System 18
System 30

System Condensing Boilers

Installation and Servicing Instructions

These instructions should be left with the user

GAS COUNCIL NUMBERS

Natural Gas

Dimplex System 18 - Gas Council Appliance No: **41 149 02**

Dimplex System 30 - Gas Council Appliance No: **41 149 01**

benchmark COLLECTIVE MARK
THE MARK OF QUALITY FOR THE INSTALLATION, COMMISSIONING AND SERVICING OF DOMESTIC HEATING AND HOT WATER SYSTEMS

WRAS APPROVED PRODUCT

kiwa approved product
UK WATER SUPPLY REGULATIONS

CE

CONTENTS

1.1 BUILDING REGULATIONS AND BENCHMARK CHECKLIST

Building Regulations (England & Wales) require notification of the installation of a heating appliance to the relevant Local Authority Building Control Department.

From 1 April 2005 this can be achieved via a Competent Persons Self Certification Scheme as an option to notifying the Local Authority directly.

CORGI operates a Self Certification Scheme for gas heating appliances.

With the introduction of Self Certification Schemes, the Benchmark Logbook is being withdrawn. However, a similar document in the form of a commissioning checklist and service interval record is incorporated at the back of these instructions.

This company is a member of the Benchmark initiative and fully supports the aims of the programme. Its aim is to improve the standards of installation and commissioning of central heating systems in the UK and to encourage the regular servicing of all central heating systems to ensure safety and efficiency.

Building Regulations require that installations should comply with manufacturer's instructions. It is therefore important that the commissioning checklist is completed by the installer. The relevant section of Building Regulations only relates to dwellings. Therefore the checklist only applies if the appliance is being installed in a dwelling or some related structure.

1.2 INSTALLATION, COMMISSIONING, SERVICE & REPAIR

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.

In GB, this must be carried out by a competent person as stated in the Gas Safety (Installation & Use) Regulations.

Definition of competence: A person who works for a CORGI registered company and holding current certificates in the relevant ACS modules, is deemed competent.

In IE, this must be carried out by a competent person as stated in I.S. 813 "Domestic Gas Installations"

No modifications or changes can be made to this appliance without prior written permission from Dimplex Boilers.

The manufacturers instructions must not be taken as overriding any statutory requirements. If in doubt contact Dimplex Boilers on 0844 3711121.

Warning – Check the information on the data plate is compatible with local supply conditions.

All CORGI registered installers carry a CORGI identification card and have a registration number. You can check your installer is registered by telephoning 0870 4012300 or writing to:-

1 Elmwood
Chineham Business Park
Crockford Lane
Basingstoke
RG24 8WG

or check online at www.corgi-gas-safety.com

These appliances meet the requirements of;

Gas Appliance Directive	90/396/EEC
Efficiency of Hot Water Boilers Directive	92/42/EEC
Low Voltage Directive	92/42/EEC
Electromagnetic Compatibility Directive	92/31/EEC

Type test certified by:- Notified Body 0087 (Pin 87BT49).

Product/Production certified by:
Notified Body 0086.

For GB/IE only

1.3 LEGISLATION

The appliance is suitable only for installation in GB and IE and should be installed in accordance with the rules in force, and only used in a suitably ventilated location.

In GB, the installation must be carried out by a CORGI Registered Installer. It must be carried out in accordance with the relevant requirements of the:
- Gas Safety (Installation & Use) Regulations.
- The appropriate Building Regulations either The Building regulations, The Building Regulations (Scotland), Building Regulations (Northern Ireland).
- The Water Fittings Regulations or Water Byelaws in Scotland.
- The Current I.E.E. Wiring Regulations.

Where no specific instructions are given, reference should be made to the relevant British Standard Code of Practice.

In IE, the installation must be carried out by a competent Person and installed in accordance with the current edition of I.S. 813 'Domestic Gas Installations', the current Building Regulations and reference should be made to the current ETCI rules for electrical installation.

All systems must be thoroughly flushed and treated with inhibitor (see section 6.2).

Codes of Practice - refer to the most recent version

In GB the following Codes of Practice apply:

Standard	Scope
BS 7967	Carbon monoxide in dwellings and the combustion performance of gas fired appliances
BS 7967-2	Guide for using electronic portable combustion gas analysers in the measurement of carbon monoxide and the determination of combustion performance
BS 7967-3	Guide for responding to measurements obtained from electronic portable combustion gas analysers
BS 7967-4	Guide for using electronic portable combustion gas analysers as part of the process of servicing and maintenance of gas fired appliances
BS 6891	Gas installation
BS 5546	Installation of hot water supplies for domestic purposes
BS 5449	Forced circulation hot water systems
BS 6798	Installation of gas fired hot water boilers
BS 5440 Part 1	Flues
BS 5440 Part 2	Ventilation
BS 7074	Expansion vessels and ancillary equipment for sealed water systems
BS 7593	Treatment of water in domestic hot water central heating systems

In IE the following Codes of Practice apply:

Standard	Scope
I.S. 813	Domestic Gas Installation
The following standards give valuable additional information;	
BS 5546	Installation of hot water supplies for domestic purposes
BS 5449	Forced circulation hot water systems
BS 7074	Expansion vessels and ancillary equipment for sealed water systems
BS 7593	Treatment of water in domestic hot water central heating systems

GAS LEAKS
DO NOT OPERATE ANY ELECTRICAL SWITCHES, OR USE A NAKED FLAME. TURN OFF THE GAS SUPPLY. VENTILATE THE AREA BY OPENING DOORS AND WINDOWS. CALL OUT YOUR LOCAL GAS SUPPLIER
TEL: 0800 111 999

Control of Substances Hazardous to Health
Under Section 6 of the Health and Safety at Work Act 1974, it is required to provide information on substances hazardous to health.

The adhesives and sealants used in this appliance are cured and give no known hazard in this state.

Insulation Pads - These can cause irritation to skin, eye and respiratory tract. If you have a history of skin complaint you may be susceptible to irritation. High dust levels are usual only if the material is broken. Normal handling should not cause discomfort, but follow normal good hygiene and wash your hands before eating, drinking or going to the lavatory. If you do suffer irritation to the eyes or severe irritation to the skin seek medical attention.

Gas and Electricity Consumer Council (Energywatch)
Energywatch is an independent organisation, which protects the interests of gas users. If you need advice concerning energy issues, they may be contacted on their consumer help line number: 08459 060708, or via their website; www.energywatch.org.uk.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instructions concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

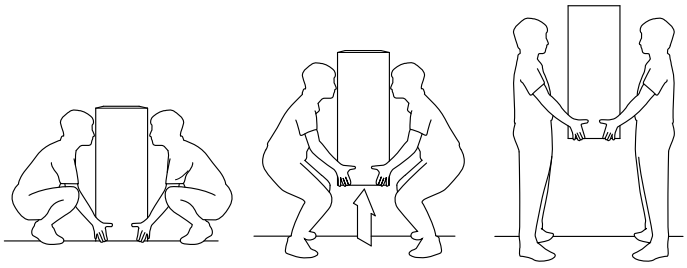
1.4 SAFE MANUAL HANDLING

1. The boiler should be handled and lifted by two people. Wear appropriate Personal Protection Equipment e.g. protective gloves, safety footwear etc.
Plan your route to minimise the number of turns needed to handle/lift the boiler.

2. Where possible transport the boiler using a sack truck or other suitable trolley. Try to avoid steps, wet or slippery surfaces, unlit areas etc. and take special care on ladders/into lofts.

3. When handling or lifting always use safe techniques – keep your back straight, bend your knees. Don't twist – move your feet, avoid bending forwards and sideways and keep the load as close to your body as possible.

4. Asses the risks associated with handling and lifting according to the conditions on site. If in doubt seek advice before proceeding. Health and Safety is the responsibility of everyone.



1.5 DESCRIPTION

1. The appliances incorporate a microprocessor based, fully modulating air/gas ratio control system with direct burner ignition. This provides a modulated heat output, with internal frost protection provided as standard. The heat exchanger is constructed from stainless steel encased in high temperature polymer.

A combined circulating pump, automatic air vent assembly, pressure gauge, safety valve and system expansion vessel are included.

Isolation valves are fitted to the service connections.

The boiler has a pump over run feature therefore the central heating system must include either a proprietary automatic bypass valve or a radiator must be fitted with lock shield valves. A separate CH expansion vessel is not required if the total CH system content is less than 84 litres. However one is required for systems with volumes greater than 84 litres; refer to section 6.5. It is recommended that a drain cock is fitted at the lowest point in the system.

2. The boiler is designed for use on Natural Gas (G20). A natural gas to propane conversion kit is available for each Dimplex System Boiler.

3. The boiler is suitable for use only on fully pumped sealed heating systems.

4. The boiler data badge gives details of the model, serial number and Gas Council number and is situated on the inner door panel. It is visible when the case front is removed. (Fig. 1)

5. The boiler model name and serial number are also shown on the information label on the inside of the fascia. This is for user reference.

6. The boiler is intended to be installed in residential / commercial / light industrial E.M.C. environments on a governed meter supply only.

7. The boiler must be installed with one of the purpose designed flues such as the standard horizontal telescopic flue kit, part no. 956120.

8. **All systems must be thoroughly flushed and treated with inhibitor (see section 6.2).**

1.6 OPTIONAL EXTRAS

RF room thermostats etc, are available as optional extras, however if an external control is fitted the hole in the fascia must be covered using the fascia blanking panel supplied (Part No. 300635)

1.7 PACK CONTENTS

- Boiler
- Wall fixing jig
- Templates & 'Quick Fit' Guide
- Literature Pack
- Plugs and screws

2.1 KEY

1. Expansion Vessel
2. Automatic Air Vent
3. Circulation Pump
4. Drain Off Point
5. Pressure Relief Valve
6. Central Heating System Pressure Gauge
7. PCB
8. Control Box
9. Flexible condensate pipe assembly
10. Flame Sensing Electrode
11. Spark Electrode
12. Primary Heat Exchanger
13. Fan Assembly
14. Gas Valve & Swirl Plate Assembly
15. Reset Button
16. Central Heating Temperature Control
17. Air / Gas Channel
18. Burner & Burner Door
19. Spark Generator
20. Data Badge
21. Flue Sample Point
22. Manual Air Vent
23. Burner On Light

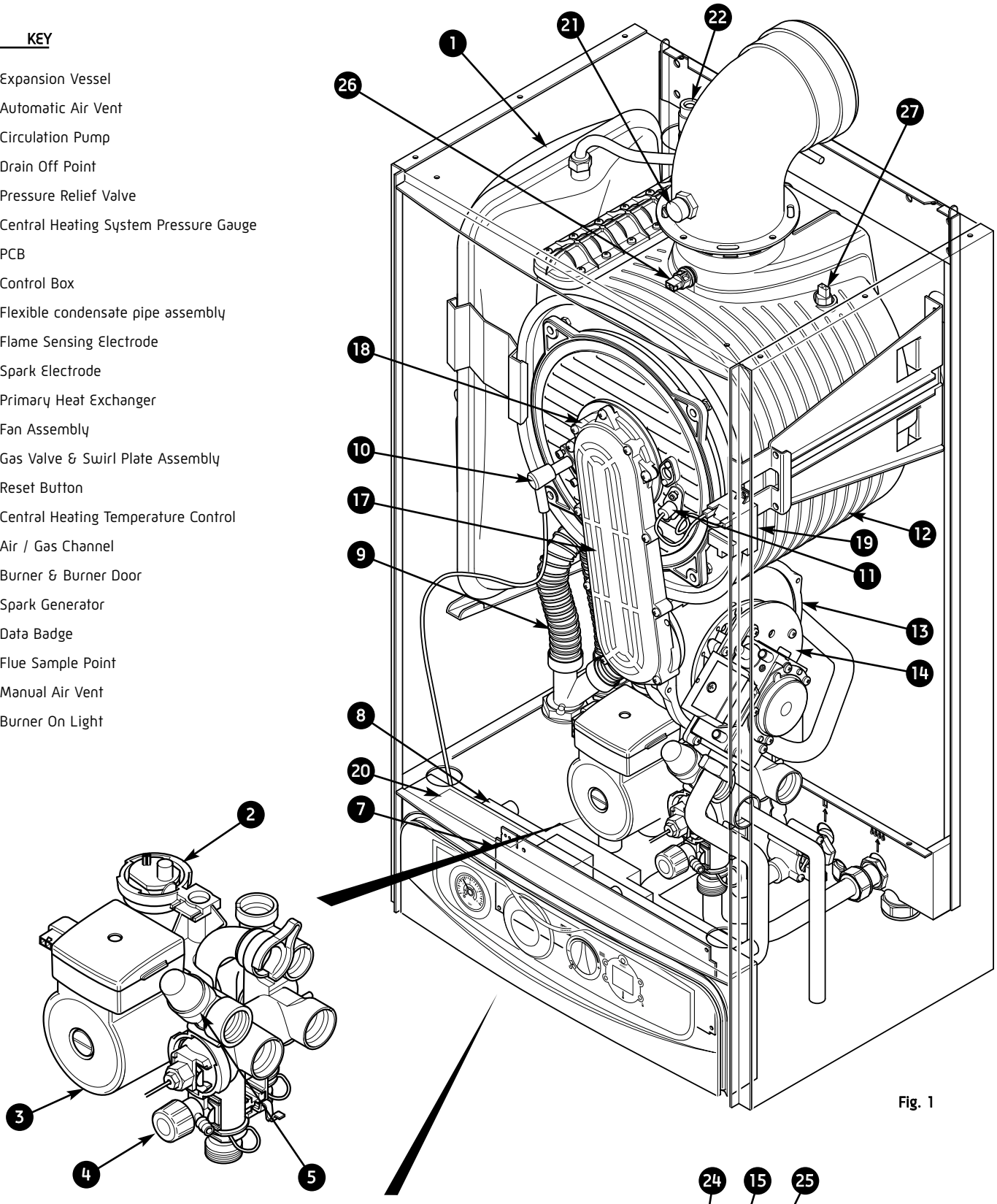


Fig. 1

24. Central Heating Mode Light
25. Display
26. Flue Thermistor
27. Thermal Fuse

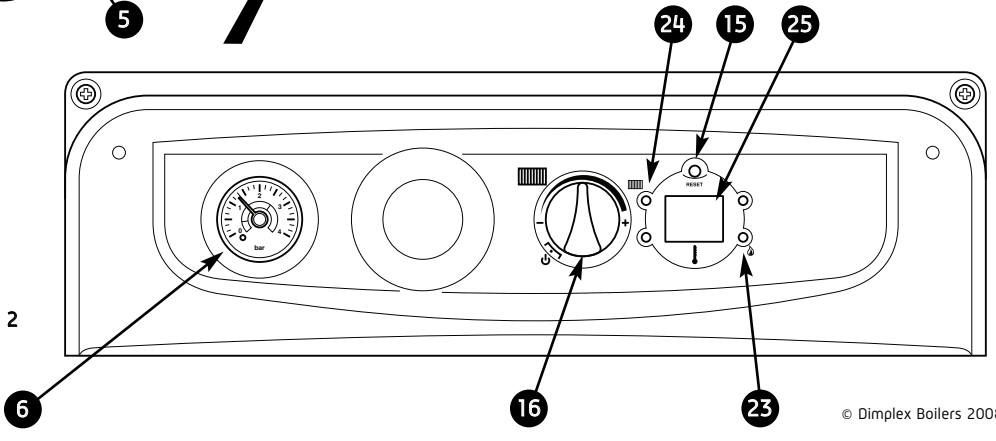


Fig. 2

3.1 CENTRAL HEATING

1. With a demand for heating, the pump, circulates water through the primary circuit.

2. Once the main burner ignites the fan speed controls the gas rate to maintain the heating temperature measured by the temperature sensors.

3. When the demand is satisfied the burner is extinguished and a 5 minute delay occurs before the burner will re-light (anti-cycling), the pump continues to run for a period of 2 minutes (Pump Overrun).

3.2 FROST PROTECTION MODE

1. Providing there is mains power supply to the appliance, the frost protection mode is integral.
If the system temperature falls below 5°C then the boiler will fire on its minimum setting until a flow temperature of 20°C is reached. Further protection can be incorporated by using a system frost thermostat.

3.3 PUMP PROTECTION

1. The pump will automatically operate for 1 minute in every 24 hours to prevent sticking.

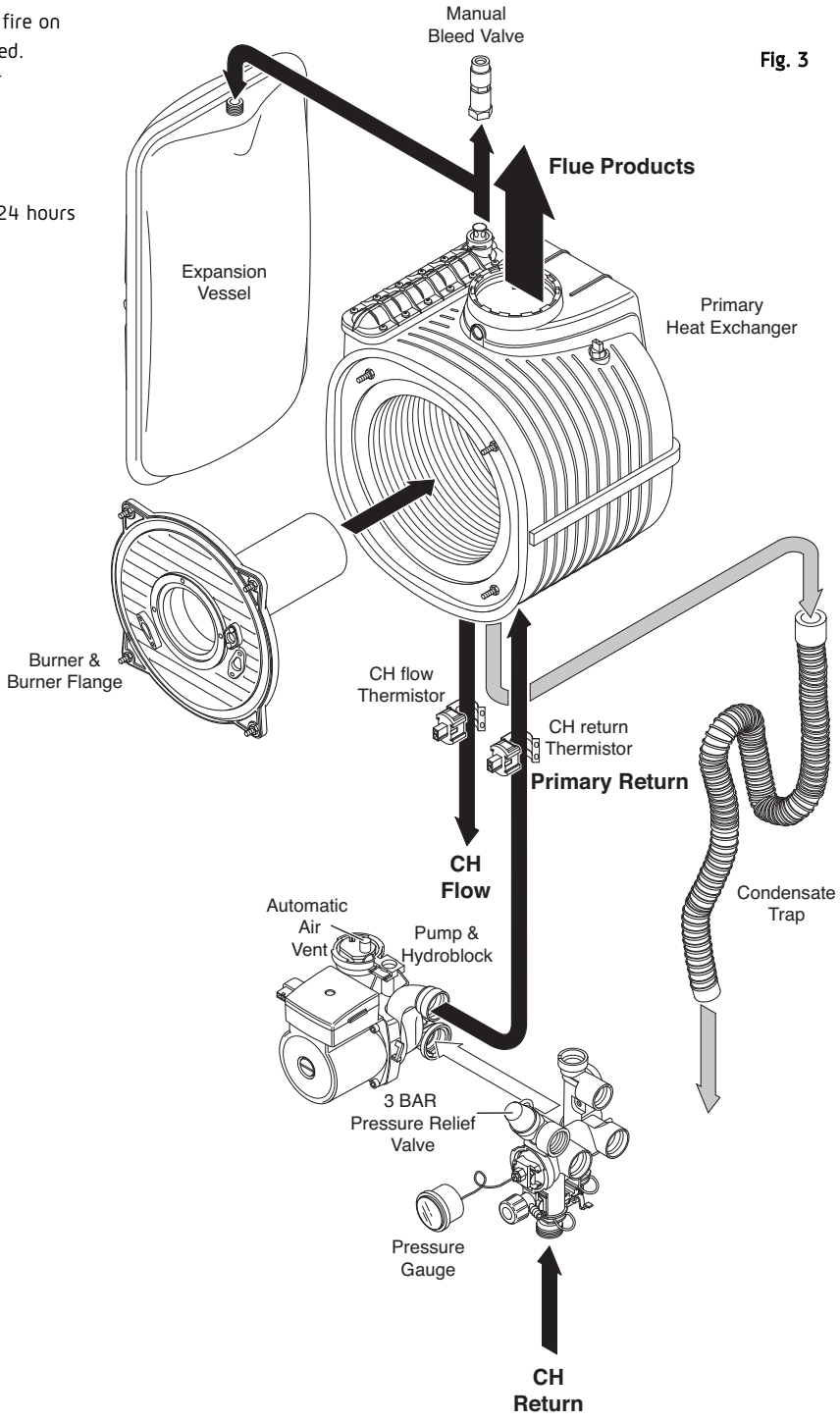


Fig. 3

4.1 PERFORMANCE DATA

Appliance Classification C13, C33, C53, B23			System 18	System 30
Mode	Rate			
Output (non-condensing)(80-60°C)	Max	kW	18.1	29.8
	Min	kW	6.0	8.1
Output (condensing)(50-30°C)	Max	kW	19.7	32.5
Input Max Rate	Net	kW	18.4	30.4
	Gross	kW	20.4	33.7
Input Min Rate	Net	kW	5.4	7.6
	Gross	kW	6.0	8.4
Gas Rate (after 10 min operation - hot)	Max	m^3/h	1.95	3.2
Seasonal Efficiency		%	90.3	90.3
Seasonal Efficiency (SEDBUK)		Band	"A"	"A"
Nox Classification		Class	"5"	"5"
Min System Pressure		Bar	0.5	0.5
Max System Pressure		Bar	2.5	2.5
Max Central Heating Flow Temperature		°C	80	80
Min Central Heating Flow Temperature		°C	30	30
General Specifications				
Max lift weight		kg	33.6	39.6
Total water capacity		Ltr	1.8	3.1
Integral expansion vessel capacity		Ltr	8	8
Maximum heating system water content using fitted expansion vessel, @ 0.75 bar		Ltr	84	84
Electrical supply			240V 50Hz Fuse at 3A	
Internal fuse			T4H 4A 250V	
Maximum power consumption		W	100	125
IP Rating			IPX4	IPX4
Flue gas temperature 80/60		°C	59	75
Flue gas temperature 50/30		°C	41	55
CO_2 value max rate (Nat Gas) (Case must be fitted when taking reading)		%	8.8-9.2	8.8-9.2
CO_2 value min rate (Nat Gas) (Case must be fitted when taking reading)		%	8.5-8.9	8.7-9.1
CO value max rate (Nat Gas) (Case must be fitted when taking reading)		P.P.M	15-60	15-60
CO value min rate (Nat Gas) (Case must be fitted when taking reading)		P.P.M	0-40	0-40
CO_2 value max rate (Propane) (Case must be fitted when taking reading)		%	10.8-11.2	10.5-10.9
CO_2 value min rate (Propane) (Case must be fitted when taking reading)		%	10.4-10.8	10.3-10.7
CO value max rate (Propane) (Case must be fitted when taking reading)		P.P.M	80-160	80-160
CO value min rate (Propane) (Case must be fitted when taking reading)		P.P.M	0-40	0-40
Gas Pressure - Natural Gas		mbar	18-20	18-20
Gas Pressure - Propane		mbar	37	37
Connections				
Gas			22 mm compression	
CH flow			22 mm compression	
CH return			22 mm compression	
Pressure relief valve outlet			15 mm compression	
Condensate Drain			21.5 - 22 mm plastic overflow pipe	

