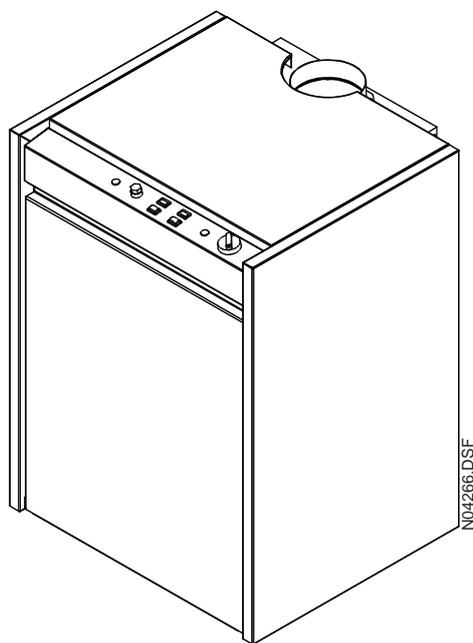

INSTALLATION AND SERVICING INSTRUCTIONS

EDENA CLASSIC E

Model : 35 - 43 - 53 - 64 kW

Gas Fired Floor Standing Boiler



N04266.DSF

Contents

- 1.0** Introduction
- 2.0** General Layout
- 3.0** Technical Data
- 4.0** Dimensions
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- 7.0** Installation
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- 11.0** Illustrated Wiring Diagram
- 12.0** Fault Finding
- 13.0** Short Parts List

1.0 INTRODUCTION

NOTE: This appliance must be installed in accordance with the manufacturer's instructions and the regulations in force. Read the instructions fully before installing or using the appliance.

Boilers are built in accordance with the following European directives:

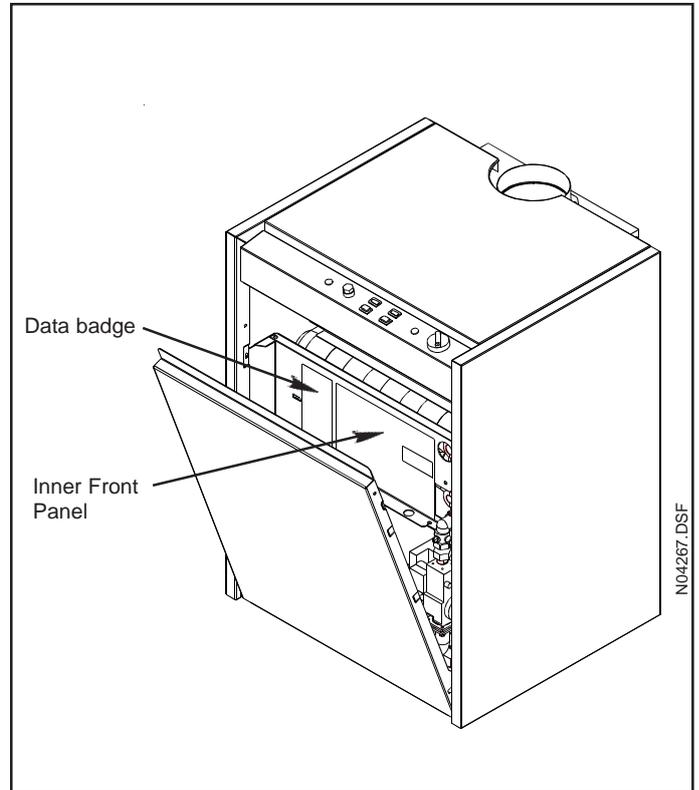
Directive	"Low voltage"	73 / 23 / EEC
Directive	"Electromagnetic compatibility"	89 / 336 / EEC
Directive	"Gas equipment"	90 / 396 / EEC
Directive	"Output"	92 / 42 / EEC
Directive	"Pressure vessels"	97 / 23 / EEC

This boiler and fittings included comply with the directive, without however being subject to EC marking (according to Article 3.3).

BAXI declare that no substances harmful to health are contained in the appliance or used during appliance manufacture.

1.1 Description

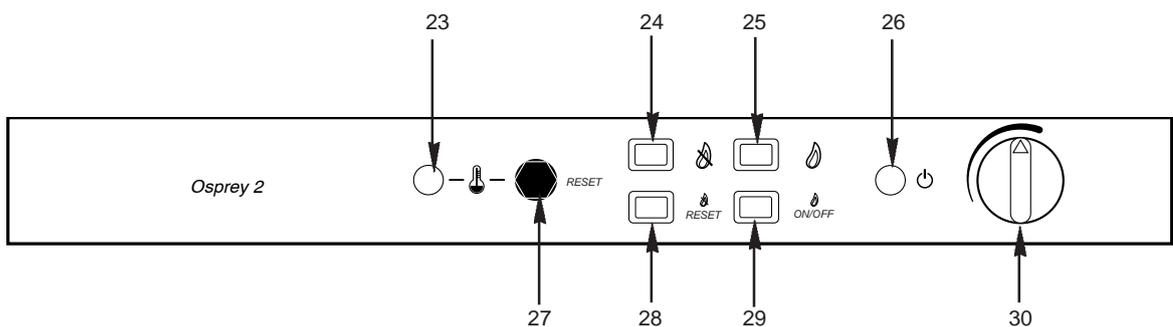
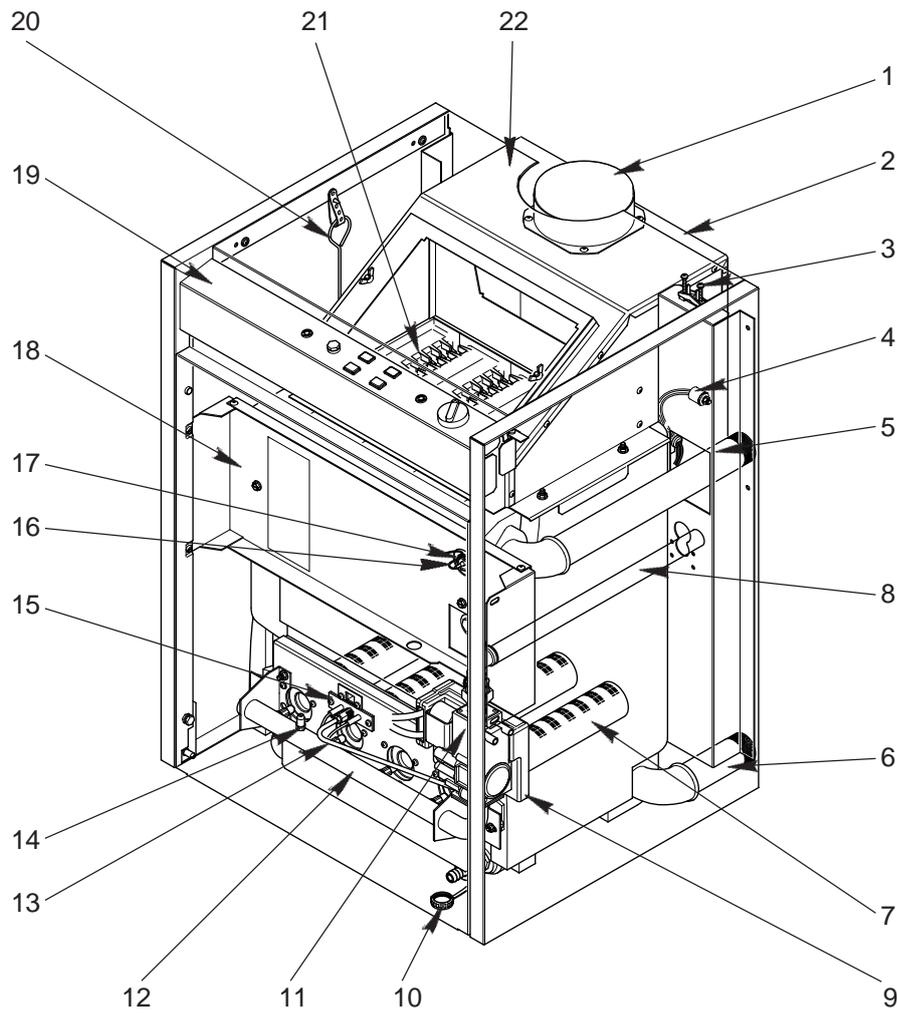
1. The Osprey 2 CFL is a fully automatic gas fired floor standing conventionally flued boiler with a cast iron heat exchanger.
2. The boiler is designed for use with fully pumped open vented or sealed water systems with an indirect hot water cylinder.
3. The boiler is available in outputs of 35.0, 43.0, 52.8 and 64.5kW.
4. It is designed for use on Natural Gas (G20) and propan (G 31).
5. The boiler data badge is positioned on the boiler inner front panel.
6. The boiler is intended to be installed in residential / commercial / light industrial E.M.C. environments on a governed meter supply only.
7. All systems must be thoroughly flushed and treated with inhibitor.



