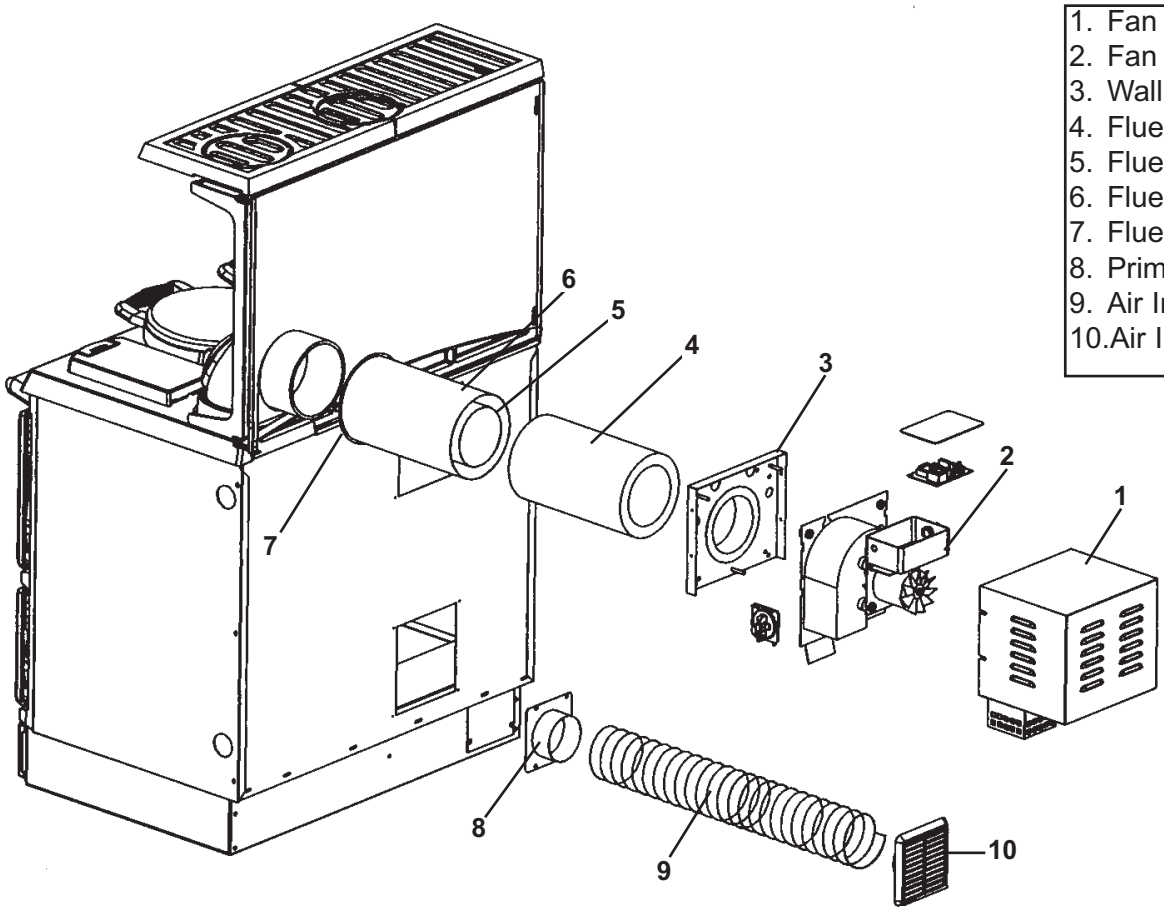
The red and grey wires are not used on single burner cookers so should be cut back and insulated.

NON STANDARD WALL THICKNESS

There is an extended flue available (to order) that is suitable to be installed through wall thickness in excess of 325mm. A 1 metre flue length is available which can then be cut to suit the wall thickness.

Care must be taken to cut straight and to remove all sharp edges.