P.P.M = Parts Per Million

Fig. 4

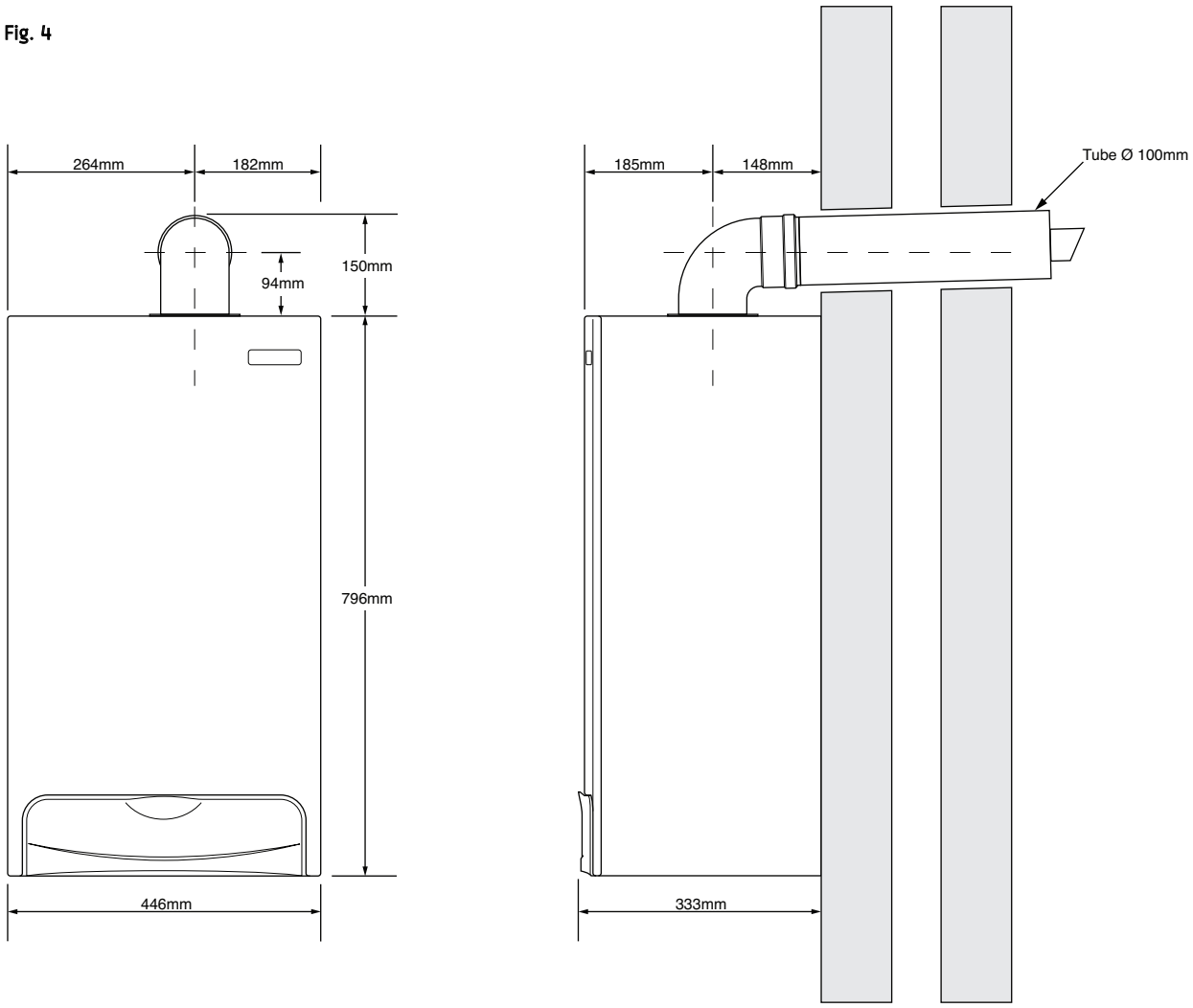
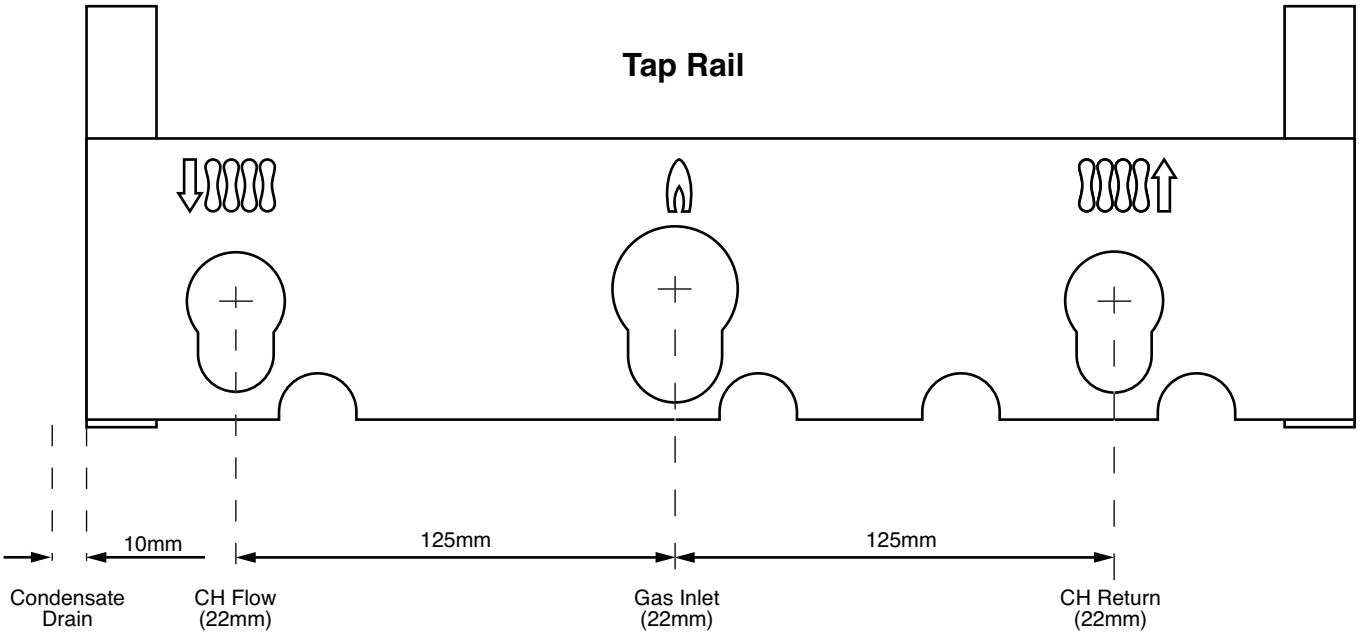


Fig. 5



6.1 INFORMATION

1. The Dimplex System Boiler is a 'Water Byelaws Scheme – Approved Product'. Reference to the Water Research Council publications, 'Water fittings and materials directory' and 'Water supply byelaws guide' give full details of byelaws and the IRNs.

6.2 HEATING CIRCUIT

1. The appliance is suitable for fully pumped SEALED SYSTEMS ONLY.

Treatment of Water Circulating Systems

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

• Central heating 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.

• When fitting new systems flux will be evident within the system, which can lead to damage of system components.

• All systems must be thoroughly drained and flushed out. Using, for example Betz-Dearborn Sentinel X300 or X400 or Fernox Superfloc Universal Cleanser. They should be used following the flushing agent manufacturer's instructions.

• System additives – corrosion inhibitors and flushing agents/descalers should comply to BS7593 requirements, e.g. Betz-Dearborn Sentinel X300 and Fernox-Copal which should be used following the inhibitor manufacturer's instructions.

• 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.)

• For information or advice regarding any of the above contact Technical Enquiries - Tel: 0844 3711121.

• If thermostatic radiator valves are fitted, a radiator must be fitted with two lock shield valves or the system must include a proprietary automatic bypass valve, to enable correct operation of the pump over-run facility.

6.3 SYSTEM CONTROL

1. It is recommended that external controls e.g. room thermostat are fitted to further improve the operating efficiency of the boiler and system.

6.4 SYSTEM FILLING AND PRESSURISING

1. A filling point connection on the central heating return pipework must be provided for initial filling and pressurising and subsequent topping up of the system.

A filling loop is provided loose with the boiler

2. The filling method adopted must comply with all relevant water supply regulations and use approved equipment.

3. Further details are given in;
for GB: Guidance G24.2 and recommendation R24.2 of the Water Regulations Guide.
for IE: the current edition of I.S. 813 "Domestic Gas Installations".

4. The sealed primary circuits may be filled or topped up using a temporary connection between the circuit and a supply pipe, provided a 'Listed' double check valve or some other no less effective backflow prevention device is permanently connected at the inlet to the circuit and the temporary connection is removed after use.

6.5 EXPANSION VESSEL

1. The appliance expansion vessel is pre-charged to 1 bar. Therefore the minimum cold fill pressure is 2 bar. The vessel is suitable for correct operation for system capacities up to 84 litres. For greater system capacities an additional expansion vessel must be fitted.
For GB refer to BS 7074 Pt 1.
For IE, the current edition of I.S. 813 "Domestic Gas Installations".

Vessel charge and initial system pressure	bar	0.5	0.75	1.0	1.5
Total water content of system using 8 litres capacity expansion vessel supplied with appliance	litres	96	84	73	50
For systems having a larger capacity multiply the total system capacity in litres by this factor to obtain the total minimum expansion vessel capacity required in litres			0.093		

6.6 PRESSURE RELIEF VALVE

1. The pressure relief valve is set at 3 bar, therefore all pipework, fittings, etc. should be suitable for pressures in excess of 3 bar and temperature greater than 100°C.

2. The pressure relief discharge pipe should be not less than 15mm diameter, run continuously downward, and discharge outside the building, preferably over a drain. It should be routed in such a manner that no hazard occurs to occupants or causes damage to wiring or electrical components. The end of the pipe should terminate facing down and towards the wall.

NOTE: Boiling water/steam could discharge from the pipe, therefore it should be terminated away from windows and doors.

Fig. 6

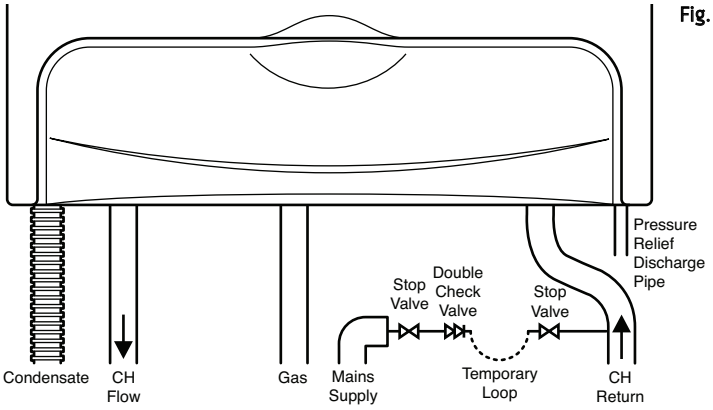


Fig. 7

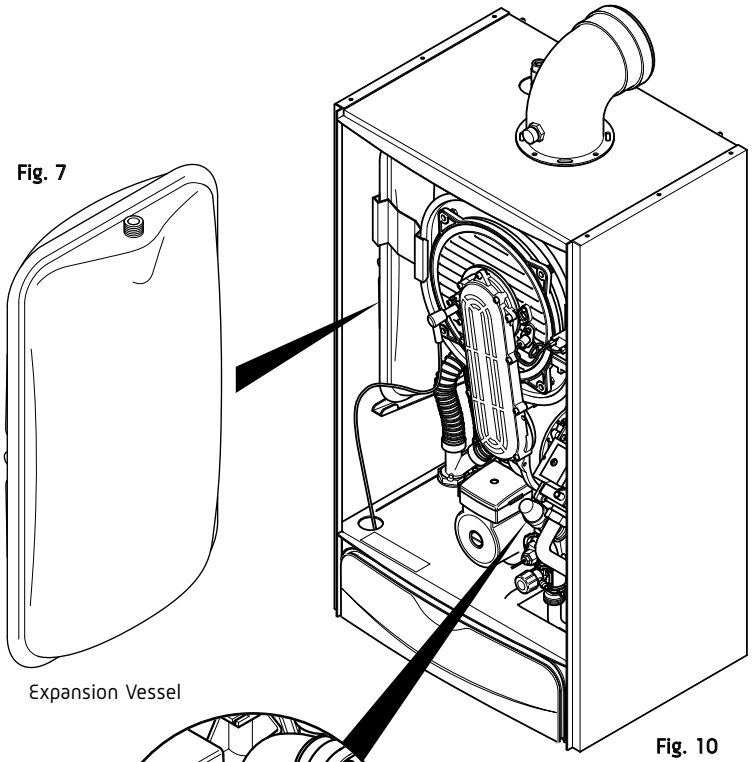


Fig. 10

Fig. 8

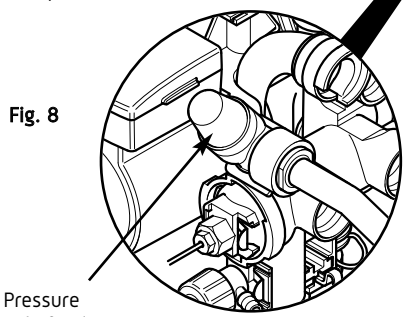
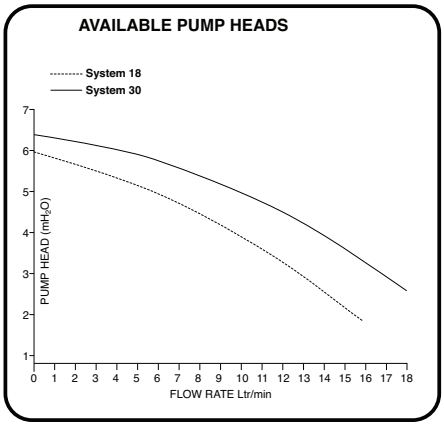


Fig. 9



NOTE: Do not use the pressure relief valve to drain the system, because dirt and debris could prevent the valve seating correctly.

7.1 LOCATION

1. The boiler may be fitted to any suitable wall with the flue passing through an outside wall or roof and discharging to atmosphere in a position permitting satisfactory removal of combustion products and providing an adequate air supply. The boiler should be fitted within the building unless otherwise protected by a suitable enclosure i.e. garage or outhouse. (The boiler may be fitted inside an unvented cupboard – see section 7.3).

2. If the boiler is fitted in a room containing a bath or shower reference must be made to the relevant requirements.
In GB this is the current I.E.E. Wiring Regulations and Building Regulations.
In IE reference should be made to the current edition of I.S. 813 "Domestic Gas Installations" and current ETCI rules.
(Fig. 11 shows zone dimensions for a bathtub. For other examples refer to Section 601 of the current I.E.E. Wiring Regulations) reference must be made to the relevant requirements.
The boiler is IPX4 rated and can be fitted in Zone 2 (Fig. 11).

3. If the boiler is to be fitted into a building of timber frame construction then reference must be made to the current edition of Institute of Gas Engineers Publication IGE/UP/7 (Gas Installations in Timber Framed Housing).

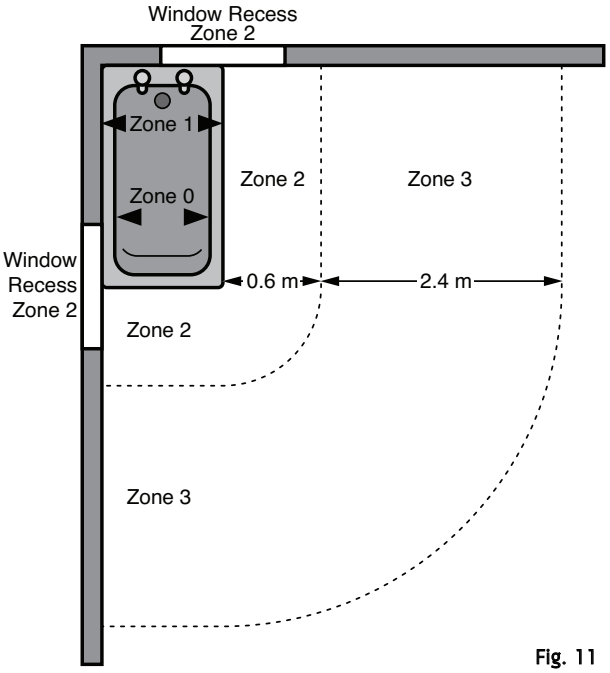


Fig. 11

7.2 CLEARANCES

1. A flat vertical area is required for the installation of the boiler.

2. These dimensions include the necessary clearance around the boiler for case removal, spanner access and air movement. Additional clearances may be required for the passage of pipes around local obstructions such as joists running parallel to the front face of the boiler.

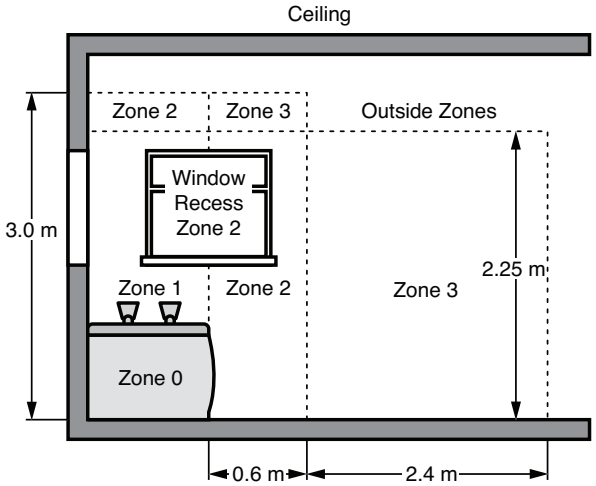
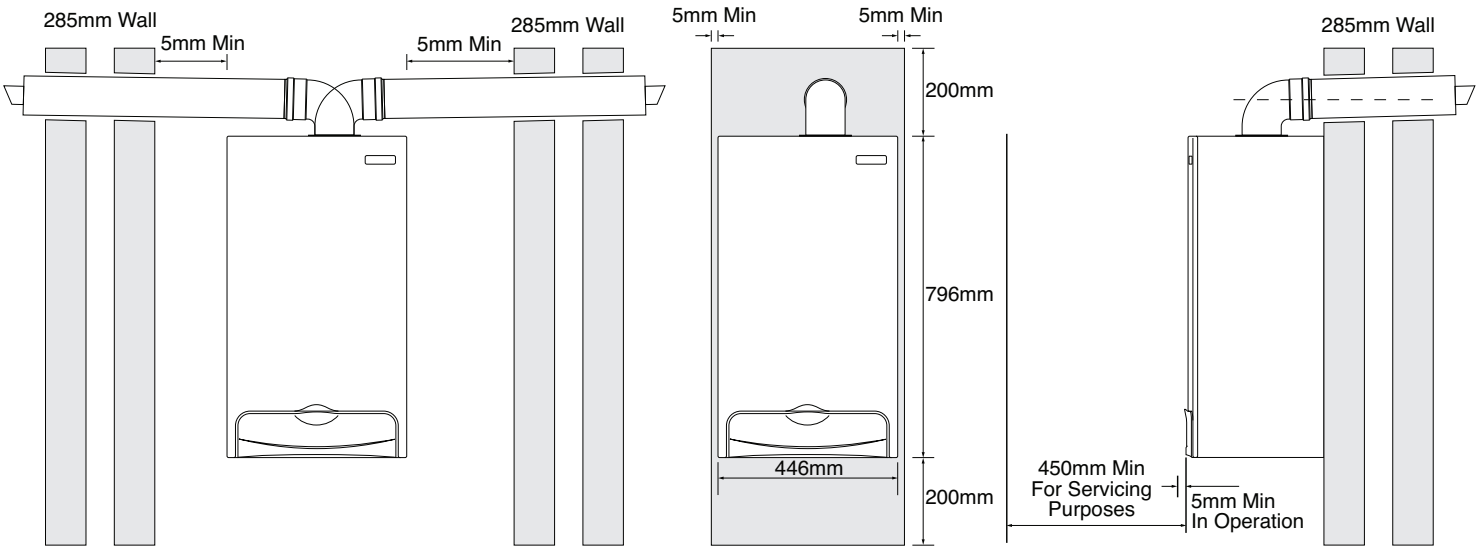


Fig. 12



7.3 VENTILATION OF COMPARTMENTS

1. Where the appliance is installed in a cupboard or compartment, no air vents are required.
Where an open flued system is used - Flue kit E (B23 classification) then an air vent communicating directly with outside air must be provided in the same room or internal space of the flue duct air inlet. Minimum free area:

System 18 = 88cm^2
System 30 = 159cm^2

In addition if an open flued system is used - Flue kit (B23 classification) and the boiler is fitted in a compartment, then high and low level ventilation is required.
BS 5440-2:2000 gives guidance on compartmental ventilation.

2. When the boiler is installed in a cupboard or compartment and either flue kit A, B, C, D or F (Classification C13, C33, C53) is used, then no compartmental ventilation is required.

7.4 GAS SUPPLY

1. The gas installation should be in accordance with the relevant standards. In GB this is BS 6891. In IE this is the current edition of I.S. 813 "Domestic Gas Installations".

2. The connection to the appliance is a 22mm copper tail located at the rear of the gas service cock (Fig. 13).

3. Ensure that the pipework from the meter to the appliance is of adequate size, and the demands of any other gas appliance in the property are taken into consideration. Do not use pipes of a smaller diameter than the boiler gas connection (22mm).

4. For boilers connected to use LPG (propane), the inlet pressure must be 37mbar.

NOTE: The completed installation should always be tested for gas tightness

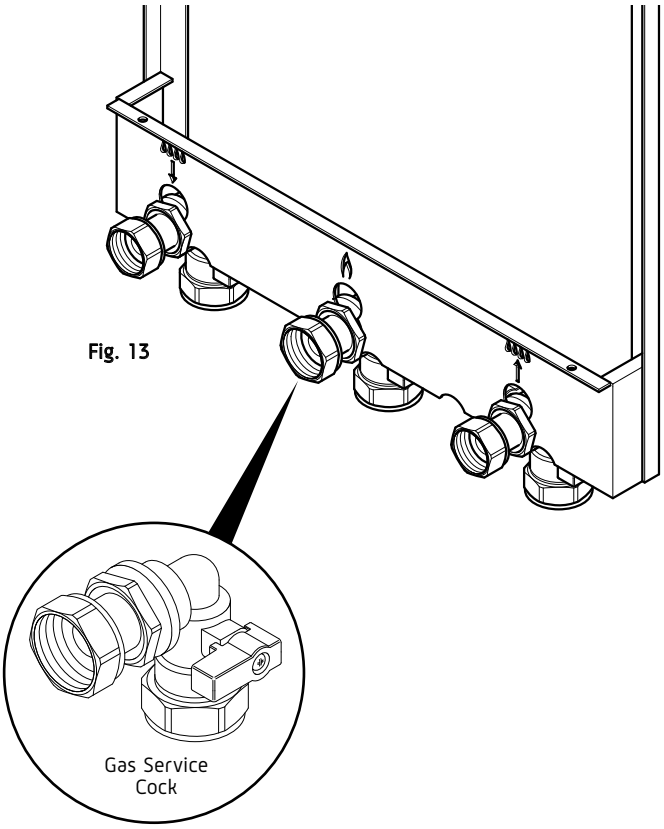


Fig. 13

7.5 ELECTRICAL SUPPLY

1. External wiring must be correctly earthed, polarised and in accordance with relevant regulations/rules. In GB this is the current I.E.E. Wiring Regulations. In IE reference should be made to the current edition of the ETGI rules.

2. The mains supply is 230V - 50H$_z$ fused at 3A

NOTE: The mains supply connection must allow complete electrical isolation of the appliance and system controls only.
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.
Any additional mains cable should comply fully with the current I.E.E. wiring regulations.

7.6 CONDENSATE DRAIN

NOTE: The appliance is fitted with a trap the depth of which is >= 75mm, therefore no other traps are required in the condensate run.

The condensation discharge pipe must not rise at any point along its length. There MUST be a fall of AT LEAST 2.5° (50mm per metre) along the entire run.

1. The condensate outlet will accept 21.5mm (3/4 in) plastic overflow pipe which should discharge internally into the household drainage system, downstream of all other traps. if this is not possible, discharge into an outside drain is acceptable.

2. Ensure the discharge of condensate complies with any national or local regulations in force.
BS 6798:2000 & Part HI of the Building Regulations give further guidance.

3. Metal pipework is NOT suitable for use in condensate discharge systems.

4. The pipe should be a minimum of 21.5mm diameter and must be supported properly.

5. **It is advisable to keep the condensate pipe internal.**

6. **External runs greater than 3 metres or runs in cold areas should use 32mm waste pipe and be insulated.**

7. If the boiler is fitted in an unheated location the entire condensate discharge pipe should be treated as an external run.

8. In all cases discharge pipe must be installed to aid disposal of the condensate.

9. When discharging condensate into a soil stack or waste pipe the effects of existing plumbing must be considered. If soil pipes or waste pipes are subjected to internal pressure fluctuations when WC's are flushed or sinks emptied then back-pressure may force water out of the boiler trap and cause appliance lockout.
Examples are shown of the following methods of terminations (see figs. 14,15 & 16):
i) to an internal soil & vent pipe
ii) via and internal discharge branch (e.g. sink waste)
iii) to a drain or gully
iv) to a purpose made soakaway

10. In exceptional circumstances, such as when a boiler is installed in a basement without drainage, it may be necessary to install a condensate pump to carry condensate up to ground/drain level. Such products are available from most plumbing merchants. For help with selecting a condensate pump contact Dimplex Boilers - Tel: 0844 3711121.

