

# *micro* GENUS

## Servicing Instructions

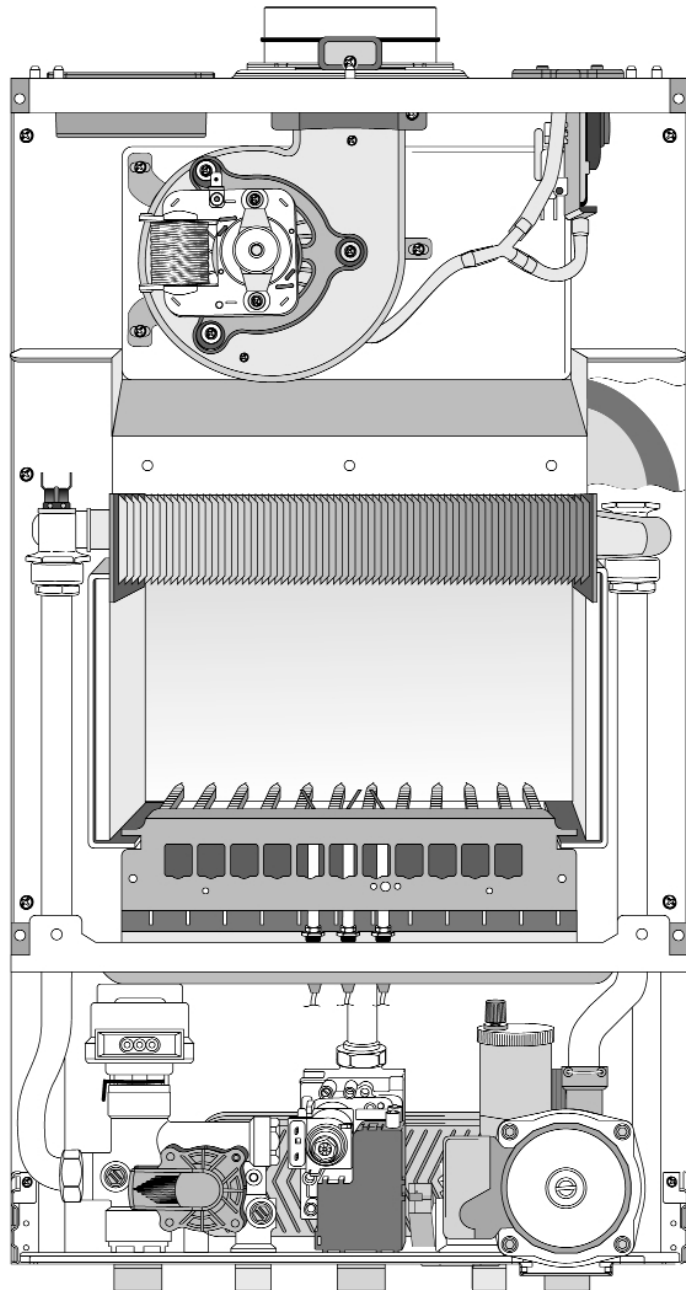
### Type C Boilers

G.C.N: 47-116-14  
47-116-15

LEAVE THESE INSTRUCTIONS  
WITH THE END-USER



*The code of practice for the installation,  
commissioning & servicing of central heating systems*



 **ARISTON**

# TABLE OF CONTENTS

1.	<b>SERVICING INSTRUCTIONS</b>
1.1	REPLACEMENT OF PARTS
1.2	TO GAIN GENERAL ACCESS <ul style="list-style-type: none"><li>- <i>Removing the front panel</i></li><li>- <i>Removing the sealed chamber frontal cover</i></li><li>- <i>Removing the side panels</i></li></ul>
1.3	ACCESS TO THE COMBUSTION CHAMBER <ul style="list-style-type: none"><li>- <i>Removing the combustion cover</i></li><li>- <i>Removing the burner and jets</i></li><li>- <i>Removing the electrodes</i></li><li>- <i>Removing the main heat exchanger</i></li><li>- <i>Removing the air pressure switch</i></li><li>- <i>Removing the fan</i></li><li>- <i>Removing the venturi device</i></li></ul>
1.4	SERVICING AND REMOVAL OF THE GAS VALVE <ul style="list-style-type: none"><li>- <i>Setting the gas pressures</i></li><li>- <i>Removing the spark generator</i></li><li>- <i>Removing the gas valve</i></li></ul>
1.5	ACCESS TO THE WATER CIRCUIT <ul style="list-style-type: none"><li>- <i>Removing the D.H.W. (secondary) exchanger</i></li><li>- <i>Removing the safety valve</i></li><li>- <i>Removing the automatic air vent</i></li><li>- <i>Removing the main circuit flow switch</i></li><li>- <i>Removing the pump</i></li><li>- <i>Removing the pressure gauge</i></li><li>- <i>Removing the expansion vessel</i></li><li>- <i>Removing the overheat thermostat</i></li><li>- <i>Removing the heating temperature sensor (N.T.C.)</i></li><li>- <i>Removing the D.H.W. temperature sensor (N.T.C.)</i></li><li>- <i>Removing the divertor valve actuator</i></li><li>- <i>Removing the D.H.W. flow switch</i></li></ul>
1.6	ACCESS TO THE CONTROL SYSTEM <ul style="list-style-type: none"><li>- <i>Checking the fuses</i></li><li>- <i>Removing the time clock</i></li><li>- <i>Removing the P.C.B.</i></li></ul>
2.	<b>FAULT FINDING</b>
2.1	FAULT FINDING GUIDE (FLOW-CHART)
3.	<b>ELECTRICAL DIAGRAMS</b>
4.	<b>SHORT SPARE PARTS LIST</b>

# 1. SERVICING INSTRUCTIONS

To ensure efficient safe operation, it is recommended that the boiler is serviced annually by a competent person.

**Before starting any servicing work, ensure both the gas and electrical supplies to the boiler are isolated and the boiler is cool.**

Before and after servicing, a combustion analysis should be made via the flue sampling point (please refer to the Installation Manual for further details).

After servicing, preliminary electrical system checks must be carried out to ensure electrical safety (i.e. polarity, earth continuity, resistance to earth and short circuit).

## 1.1 REPLACEMENT OF PARTS

The life of individual components varies and they will need servicing or replacing as and when faults develop.