2.0 GENERAL LAYOUT

2.1 Layout

- | | |
|----------------------------|----------------------------------|
| 1. Flue Spigot | 16. Overheat Thermostat |
| 2. Draught Diverter | 17. Boiler Thermostat |
| 3. Cable Clamp | 18. Inner Front Panel |
| 4. Flue Safety Thermostat | 19. Control Panel |
| 5. Flow Connection | 20. Cleaning Brush |
| 6. Return Connection | 21. Heat Exchanger |
| 7. Burner | 22. Flue Hood |
| 8. Gas Inlet Connection | 23. Boiler Safety Overheat Neon |
| 9. Burner Ignition Control | 24. Flame Failure Neon |
| 10. Boiler Drain and Cap | 25. Burner On Neon |
| 11. Gas Valve | 26. Power On Neon |
| 12. Burner Manifold | 27. Boiler Safety Overheat Reset |
| 13. Pilot Feed Pipe | 28. Flame Failure Reset |
| 14. Pressure Test Point | 29. On/Off Button |
| 15. Pilot | 30. Temperature Control |

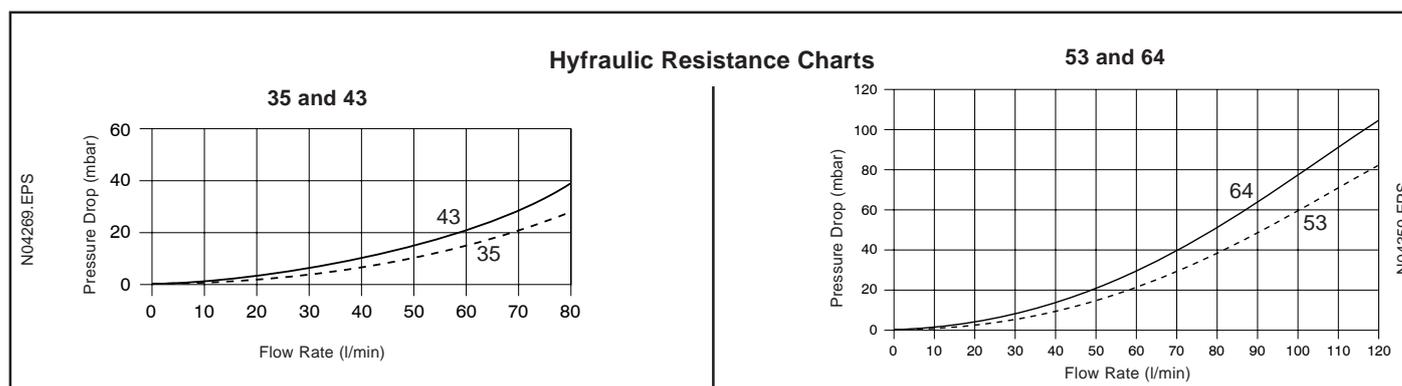


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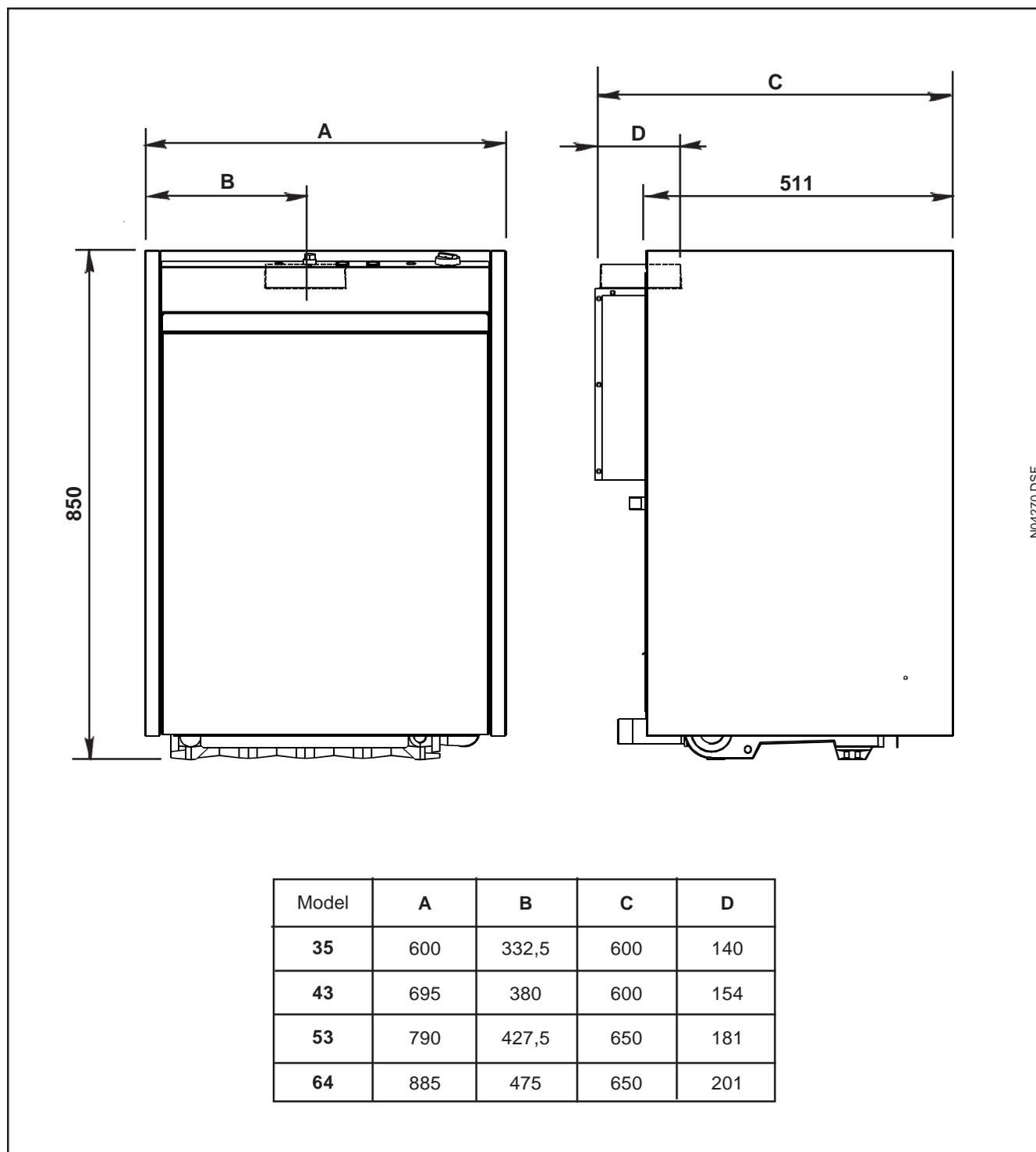
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3.0 TECHNICAL DATA

Model		35	43	53	64
CE N°		1312BM3629	1312BM3628	1312BM3626	1312BM3627
Appliance Type		B11BS			
Appliance Categorie gas		II _{2H,3P}			
Heat input	kW	43,07	47,83	58,34	71,83
Heat Ouput	kW	35,0	43,0	52,8	64,5
Gas rate G 20 - 20 mbar	m³/h	4,0	5,06	6,0	7,3
Burner pressure G 20 - 20 mbar	mbar	11,2 ±0,4	11,4 ±0,4	11,0 ±0,4	11,8 ±0,4
Burner injector G 20	mm	Ø 2,6			
Pilot injector G 20	mm	Ø 0,45			
Gas rate G 31 - 37 mbar	g/h	2950	3640	4440	5470
Burner pressure G 31 - 37 mbar	mbar	36	36	36	36
Burner injector G 31	mm	Ø 1,7			
Pilot injector G 31	mm	Ø 0,24			
Maximum working head	bar	4			
NOx Class		3		2	
Maximum flow temperature	°C	85			
Gas supply	Inch	1/2"			
Flue connection	mm	140	154	181	201
Water connection	Inch	1" 1/4			
Water Content	litres	24	29	33	38
Electrical Suply		230 V - 50 Hz			
Power Consumption (excluding pump)	W	25			
External Fuse Rating	A	3			
Electriical Protection		IP20			
Weights	kg	140	170	200	230



4.0 DIMENSIONS



ND4270.DSF

5.0 SYSTEM DETAILS

5.1 Primary Circuit

1. The appliance is suitable for fully pumped systems only. The system can be open vented or sealed.
2. A sealed system must incorporate the following :
 - Safety Valve
 - Pressure Gauge
 - Expansion Vessel
 - Filling Point

Treatment of Water Circulating System

- All recirculatory water systems will be subject to corrosion unless an appropriate water treatment is applied. This means that the efficiency of the system will deteriorate as corrosion sludge accumulates within the system, risking damage to pump and valves, boiler noise and circulation problems.

Failure to flush and add inhibitor to the system may invalidate the appliance warranty.

- It is important to check the inhibitor concentration after installation, system modification and at every service in accordance with the manufacturer's instructions. (Test kits are available from inhibitor stockists.)

5.2 Bypass

1. The boiler is fitted with a pump overrun device which allows the removal of residual heat from the boiler. The system design must therefore always provide an open circuit to allow water circulation between the boiler flow and return.
2. Any bypass must be capable of allowing a minimum flow rate of 8l/min and be able to dissipate at least 2kW.