WARNING: There must be no air breaks in the condensate pipework or drainage system (see Fig. 17).

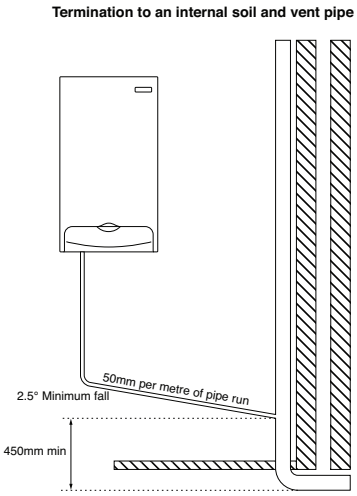


Fig. 14

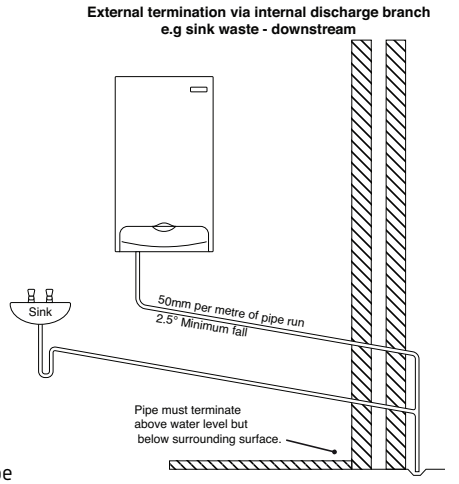


Fig. 15

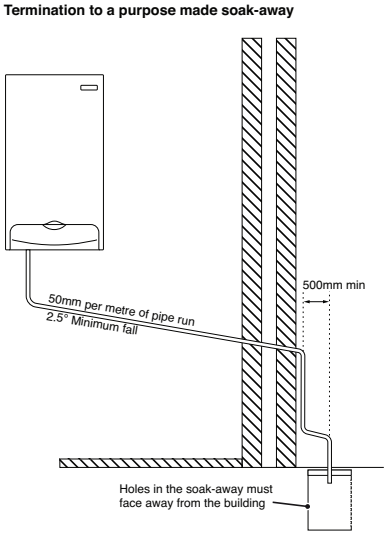


Fig. 16

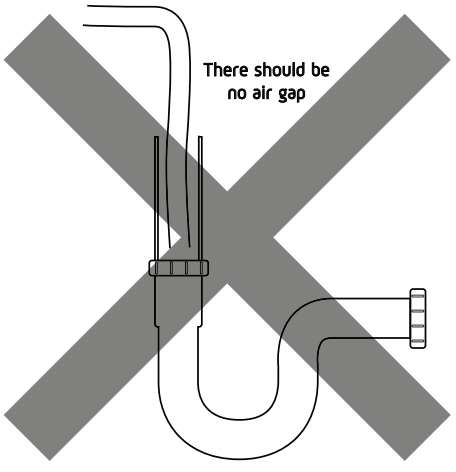


Fig. 17

7.7 FLUE

1. This high efficiency boiler will discharge a plume of water vapour from the flue. This should be considered when siting the flue terminal.

2. The following guidelines indicate the general requirements for siting balanced flue terminals. For GB recommendations are given in BS 5440 Pt 1. For IE recommendations are given in the current edition of I.S. 813 "Domestic Gas Installations".

3. If the terminal discharges onto a pathway or passageway, check that combustion products will not cause a nuisance and that the terminal will not obstruct the passageway.

4. If a terminal is less than 2 metres above a balcony,above ground or above a flat roof to which people have access, then a suitable terminal guard must be provided – Part No: 951507.

IMPORTANT:
- Only **ONE** of the 25mm clearances (Positions 'O' to 'S' in the chart below) is allowable per installation.
- Under car ports we recommend the use of the plume displacement kit.
- The terminal position must ensure the safe and nuisance – free dispersal of combustion products.

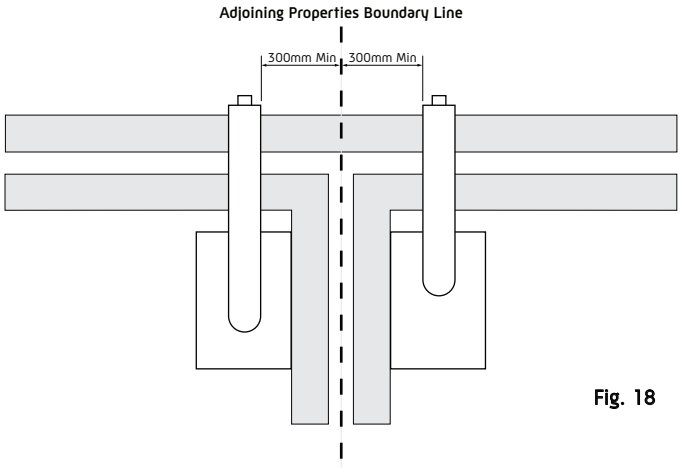


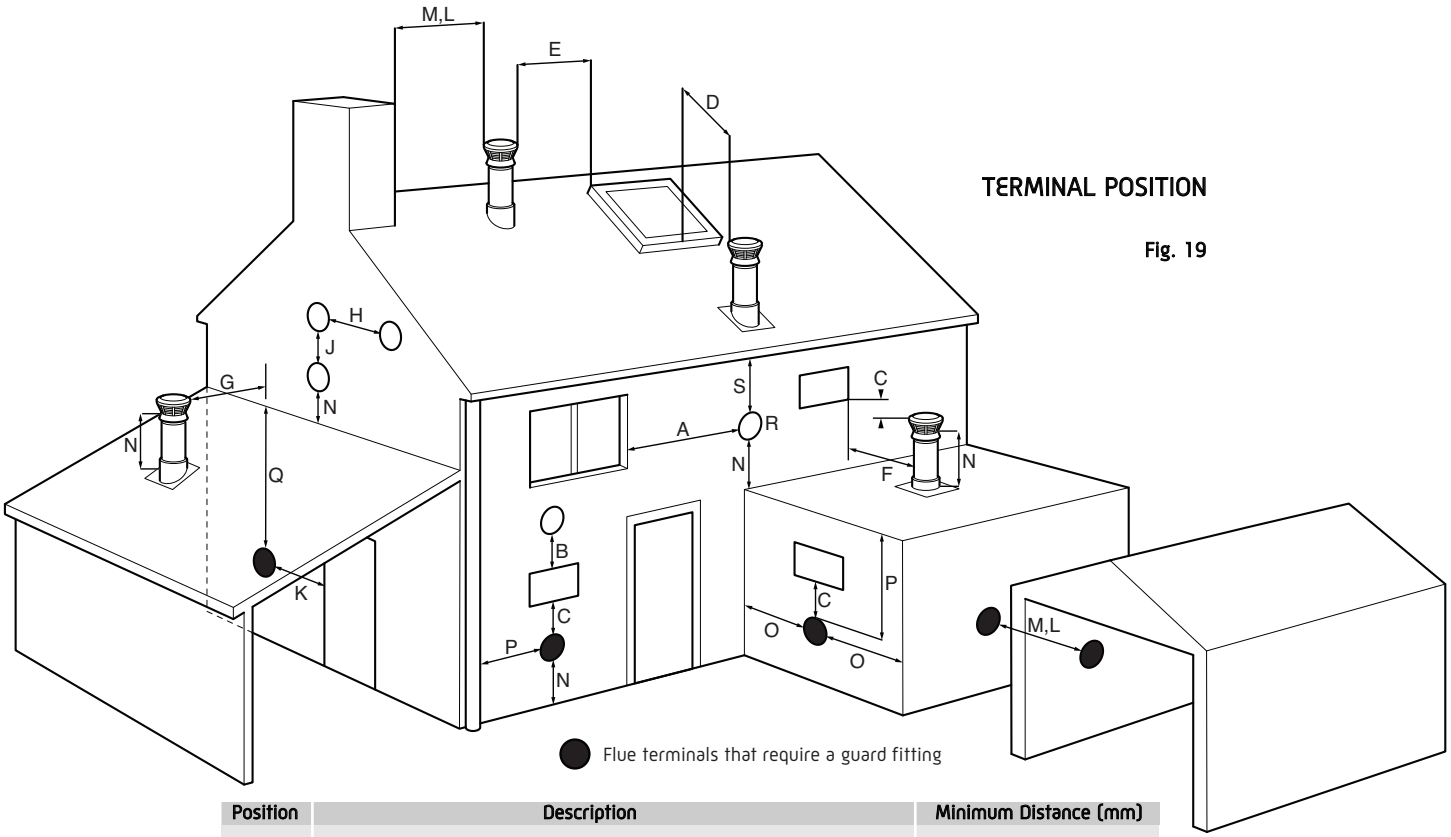
Fig. 18

NOTE: The minimum distance from a flue terminal to a boundary line is 300mm.

If fitting a plume diverter kit, the air inlet should be a minimum of 100mm from any opening windows or doors.

TERMINAL POSITION

Fig. 19



Position	Description	Minimum Distance (mm)
A	Horizontally to an opening, air brick, opening window – see note A	300
B	Above an opening, air brick, opening window etc. – see note A	300
C	Below an opening, air brick, opening window etc. – see note A	300
D	Below windows or openings on pitched roofs	2000
E	Adjacent to windows or openings on pitched and flat roofs	600
F	From an adjacent opening window (vertical only)	1000
G	From an adjacent wall to flue (vertical only)	300
H	Horizontally from a terminal on the same wall	300
J	Vertically from a terminal on the same wall	1500
K	From an opening in a carport (e.g. door, window) into the dwelling	1200
L	From a terminal facing a terminal (horizontal flue)	1200
	From a terminal facing a terminal (vertical flue)	600
M	From a surface or boundary line facing a terminal	600
N	Above ground, roof or balcony level	300
O	From an internal or external corner	25
P	From a vertical drain pipe or soil pipe	25
Q	Below balconies or car port roof	25
R	Below eaves	25
S	Below gutters, soil pipes or drain pipes	25

NOTE: Fitting of the deflector elbow is recommended when installing boiler to minimum clearance of 25mm as detailed in positions O & P.

NOTE A: A terminal should be no closer than 150mm to an opening in the brickwork intended to accommodate a fitting such as a window frame.

8.1 CONCENTRIC AIR/FLUE DUCT SPECIFICATIONS

The different flue applications shown in Fig. 20 are available as kits comprising the connecting parts to the appliance and end terminal. Flue extension ducts and extension elbows are available as accessories.

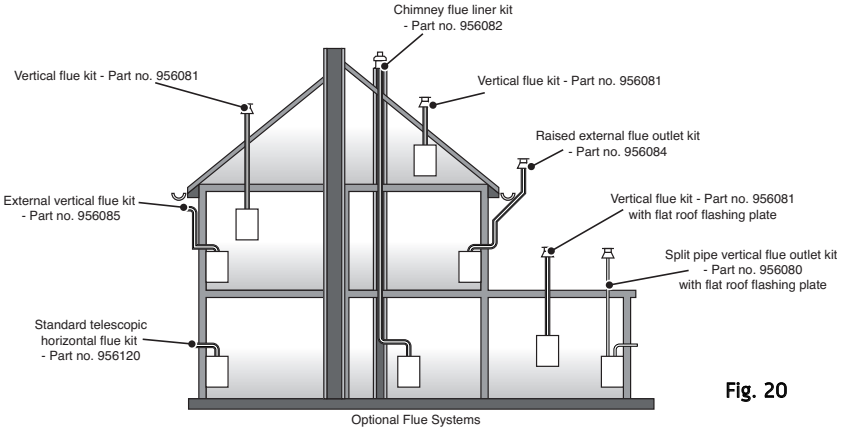


Fig. 20

8.2 Kit A + Telescopic Horizontal Wall Terminal (C13) - Part No. 956120

60/100mm concentric, horizontal flue system Fig. 21, with a maximum length of 10M.
The standard telescopic terminal is 615mm max length and 430mm min length, but can be cut to a minimum flue length of 250mm, which is suitable for single, 100mm (4"), brick walls.

Note: If the telescopic flue kit is installed without any flue extensions, it can be fitted horizontally. The maximum length for 60/100mm horizontal concentric flue = 10M

Note: Dimplex System 18 only, with maximum concentric flue length of 10m, the heat input will be reduced by 7.6%

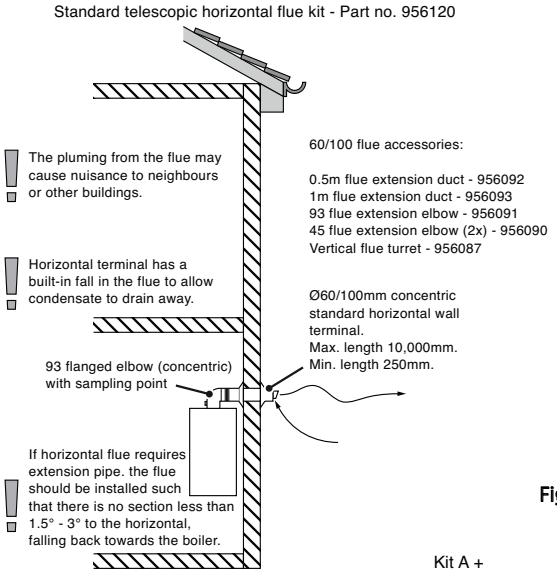


Fig. 21

8.3 Kit B Vertical Concentric Flue Terminal (C33) - HBL Part 956081

60/100mm concentric, vertical flue system, Fig. 22, with a maximum length of 12M.
The kit comprises of the roof terminal, vertical adaptor with sampling point and bracket.
The maximum length is measured from the top of the appliance casing to the underside of the air cowl.
For installation details refer to the flue kit instructions.

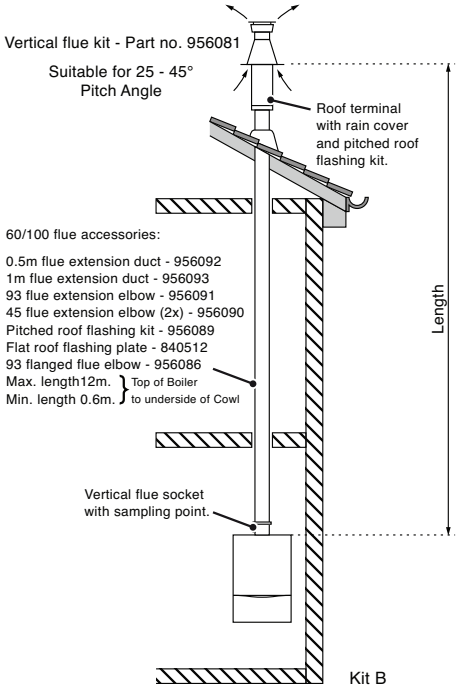


Fig. 22

8.4 Total Equivalent Lengths for Concentric (60/100mm) flue systems

Component	Equivalent length in metres	Part number
45° Bend	0.5m	956090 - 2 off
93° Bend	1.0m	956091
0.5m Extension	0.5m	956092
1.0m Extension	1.0m	956093
Support Bracket	N/A	840517

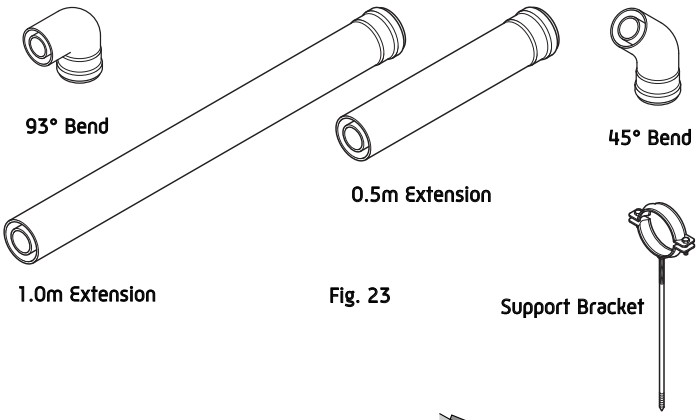


Fig. 23

8.5 Kit C Horizontal Anti-Plume Flue Kit (C13) - Part No. 956084

This kit is recommended if the condensate plume from the flue may cause a nuisance or affect the surroundings. The air inlet remains outside and the flue duct is routed separately using a 60mm duct enclosed by a protective 80mm tube. To calculate the maximum lengths of 60/100 concentric flue and 60mm flue ducts, use the table below.

Concentric (60/100mm) flue length (metres)	0.3	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
Maximum (60/80mm) flue length allowed (metres)	9.2	9.0	8.5	8	7.5	7	6.5	6	5.5	5	4.5

Example: If required length of 60/100mm concentric = 1m then maximum 60/80 length = 8.5m

For installation details refer to the flue kit instructions.
Dimensions from vertical terminals to opening windows should be in line with Fig. 19.

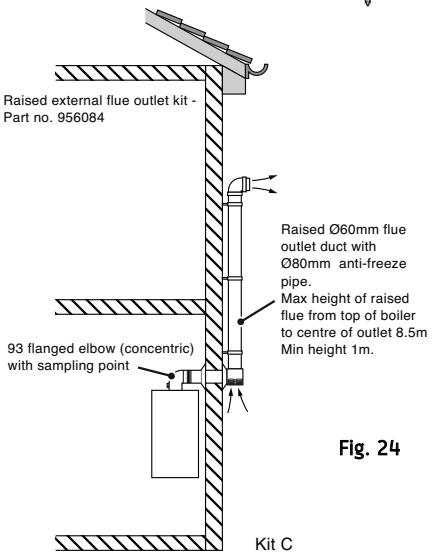


Fig. 24

8.6 Plume Diverter Terminal Kit Part No. 956103

(For use with Standard horizontal telescopic flue kit - Part no. 956120 - only).

This kit is useful for deflecting the condensate plume away from walls or boundaries. It should only be used to deflect the condensate plume left or right.

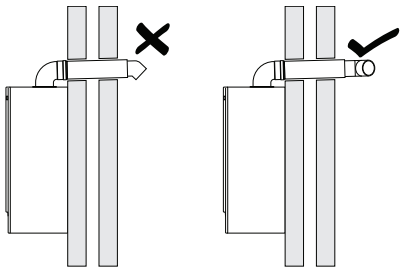


Fig. 25

8.7 Kit D External Vertical Flue (C33) - Part no. 956085

60/100mm concentric vertical flue system.
Maximum length = 12m. The flue kit contains two additional 45° elbows and 2.5 metres of 60/100 concentric ducts as well as a special wall bracket to pass the guttering (see Fig. 26).
The concentric flue will be routed vertically alongside the outside wall to above the roofline. Special seals are required to prevent rainwater penetrating the pipe joints.
For installation details refer to the flue kit instructions.

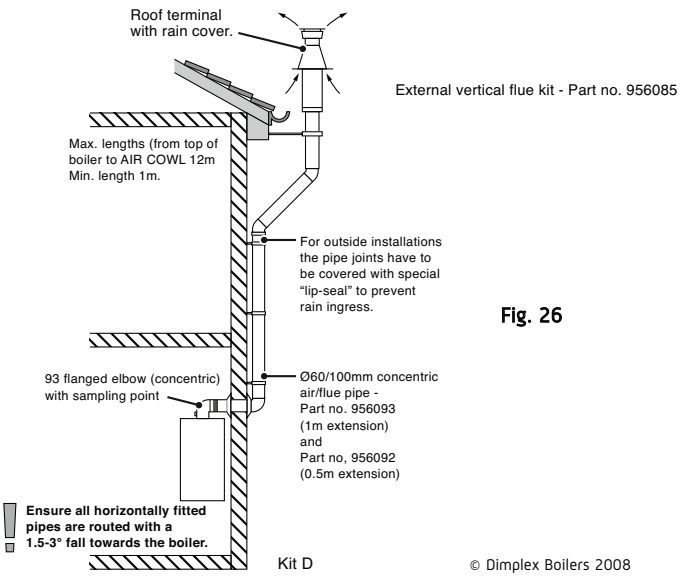


Fig. 26

8.8 Kit E Chimney Flue Liner Kit (B23) - Part no. 956082

Note:
Dimplex System 18 and 30: Maximum flue length = 30m.
Minimum length for all Dimplex System boilers = 5m.

This kit is suitable for open flue application in accordance with BS5440 parts 1 & 2 where a room sealed flue installation is impractical. The kit comprises of a flue adaptor from the appliance to the chimney, a flexible plastic flue liner with connection parts and chimney terminal (see Fig. 27). Further guidance on ventilation requirements is given in section 7.3.

See 'Total equivalent lengths for concentric (60/100mm) flue systems'

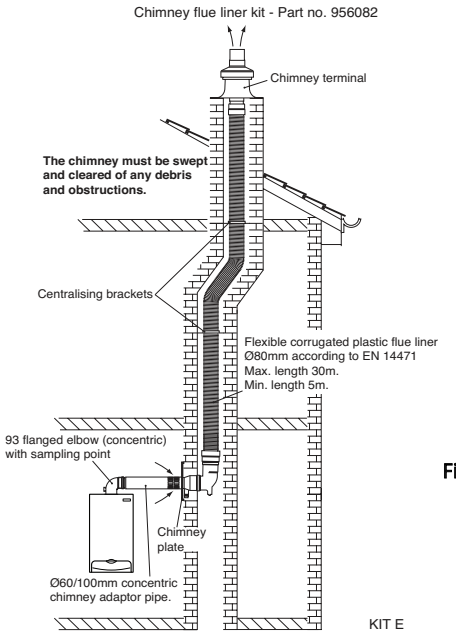


Fig. 27

8.9 Kit E: Key flue dimensions + Accessories

Minimum length 60/100mm horizontal flue	100mm	From boiler to chimney
Maximum length 60/100mm horizontal flue	2000mm	From boiler to chimney
Minimum length 60/100mm vertical flue	200mm	From boiler to chimney
Maximum length 60/100mm vertical flue	2000mm	From boiler to chimney
Minimum length 80mm flue liner	5000mm	From adaptor to chimney terminal
Maximum length 80mm flue liner	30000mm	From adaptor to chimney terminal
Accessory	**Length**	**Part Number**
80mm Flexitube flue liner	10m	956110
80mm Flexitube flue liner	20m	956111
80mm Flexitube flue liner	30m	956112
Boiler vertical flue adaptor/turret socket	N/A	956087

8.10 Kit F: Twin Flue System (C53) - Part no. 956080

Note:
Maximum flue length (air duct + flue duct) = 38m.
Minimum flue length (air duct + flue duct) = 10m.

The kit comprises of a twin adaptor suitable for 80mm ducts, from which the air intake is taken from the adjacent outside wall (see Fig. 28) and the flue duct is routed vertically through the roof.
It is **not** recommended to route the flue duct through living space areas, i.e. bedrooms, living rooms etc.
For installation details refer to the instructions provided with the twin flued kit.

Component	Equivalent length in metres		Part number
	Air Duct	Flue Duct	
90° Bend	4.0m	8.0m	956100
45° Bend	2.0m	4.0m	956099
1.0m Extension	1.0m	2.0m	956101
2.0m Extension	2.0m	4.0m	956102

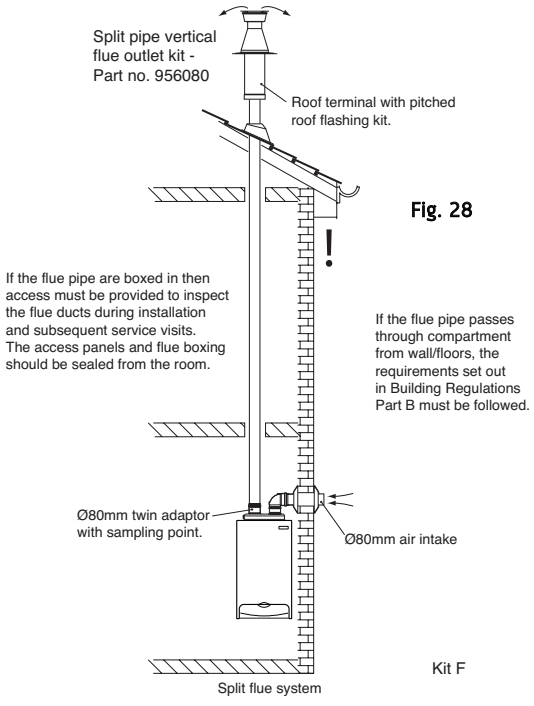


Fig. 28

9.1 UNPACKING & INITIAL PREPARATION

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

1. Remove the top cardboard tray from the carton.

2. The wall fixing jig is packed in its own cardboard sleeve. Carefully slide this out of the carton.

3. To avoid scratching the boiler outercase, keep the outer carton in place.

4. After reviewing the site requirements (see Section 7.0), position the fixing template on the wall ensuring it is level both horizontally and vertically.