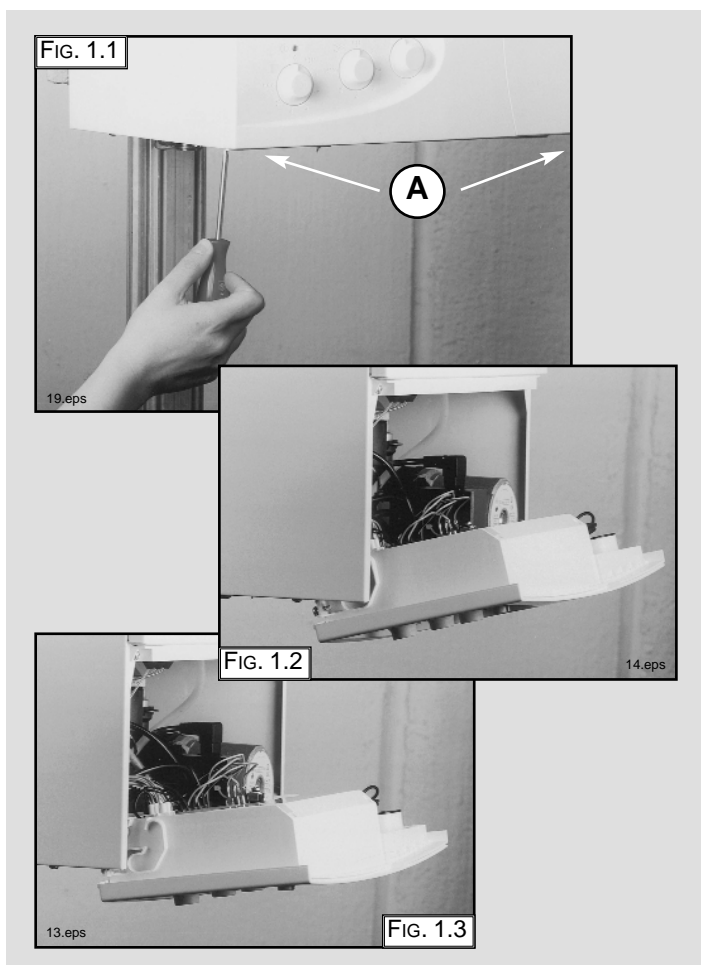
The fault finding sequence chart in chapter 2 will help to locate which component is the cause of any malfunction, and instructions for removal, inspection and replacement of the individual parts are given in the following pages.

## 1.2 TO GAIN GENERAL ACCESS

All testing and maintenance operations on the boiler require the control panel to be lowered. This will also require the removal of the casing.

### Removing the front panel

1. Loosen the fastening screws "A" of the control panel located on the lower part of the panel itself. (FIG. 1.1);

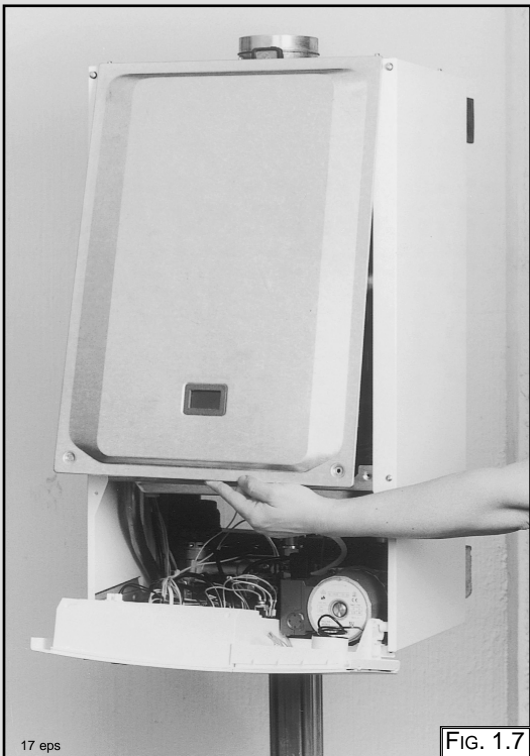
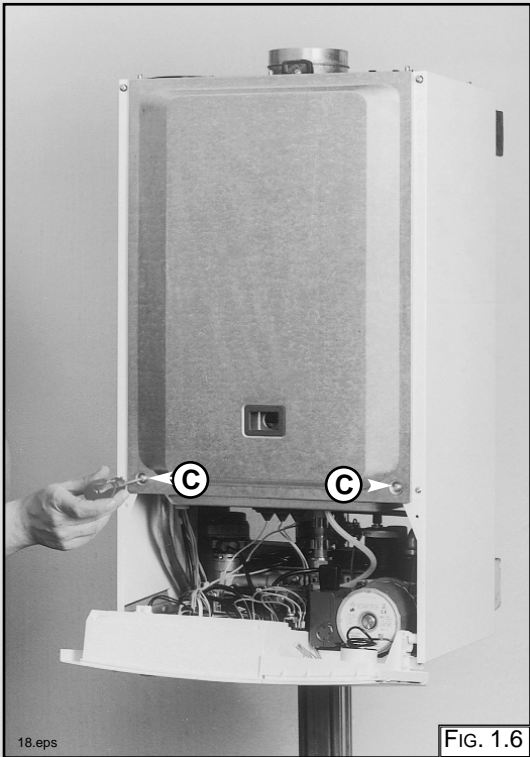


2. The control panel moves downward and when pulled forward, rotates on two lateral hinges; the panel stays in a semi-horizontal position, which allows access to the inner parts of the boiler (FIG. 1.2);
3. In order to increase the manouvering space, it is possible to raise the control panel and rotate it to a fully horizontal position (FIG. 1.3);
4. Remove the screws "B" from the front panel bottom lip (FIG. 1.4);
5. Lift the front panel from the raised screws at the the top of the casing (FIG. 1.5).



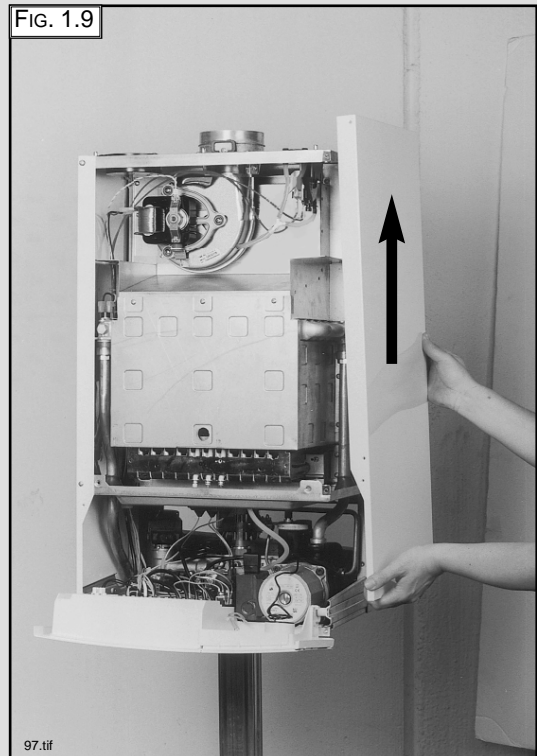
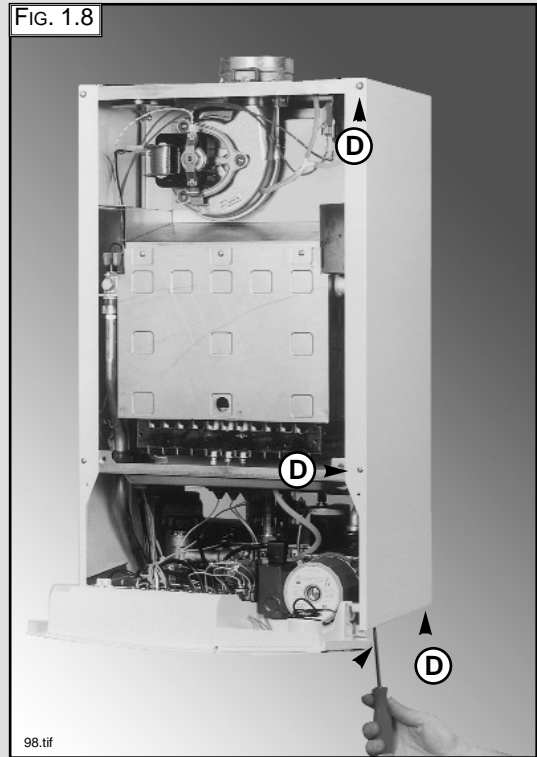
### Removing the sealed chamber frontal cover