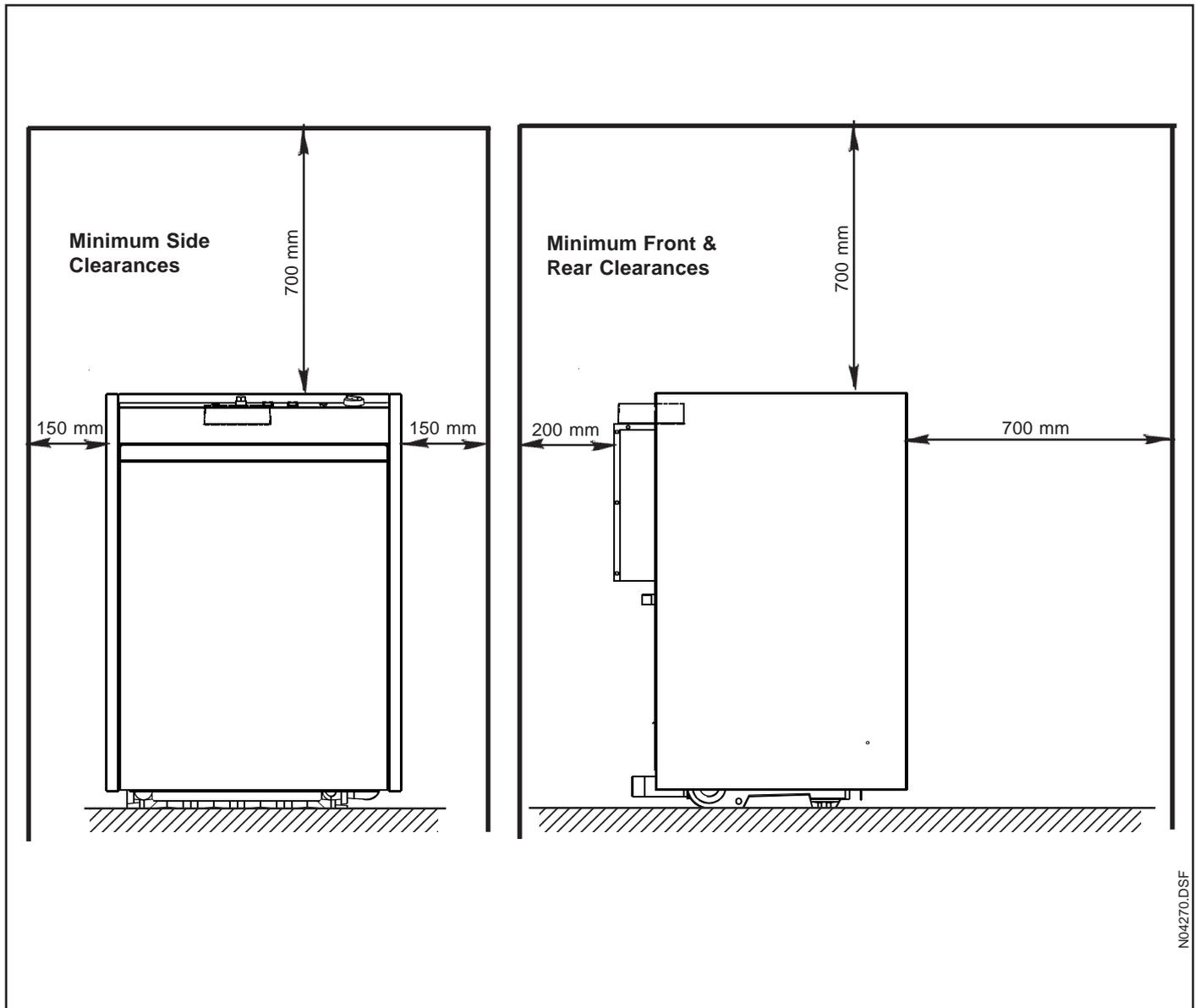
5.3 System Control

1. The boiler is intended for use in a heating system that incorporates external controls, i.e. a minimum of a timer device.
2. For optimum operating conditions and maximum economy the fitting of room and cylinder thermostats is recommended.
3. The boiler should be controlled so that it operates on demand only.

6.0 SITE REQUIREMENTS

6.1 B.S. Codes of Practice

WARNING : The addition of anything that may interfere with the normal operation of the appliance without the express written permission of BAXI could invalidate the appliance warranty and infringe the GasSafety (Installation and Use) Regulations.



N04270.DSF

6.2 Location

1. The boiler must be positioned on a flat and level floor or base which must be capable of supporting the full operational weight of the boiler. The flue must pass through an outside roof or wall and discharge to atmosphere in a position permitting satisfactory removal of combustion products.
2. The boiler should be fitted within the building unless otherwise protected by a suitable enclosure i.e. garage or outhouse.
3. If the boiler or any part of the system is located in an area that may be subjected to low ambient temperatures, it is recommended that a suitable frost protection device is incorporated into the control system.

6.3 Gas Supply

1. The gas installation should be in accordance with regulation.
2. The connection to the appliance is 1/2" Rp
Do not use pipes of a smaller diameter than the boiler gas connection

6.4 Electrical Supply

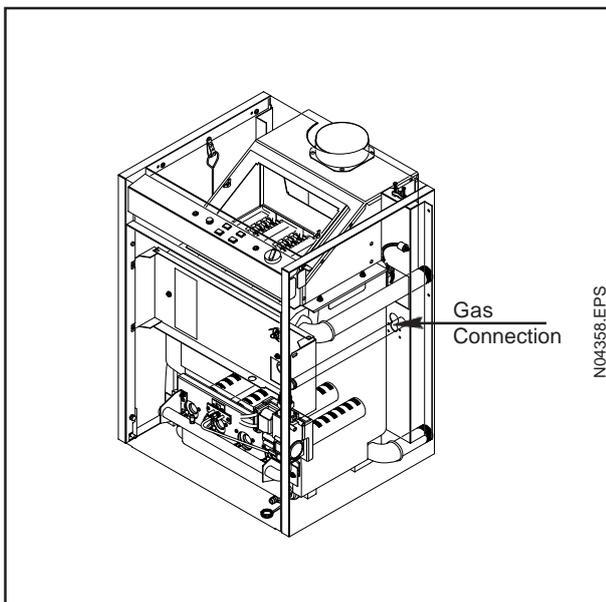
1. External wiring must be correctly earthed.
2. The mains supply is 230V ~ 50Hz fused at 3A.

NOTE : The method of connection to the electricity supply must facilitate complete electrical isolation of the appliance.

Connection may be via a fused double-pole isolator with a contact separation of at least 3mm in all poles and servicing the boiler and system controls only.

6.5 Flues & Ventilation

1. The room or space of installation must be ventilated to ensure the correct and safe operation of the boiler.
2. The flue system should be lined throughout its length.
3. Minimum flue length is 1m. There should be at least 1m of vertical flue from the boiler flue socket, and horizontal runs and 90° bends should be avoided.
4. If an existing chimney is used it must be fully swept before lining or connecting the boiler. Precautions should be taken to avoid condensation forming in the flue.
5. The flue diameter must be at least the same diameter as the connection on the boiler draught diverter.
6. The flue terminal must be of an approved type and be positioned above roof level.



7.0 INSTALLATION

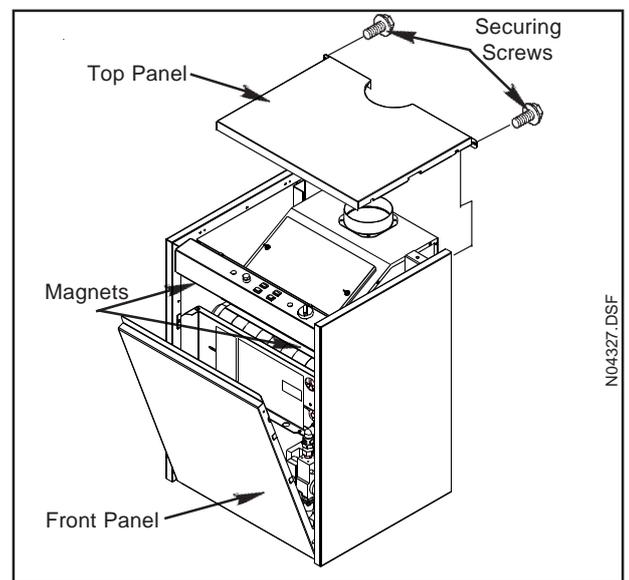
7.1 Initial Preparation

The gas supply, gas type and pressure must be checked for suitability before connection.

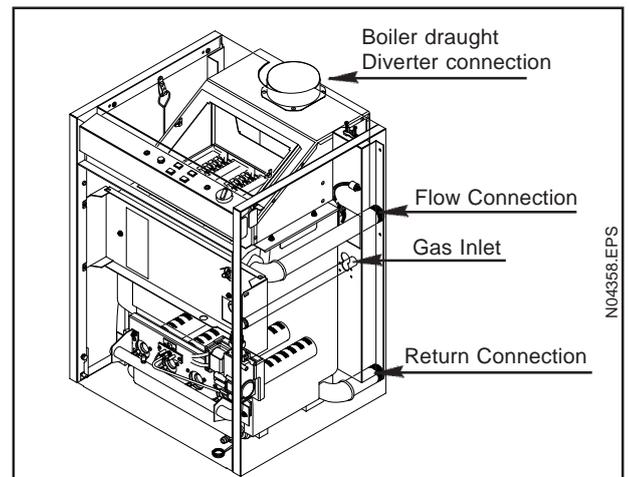
1. Ensure that the floor or base on to which the boiler is to be fitted is clean and free from debris.
2. Install any pipework that will be behind the boiler, and any appropriate flue components.
3. Manoeuvre the boiler into position, seeking assistance as necessary. Check the clearances as shown in Section 6.1.
4. Connect the gas supply pipe and the system flow and return connections to the boiler.
5. Connect the flue system. Any flue pipe must be at least the same diameter as the connection on the boiler draught diverter.