5. Mark the position of the fixing holes for the wall plate and boiler lower fixing holes.

6. Mark the position of the centre of the flue hole (rear exit). For side flue exit, mark as shown (Fig. 4).

7. If required, mark the position of the gas and water pipes. Remove the template.

8. Cut the hole for the flue (minimum diameter 110mm).

9. Drill the wall as previously marked to accept the wall plugs supplied. Secure the wall fixing jig using the fixing screws.

10. Using a spirit level ensure that the fixing jig is level before finally tightening the screws.

11. Flush and clean the system using an appropriate cleanser (Fig. 30).

12. Connect the gas and water pipes to the valves on the wall fixing jig.

13. Fit the filling loop as described in the instructions supplied with it.

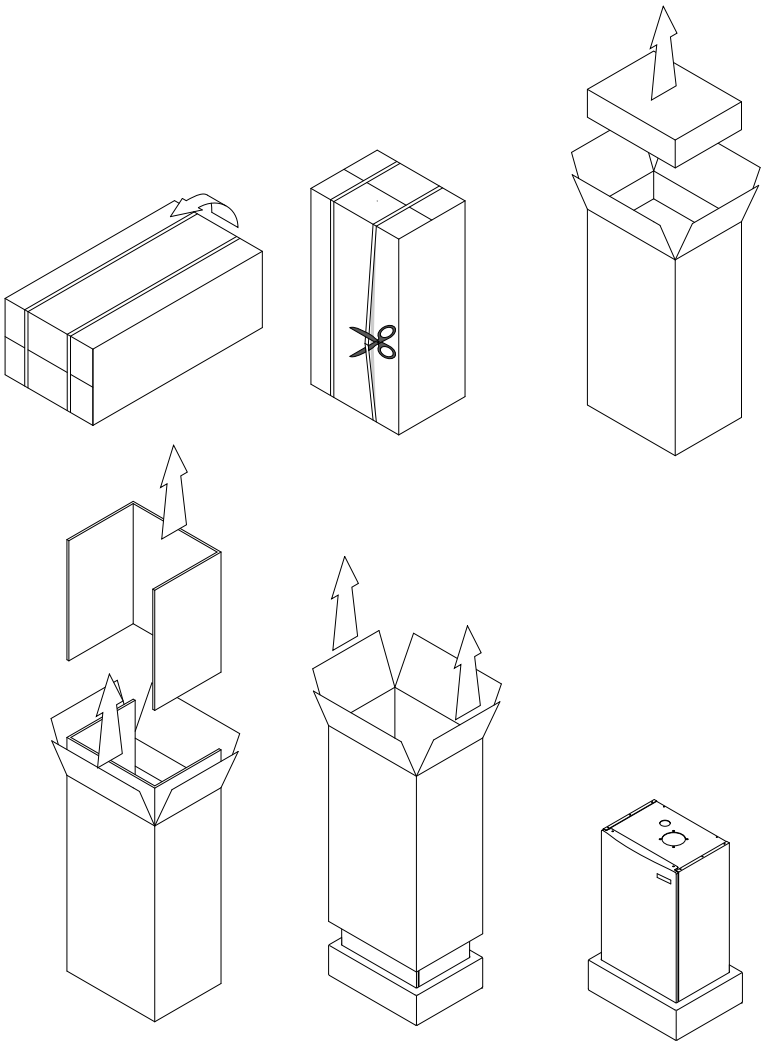


Fig. 29

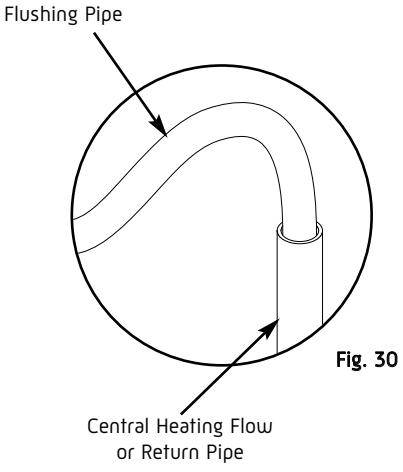


Fig. 30

9.2 FITTING THE BOILER

1. Remove the sealing caps from the boiler connections.

NOTE: A small amount of water may drain from the boiler once the caps are removed.

2. Check the sealing washers are located correctly in the taps on the wall jig.

3. Lift the boiler as indicated by the shaded areas. The boiler should be lifted by TWO PEOPLE. Engage the slots at the top rear of the boiler on the wall plate (Fig. 31) (see **Safe Manual Handling** page 6).

4. Ensure the boiler is correctly located on the wall jig and the connections align. Tighten all the connections.

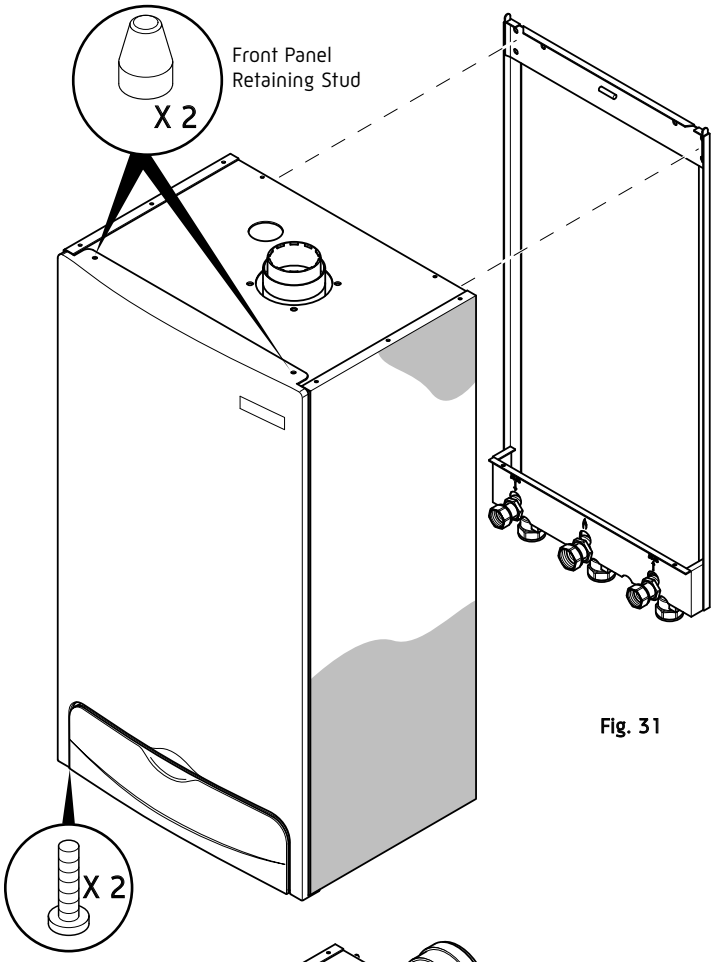


Fig. 31

9.3 FITTING THE PRESSURE RELIEF DISCHARGE PIPE

1. Remove the two screws securing the front panel to the underside of the boiler. Rotate the bottom of the panel out slightly and lift the panel upwards off its retaining studs on top of the appliance.

2. Determine the route of the discharge pipe.

3. Taking care not to disturb the case sealing grommet, the pipework must be at least 15mm diameter and run continuously downwards to a discharge point outside the building.

4. Complete the discharge pipework and route it to the outside discharge point.

9.4 CONDENSATE DRAIN

1. Connect the condensate drain to the trap outlet pipe.

Ensure the discharge of condensate complies with any national or local regulations in force.

2. The connection will accept 21.5 – 22mm plastic overflow pipe which should generally discharge internally into the household drainage system. If this is not possible, discharge into an outside drain is acceptable.

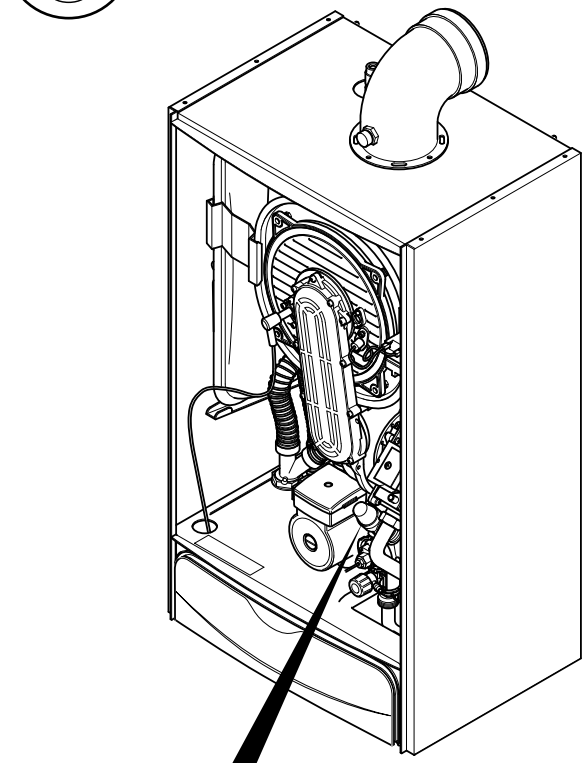


Fig. 32

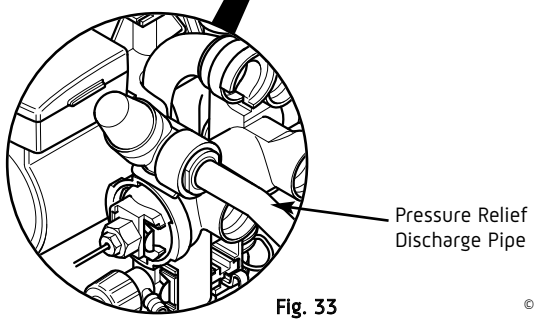


Fig. 33

9.5 FITTING THE FLUE

HORIZONTAL TELESCOPIC FLUE

1. For correct flue installation please refer to the installation instructions that are provided with the individual flue kit as described in sections 7 & 8.

2. Measure the required flue length as shown in Fig. 34. Refer to section 8 to determine whether any extension kits are required. Installations using only the standard ducts or standard ducts with straight extensions are described in this section. Installation instructions for all other flue systems are included in the various flue kits.

3. Ensure that all (inner and outer tube) sealing rings are provided and assemble the air/flue ducts as shown in the flue instructions.

4. Ensure that the flue and air seals are correctly fitted before assembly and that each section is fully engaged.

NOTE: NEVER CUT THE SWAGED END. Where necessary the plain ends of the extension ducts may be cut. Always ensure that the cut is square and free of burrs or debris. It is essential that the terminal is fitted the correct way up. See flue kit instructions (i.e. rain shield at the top).

INSTALLING THE AIR/FLUE DUCT FROM INSIDE THE ROOM

Detailed installation instructions are included in the flue kit. (Flue hole diameter 130mm).

1. Push the terminal through the wall taking care to ensure that the terminal is the correct way round and the external wall-sealing ring does not become dislodged.

2. Assemble the flue system extension ducts as necessary, referring to Fig. 35.

3. Pull the flue system towards the appliance to seat the external sealing ring against the outside wall, ensuring that the duct joints are not disturbed.

4. Use the internal sealing ring to make good the internal hole and check that the terminal is correctly located on the outside wall. Where possible this should be visually checked from outside the building (Fig. 35).

5. Finally locate and secure the elbow to the appliance using the four screws provided.

INSTALLING THE AIR/FLUE DUCT FROM OUTSIDE THE BUILDING

Detailed installation instructions are included in the flue kit. Flue hole diameter 100mm - 110mm.

1. Secure the flue elbow with seal to the appliance using 4 screws.

2. Fit the external wall sealing ring over the flue and then from outside the building, push the flue system through the wall taking care to ensure that the terminal is the correct way around.

3. Loosely fit the internal wall sealing ring over the inside end of the flue.

4. Assemble the flue system extension ducts as necessary referring to the flue kit instructions and fit to the elbow.

5. Fit the flue terminal to the flue system, ensuring that the duct joints are not disturbed and that the external sealing ring is seated against the outside wall.

6. Finally use the internal sealing ring to make good the internal hole. Check that the external wall sealing ring and the terminal is correctly located on the outside wall.

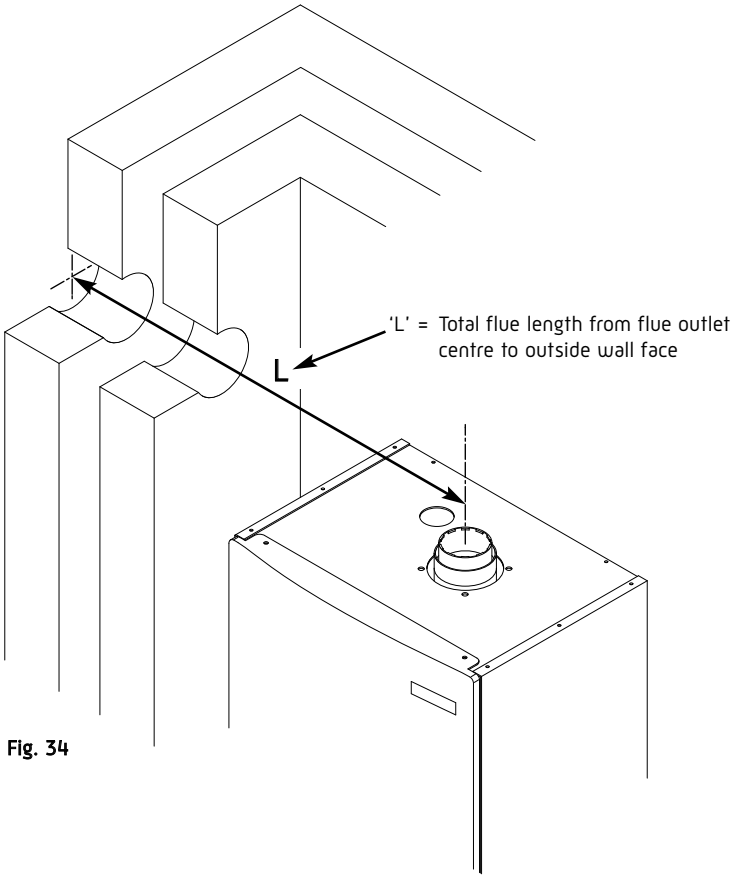


Fig. 34

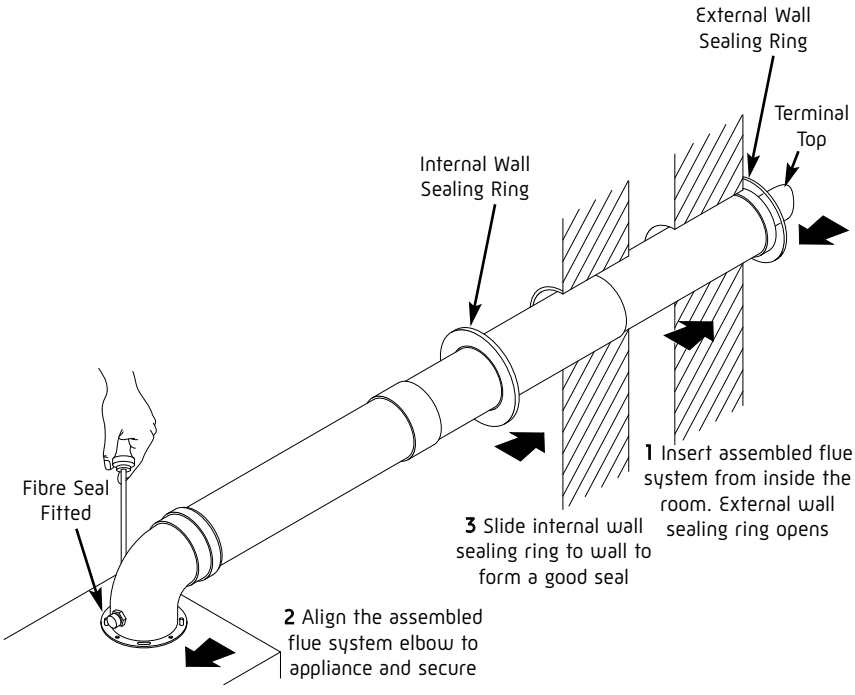


Fig. 35

9.6 MAKING THE ELECTRICAL CONNECTIONS

The boiler is fitted with a 1.5m length of 3 core cable. This can be connected to the fused 3A 230V 50Hz supply.

To connect an external control proceed as follows:-

1. Lower the drop down door.

2. Remove the two screws holding the controls box and ease the box away from the boiler. The electrical connections are made at the left hand side on the rear of this box.

3. Slacken the cable clamp on the terminal block (Fig. 36). Insert the external control wiring through the clamp and route it to the terminal block. Tighten the cable clamp.

4. Refer to the instructions supplied with the control.

IMPORTANT: The room thermostat **MUST** be suitable for 230V switching.

Ensure that the external control input cable (s) have sufficient slack to allow the control box to drop down.

5. Route external control cables away through the mains cable grommet supplied.

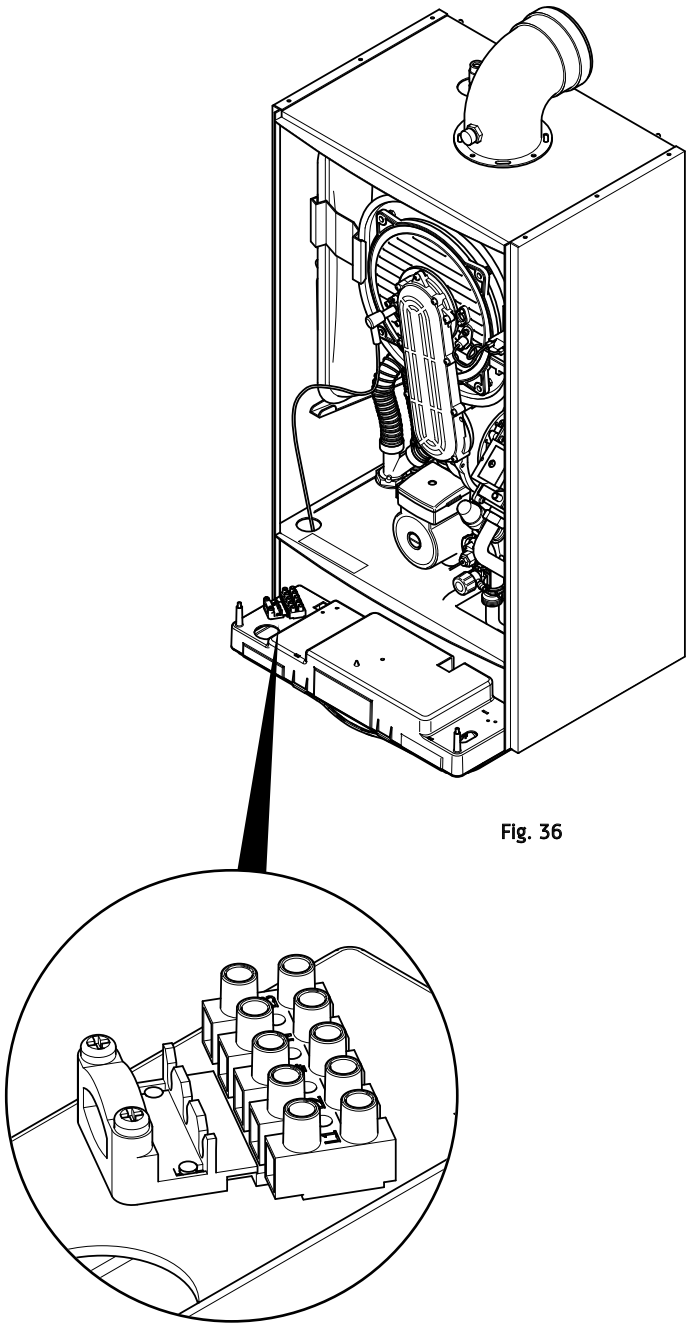


Fig. 36

9.7 PRELIMINARY ELECTRICAL CHECKS

1. Prior to commissioning the boiler preliminary electrical system checks should be carried out.

2. These should be performed using a suitable meter, and include checks for Earth Continuity, Resistance to Earth, Short Circuit and Polarity.

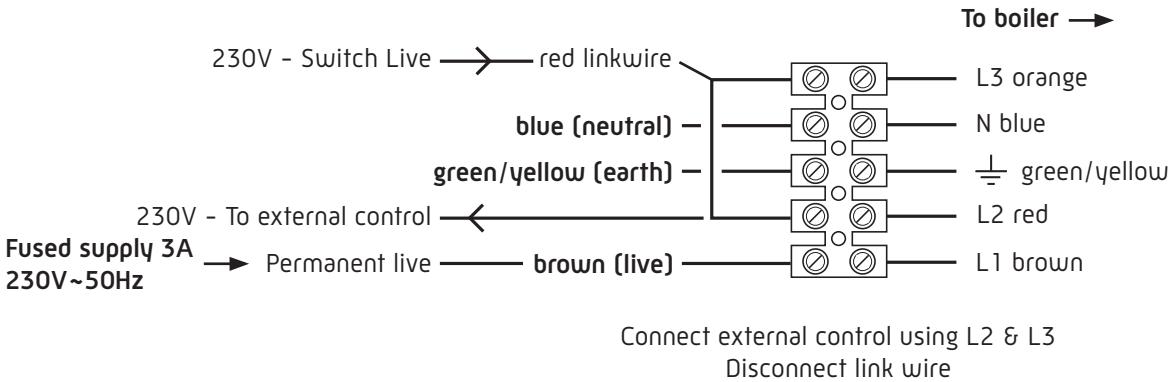


Fig. 37

10.1 COMMISSIONING THE BOILER

IMPORTANT: The air vent on top of the boiler must be OPEN when filling the system. Attach a tube to the air vent to safely collect any excess water (Fig. 38).

Gas Tightness

1. Ensure the gas service cock on the boiler is turned on (Fig. 40). The entire gas installation must be tested for gas tightness and purged in accordance with BS6891.

2. Open the service cocks to the CH flow and CH return supplies.

3. Connect the filling loop and fill and vent the CH system.

NOTE: Ensure the boiler is completely vented using the manual air vent on top of the boiler.

4. Drain, flush and refill the boiler and system in accordance with BS7593 (Fig. 30).

NOTE: Failure to flush the system and to add inhibitor will invalidate the appliance warranty.