1. Remove the screws "C" (FIG. 1.6);
2. Lift the sealed chamber frontal cover from the locating pins (FIG. 1.7).



### Removing the side panels

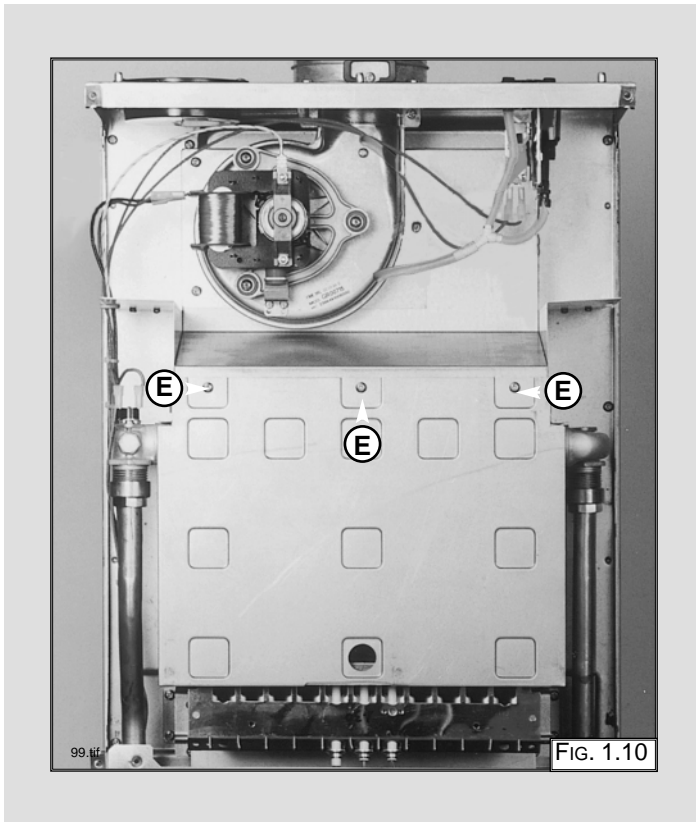
1. Remove the four screws "D" for each side panel (FIG.1.8);
2. Pull the panel away from the boiler, then lift the panel up and remove from the boiler (FIG.1.9).



### 1.3 ACCESS TO THE COMBUSTION CHAMBER

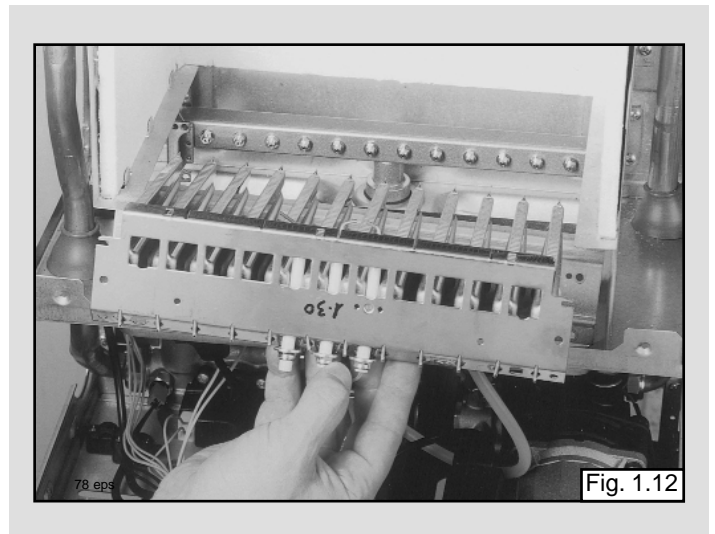
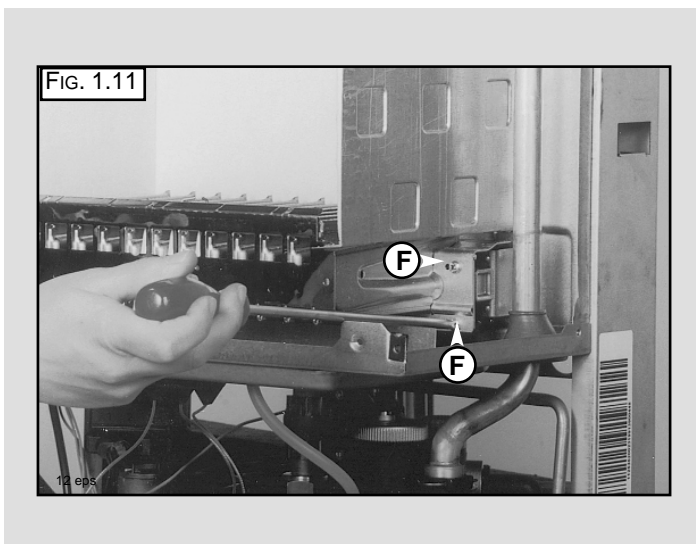
#### Removing the combustion cover