7.2 Making the Electrical

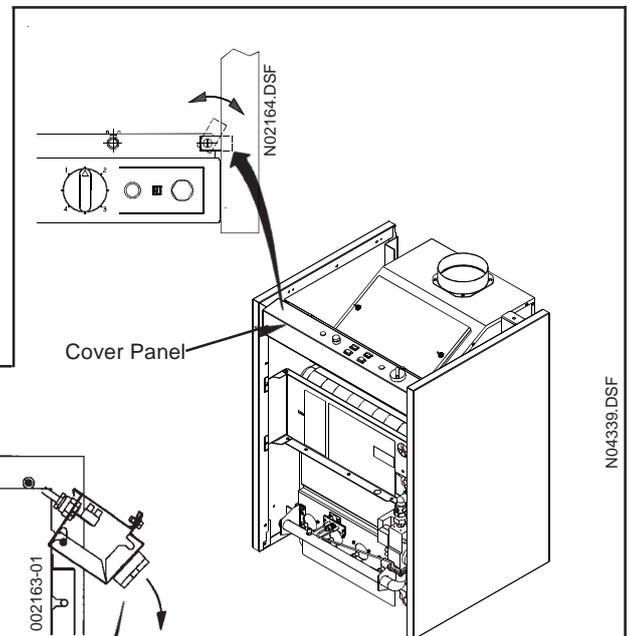
1. Undo the two securing screws from the rear of the top panel. Remove the panel
2. Swivel the two retaining plates through 90°. Lift the control box slightly and allow it to hinge forwards. Undo the two retaining screws and remove the cover panel.
3. The input wiring to the boiler and the pump feed from the boiler should be routed through the grommet/clamps in the control box rear panel.
4. Remove the clamps from the panel and slit the grommets with a suitable knife or blade.
5. Determine the length of the wiring and secure in the clamps.
6. Connect live, neutral, earth, and switched live to L, N, & SL of the terminal strip. The pump live, neutral and earth should be connected to PL, PN & of the terminal strip.



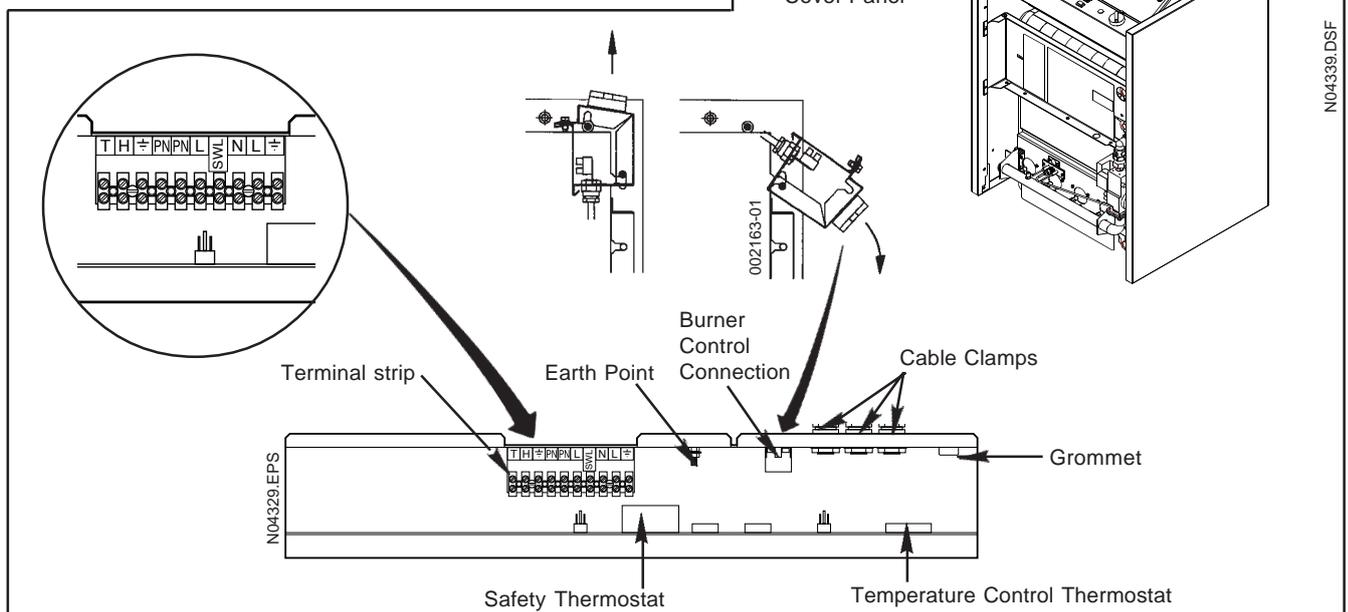
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N04339.DSF



8.0 COMMISSIONING THE BOILER

8.1 Commissioning the Boiler

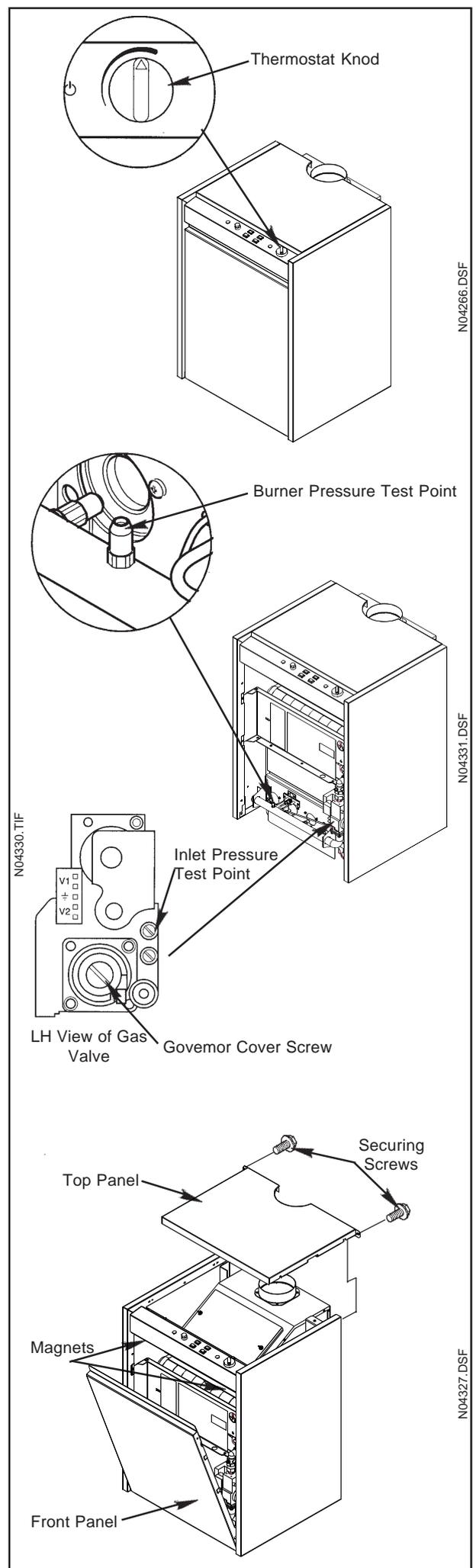
1. Open the water supply to the boiler.
2. The system must be flushed, (see Section 5.1 of these instructions and the flushing agent manufacturer's instructions).
3. Turn the gas supply on and purge the system.
4. Test for gas soundness.

8.2 Checking the Burner Pressure

1. Slacken the pressure test point sealing screw and connect a pressure gauge.
2. Turn on the gas and electrical supplies to the boiler and ensure that all external controls are calling for heat.
3. Set the temperature control to maximum.
4. Check the burner setting pressure (see Section 3.0 "Technical Data").
5. If necessary adjust the pressure by removing the gas valve governor cover and turning the screw to achieve the required pressure.
6. Turn the boiler off and reassemble in reverse order. Tighten the pressure test point sealing screw .