5. Pressurise the system to 1.5 bar (Fig. 42).

Electrical Safety Checks on the Controls System and Boiler

6. Carry out earth continuity, resistance to earth, short circuit and polarity checks using a suitable meter.

7. Switch on the electricity supply to the boiler.

8. Set the controls to call for heat. The boiler will now operate. Check the system for correct operation.

9. Replace the outer door and two securing screws.

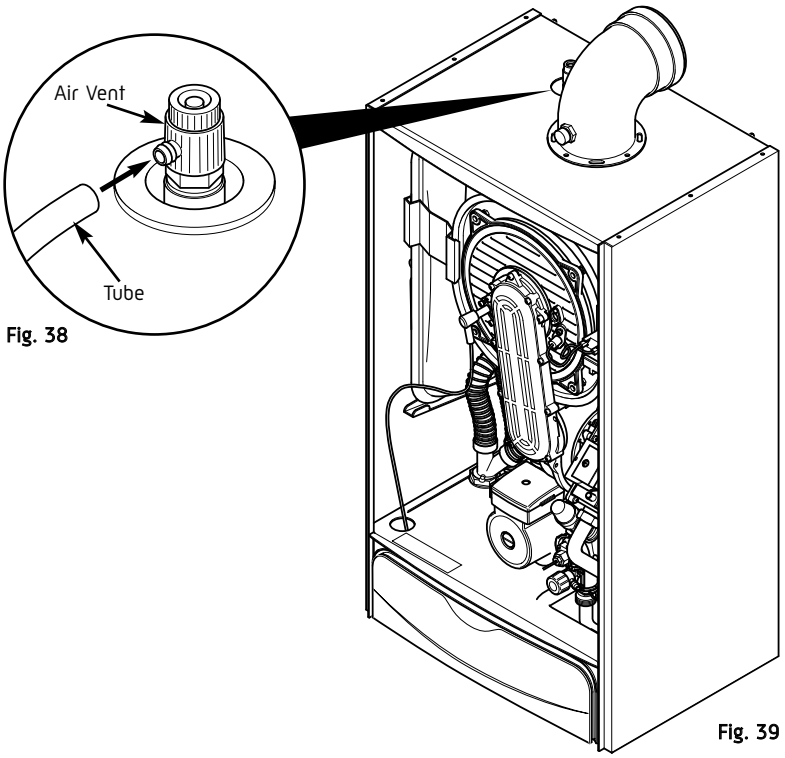


Fig. 38

Fig. 39

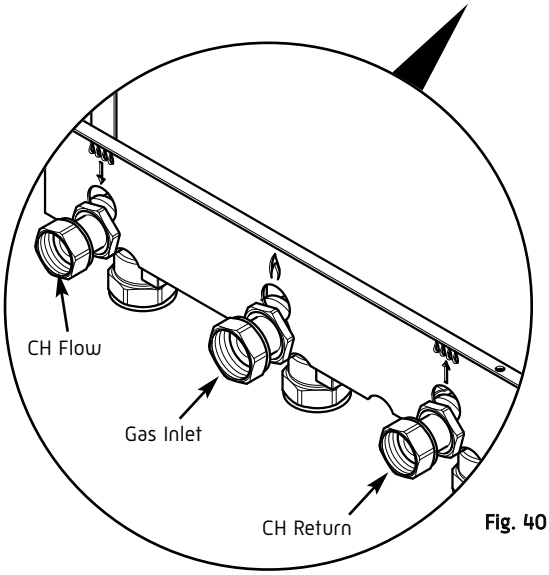


Fig. 40

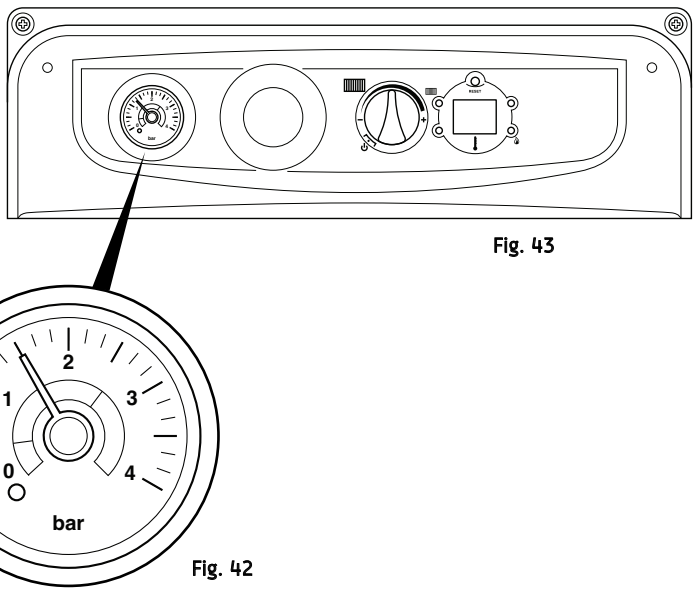


Fig. 42

Fig. 43

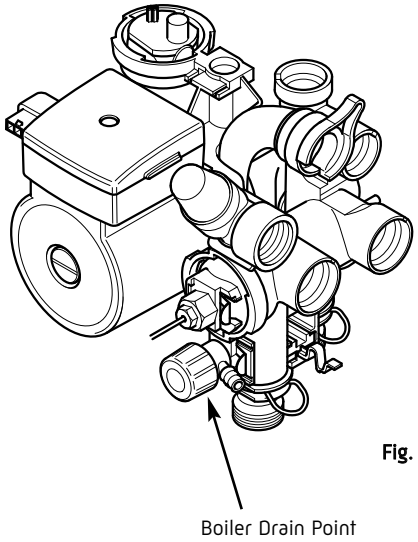


Fig. 41

10.2 FACTORY SETTINGS

NOTE: This boiler is supplied factory set for operation on natural gas. No further adjustments of the air/gas ratio valve or measurement of the combustion performance are necessary at the time of installation and commissioning. This is provided the appliance has been installed according to these instructions and the inlet gas pressure is within our specification.

10.3 INLET PRESSURE AND GAS RATE CHECKS

1. With the boiler firing at maximum gas rate, check that the inlet pressure at the appliance is 19mbar +/- 1mbar when measured at the inlet pressure test point (Fig. 44).
To set the boiler to maximum gas rate see section 11.0 (Service Mode).

2. Check the maximum and minimum gas rate at the gas meter according to the table below using a stopwatch.

Gas Rates (Natural Gas) after 5 minutes from cold				
Boiler Model	**Maximum Rate**		**Minimum Rate**	
	m^3/h	ft^3/h	m^3/h	ft^3/h
System 18	1.95	68.8	0.57	20.1
System 30	3.2	113	0.8	28.2

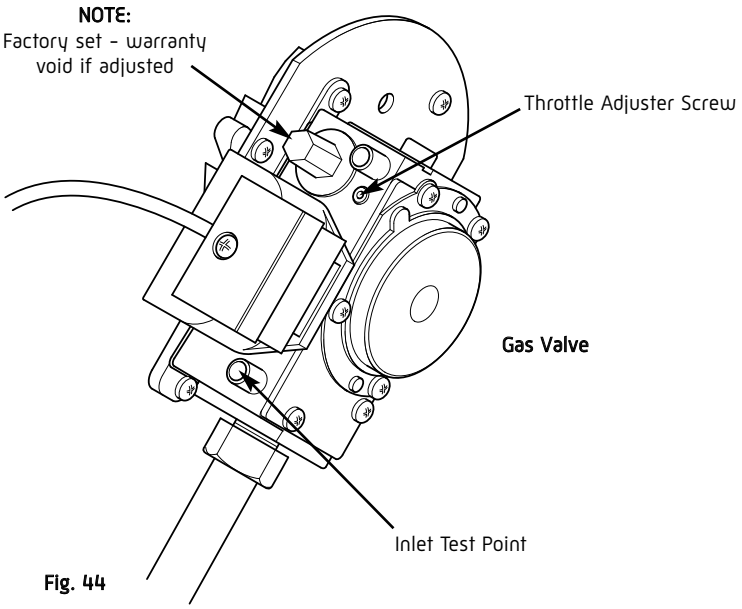


Fig. 44

10.4 COMBUSTION CHECKS DURING COMMISSIONING

1. On completion of the gas inlet pressure and gas rate checks, it is necessary to check the following:
- The appliance installation conforms to these instructions.
- The installation and integrity of the full flue system including the seals in the flue pipes.
- The boiler combustion circuit, including the burner door seal, combustion door seal.

NOTE: If any doubts exist over the above checks then the combustion of the appliance can be measured as described in Section 12.0 of these instructions providing;
- The person carrying out the measurement has been assessed as competent in the use of a flue gas analyser and the interpretation of the results.
- The flue gas analyser used, meets the requirements of BS7927 or BS-EN50379-3.
- The flue gas analyser is calibrated in accordance with the manufacturers requirements.

2. The recorded combustion values should be compared with the values in Table 1 and Table 2 (see Section 12.2).

3. If the combustion value(s) is outside the values specified in Section 12.2 (Tables 1 & 2), do not attempt to adjust the air/gas ratio valve, please ring the helpline number - **0844 371 1121. If in doubt - ASK.**

NOTE: Service Mode automatically stops after 10 minutes and the boiler returns to normal operation.

11.1 TO SET THE BOILER AT MINIMUM GAS RATE

1. Turn the CH knob fully clockwise - Note the knob will turn past the maximum temperature mark (Fig. 45).

2. The CH light will flash continuously - the boiler is now running at minimum rate.

11.2 TO SET THE BOILER AT MAXIMUM GAS RATE

1. Set the boiler into Service Mode at Minimum Rate.

2. Whilst in Service Mode at Min Rate, turn the CH knob to 12 'O' clock position and then back to fully clockwise (past the maximum temperature indicator) within 3 seconds. The boiler will now run at maximum gas rate for 10 minutes.

3. To exit Service Mode, turn the CH knob anti-clockwise to the temperature previously set by the customer. The CH light will now stop flashing.

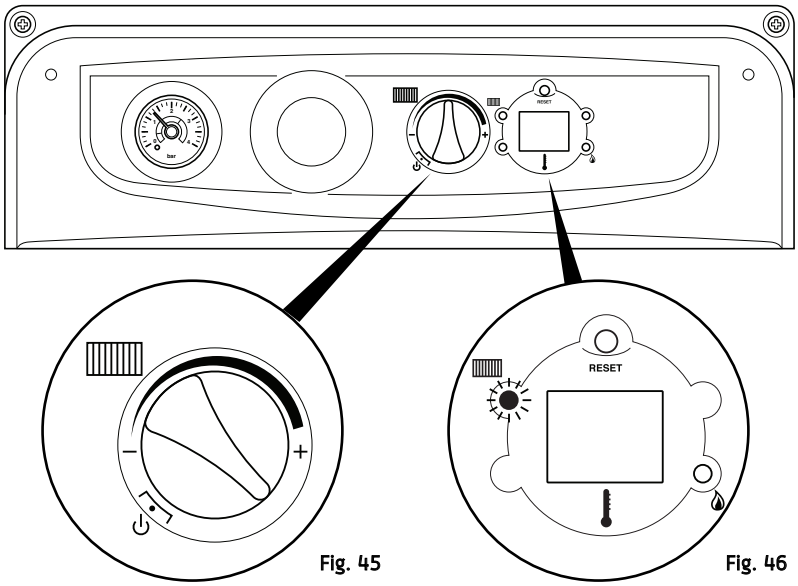


Fig. 45 Fig. 46

12.1 ROUTINE SERVICING AND ALL MAINTENANCE THAT INVOLVES THE EXCHANGE OF PART OF THE COMBUSTION CIRCUIT

1. During routine servicing, e.g. an annual service check, and after all maintenance that involves the exchange of parts of the combustion circuit, we recommend that (in this order) the integrity of the full flue system and combustion circuit seals, the inlet gas pressure, gas rate and combustion performance is verified.

NOTE: The combustion circuit on this appliance comprises of the PCB, fan, air/gas ratio valve, burner, burner door, combustion box door, injector and flue system.

2. To ensure continued safe and efficient operation of the appliance it is recommended that the boiler is serviced at least annually. Servicing must be performed by a competent person. BS 7967-1 gives guidance on identifying and managing sources of fumes, smells, spillage/leakage of combustion products and carbon monoxide detector activation.

Safety Checks
On any service visit always check;

a. Condition of flue system, both air and combustion products ducts.
b. Condition of seals and joints.
c. For evidence of leakage of combustion products.
d. For evidence of heat staining.
e. For operation at maximum heat input.
f. The general condition of the boiler and its components.

12.2 COMBUSTION CHECKS

1. Combustion checks must be carried out with the outercase fitted.

2. Remove the sampling cap from the boiler flue elbow or boiler vertical flue adaptor.

3. Insert the probe from the portable electronic combustion analyser into the sampling point.

4. With the appliance operational, connect the flue gas analyser to the flue sampling point as shown in Fig. 47.

NOTE: The outercase must be fitted for all combustion checks.

5. With the boiler at minimum rate and then at maximum rate (allowing the combustion to stabilise at each rate before taking a reading) carry out the combustion checks as follows:

COMBUSTION CHECKS AT MINIMUM RATE
6. The combustion values at minimum gas rate and maximum gas rate must be checked using a suitable calibrated flue gas analyser. Further guidance is detailed in BS7967 parts 1 to 4.

7. Set the boiler into Service Mode at Min Rate (see section 11.1).

8. Check the Carbon Monoxide (CO) and Carbon Dioxide (CO_2) readings are within the range quoted in the tables opposite (Table 1).

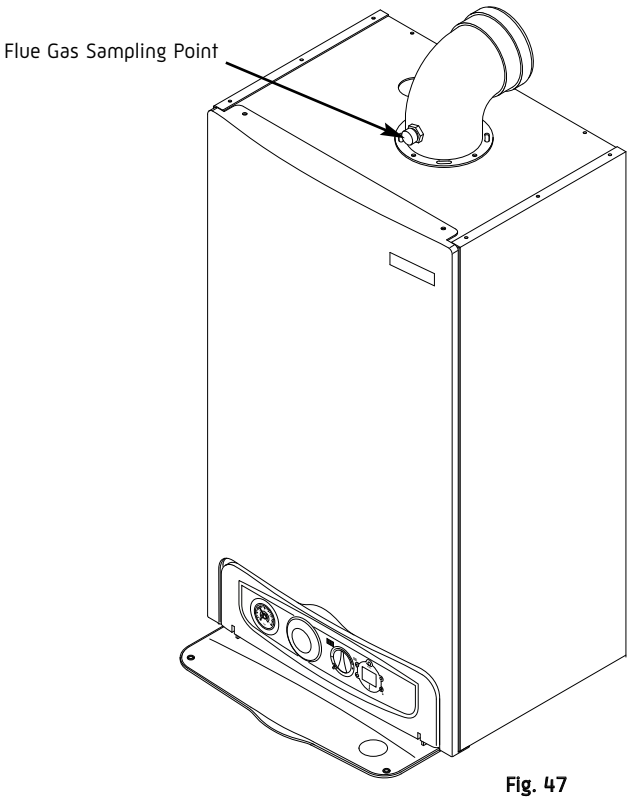


Fig. 47

Minimum Gas Rate				
	NG		LPG	
Boiler Model (kW)	Carbon Monoxide CO p.p.m	Carbon Dioxide CO_2 %	Carbon Monoxide CO p.p.m	Carbon Dioxide CO_2 %
18	0 - 40	8.5 - 8.9	80 - 160	10.4 - 10.8
30	0 - 40	8.7 - 9.1	80 - 160	10.3 - 10.7

Table 1

Maximum Gas Rate				
	NG		LPG	
Boiler Model (kW)	Carbon Monoxide CO p.p.m	Carbon Dioxide CO_2 %	Carbon Monoxide CO p.p.m	Carbon Dioxide CO_2 %
18	15 - 60	8.8 - 9.2	80 - 160	10.8 - 11.2
30	15 - 60	8.8 - 9.2	80 - 160	10.5 - 10.9

Table 2

12.2 COMBUSTION CHECKS

COMBUSTION CHECKS AT MAXIMUM RATE

9. Set the boiler to Maximum gas rate.

10. Check the Carbon Monoxide (CO) and Carbon Dioxide (CO_2) readings are within the range quoted in the tables opposite (Table 2).

11. If the combustion value(s) is outside the values specified in Tables 1 and 2 and the integrity of the full flue system and combustion circuit seals, the inlet gas pressure and gas rate have been verified, it is possible to make an adjustment to the combustion settings by adjustment of the air/gas ratio valve. See Section 12.3 Adjustment of the Gas Valve.

12.3 ADJUSTMENT OF THE GAS/AIR RATIO VALVE

COMBUSTION SETTING ADJUSTMENT

1. Adjustment of the offset screw is not allowed.

2. If the maximum rate setting is adjusted, then the combustion values must be checked at minimum rate.

NOTE: DO NOT ATTEMPT TO FIT OR ADJUST THE GAS/AIR RATIO VALVE UNLESS;

- The person carrying out the measurement has been assessed as competent in the use of a flue gas analyser and the interpretation of the results.
- The flue gas analyser used, meets the requirements of BS7927 or BS-EN50379-3.
- The flue gas analyser is calibrated in accordance with the manufacturers requirements.

3. At Maximum Gas Rate; put the appliance into Service Mode at Maximum Gas Rate (see Section 11.2).

4. Wait 5 minutes to allow the boiler to stabilise.

5. If the Carbon Dioxide (CO_2) level is outside the required values given in Section 12.2 (Table 2) then adjust the throttle screw (Fig. 48) until the CO_2 is at the correct setting level. See Table 4. Clockwise to decrease CO_2, anti-clockwise to increase CO_2.

NOTE: Only turn the throttle in small steps of **no more than 1/8th of a turn** and wait 1 minute after each adjustment for the combustion reading to stabilise.

IMPORTANT: After any adjustment of the gas valve, it is essential to check the combustion levels at minimum gas rate (Table 1). If the Carbon Monoxide or Carbon Dioxide levels are outside the range quoted, call Dimplex Boilers Ltd Technical Helpline on 0844 3711121. If in doubt ASK!

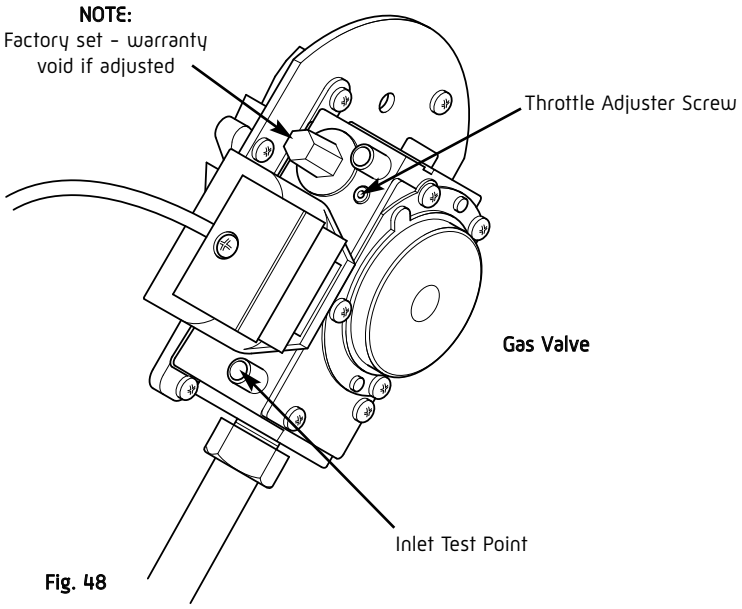


Fig. 48

Carbon Dioxide (CO2) acceptable setting level at Maximum Gas Rate after 5 minutes operation		
Boiler Model	**Natural Gas %**	**LPG (Propane) %**
System 18	9.0	11.0
System 30	9.0	10.7

Table 4

12.1 ANNUAL SERVICING

8. Remove the two screws securing the front panel to the underside of the boiler. Lift the panel upwards off its retaining studs on top of the appliance.

9. Disconnect the two leads to the fan and one lead to the gas valve.

10. Undo the nut on the gas inlet pipe to the valve and retain the sealing washer.

11. Remove the four nuts holding the burner door plate and remove the valve and fan assembly (Fig. 51).

12. Clean any debris from the heat exchanger using a soft brush and check that the gaps between the tubes are clear.

13. Inspect the burner, electrode positions and insulation, cleaning or replacing if necessary.

14. Check the condition of the burner door seals, replacing if necessary. Check for gas tightness and check combustion circuit is sealed.

15. Reassemble in reverse order.

16. To check if the condensate pipe is clear, carefully remove the pipe from the bottom of the primary heat exchanger. Blow down the pipe to ensure it is clear. If required loosen any debris with a small conical brush and flush through with water. Before reassembly, fill the condensate pipe with water to ensure a water trap is formed. Finally, ensure the grommet fitted to the condensate pipe is correctly located into the hole in the bottom of the boiler case.

17. Complete the relevant Service Interval Record section of the Benchmark Commissioning Checklist at the rear of this publication and then hand it back to the user.

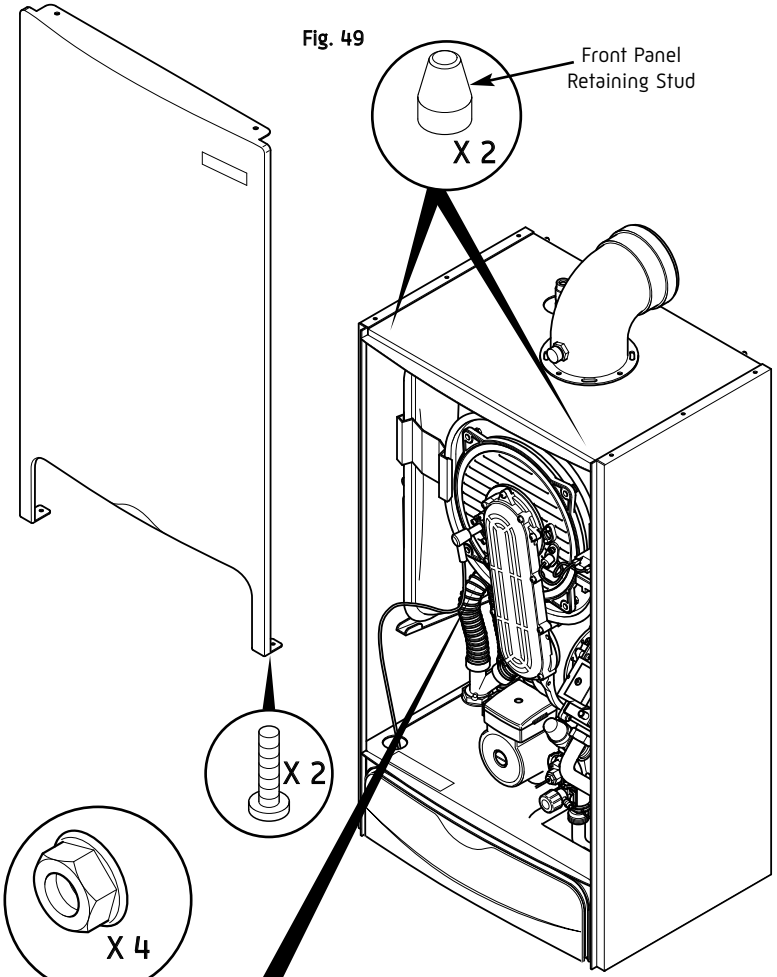


Fig. 49

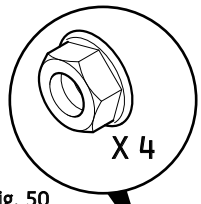


Fig. 50

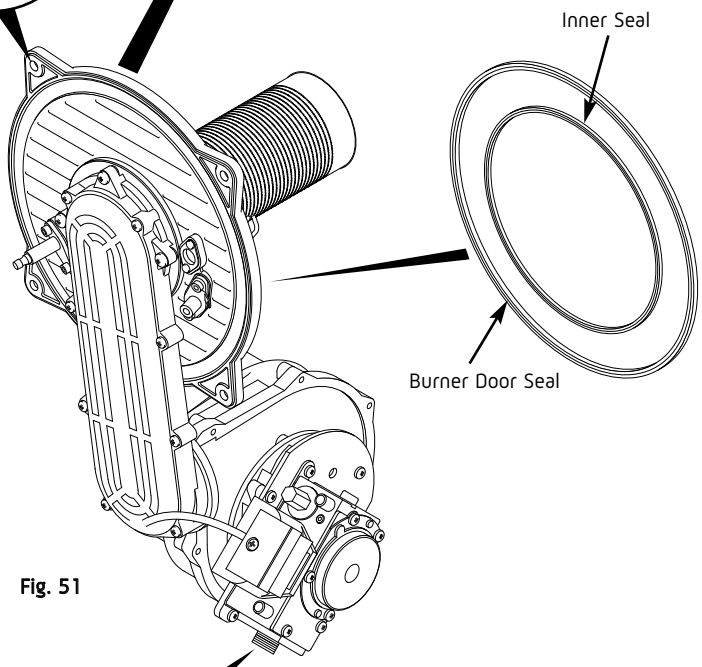


Fig. 51

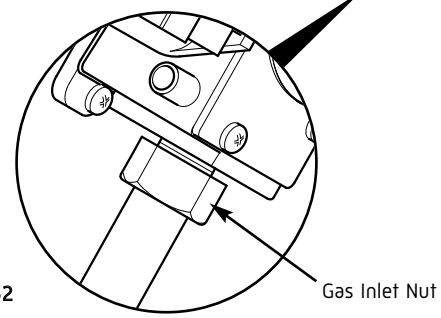


Fig. 52

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

See Section 12 : "Annual Servicing" for removal of case, panel, door etc.