1. Remove the screws "E" (FIG. 1.10);
2. Lift off the combustion cover.



#### Removing the burner and jets

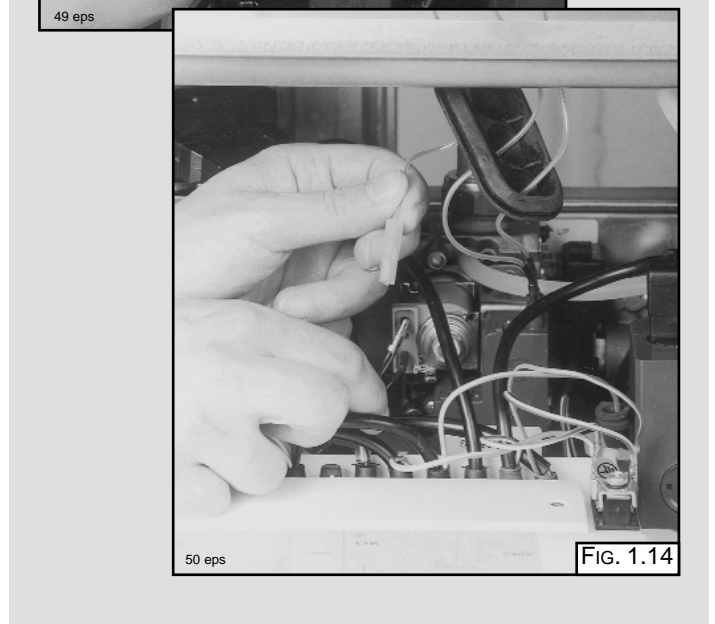
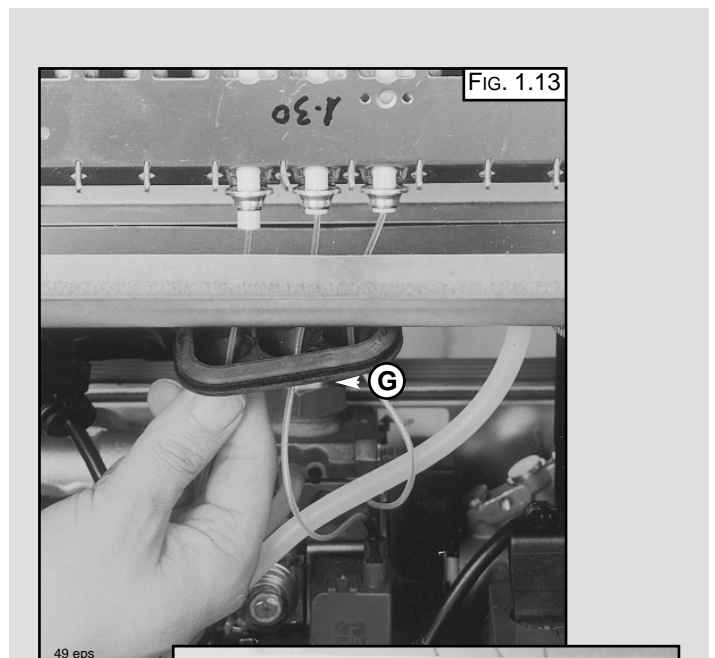
1. Remove the screws "F" from the burner (FIG. 1.11);
2. Remove the burner (FIG. 1.12);
3. Remove the jets using a No. 7 socket spanner;
4. Replace in reverse order.



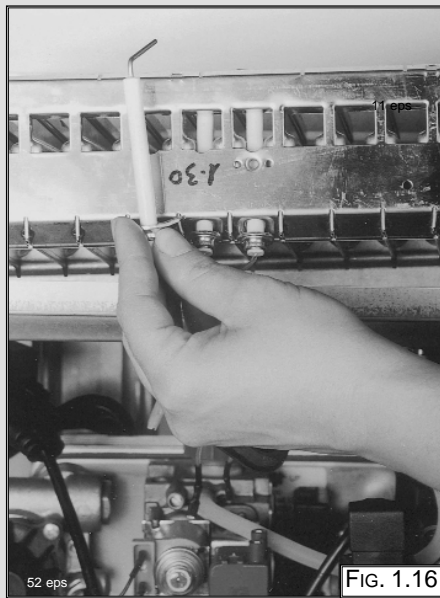
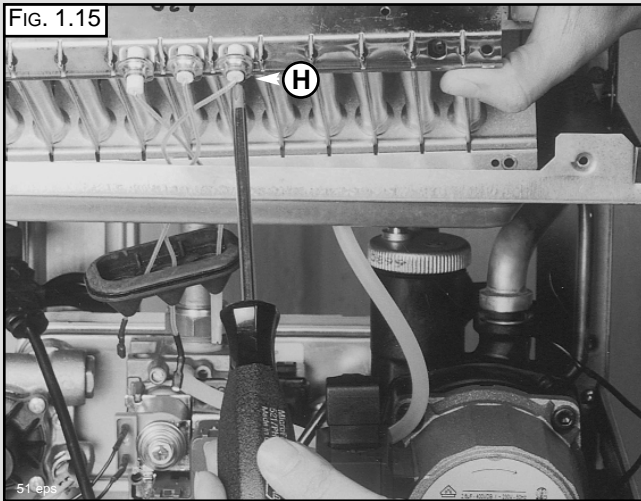
#### Removing the electrodes

Before carrying out this procedure, unscrew and slide the burner forward (see previous section).

1. Remove rubber gasket "G" (FIG. 1.13);
2. To remove the detection electrode disconnect the cable at its connection point close to the P.C.B. (FIG. 1.14);

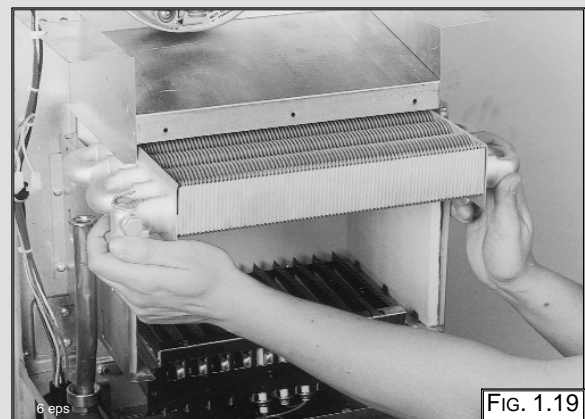
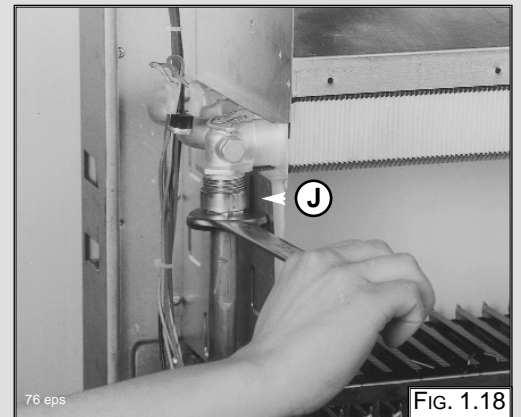
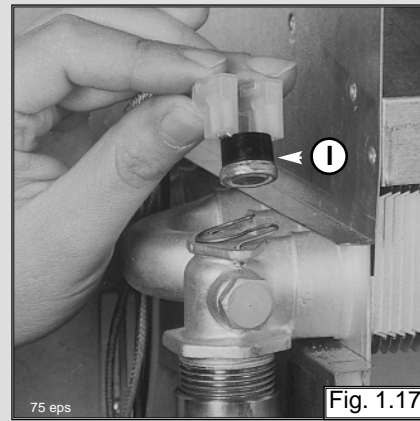


3. Remove screw "H" (FIG. 1.15);
4. Gently slide the electrode downward (FIG. 1.16).



### Removing the main heat exchanger

1. Drain the boiler of water;
2. Release the overheat thermostat sensor "I" (FIG. 1.17);
3. Release the two connection nuts "J" connecting the exchanger to the flow and return pipes (FIG. 1.18);
4. Pull it straight out (FIG. 1.19).