8.3 Completion

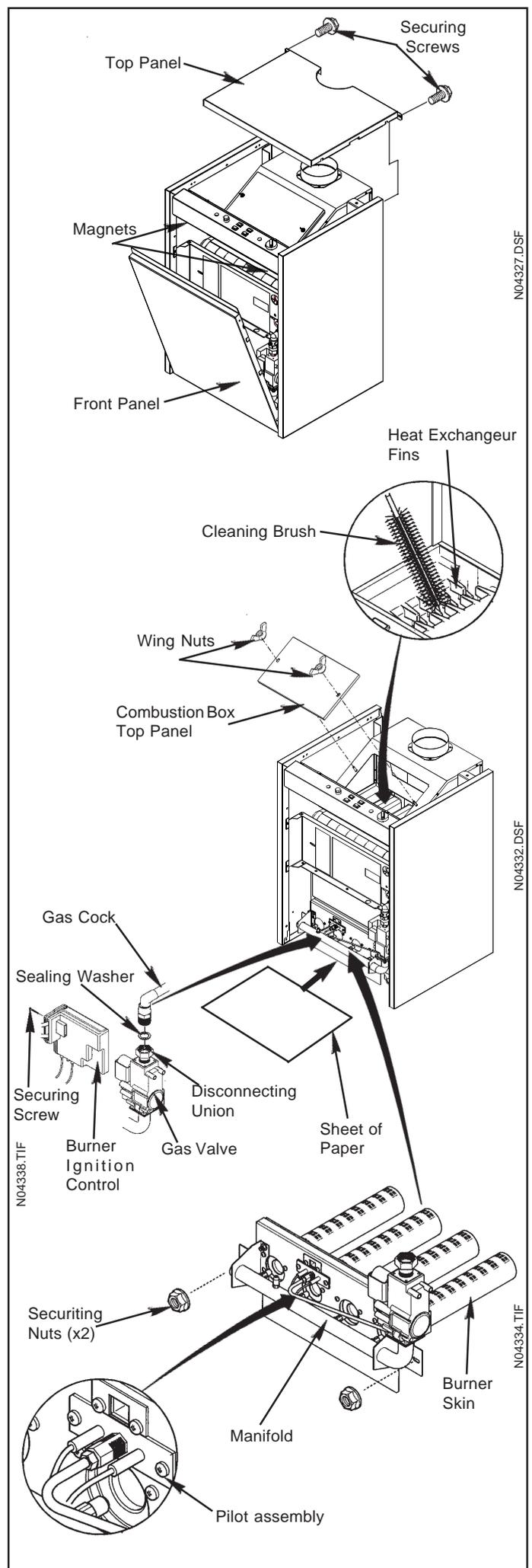
1. Flush the system again and treat it,(see Section 5.1 of these instructions and the flushing agent and inhibitor manufacturer's instructions).
2. Instruct the user in the operation of the boiler controls and the function and resetting of the various safety devices.
3. Refit the outercase front and top panels.



9.0 SERVICING THE BOILER

9.1 Annual Servicing

1. For reasons of safety and economy, it is recommended that the boiler is serviced annually. Servicing must be performed by a competent person.
2. Ensure that the boiler is cool.
3. **Ensure that both the gas and electrical supplies to the boiler are isolated.**
4. Undo the two securing screws from the rear of the top panel. Remove the panel.
5. Disengage the front panel from the retaining magnets and hinge forwards. Unhook the panel from the lower hinge pins and place to the right hand side, taking care not to stretch the earth wire.
6. Undo the wing nuts securing the combustion box top panel. Remove the panel.
7. Undo the disconnecting union on the gas inlet. Remove the screw securing the burner ignition control to the gas valve. Draw the control off the valve.
8. Undo the two nuts securing the valve, injector manifold and burner assembly to the boiler.
9. Hold the manifold and carefully draw the assembly away from the boiler. Retain the washer from the gas inlet connection.
10. Brush any dirt or debris from the burner skins. Examine the burners for blocked ports. Any blockage can be removed using a fine wire brush.
11. Inspect the pilot assembly, electrodes and injectors. Replace if necessary.
12. Ensure that the spark and sensing leads are clipped into the separation brackets and do not cross over each other.
13. Slide a suitable sheet of paper or cloth under the boiler heat exchanger.
14. Unclip the brush from the top edge of the left hand side panel clean between the boiler fins. Check for any blockage.
15. Carefully withdraw the sheet and dispose of in a proper manner. Check under the boiler and remove any fallen dirt or debris.
16. Reassemble in reverse order of dismantling and recommission.



10.0 CHANGING COMPONENTS

IMPORTANT : When changing components ensure that both the gas and electrical supplies to the boiler are isolated before any work is started.

Undo the two securing screws from the rear of the top panel. Remove the panel.

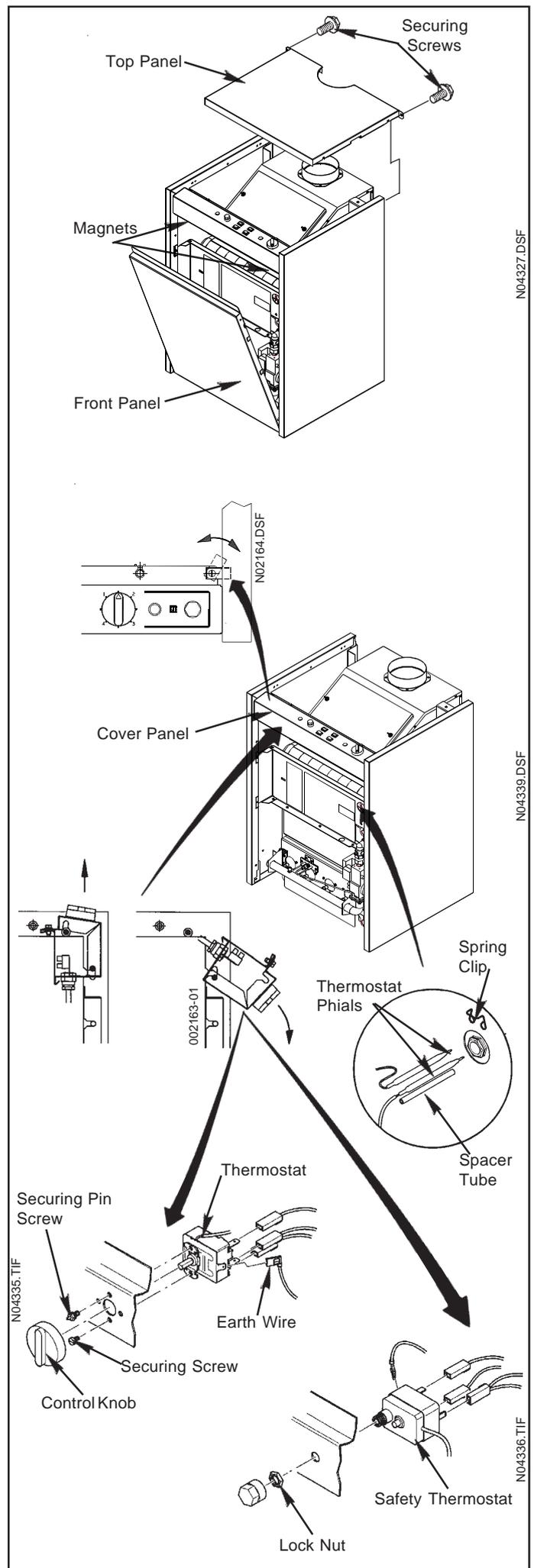
Disengage the retaining magnets at the top of the front panel and hinge forwards. Unhook the panel from the lower hinge pins.

10.1 Boiler Thermostat

1. Swivel the two retaining plates through 90°. Lift the control box slightly and allow it to hinge forwards. Undo the two retaining screws and remove the cover panel.
2. After noting their position remove the wires from the thermostat body. Turn the thermostat knob fully anticlockwise and pull it off.
3. Remove the screws securing the thermostat to the control panel and pull off the earth wire.
4. Pull the spring clip off the thermostat pocket. Withdraw both the boiler and overheat thermostat phials and the spacer tube from the pocket.
5. Take the new thermostat and turn the operating shaft fully anticlockwise.
6. Reassemble in reverse order. The securing screw incorporating the pin must be used on the right. Ensure both phials and the spacer tube are pushed fully into the thermostat pocket and the capillaries are retained by the clip.

10.2 Boiler Safety Thermostat

1. Swivel the two retaining plates through 90°. Lift the control box slightly and allow it to hinge forwards. Undo the two retaining screws and remove the cover panel.
2. After noting their position pull the wires from the thermostat body .
3. Remove the locknut securing the thermostat to the control panel.
4. Pull the spring clip off the thermostat pocket. Withdraw both the boiler and overheat thermostat phials and the spacer tube from the pocket.
5. Reassemble in reverse order, ensuring both phials and the spacer tube are pushed fully into the thermostat pocket and the capillaries are retained by the clip.



10.3 Gas Valve

1. Undo the disconnecting union on the gas inlet. Remove the screw securing the burner ignition control to the gas valve. Draw the control off the valve.
2. Undo the two nuts securing the valve, injector manifold and burner assembly to the boiler.
3. Hold the manifold and carefully draw the assembly away from the boiler. Retain the washer from the gas inlet connection.
4. Undo the pilot feed pipe from the gas valve, and slacken it at the pilot burner to allow it to swing clear.
5. Undo the four screws securing the gas valve to the injector manifold. Remove the valve and seal.
6. Check the condition of the seal previously removed before fitting the new valve to the injector manifold. Replace as necessary.
7. Reassemble in reverse order and check the condition of the seal to be used on the disconnecting union. Replace as necessary.