13.1 IGNITER

1. Disconnect the two feed wires, earth wire and electrode lead noting their positions (Fig. 53).

2. Undo the two screws securing the igniter to its bracket and remove the igniter. Reassemble in reverse order.

13.2 SPARK AND SENSING ELECTRODES

1. Disconnect the electrode leads, noting their positions (Fig. 56).

2. Using a 3mm Hex key, remove the retaining screws securing each of the electrodes to the burner door and remove the electrodes.

3. Check the condition of the sealing gaskets and replace if necessary. Reassemble in reverse order and then check that the electrode gaps are as shown in Fig. 54 & 55.

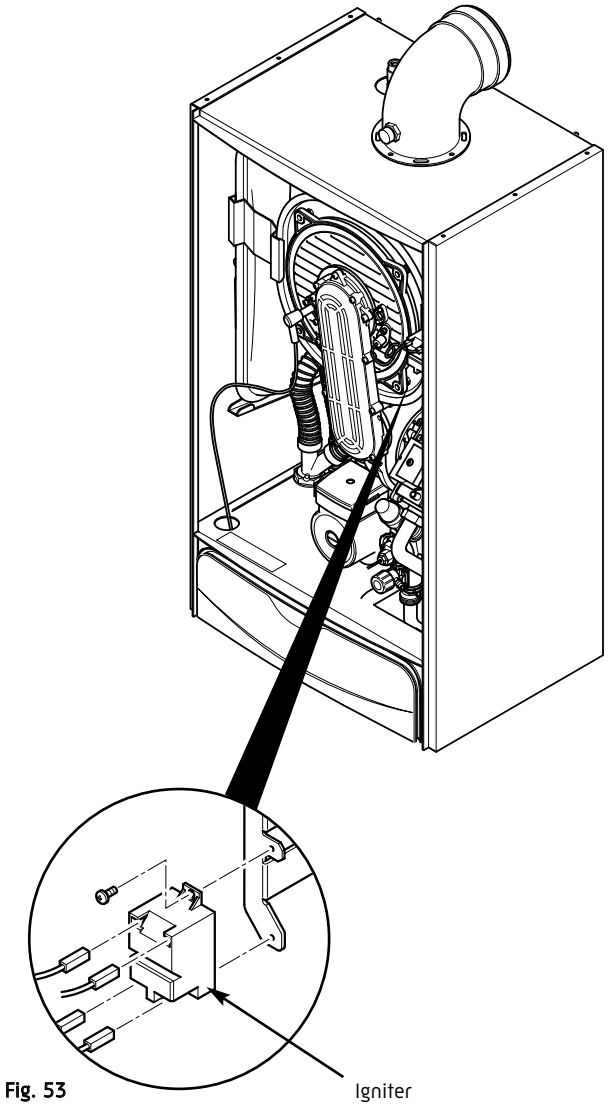


Fig. 53

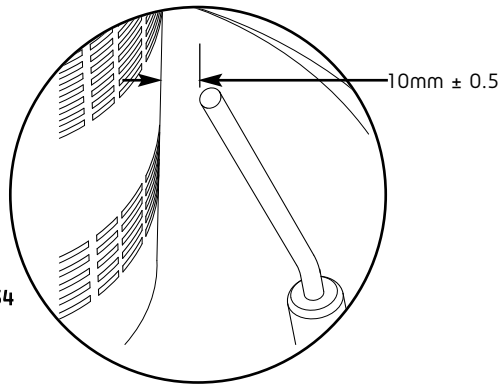


Fig. 54

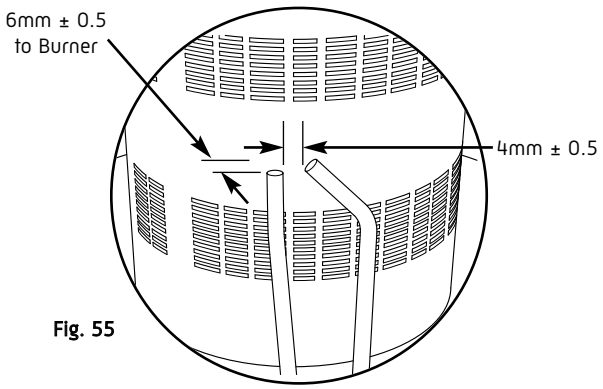


Fig. 55

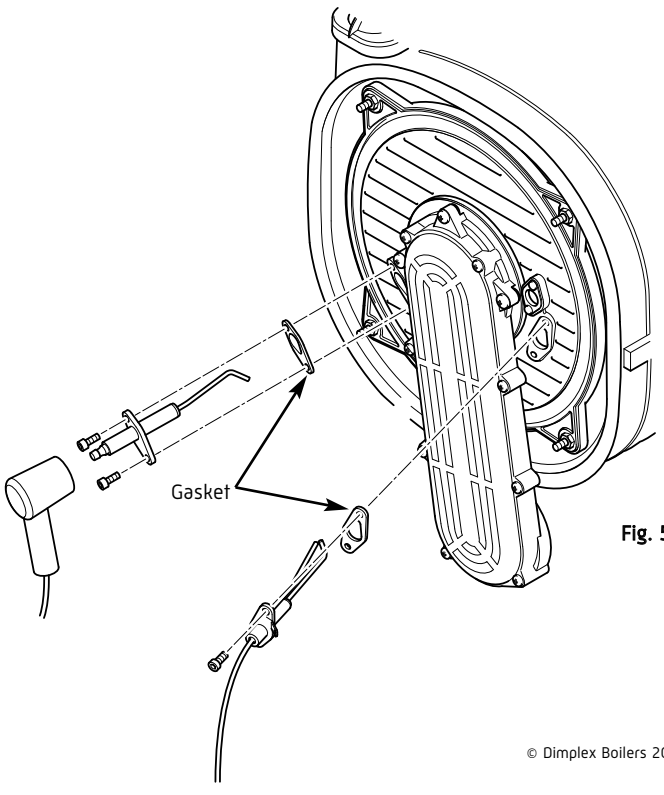


Fig. 56

13.3 GAS VALVE AND FAN

1. Disconnect the two leads to the fan and one lead to the gas valve.

2. Undo the nut on the gas inlet pipe to the valve and retain the sealing washer.

3. Remove the three securing screws holding the air/gas Channel to the burner door plate and remove the valve and fan assembly (Fig. 57).

4. Remove the three screws holding the valve and swirl plate to the fan adaptor plate.

NOTE: Mark on the adaptor plate which holes are being used by the screws. Using the wrong holes on re-assembly will cause mis-alignment of the gas valve.

Fan Only

6. Remove the three screws holding the fan adaptor to the fan.

7. Remove the four screws securing the fan to the air/gas channel. Reassemble in reverse order ensuring all seals are in place.

NOTE: The gas valve throttle should be adjusted in accordance with the instructions supplied in the spares kit See Section 10.

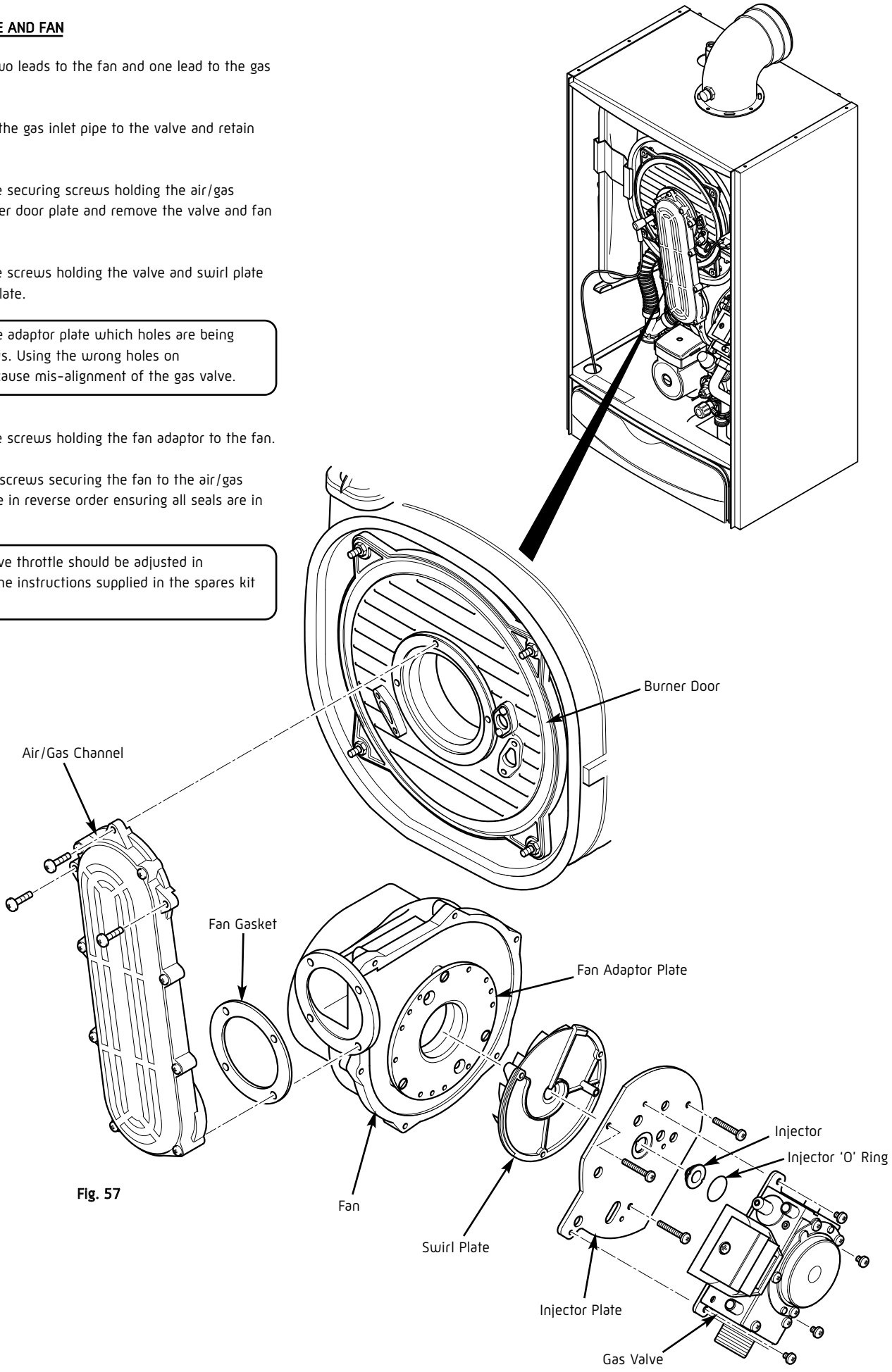


Fig. 57

13.4 BURNER

1. Remove the valve and fan assembly as described in Section 13.3.

2. Examine the gasket and replace if necessary.

3. Undo the four nuts securing the burner door and remove from the heat exchanger.

4. Slowly withdraw the burner from the burner plate taking care not to damage the insulation (Fig. 58).

5. Reassemble in reverse order.

13.5 INSULATION

1. Remove the electrode leads, noting their positions. Remove the electrodes as described in section 13.2.

2. Remove the valve and fan assembly as described in Section 13.3.

3. Examine the gasket and replace if necessary.

4. Undo the four nuts securing the burner door and remove from the heat exchanger.

5. Slowly withdraw the burner from the burner door.

6. Replace the insulation if necessary.

7. Check the burner door seals.

8. The rear insulation is retained by a screw and large washer, remove these and draw the insulation out of the heat exchanger (Fig. 59).

9. Reassemble in reverse order.

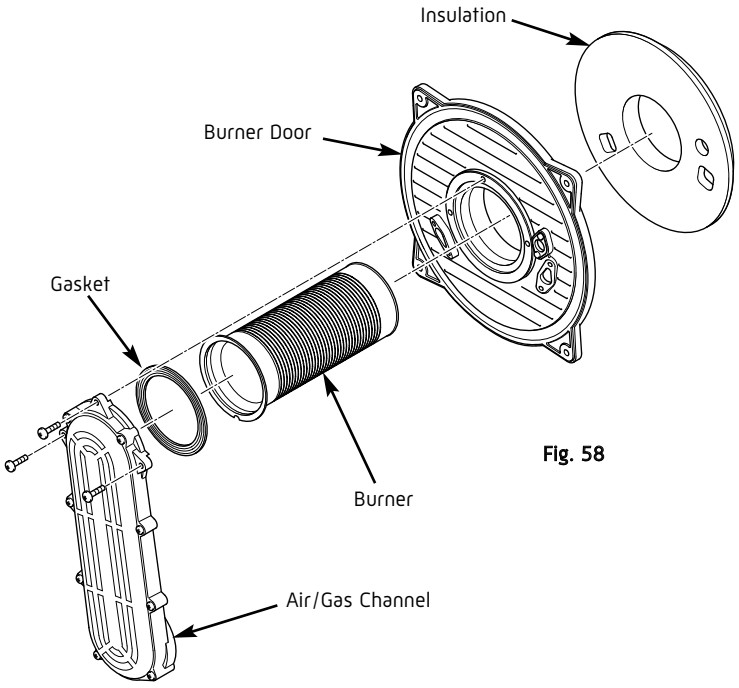


Fig. 58

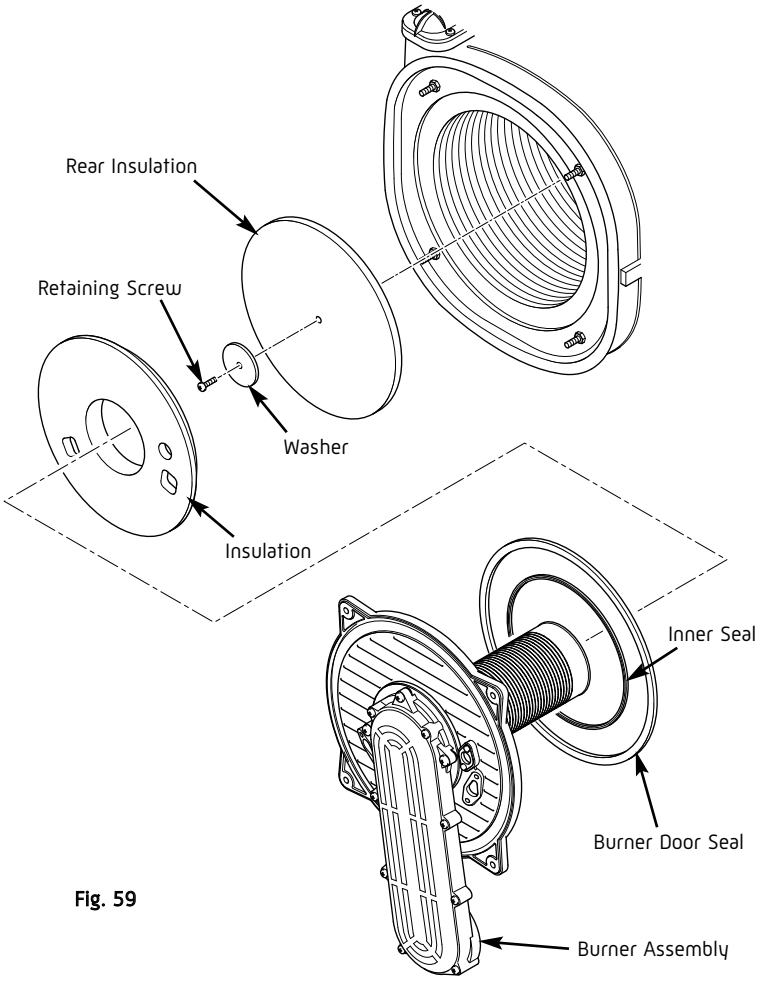


Fig. 59

13.6 FLUE/HEAT TEMPERATURE THERMOSTAT

1. Disconnect the electrical plug.

2. Turn the sensor 90° anticlockwise to remove – it is a bayonet connection (Fig. 60).

3. Reassemble in reverse order.

13.7 THERMAL FUSE

1. The thermal fuse is non-changeable. If the fuse fails contact Dimplex Technical Department.

13.8 CENTRAL HEATING FLOW TEMPERATURE THERMISTOR

1. Disconnect the electrical plug.

2. Ease the sensor clip away from the pipe and remove (Fig. 61).

3. Reassemble in reverse order.

13.9 CENTRAL HEATING RETURN TEMPERATURE THERMISTOR

1. Disconnect the electrical plug.

2. Ease the sensor clip away from the pipe and remove (Fig. 61).

3. Reassemble in reverse order.

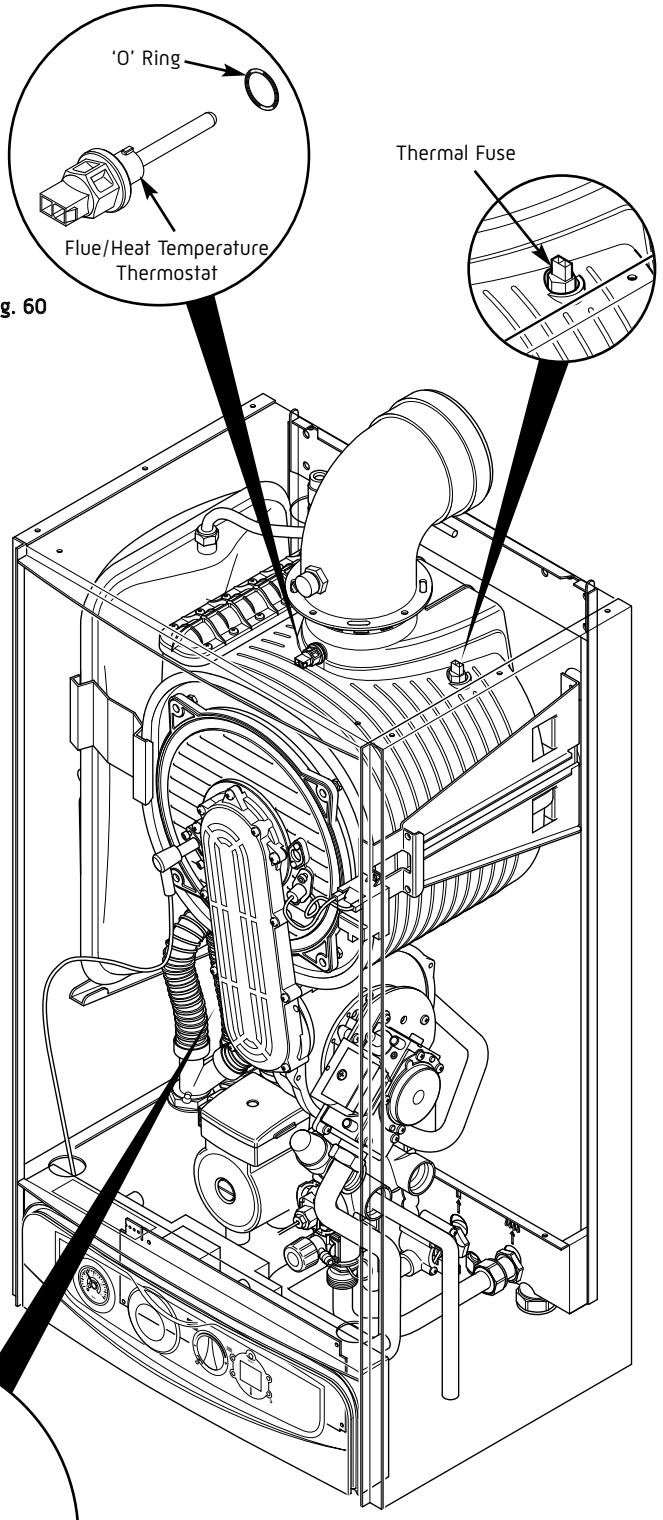


Fig. 60

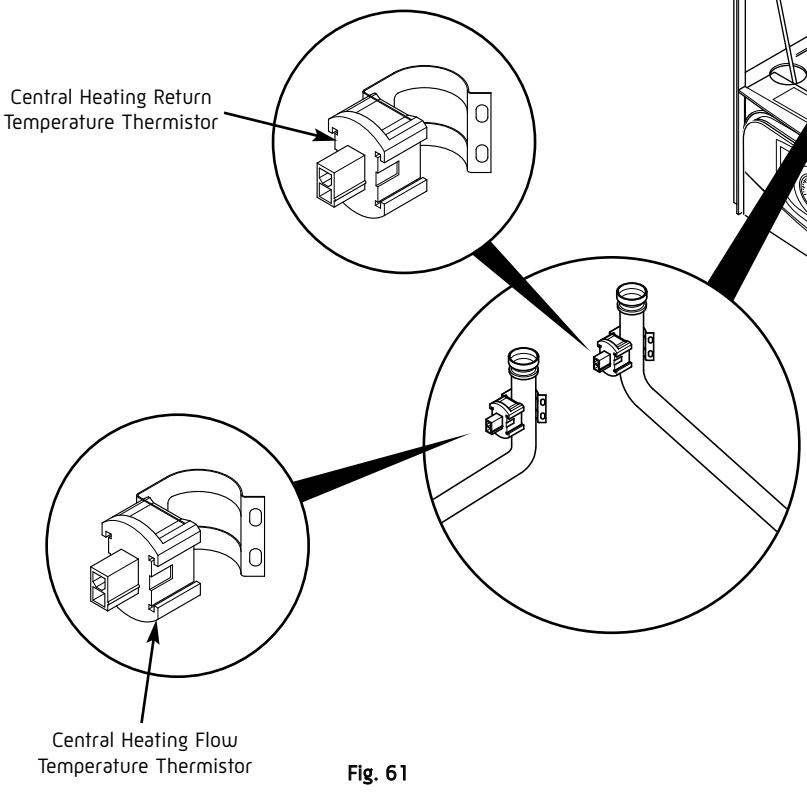


Fig. 61

13.10 PUMP - HEAD ONLY

1. Drain the primary circuit and disconnect the wiring connector from the pump head.

2. Remove the four socket head screws securing the pump head to the body and draw the head away (Fig. 62).

3. A replacement Grundfos 15-60 head can now be fitted (Fig. 62)(Part No: 500672).

4. Reassemble in reverse order.

5. Replace the wiring connector into the socket on the pump head.

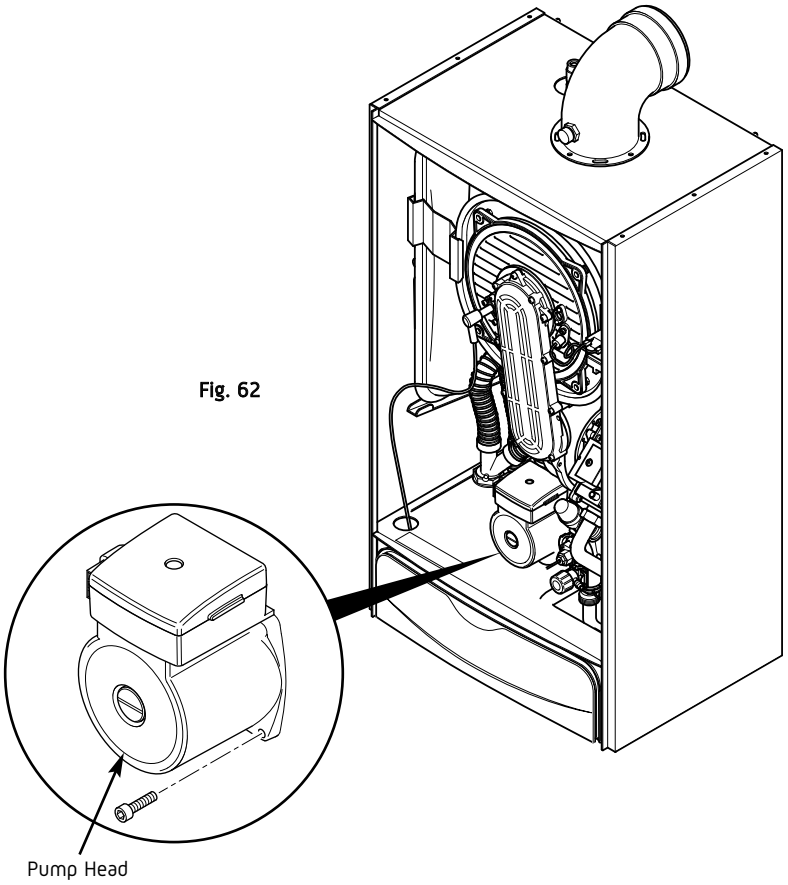


Fig. 62

13.11 HYDROBLOCK

1. Drain the primary circuit.

2. Remove the stainless clip at the base of the hydro-block and disconnect the pipe (Fig. 63).

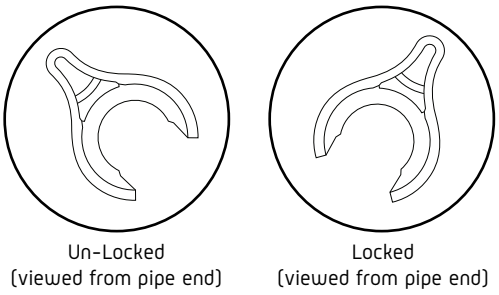
3. Un-lock the locking clip on the return port.