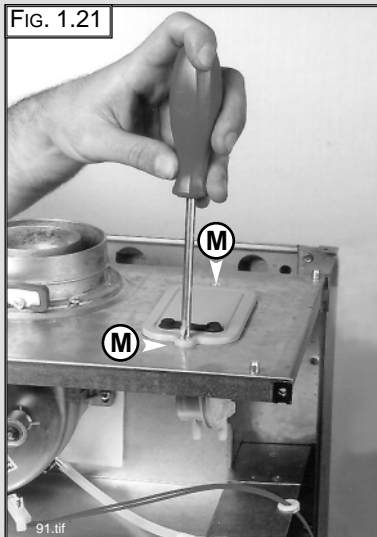
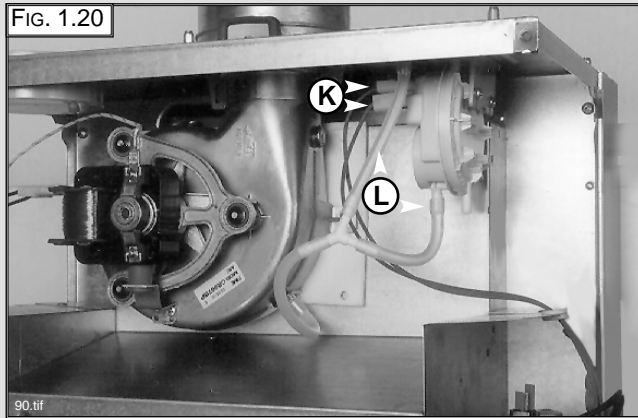


To replace, repeat the steps in reverse order, paying particular attention to the following:

- a** - Centre the electrode in the positioning hole carefully, otherwise the electrode may break;
- b** - Check that the cables have been connected correctly;
- c** - Check that the rubber gasket covers the cable/ electrode connection point completely.

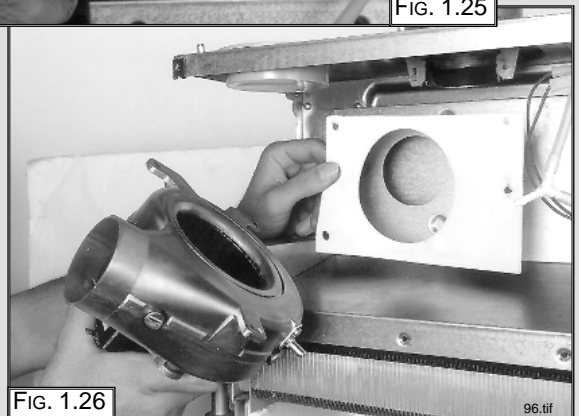
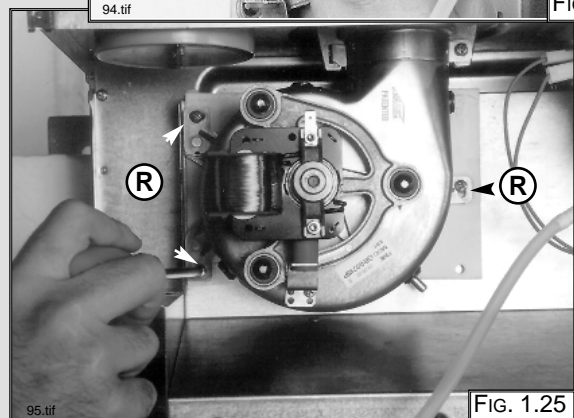
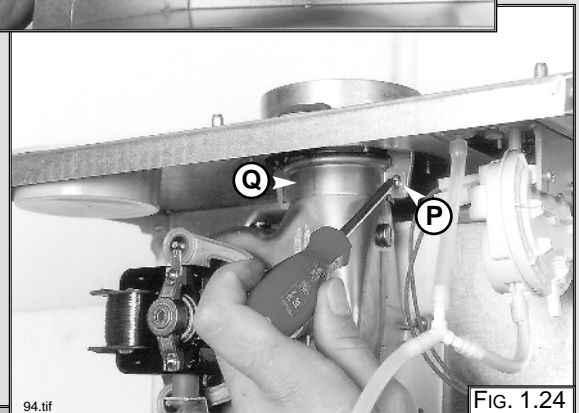
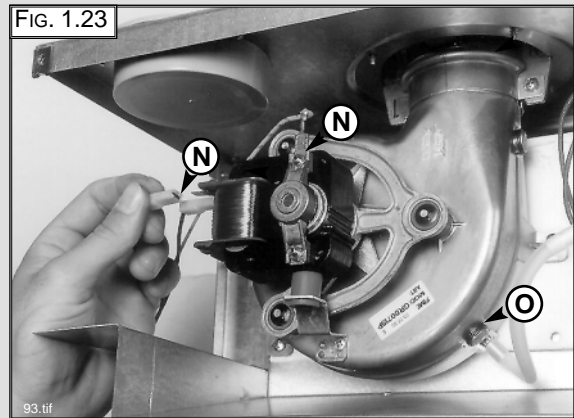
### Removing the air pressure switch

1. Disconnect the electrical connections "K" and silicon pipes "L" from their connection points (FIG. 1.20);
2. Remove screws "M" on the top of the sealed chamber (FIG. 1.21);
3. Unscrew to remove switch from the plate (FIG. 1.22).