Fig.5 **EXPLODED VIEW**

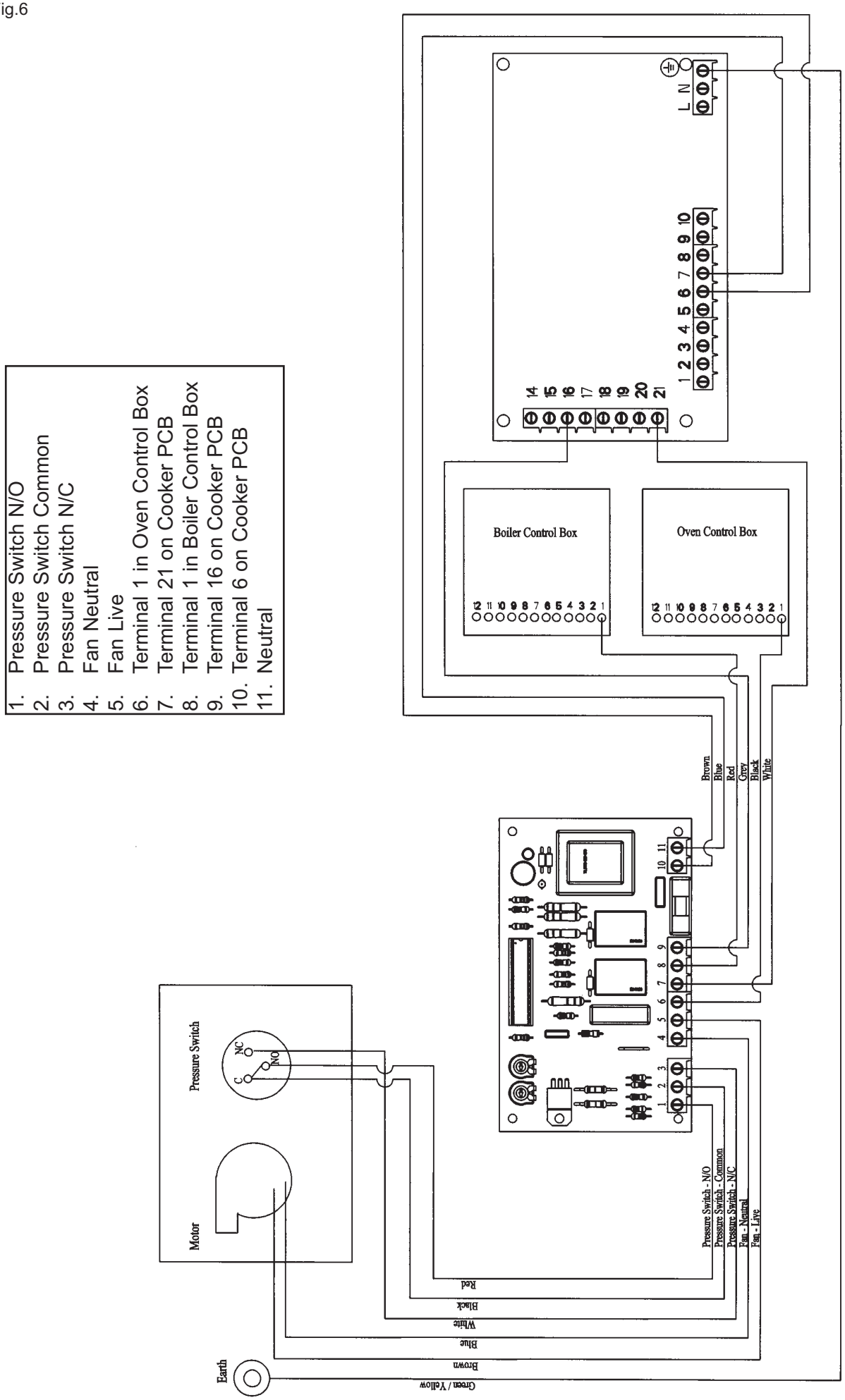


1. Fan Flue Casing
2. Fan Flue
3. Wall Plate
4. Flue Insulation
5. Flue Inner Section
6. Flue Outer Section
7. Flue Spigot
8. Primary Air Inlet Spigot
9. Air Inlet Duct
10. Air Inlet Terminal

IMPORTANT.
Fan Flue Terminal Kit is **NOT** to be connected to an appliance burning 35 Sec. class D fuel.