4. Disconnect the discharge pipe from the pressure relief valve.

5. Remove the two securing screws from below the boiler.

6. Carefully remove the hydro-block and change the relevant components.

7. Reassemble in reverse order taking care to replace all the clips correctly. Ensure the locking clip is in the 'Locked' position as shown opposite.



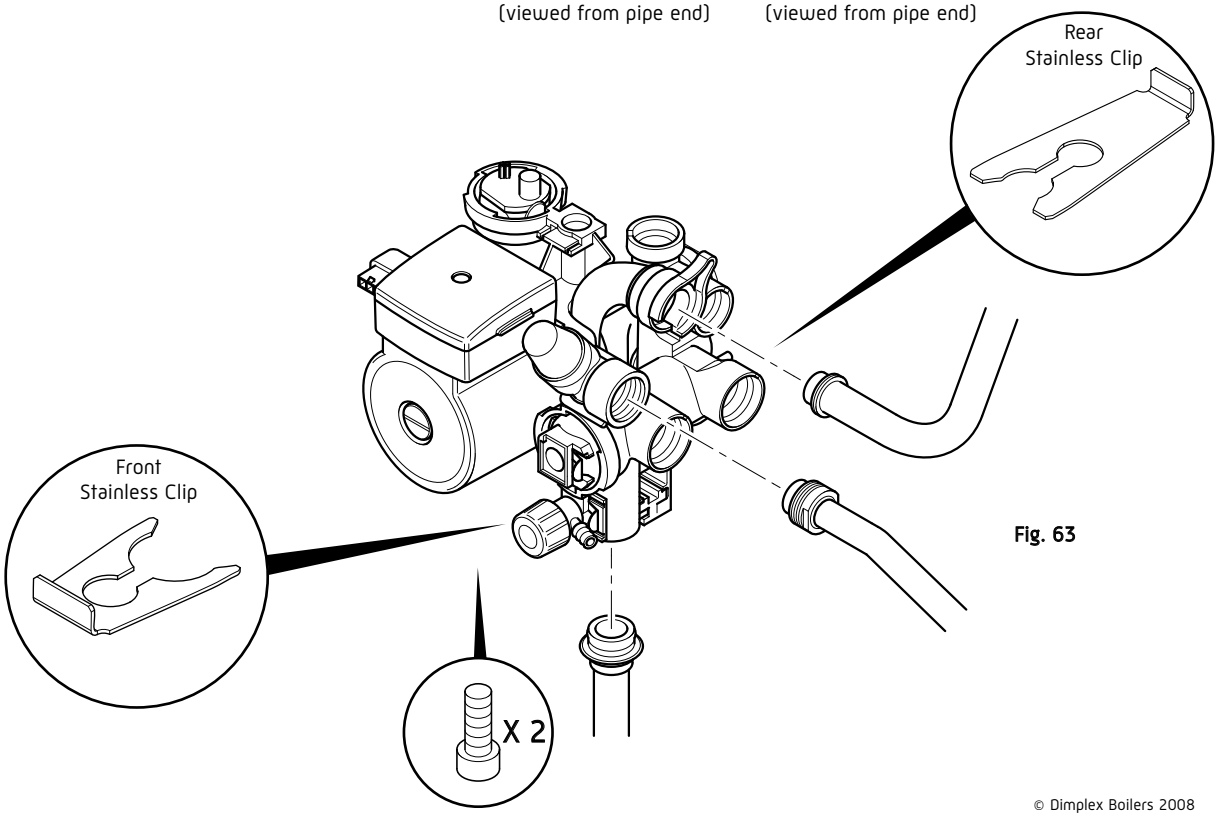


Fig. 63

13.12 AUTOMATIC AIR VENT

1. Drain the primary circuit and rotate the automatic air vent 1/4 turn and remove from the pump body.

2. Examine the 'O' ring seal, replacing if necessary, and fit it to the new automatic air vent.

3. Reassemble in reverse order.

13.13 PRESSURE GAUGE

1. Drain the primary circuit and undo the nut on the pressure gauge capillary.

2. Examine the 'O' ring seal, replace if necessary.

3. Unclip the facia from the control box

4. Lever the barbs securing the gauge to remove the gauge from the control box (Fig. 64).

5. Reassemble in reverse order.

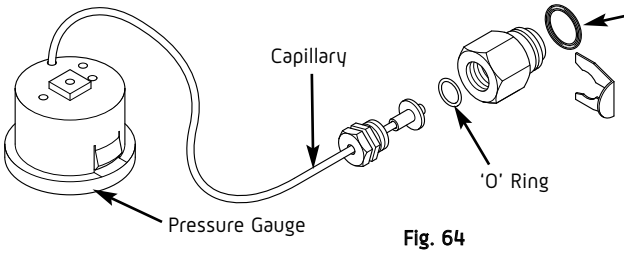


Fig. 64

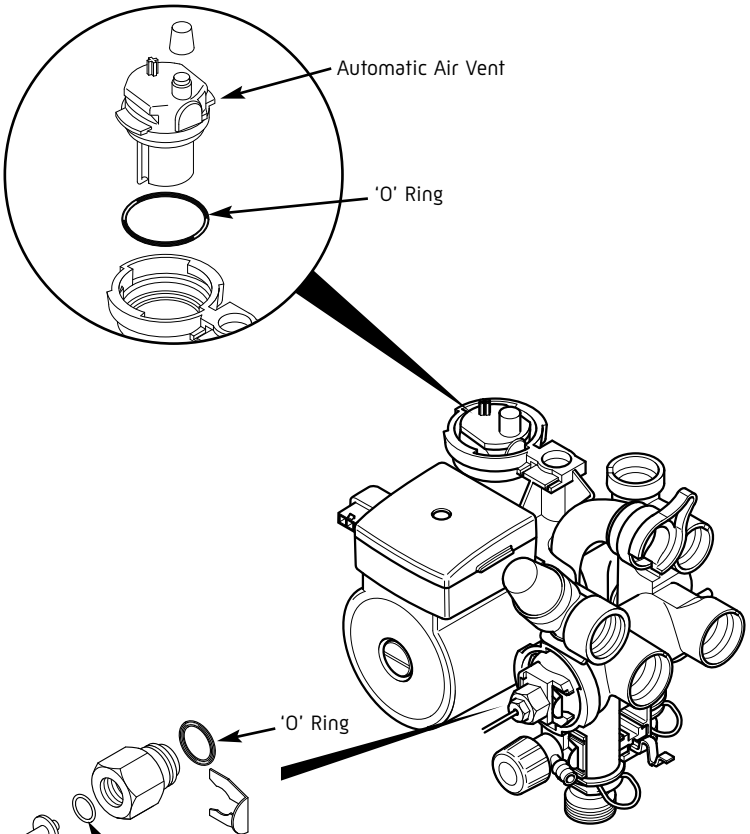


Fig. 65

13.14 PRESSURE RELIEF VALVE

1. Drain the primary circuit.

2. Disconnect the discharge pipe from the valve. Ease off the retaining clip (Fig. 66).

3. Note the orientation of the valve, rotate it and withdraw it from the manifold.

4. Fit the new valve and 'O' ring and set to the previously noted orientation. Reassemble in reverse order.

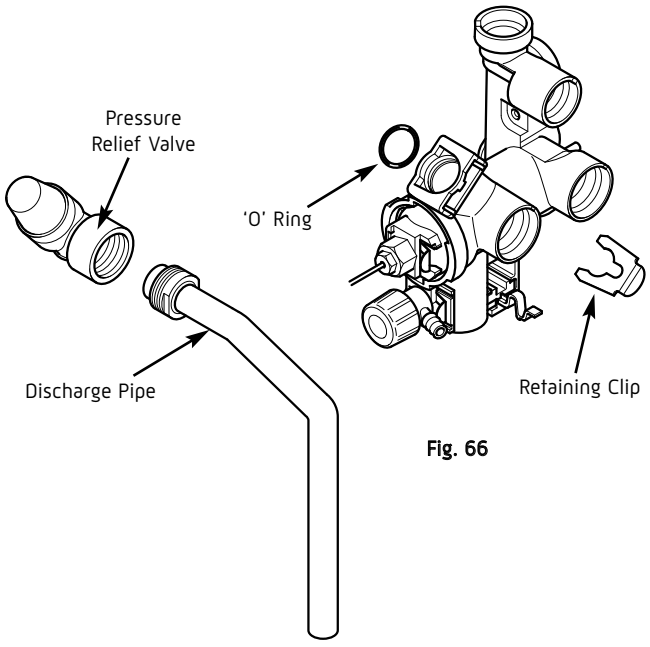


Fig. 66

13.16 EXPANSION VESSEL

1. Drain the primary circuit and undo the nut on the vessel connection pipe.

2. Remove the two screws holding the retaining bracket and remove the bracket (Fig. 67).

3. Carefully slide out the vessel from the boiler.

4. Reassemble in reverse order.

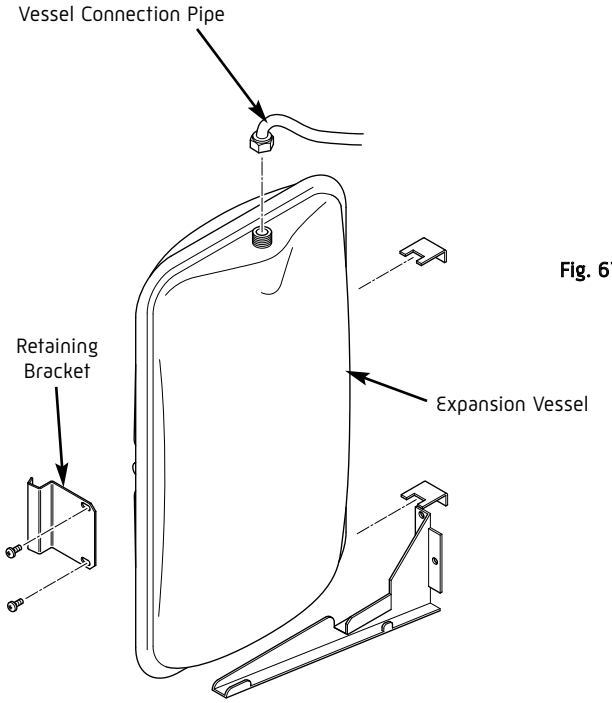


Fig. 67

13.17 MAIN HEAT EXCHANGER

1. Drain the primary circuit.

2. Remove the electrode leads, noting their positions as described in section 13.2.

3. Remove the valve and fan assembly as described in Section 13.3.

4. Examine the gasket and replace if necessary.

5. Undo the four nuts securing the burner door and remove the cover plate from the heat exchanger.

6. Remove the two clips from the flow and return pipes on the bottom of the heat exchanger and slide out the pipes (Fig. 68).

7. Remove the clip holding the manual air vent and remove the pipe from the top of the heat exchanger.

8. Remove the four screws holding the left and right hand retaining brackets and remove the brackets.

9. Remove the four screws securing the flue to the top of the boiler. Lift the flue adaptor out of the flue outlet in the top of the heat exchanger.

10. Carefully slide the heat exchanger out of the boiler.

11. Reassemble in reverse order.

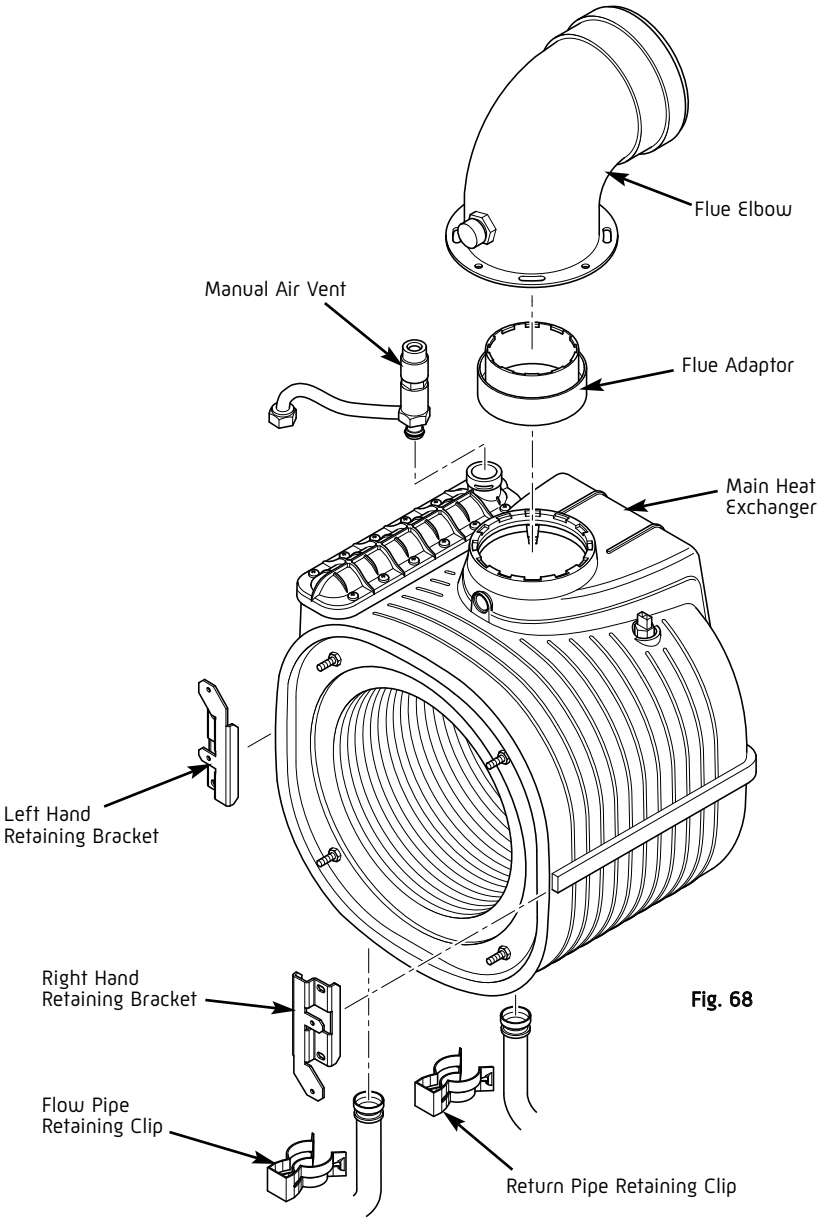


Fig. 68

13.18 PCB

1. Ensure supply voltage is fully isolated.

2. Undo the screws holding the control box and gently ease the box forward (Fig. 69).

3. Locate the retaining barbs on the top of the fascia and unclip them from the control box.

4. Unclip the PCB from the plastic control box.

5. Note the positions of all the connections on the PCB and disconnect them.
(DO NOT REMOVE THE YELLOW BCC (Fig. 69))

6. Carefully unclip and remove the ribbon cable from the PCB and withdraw.

7. Fit all the connection plugs to the new PCB including the ribbon cable, take care not to damage the PCB.

8. Unless specifically instructed **NOT** to do so by the Dimplex Service Department, always fit the new BCC if supplied with the replacement PCB.

NOTE: Always double check the label on the BCC card to ensure it is the correct BCC for the boiler model to which it is being fitted.
NEVER FIT AN INCORRECT BCC.

9. Reassemble in reverse order, ensuring that the control knob are reset to their previous positions

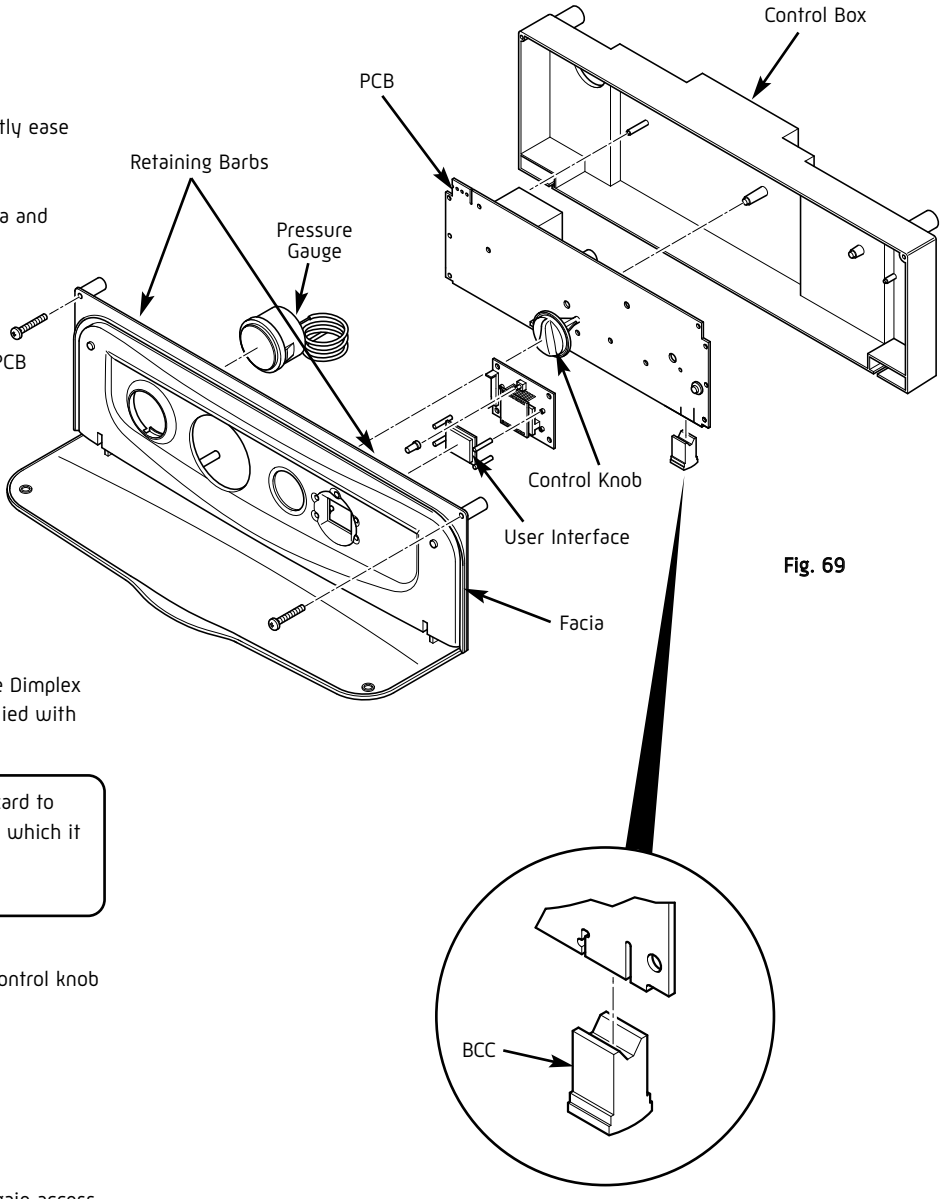


Fig. 69

13.19 BCC

1. Ensure supply voltage is fully isolated.

2. Dismantle the control box as described above to gain access to the PCB (Fig. 69).

3. Note the orientation of the existing BCC (if fitted) and carefully remove by sliding it off the edge of the PCB.

4. Re-fit the new BCC by sliding it onto the edge of the PCB, ensuring the orientation is correct.

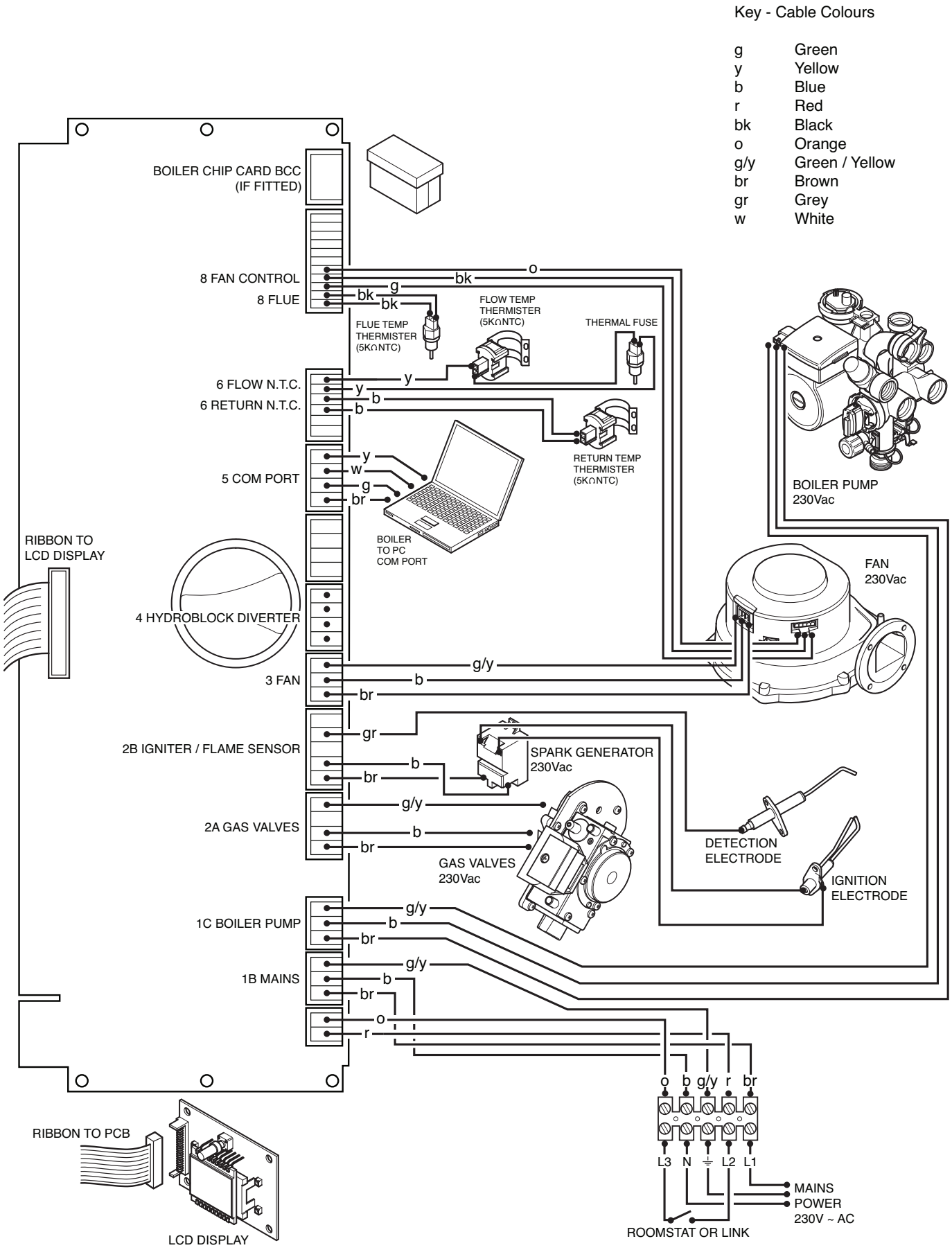
NOTE: Always double check the label on the BCC card to ensure it is the correct BCC for the boiler model to which it is being fitted.
NEVER FIT AN INCORRECT BCC.