10.4 Burner (s)

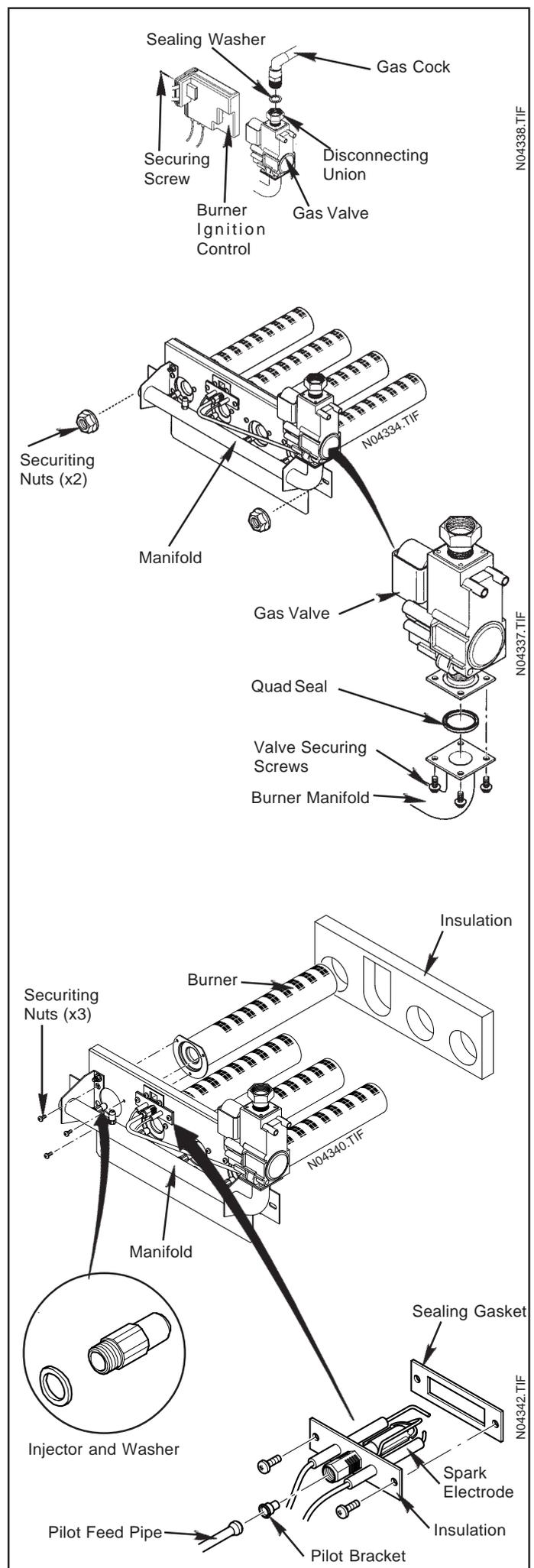
1. Undo the disconnecting union on the gas inlet. Remove the screw securing the burner ignition control to the gas valve. Draw the control off the valve.
2. Undo the two nuts securing the valve, injector manifold and burner assembly to the boiler.
3. Hold the manifold and carefully draw the assembly away from the boiler. Retain the washer from the gas inlet connection.
4. Carefully draw the insulation piece away over the burners .
5. Undo the screws securing the burner(s) to be replaced. Remove the burner(s).
6. Reassemble in reverse order, replacing the insulation piece if it is damaged.

10.5 Injector(s)

1. Using a suitable spanner undo from the manifold the injector(s) to be replaced.
2. Reassemble in reverse order using a new sealing washer for each injector.

10.6 Pilot Assembly

1. Disconnect and remove the pilot feed pipe. Pull the electrode leads off the gas valve burner ignition control and unclip them from the separation brackets.
2. Undo the pilot bracket securing screws. Withdraw the bracket from the burner mounting plate. Carefully remove the pilot injector from the bracket.
3. Inspect the injector and replace if it is blocked or damaged. Check the condition of the pilot bracket sealing gasket and replace if necessary.
4. The new pilot assembly must be fitted as shown, with the spark electrode to the right.
5. Clip the electrode leads into the separation brackets. Ensure that the leads do not cross over each other.
6. Reassemble in reverse order.

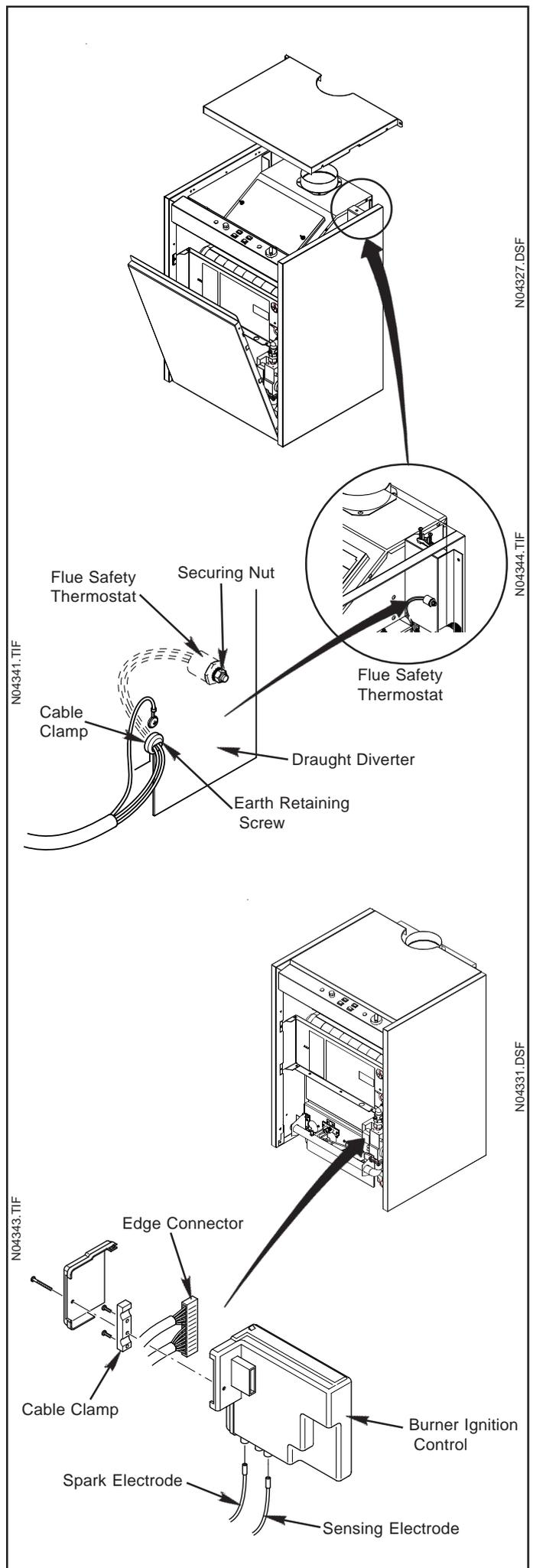


10.7 Flue Safety Thermostat

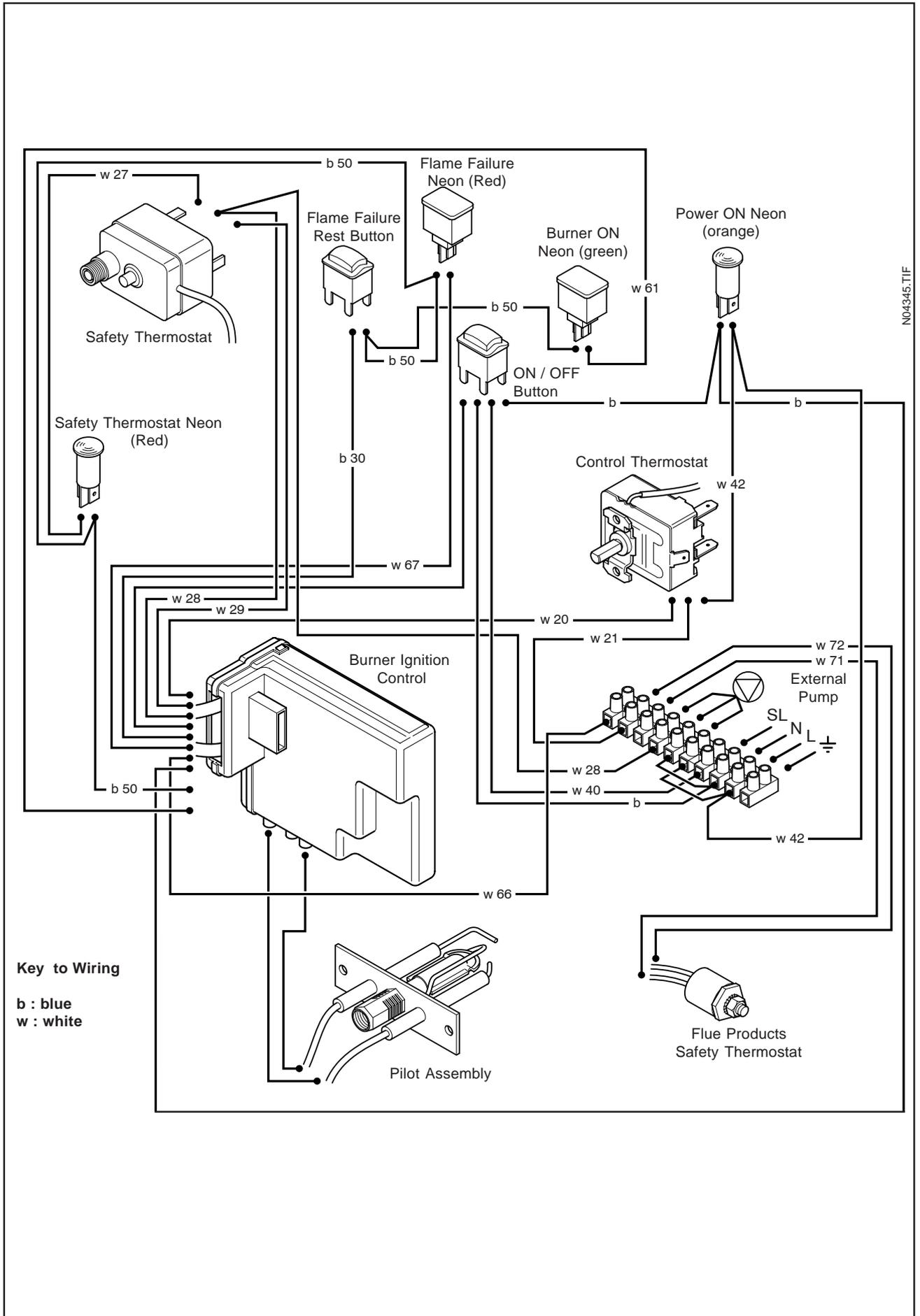
1. Undo the nut securing the Flue Safety Thermostat to the draught diverter. Ease the cable clamp from the slot in the draught diverter.
2. Undo the screw retaining the earth wire to the boiler and disconnect the plug on the Flue Safety Thermostat cable from the boiler harness.
3. Reassemble in reverse order. Check the operation of the Safety Thermostat by capping the flue. The boiler should extinguish within three minutes.