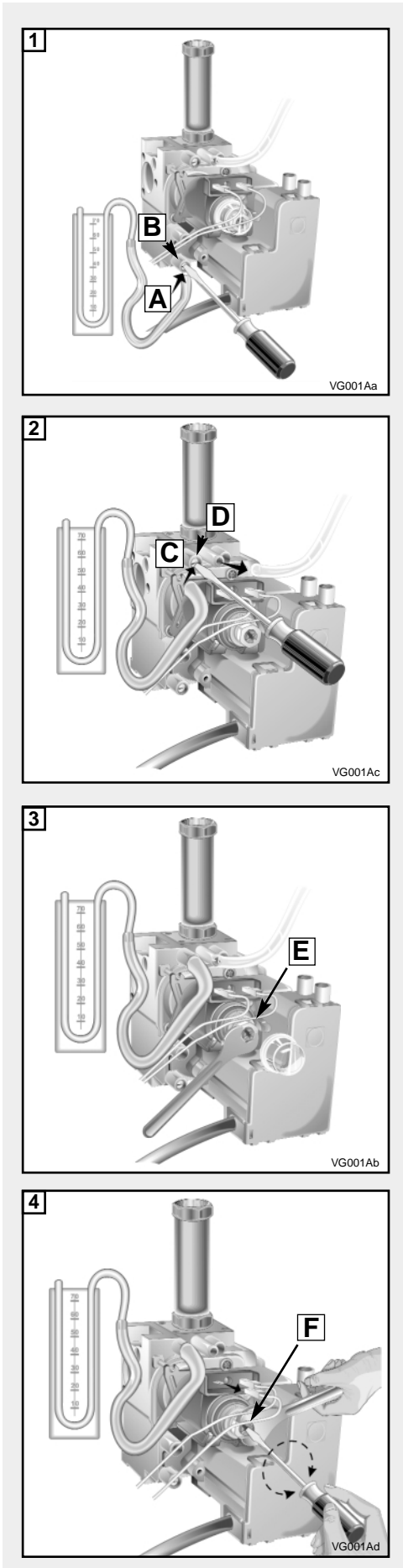
### Removing the fan

1. Disconnect electrical connections "N" and silicon pipes "O" (FIG.1.23);
2. Remove screw "P" and remove the fan collar clamp "Q" (FIG.1.24);
3. Remove screws "R" (FIG.1.25);
4. Remove fan and mounting plate (FIG.1.26).



## 1.4 SERVICING AND REMOVAL OF THE GAS VALVE

### Setting the gas pressures



### Setting the minimum and the maximum power of the boiler

1. Check that the supply pressure to the gas valve is a minimum of 20 mbar for natural gas.
2. To do this, remove the screw "A".  
Fit the pipe of the pressure gauge to the pressure connection of the gas valve "B".  
When you have completed this operation, replace the screw "A" securely into its housing to seal off the gas.
3. To check the pressure supplied by the gas valve to the burner, remove the screw "C". Fit the pipe of the pressure gauge to the pressure outlet of the gas valve "D".  
Disconnect the compensation pipe either from the gas valve or from the sealed chamber.
4. Set the On/Off button to position < ① > and the "summer/winter" switch to the winter position.  
To set the maximum power, turn on the hot water tap and allow the hot water tap to run at a rate of about 8 litres/minute so that the main burner lights.  
Adjust nut "E" on the modereg to set the gas pressure (displayed on the pressure gauge) corresponding to the maximum power (see TABLE "A" page 9).
5. To set the minimum power, disconnect a supply terminal from the modereg and adjust screw "F".  
Turn the screw clockwise to increase the pressure and counter-clockwise to decrease the pressure (displayed on the pressure gauge) corresponding to the minimum power (see TABLE "A" page 9).
6. When you have completed the above operations, turn off the hot water tap, re-connect the supply terminal to the modereg on the gas valve and replace the cap on the screw of the modereg.

### Setting the maximum heating circuit power

7. To set the maximum heating circuit power, place the On/Off button to position < ① > and the "summer/winter" switch to winter position.  
Turn the knob of the heating thermostat clockwise to maximum.
8. Remove the inspection panel of the P.C.B. and fit a small cross-head screwdriver in to the right hand potentiometer. Turn clockwise to increase the pressure or counter-clockwise to reduce the pressure. Adjust the setting to the required heating pressure value (displayed on the pressure gauge), as indicated in the diagrams shown in page 10.
9. Turn off the boiler by placing the main switch to the "Off" position.

### Setting pressure for soft ignition.

Disconnect the detection electrode connection from the P.C.B..

Start the boiler and during the ignition sequence adjust the left hand potentiometer until the gas pressure reads the required gas pressure as per the table below.

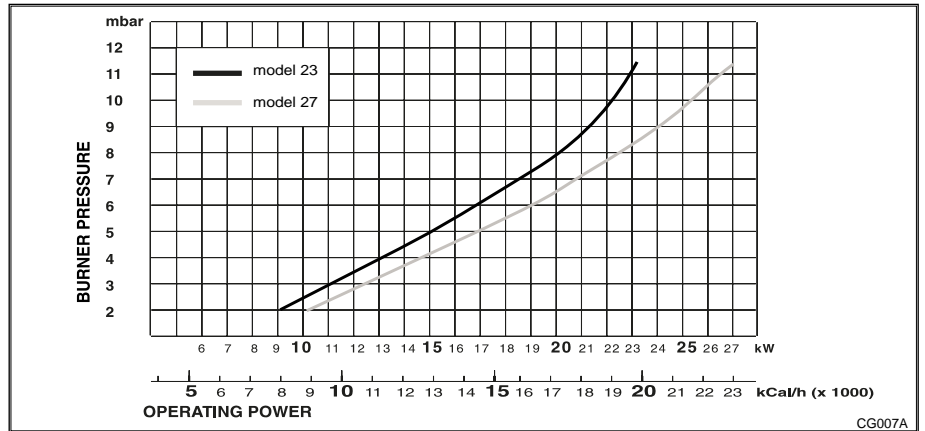
Once the gas pressure is set turn off the boiler and re-connect the connection to the P.C.B.

NB.: It may be necessary to reset the flame failure reset a number of times during this operation.

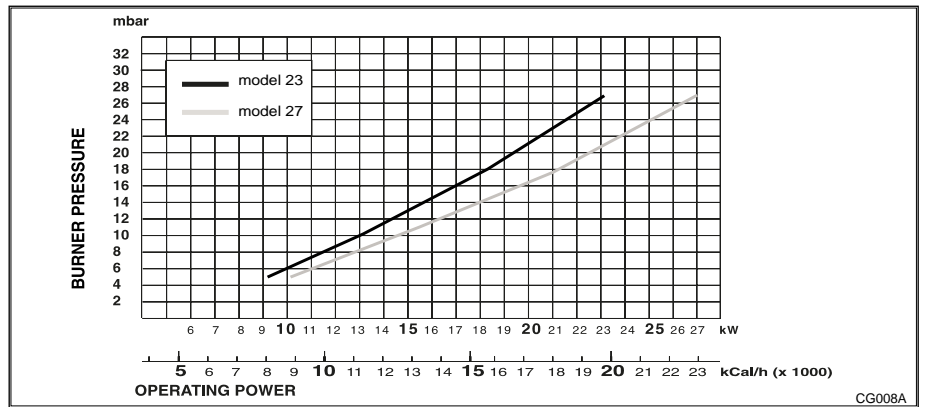
	NATURAL GAS (G20)	BUTANE GAS (G30)	PROPANE GAS (G31)
Recommended pressure for soft-light ignition	8 mbar	16 mbar	16 mbar