5. Reassemble as above.

6. Power up boiler, and briefly press the reset button, wait for at least 5 seconds and then briefly press the reset button again.

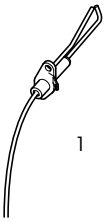
7. The boiler should now be checked for correct operation.

14.1 ILLUSTRATED WIRING DIAGRAM



15.1 SHORT PARTS LIST

Key	GC Number	Description	QTY	Pt. No.
1	H29-740	Electrode - Ignition c/w Gasket	1	988526
2	H38-213	Detection Electrode c/w Gasket	1	988540
3	H29-236	Spark Generator c/w Lead	1	500665
4a	TBA	System 18 gas control valve assembly NG	1	988675
4b	TBA	System 30 gas control valve assembly NG	1	988676
5	H38-215	Fan Assembly	1	601016
6a	H29-171	Burner (System18)	1	700600
6b	H29-173	Burner (System 30)	1	700602
7	TBA	Burner Door Insulation	1	352671
8a	H38-217	Heat Exchanger (System18)	1	451101
8b	TBA	Heat Exchanger (System 30)	1	451151
9	H29-202	Pump Head 6m	1	500672
11	H29-237	Expansion Vessel	1	451020
12	TBA	3 Bar Pressure Relief valve	1	500751
13	H29-213	Water Temperature sensor	2	500661
14	H38-219	Flue Thermistor	1	500662
16	E23-541	Pressure Gauge 4bar	1	450961
17	TBA	Auto Air Vent	1	500752
18a	TBA	Dimplex System 18 NG PCB Kit	1	988684
18b	TBA	Dimplex System 30 NG PCB Kit	1	988583
22	H29-179	Valve - Manual Bleed	1	300730
23	H38-226	Heat Exchanger seal & Clip Kit	1	988546
24	H29-208	Hydroblock - O-Ring and Clip	1	988669
25	TBA	Hydroblock Manual bleed cock	1	500708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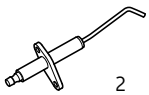
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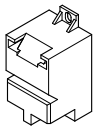
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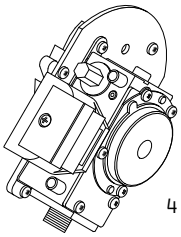
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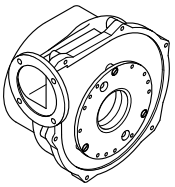
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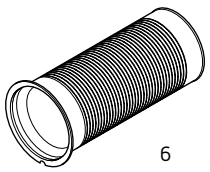
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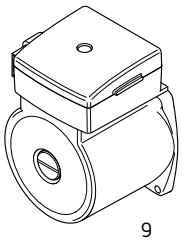
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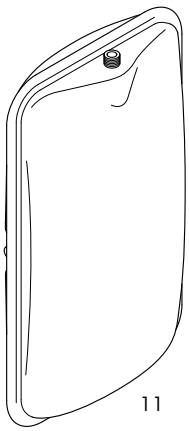
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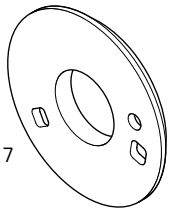
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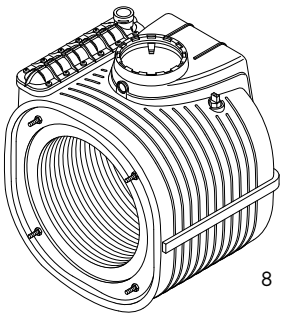
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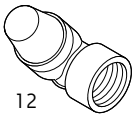
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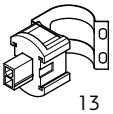
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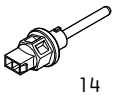
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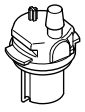
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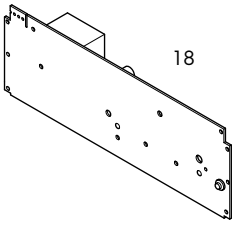
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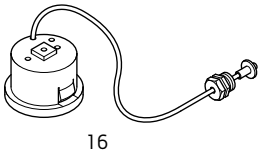
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22

Before checking for a fault condition carry out electrical checks to ensure the boiler has Earth continuity, correct polarity and Live and Neutral connections have no short circuit.

16.1 BASIC CHECKS

1. The mains electrical supply to the boiler and system controls are turned on.

2. The gas service cock is open.

3. External controls are calling for heat.

4. The system is filled with water and is correctly pressurized.

16.2 OPERATIONAL SEQUENCE OF BOILER

To follow the operational sequence of the boiler, press the reset button for approximately 3 seconds until the two dots on the LCD display are flashing. With no demand for Heat or DHW, the display will show 00 .

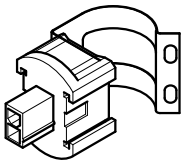
On Demand for heat or DHW, the display will show the controller sequence. See table opposite.

To reset the display to normal operation, press the reset button for approximately 1 second. The display will revert to show the current boiler temperature.

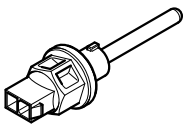
NOTE: To reset the appliance after a lockout, press the Red button.

Display	Explanation
00	Standby - Burner off
01	Fan on - Checking RPM feedback
02	Fan on - Checking RPM feedback
03	Pre purge of combustion circuit
04	Pre-ignition - gas valve closed
05	Gas valve open and ignition on
06	Flame stabilisation check
07	Flame established - **Burner on period starts**
08	**Burner off period starts.** Check gas valve solenoids are de-energised
09	Check gas valve solenoids are de-energised and check for no flame
10	Post purge of combustion circuit
11	Volatile or non-volatile lockout has occurred
12	Not used
13	Not used
14	Sequence fault

16.3 RESISTANCE VALUES Ω FOR FLOW, RETURN AND FLUE THERMISTORS



Flow and Return Thermistors



Flue Thermistor

Temperature °C	5	15	20	25	35	45	60	80	90	95	100
Resistance Ohms (Ω)	12890	7856	6245	5000	3265	2185	1242	625	456	390	337

NOTE: Allow a tolerance of approximately +/- 10%.

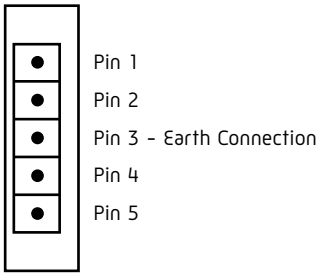
16.4 CHECKING GAS VALVE SOLENOID COILS

1. The solenoid coils can be checked by measuring the resistance in Ohms (Ω).

2. Connect a multimeter across pins 1 and 5, resistance = 3770 Ω.

NOTE: Allow a tolerance of approximately +/- 10% on resistance reading.

Gas Valve Electrical Connections



ERROR CODE	DESCRIPTION OF CAUSES	ACTIONS
1	Overheated appliance – Water temperature greater than 105°C. This causes a Non volatile lockout requiring a manual reset.	Check for power failure Check Pump operation Check there is no air in Heat exchanger and check system bypass Check Temperature thermistors are located on pipe work correctly Check resistance of thermistors
4 5	No Flame –No flame signal on ignition. The boiler makes up to 5 ignition attempts on loss of flame signal. Failure after 5 attempts causes a Non volatile lockout requiring a manual reset. No Flame –Loss of flame signal during normal operation Up to 5 loss of flame during normal operation is allowed before Non volatile lock out occurs requiring manual reset. The loss of flame count is reset when the boiler thermostat is satisfied	Check gas supply and inlet operating (working) pressure Check Gas valve operation and continuity across gas valve electrical lead. Check condensate drain is not blocked Check entire flue system is connected correctly and terminated correctly Check detection (flame sensing) Electrode and lead
6	Temporarily overheated appliance – Water temperature is greater than 95°C This causes a volatile lockout that will automatically reset when the temperature drops below the boiler thermostat setting	Check Pump operation Check there is no air in Heat exchanger and check system bypass Check Temperature thermistors are located on pipe work correctly Check resistance of thermistors
7	Overheat on Flue system – Flue temperature greater than 92°C Non volatile lock out requiring a manual reset	Check there is no air in Heat Exchanger and CH system. Check entire flue system is connected correctly and terminated correctly Check minimum and maximum gas rates are correct Check for correct water circulation Check Heat exchanger flue ways are clean Check continuity of sensor leads
11	Flame Simulation – Flame detection when gas valve is closed This causes a Non volatile lockout requiring manual reset	Check detection (flame sensing) electrode is clean Check burner surface is clean Check Gas valve operation and gas valve electrical supply
12	Flow thermistor failure Volatile lock out that will automatically reset when fault is repaired OR Thermal fuse has activated (Heat exchanger temperature greater than 165°C) Volatile lock out that will reset when fault is repaired	Check resistance across thermistor and check continuity of sensor leads at PCB connection 6 Major fault. Possible causes are:- Complete dry fire that requires a replacement heat exchanger. Leak of Hot gases from combustion circuit. Faulty sensor that requires main Heat exchanger replacing
13	Flue thermistor failure Volatile lock out that will automatically reset when fault is repaired	Check resistance across thermistor and check continuity of sensors leads at PCB connection 8
16	CH return thermistor fault Volatile lock out that will automatically reset when fault is repaired	Check resistance across thermistor and check continuity of thermistor leads at PCB connection 6
20	Gas vale solenoid failure	Check resistance across Gas valve solenoid Check continuity of Gas valve lead at PCB connection 2A
24	Fan failure	Check electrical supply to fan and continuity of fan leads at PCB connections 3 Check signal control connections to fan and continuity at PCB connection 8
BOILER CHIP CARDS (BCC) ARE ONLY FITTED IF THE PCB HAS BEEN REPLACED OR CONVERTED TO LPG		
34	Boiler Chip Card Error. BCC is not suitable for the boiler model	Replace with Correct BCC
35	Boiler Chip Card Error BCC is not connected	Refit BCC; ensure it is located correctly Replace BCC
36	Boiler Chip Card Error	BCC is damaged, Replace BCC
37	Boiler Chip Card Error	Replace with correct BCC
38	Boiler Chip Card Error	Replace with correct BCC
39	Boiler Chip Card Error	Reset the boiler following the BCC fitting Instructions
41	Return Temperature is greater than Flow temperature +12°. Temperature difference between Flow and Return is greater than 45°C. Volatile lock out that will reset when fault is repaired.	Check Flow and Return Sensors are correctly connected Check Resistances of Flow and of Return thermistors Check for air in Heat Exchanger Check heating system Pipework is correct
42	No water flow across Heat exchanger Return temperature has not changed by more than 1° within first 15seconds from boiler firing	Check Flow and Return Sensors are correctly connected Check Resistances of Flow and of Return thermistors Check for air in Heat Exchanger Check heating system Pipework is correct
50	Boiler Chip Card Error	Reset the boiler following the BCC fitting instructions

GAS BOILER SYSTEM COMMISSIONING CHECKLIST

This Commissioning Checklist is to be completed in full by the competent person who commissioned the boiler as a means of demonstrating compliance with the appropriate Building Regulations and then handed to the customer to keep for future reference.

Failure to install and commission this equipment to the manufacturer's instructions may invalidate the warranty but does not affect statutory rights.

Customer Name _____ Telephone Number _____

Address _____

Boiler Make and Model _____

Boiler Serial Number | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Commissioned by *(print name)* _____ CORGI ID Number _____

Company Name _____ Telephone Number _____

Company Address _____

_____ Commissioning Date _____

To be completed by the customer on receipt of a Building Regulations Compliance Certificate*:

Building Regulations Notification Number *(if applicable)* _____

CONTROLS Tick the appropriate boxes

Time and Temperature Control to Heating	Room Thermostat and Programmer/Timer ☐	Programmable Room Thermostat ☐	Load/Weather Compensation ☐	Optimum Start Control ☐
Time and Temperature Control to Hot Water	Cylinder Thermostat and Programmer/Timer ☐	Combination Boiler ☐
Heating Zone Valves	Fitted ☐	Not Required ☐
Hot Water Zone Valves	Fitted ☐	Not Required ☐
Thermostatic Radiator Valves	Fitted ☐	Not Required ☐
Automatic Bypass to System	Fitted ☐	Not Required ☐
Boiler Interlock	Provided ☐

ALL SYSTEMS

The system has been flushed and cleaned in accordance with BS7593 and boiler manufacturer's instructions Yes ☐

What system cleaner was used? _____

What inhibitor was used? Quantity _____ *litres*

CENTRAL HEATING MODE Measure and Record:

Gas Rate	_____ m^3/hr	OR		_____ ft^3/hr
Burner Operating Pressure (if applicable)	_____ mbar	OR	Gas Inlet Pressure	_____ mbar
Central Heating Flow Temperature				_____ °C
Central Heating Return Temperature				_____ °C

COMBINATION BOILERS ONLY

Is the installation in a hard water area (above 200ppm)? Yes ☐ No ☐

If yes, has a water scale reducer been fitted? Yes ☐ No ☐

What type of scale reducer has been fitted? _____

DOMESTIC HOT WATER MODE Measure and Record:

Gas Rate	_____ m^3/hr	OR		_____ ft^3/hr
Burner Operating Pressure (at maximum rate)	_____ mbar	OR	Gas Inlet Pressure (at maximum rate)	_____ mbar
Cold Water Inlet Temperature				_____ °C
Hot water has been checked at all outlets	Yes ☐		Temperature	_____ °C
Water Flow Rate				_____ *l/min*

CONDENSING BOILERS ONLY

The condensate drain has been installed in accordance with the manufacturer's instructions and/or BS5546/BS6798 Yes ☐

ALL INSTALLATIONS

If required by the manufacturer, record the following CO_2 _____ % OR CO _____ *ppm* OR CO/CO_2 Ratio _____

The heating and hot water system complies with the appropriate Building Regulations Yes ☐

The boiler and associated products have been installed and commissioned in accordance with the manufacturer's instructions Yes ☐

The operation of the boiler and system controls have been demonstrated to and understood by the customer Yes ☐

The manufacturer's literature, including Benchmark Checklist and Service Record, has been explained and left with the customer Yes ☐

Commissioning Engineer's Signature _____

Customer's Signature _____

(To confirm satisfactory demonstration and receipt of manufacturer's literature)

*All installations in England and Wales must be notified to Local Authority Building Control (LABC) either directly or through a Competent Persons Scheme. A Building Regulations Compliance Certificate will then be issued to the customer.

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SERVICE RECORD

It is recommended that your heating system is serviced regularly and that the appropriate Service Record is completed.

Service Provider
Before completing the appropriate Service Record below, please ensure you have carried out the service as described in the manufacturer's instructions.

Always use the manufacturer's specified spare part when replacing controls.

SERVICE 1 Date

Energy Efficiency Checklist completed? Yes ☐ No ☐

Engineer Name

Company Name

Telephone Number

CORGI ID Number

Comments

Signature

SERVICE 2 Date

Energy Efficiency Checklist completed? Yes ☐ No ☐

Engineer Name

Company Name

Telephone Number

CORGI ID Number

Comments

Signature

SERVICE 3 Date

Energy Efficiency Checklist completed? Yes ☐ No ☐

Engineer Name

Company Name

Telephone Number

CORGI ID Number

Comments

Signature

SERVICE 4 Date

Energy Efficiency Checklist completed? Yes ☐ No ☐

Engineer Name

Company Name

Telephone Number

CORGI ID Number

Comments

Signature

SERVICE 5 Date

Energy Efficiency Checklist completed? Yes ☐ No ☐

Engineer Name

Company Name

Telephone Number

CORGI ID Number

Comments

Signature

SERVICE 6 Date

Energy Efficiency Checklist completed? Yes ☐ No ☐

Engineer Name

Company Name

Telephone Number

CORGI ID Number

Comments

Signature

SERVICE 7 Date

Energy Efficiency Checklist completed? Yes ☐ No ☐

Engineer Name

Company Name

Telephone Number

CORGI ID Number

Comments

Signature

SERVICE 8 Date

Energy Efficiency Checklist completed? Yes ☐ No ☐

Engineer Name

Company Name

Telephone Number

CORGI ID Number

Comments

Signature

SERVICE 9 Date

Energy Efficiency Checklist completed? Yes ☐ No ☐

Engineer Name

Company Name

Telephone Number

CORGI ID Number

Comments

Signature

SERVICE 10 Date

Energy Efficiency Checklist completed? Yes ☐ No ☐

Engineer Name

Company Name

Telephone Number

CORGI ID Number

Comments

Signature

MAINS PRESSURE HOT WATER STORAGE SYSTEM COMMISSIONING CHECKLIST

This Commissioning Checklist is to be completed in full by the competent person who commissioned the storage system as a means of demonstrating compliance with the appropriate Building Regulations and then handed to the customer to keep for future reference.

Failure to install and commission this equipment to the manufacturer's instructions may invalidate the warranty but does not affect statutory rights.

Customer Name _____ Telephone Number _____

Address _____

Cylinder Make and Model _____

Cylinder Serial Number | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Commissioned by *(print name)* _____ Registered Operative ID Number _____

Company Name _____ Telephone Number _____

Company Address _____

_____ Commissioning Date _____

To be completed by the customer on receipt of a Building Regulations Compliance Certificate*:

Building Regulations Notification Number *(if applicable)* _____

ALL SYSTEMS PRIMARY SETTINGS (indirect heating only)

Is the primary circuit a sealed or open vented system?	Sealed ☐	Open ☐	
What is the maximum primary flow temperature?			°C

ALL SYSTEMS

What is the incoming static cold water pressure at the inlet to the system?			*bar*
Has a strainer been cleaned of installation debris (if fitted)?	Yes ☐	No ☐	
Is the installation in a hard water area (above 200ppm)?	Yes ☐	No ☐	
If yes, has a water scale reducer been fitted?	Yes ☐	No ☐	
What type of scale reducer has been fitted?			
What is the hot water thermostat set temperature?			°C
What is the maximum hot water flow rate at set thermostat temperature (measured at high flow outlet)?			*l/min*
Time and temperature controls have been fitted in compliance with Part L of the Building Regulations?		Yes ☐	
Type of control system (if applicable)	Y Plan ☐ S Plan ☐	Other ☐	
Is the cylinder solar (or other renewable) compatible?	Yes ☐	No ☐	
What is the hot water temperature at the nearest outlet?			°C
All appropriate pipes have been insulated up to 1 metre or the point where they become concealed		Yes ☐	

UNVENTED SYSTEMS ONLY

Where is the pressure reducing valve situated (if fitted)?			
What is the pressure reducing valve setting?			*bar*
Has a combined temperature and pressure relief valve and expansion valve been fitted and discharge tested?	Yes ☐	No ☐	
The tundish and discharge pipework have been connected and terminated to Part G of the Building Regulations		Yes ☐	
Are all energy sources fitted with a cut out device?	Yes ☐	No ☐	
Has the expansion vessel or internal air space been checked?	Yes ☐	No ☐	

THERMAL STORES ONLY

What store temperature is achievable?			°C
What is the maximum hot water temperature?			°C

ALL INSTALLATIONS

The hot water system complies with the appropriate Building Regulations		Yes ☐
The system has been installed and commissioned in accordance with the manufacturer's instructions		Yes ☐
The system controls have been demonstrated to and understood by the customer		Yes ☐
The manufacturer's literature, including Benchmark Checklist and Service Record, has been explained and left with the customer		Yes ☐

Commissioning Engineer's Signature _____

Customer's Signature _____

(To confirm satisfactory demonstration and receipt of manufacturer's literature)

*All installations in England and Wales must be notified to Local Authority Building Control (LABC) either directly or through a Competent Persons Scheme. A Building Regulations Compliance Certificate will then be issued to the customer.

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SERVICE RECORD

It is recommended that your hot water system is serviced regularly and that the appropriate Service Record is completed.

Service Provider
Before completing the appropriate Service Record below, please ensure you have carried out the service as described in the manufacturer's instructions.

SERVICE 1 Date

Engineer Name

Company Name

Telephone Number

Comments

Signature

SERVICE 2 Date

Engineer Name

Company Name

Telephone Number

Comments

Signature

SERVICE 3 Date

Engineer Name

Company Name

Telephone Number

Comments

Signature

SERVICE 4 Date

Engineer Name

Company Name

Telephone Number

Comments

Signature

SERVICE 5 Date

Engineer Name

Company Name

Telephone Number

Comments

Signature

SERVICE 6 Date

Engineer Name

Company Name

Telephone Number

Comments

Signature

SERVICE 7 Date

Engineer Name

Company Name

Telephone Number

Comments

Signature

SERVICE 8 Date

Engineer Name

Company Name

Telephone Number

Comments

Signature

SERVICE 9 Date

Engineer Name

Company Name

Telephone Number

Comments

Signature

SERVICE 10 Date

Engineer Name

Company Name

Telephone Number

Comments

Signature

VENTED CYLINDER COMMISSIONING CHECKLIST

This Commissioning Checklist is to be completed in full by the competent person who commissioned the cylinder as a means of demonstrating compliance with the appropriate Building Regulations and should remain attached to the cylinder for future reference.

Failure to install and commission this equipment to the manufacturer's instructions may invalidate the warranty but does not affect statutory rights.

Commissioned by (print name) _____

Company Name _____

Company Address _____

Telephone Number _____ Commissioning Date _____

To be completed by the customer on receipt of a Building Regulations Compliance Certificate*:

Building Regulations Notification Number *(if applicable)* _____

ALL CYLINDERS

The vent pipe has been installed to BS6700/BS5449		Yes ☐
What is the static head?	☐ *metres*	
Has an immersion heater been fitted?	Yes ☐	No ☐
If yes, does it have a non-auto resetting energy cut out?	Yes ☐	No ☐
Is the cold feed cistern supported in accordance with BS4213?		Yes ☐
Is the cylinder solar (or other renewable) compatible?	Yes ☐	No ☐
All appropriate pipes including the vent pipe have been insulated up to 1metre or the point where they become concealed		Yes ☐

INDIRECT ONLY

A cylinder thermostat has been fitted in the recommended position			Yes ☐
The hot water is controlled by a programmer or time switch			Yes ☐
Is the system fully pumped?	Yes ☐		No ☐
Type of control system	Y Plan ☐	S Plan ☐	Other ☐

Commissioning Engineer's Signature _____

Customer's Signature _____

(To confirm satisfactory demonstration and receipt of manufacturer's literature)

*Where an installation is notifiable in England & Wales this will be made to Local Authority Building Control (LABC) either directly or through a Competent Persons Scheme. A Building Regulations Compliance Certificate will then be issued to the customer.

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18.0 WARRANTY TERMS & CONDITIONS

18.1 DIMPLEX 5YR WARRANTY

1. Registration must be completed within 30 days of installation. Failure to return within 30 days will invalidate your warranty. Registration if effected by returning the enclosed registration card to the commercial center of Dimplex at 5 Spartan Close, Tachbrook Park, Leamington Spa, CV34 6RR. Proof of postage should be obtained.
2. The Benchmark document must be completed by installer/householder at the time of installation and must be presented to our engineer at subsequent visits.
3. The boiler must be serviced annually, at the householders expenses in accordance with manufacturer's instructions, and this service must be booked through Dimplex by calling 0844 371 1121
4. The service must be carried out by a Dimplex approved central heating engineer. Any work carried out by a non-Dimplex approved engineer will invalidate this warranty.
5. Appropriate system cleaning (e.g. power flush) and the correct use of additives must be carried out at the time of installation. Failure to cleanse the system will invalidate this warranty. Evidence of cleansing should be presented to our engineer upon request.
6. This warranty applies only to manufacturing problems with the boiler; damage caused through misuse, incorrect operation, foreign bodies in the heating system, system faults and failures are not covered.
7. This warranty applies only if the boiler is installed and used in accordance with the manufacturer's instructions, in normal domestic applications.
8. Providing all the above Terms and Conditions are met, this warranty covers functional parts and labour.
9. Dimplex offer the opportunity for a system audit and commissioning check within 30 days of registration. This is chargeable at the same rate as an annual service and if taken up then the first annual service will be provided free of charge. Failure to take up this offer may invalidate the full warranty which will revert to a standard 2 year warranty which will require an annual service In year 2 in any event.
10. Failure to meet any of the above Terms and Conditions will invalidate this warranty.

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