10.8 Burner Ignition Control

1. Remove the screw securing the burner ignition control to the gas valve. Draw the control off the valve.
2. Pull the electrode leads off the burner ignition control.
3. Prise apart the three barbs securing the control cover. Remove the cover.
4. Undo the screws securing the cable clamp to the control and disconnect the edge connector from the control P.C.B.
5. Fit the new burner ignition control and reassemble in reverse order.

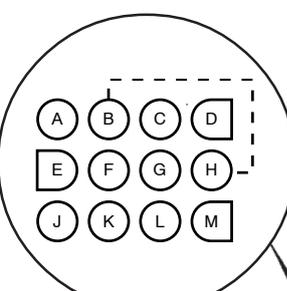
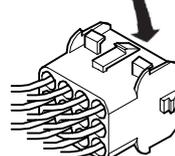
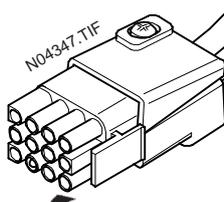
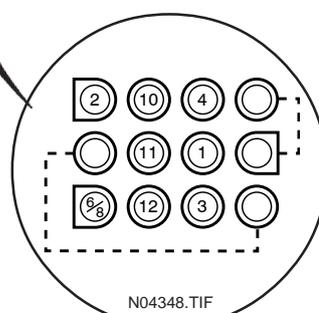


11.0 ILLUSTRATED WIRING DIAGRAM



12.0 FAULT FINDING

1. This page shows the configuration of the plug and socket on the Burner Ignition Control supply. The socket is part of the boiler harness and the plug is on the lead connected to the Burner Ignition Control.
2. Illustrates the layout of the edge connector on the Burner Ignition Control.

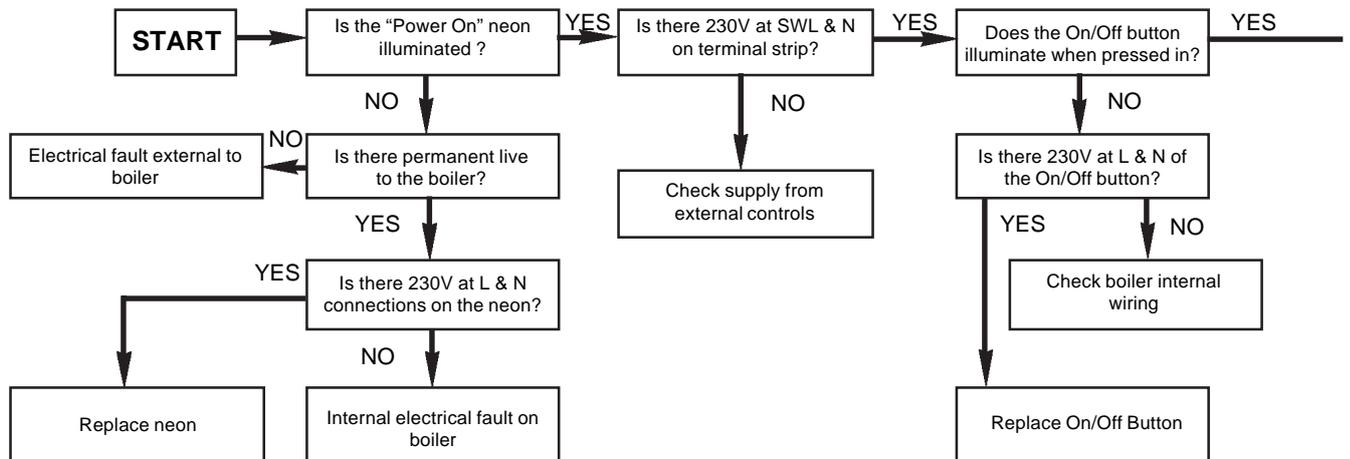
Boiler Harness Burner Ignition Controller Socket	Position	Wire Identification
<p>The following table indicates which wires from the main harness are connected to the socket.</p> <p>View of Socket end on</p>    <p>View of Harness Plug end on</p>  <p>Burner Ignition Controller Harness Plug</p> <p>Numbers refer to pin position on edge connector at Burner Ignition Controller to which this plug is connected. Dotted lines indicate link wires.</p>	<p>A</p> <p>B</p> <p>C</p> <p>D</p> <p>E</p> <p>F</p> <p>G</p> <p>H</p> <p>J</p> <p>K</p> <p>L</p> <p>M</p>	<p>W20</p> <p>W41 (linked to H)</p> <p>W66</p> <p>B50</p> <p>W29</p> <p>B30</p> <p>Neutral to "N" on Terminal Strip</p> <p>W41 (linked to B)</p> <p>W28</p> <p>W67</p> <p>Earth</p> <p>W61</p>