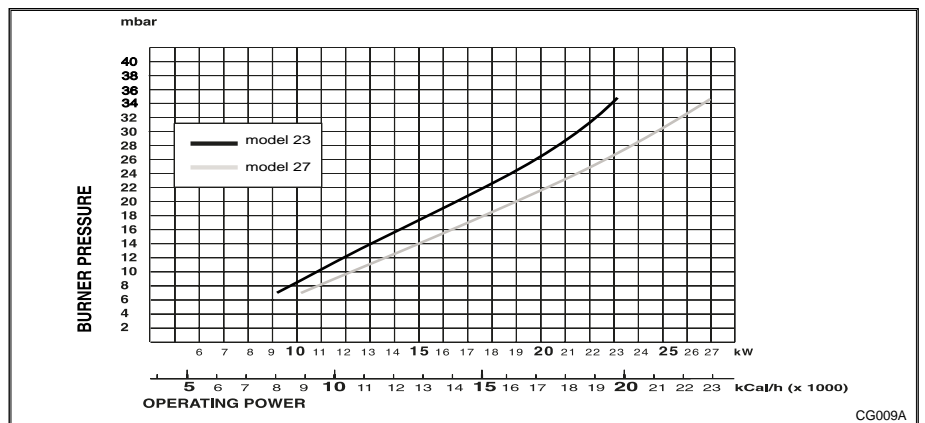
**Regulating the heating power for natural gas (G20)**



**Regulating the heating power for butane gas (G30)**

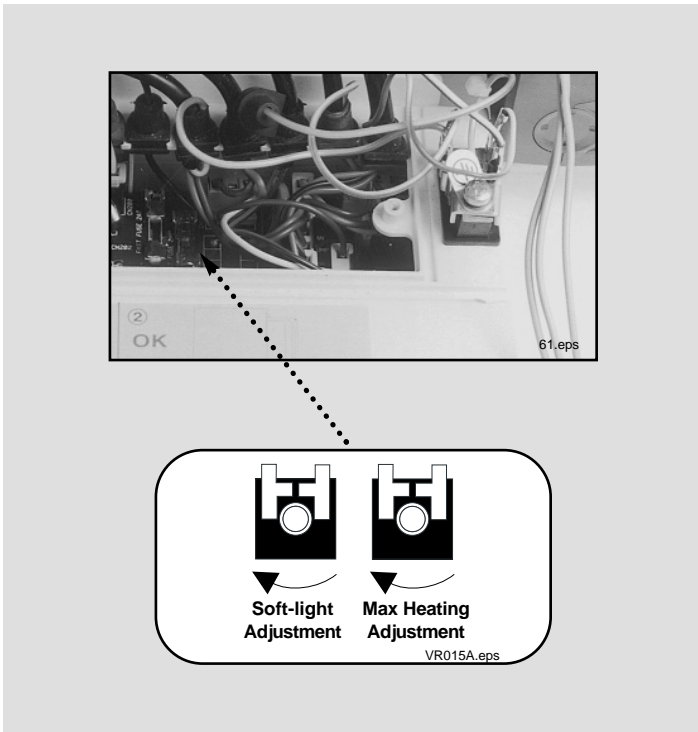


**Regulating the heating power for propane gas (G31)**



**TABLE "A"**

<b>GENUS 23 MFFI</b>	<b>GAS REQUIREMENTS</b>		<b>NATURAL GAS (G20)</b>	<b>BUTANE GAS (G30)</b>	<b>PROPANE GAS (G31)</b>
	Gas rate	max	2.70 m <sup>3</sup> /h	2.01 Kg/h	2.00 Kg/h
	Gas rate	min	1.16 m <sup>3</sup> /h	0.87 Kg/h	0.85 Kg/h
	Inlet pressure		20 mbar	28 mbar	37 mbar
	Burner pressure	max	11.0 mbar	27.7 mbar	35.5 mbar
	Burner pressure	min	2.0 mbar	6.0 mbar	7.3 mbar
	Burner jets		12 x 1.30	12 x 0.77	12 x 0.77
<b>GENUS 27 MFFI</b>	<b>GAS REQUIREMENTS</b>		<b>NATURAL GAS (G20)</b>	<b>BUTANE GAS (G30)</b>	<b>PROPANE GAS (G31)</b>
	Gas rate	max	3.15 m <sup>3</sup> /h	2.34 Kg/h	2.31 Kg/h
	Gas rate	min	1.26 m <sup>3</sup> /h	0.94 Kg/h	0.93 Kg/h
	Inlet pressure		20 mbar	28 mbar	37 mbar
	Burner pressure	max	11.0 mbar	27.7 mbar	35.5 mbar
	Burner pressure	min	1.6 mbar	4.6 mbar	6.0 mbar
	Burner jets		14 x 1.30	14 x 0.77	14 x 0.77



10. Remove the pipe from the pressure gauge and connect screw "C" to the pressure outlet in order to seal off the gas.
11. Carefully check the pressure outlets for gas leaks (valve inlet and outlet).

**IMPORTANT!**

Whenever you disassemble and reassemble the gas connections, always check for leaks using a soap and water solution.

**Removing the spark generator**

1. Disconnect ignition leads "T" by pulling upward (FIG. 1.27);
2. Remove the screw "V" (FIG. 1.28);
3. Remove the spark generator (FIG. 1.29).