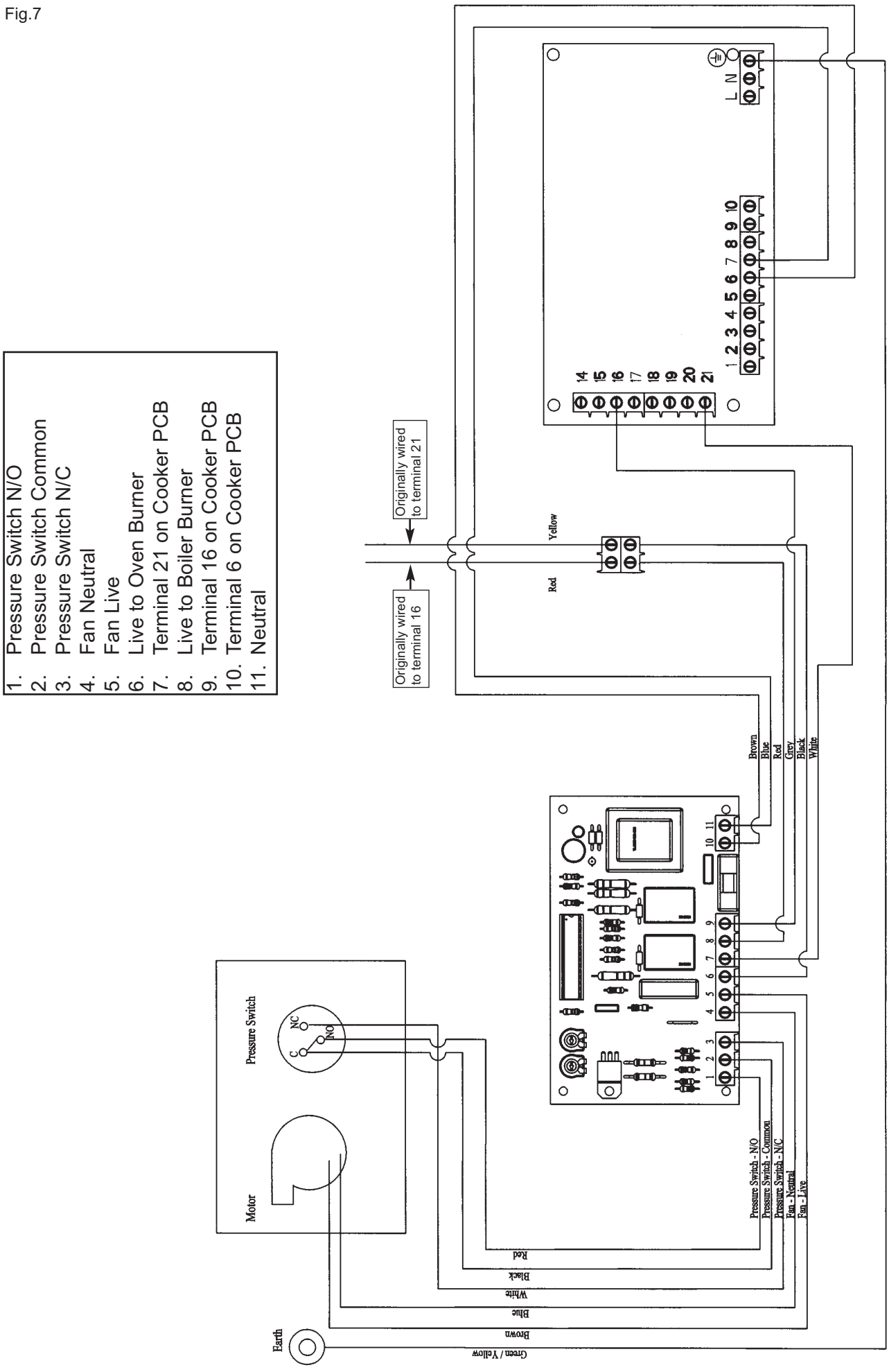
BRANDON MK3 FAN FLUE WIRING DIAGRAM FOR OIL CENTRAL HEATING COOKERS

Fig.6



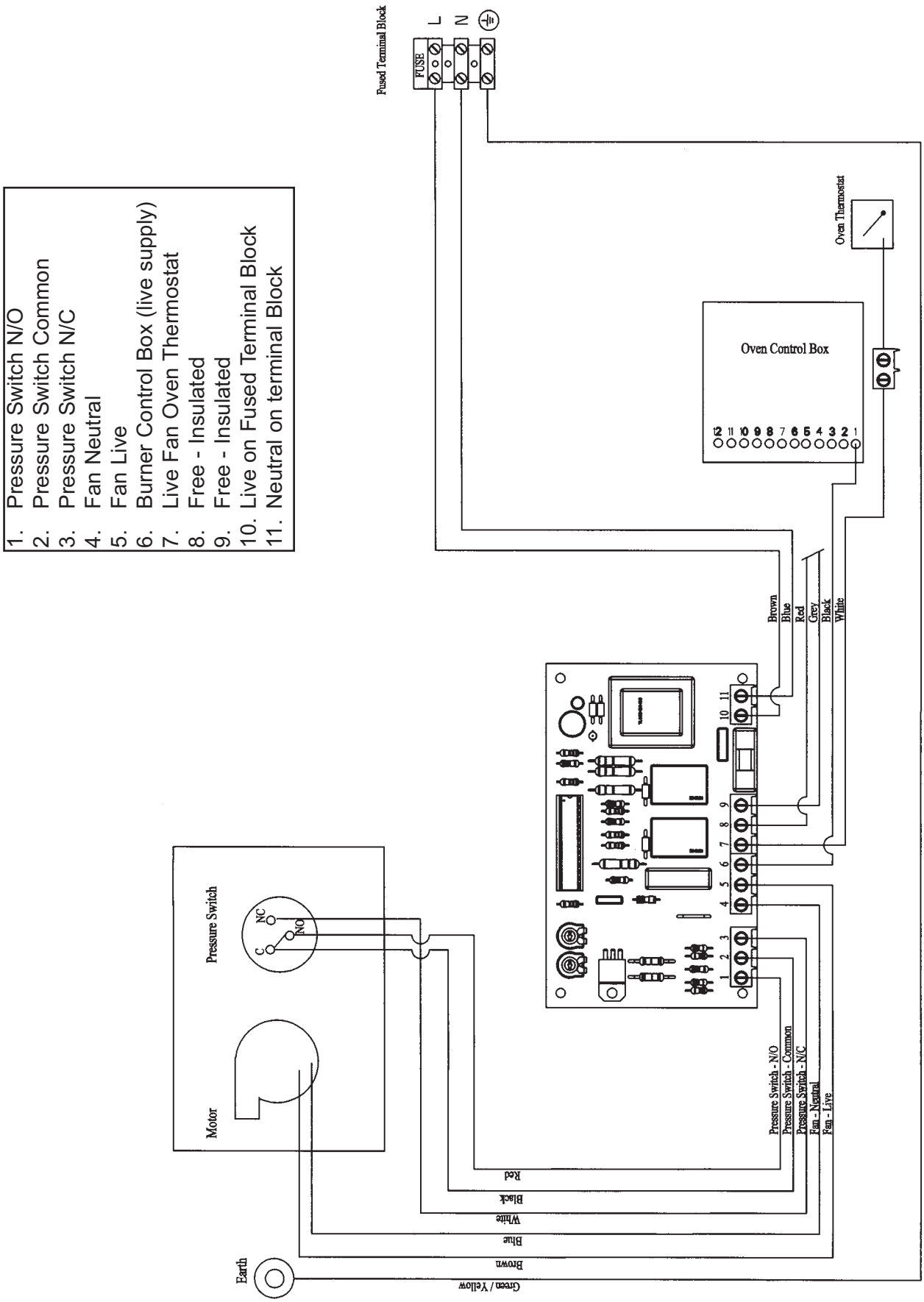
BRANDON MK3 FAN FLUE WIRING DIAGRAM FOR GAS CENTRAL HEATING COOKERS

Fig.7



BRANDON MK3 FAN FLUE WIRING DIAGRAM FOR DRY / DHW COOKERS

Fig.8



FAULT FINDING

The printed circuit board is designed to monitor the safe operation of the pressure switch and provide a separate fan speed in oven boiler and dual modes. If the pressure switch fails to either normally closed or normally open the board will not provide an output to the cooker.

The fan speed is controlled separately for the boiler and oven modes using the separate potentiometers, the fan speed for dual mode is a function of the boiler mode speed ,approximately 1.2 times the speed set for boiler mode.

In the event that the cooker will not work the status of the signals sent to and from the fan flue can be determined using the flash code on the led located beside the transformer on the board.

LED off - No call for heat.
Single flash = Waiting for NC to be closed.
2 flashes = Waiting for NO contact to close after fan start, max 10 seconds.
3 flashes = As 2 but re-proving cycle because NO has opened > 6 seconds
4 flashes = post purging.
5 flashes = waiting too long (>10s) for PS N/O to close. Lockup condition
6 flashes = waiting too long (>10s) for PS N/O to close. (after re-prove) Lockup condition
1 short flash , 1 long flash = All well, with live supplied to either burner

The voltage received by the control board is fused and then routed to the fan live(terminal 5) all controls to the speed are on the neutral so the voltage between live to the fan flue and earth will read 230V approx when the board is powered up. The common terminal to the pressure switch is given a 20V DC which should then be returned on the normally open or normally closed contact depending on the state of the pressure switch.

Manufactured by
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