Layout of Edge Connector on Ignition Controller Harness

12	11	10	9	8	7	6	5	4	3	2	1
----	----	----	---	---	---	---	---	---	---	---	---

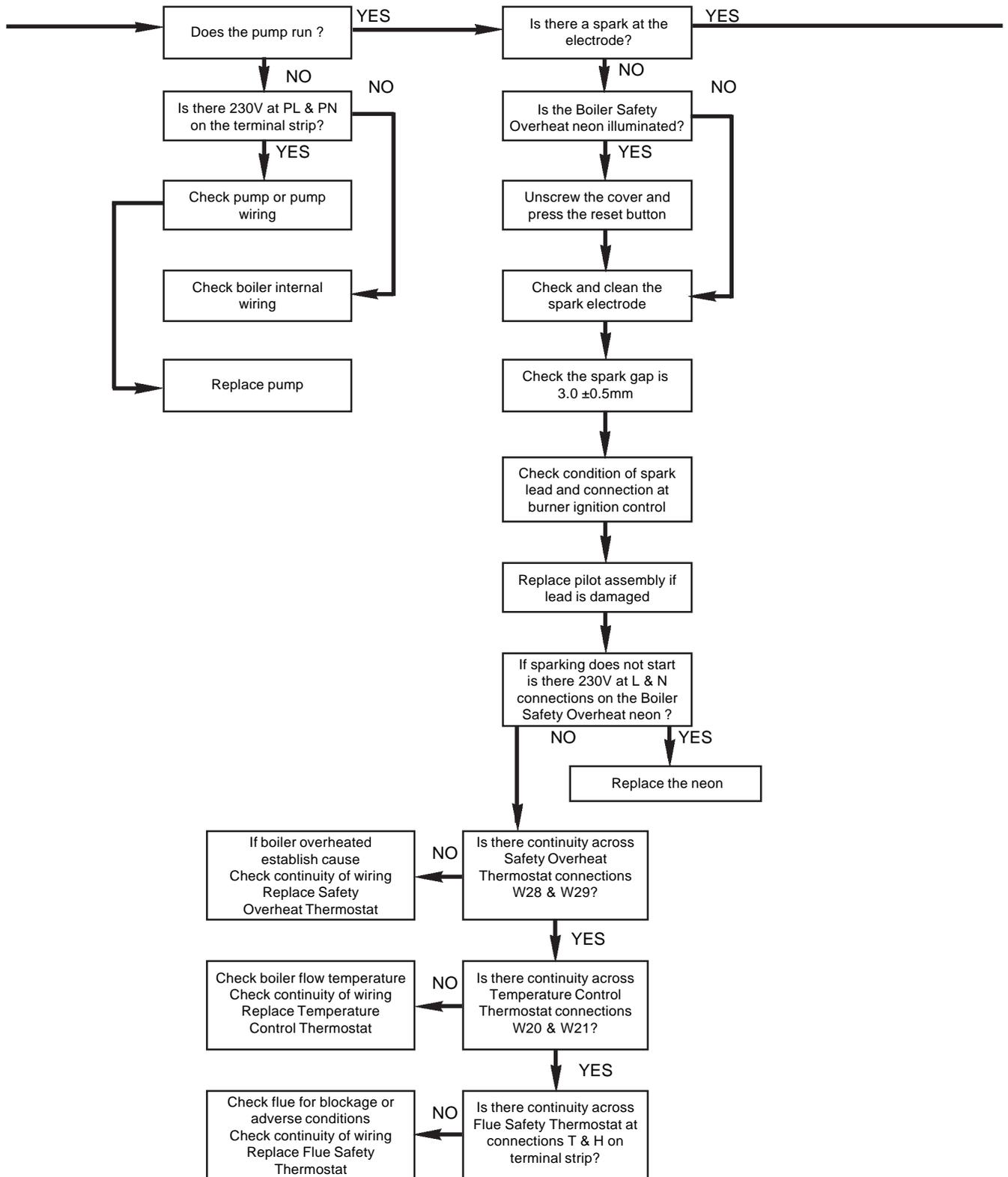
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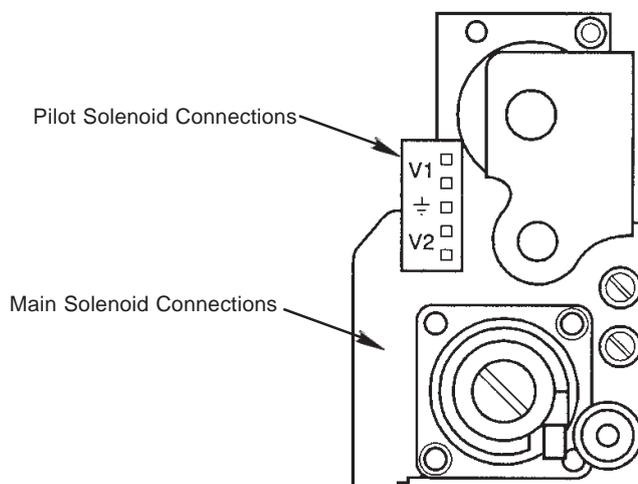
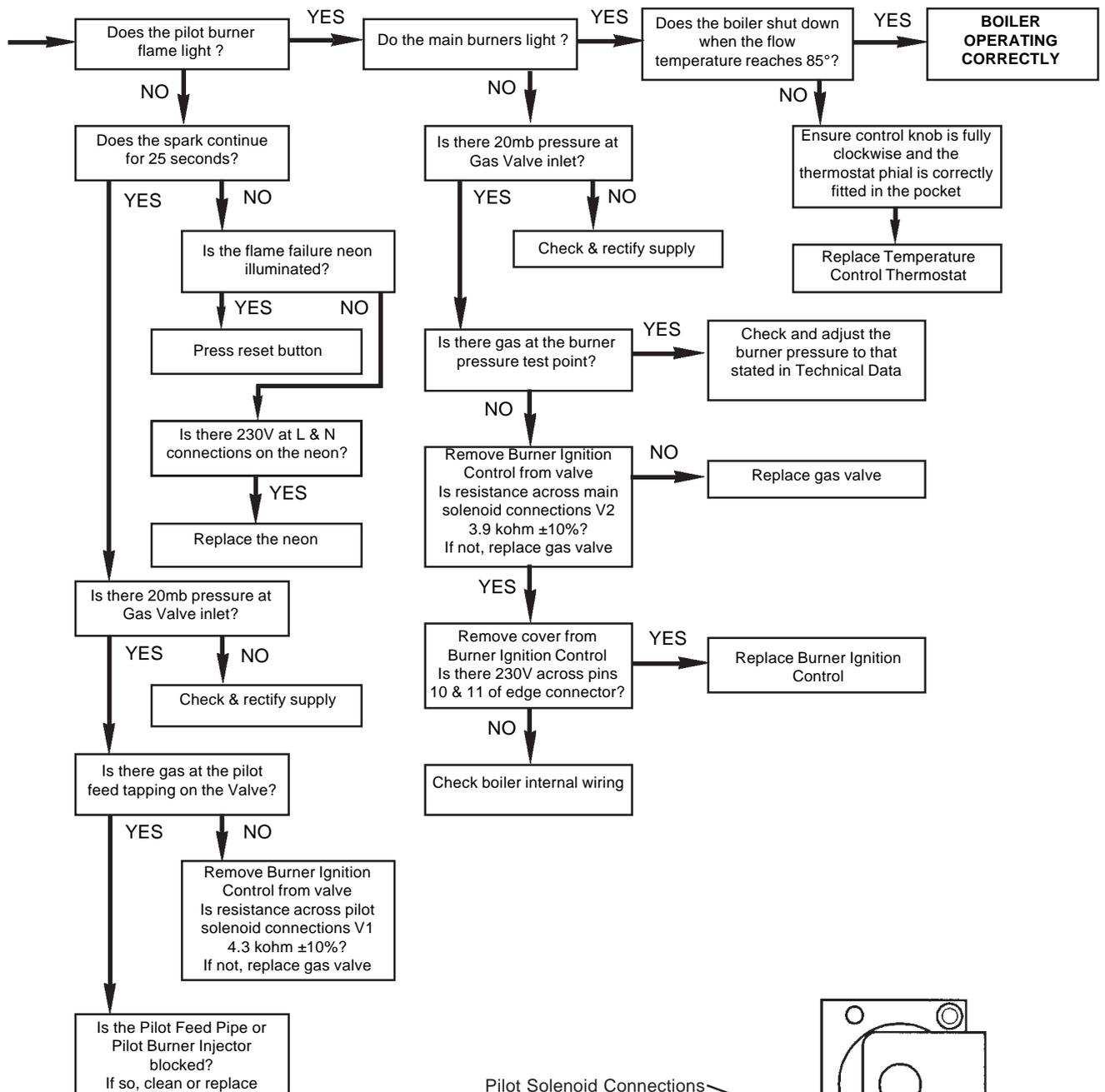
Numbers correspond to pins on Burner Ignition Controller	<p>1 & 11 - Neutral</p> <p>5 & 9 - Linked</p> <p>7 - Unused</p> <p>12 - Earth</p>
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CARRY OUT THE FOLLOWING PRELIMINARY CHECKS BEFORE COMMENCING FAULT FINDING

1. Check that gas, water and electrical supplies are available at the boiler. Electrical supply = 230V ~ 50 Hz. The preferred minimum gas pressure is 19.5mbar (natural gas).
2. Carry out electrical system checks, i.e. Ground Continuity, Resistance to Ground, Short Circuit and Polarity with a suitable meter. Note: Repeat these checks after servicing or fault finding.
3. Ensure all external controls are calling for heat and check all external and internal fuses. Before servicing or replacement of parts ensure the gas and electrical supplies are isolated.

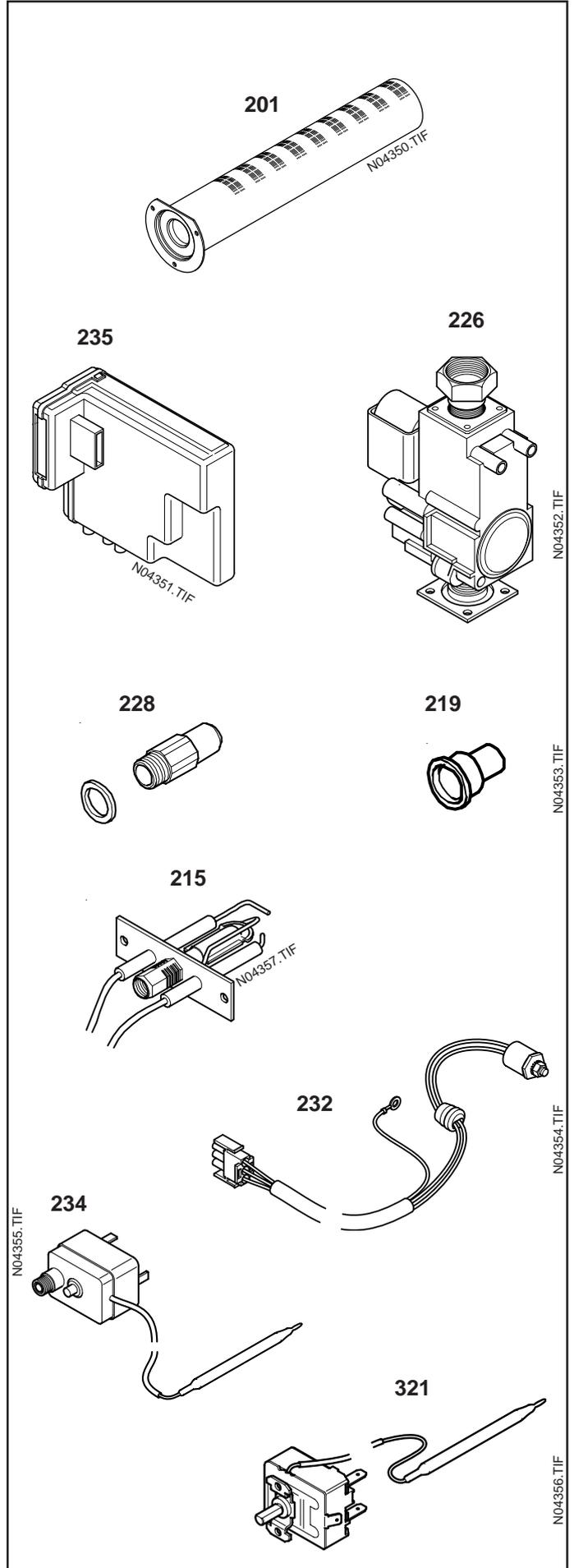




13.0 SHORT PARTS LIST

Short Parts List

Key No.	Description	Manufacturers Part No.
226	Gas Valve Assembly	S17074500
201	Burner	S17000837
228	Main Burner Injector	S17003199
229	Injecteur Washer	S17006504
321	Control Thermostat	S133624
234	Safety Thermostat	S17006955
215	Pilot Burner Assembly	S133535
235	Burner Ignition Control	S17000601
322	Flue Products Safety Thermostat	S500540
219	Pilot Injector	S17003216



The logo for CHAPPEE features the word "CHAPPEE" in a bold, black, sans-serif font. Above the letter "P" is a stylized, black, curved arrow-like shape pointing to the right.

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