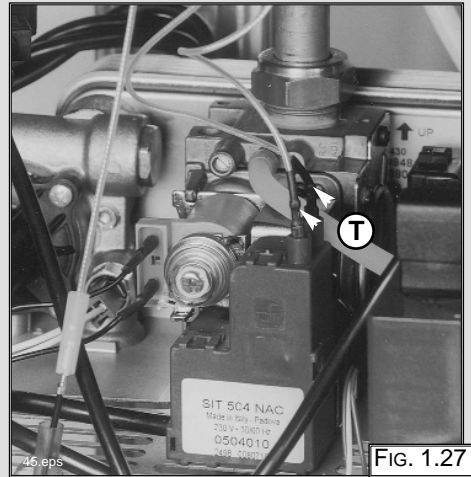


FIG. 1.27

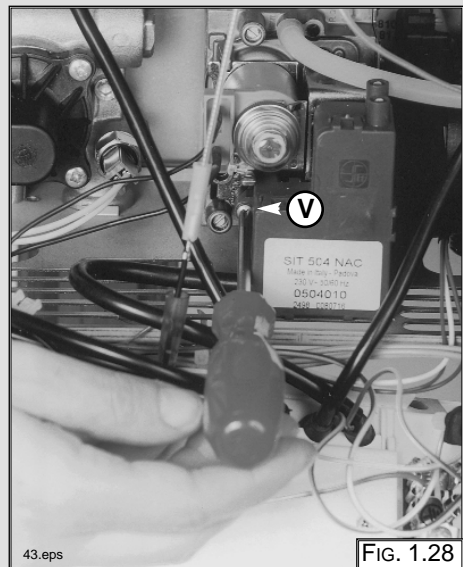


FIG. 1.28

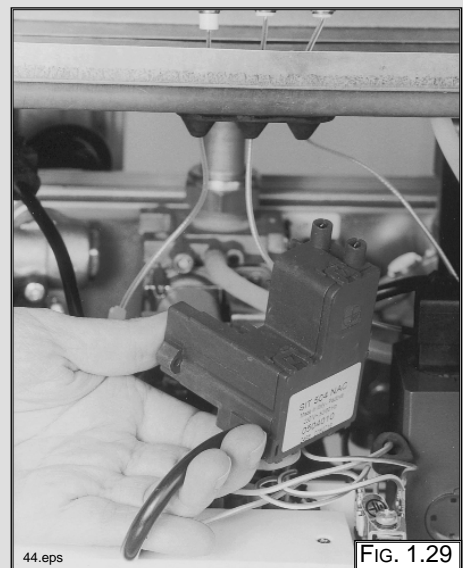
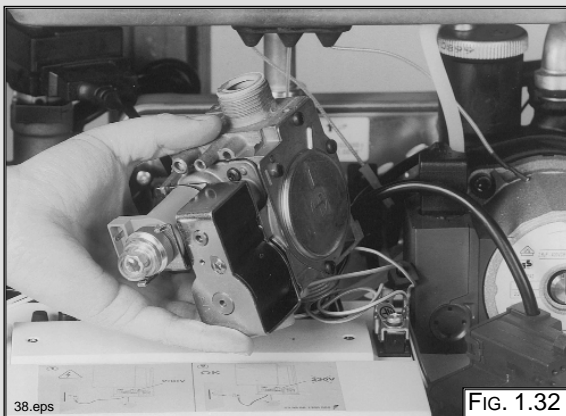
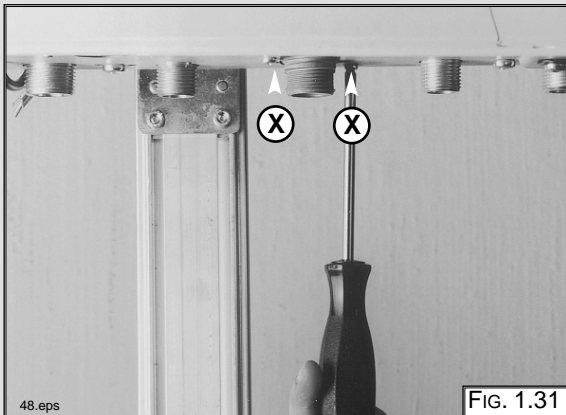
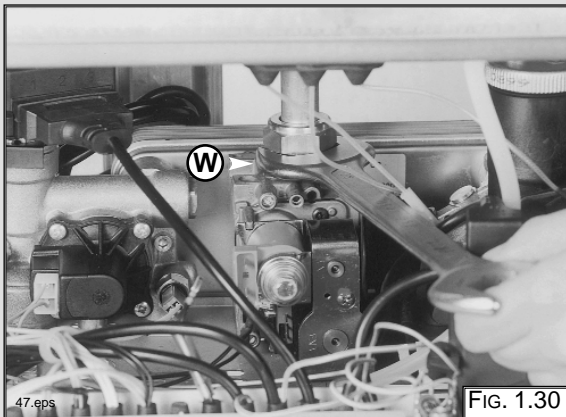


FIG. 1.29

## Removing the gas valve

1. Disconnect all the cables from the solenoid and modureg;
2. Remove the spark generator (see previous section);
3. Release the top nut "W" (FIG. 1.30);
4. Remove the screws "X" from the bottom of the gas valve pipe (FIG. 1.31);
5. Remove the gas valve (FIG. 1.32).

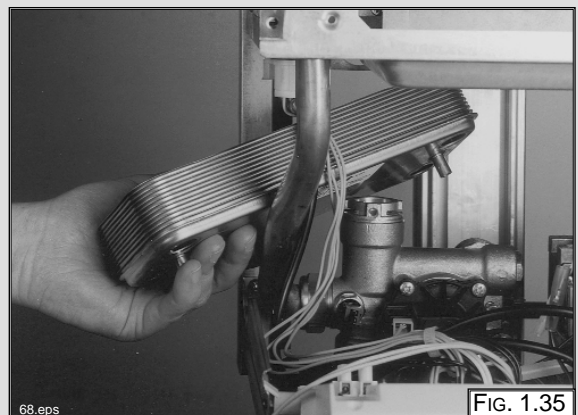
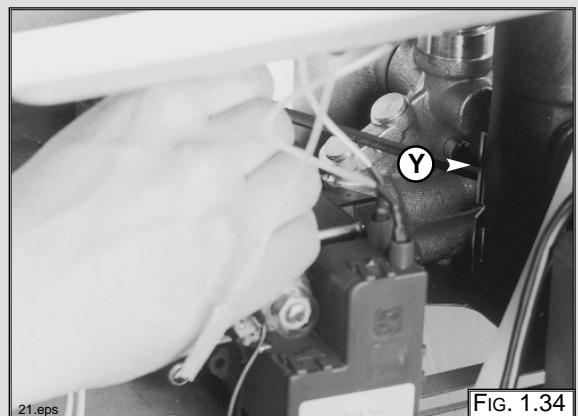
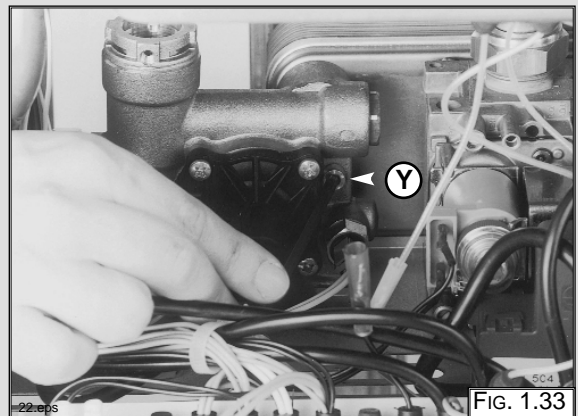


## 1.6 ACCESS TO THE WATER CIRCUIT

**Important!** Before any component is removed, the boiler must be drained of all water.

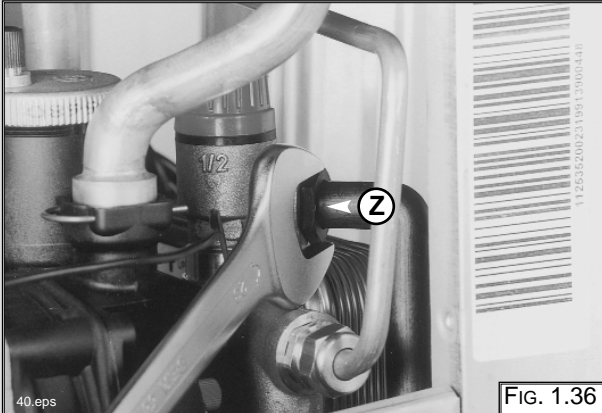
### Removing the D.H.W. (secondary) exchanger

1. Remove the screws "Y" (FIG 1.33 + FIG 1.34);
2. Push the exchanger towards the rear of the boiler, and lift upwards and remove out of the front of the boiler (FIG 1.35);
3. Before replacing the exchanger ensure that the O-rings are in good condition and replace if necessary.



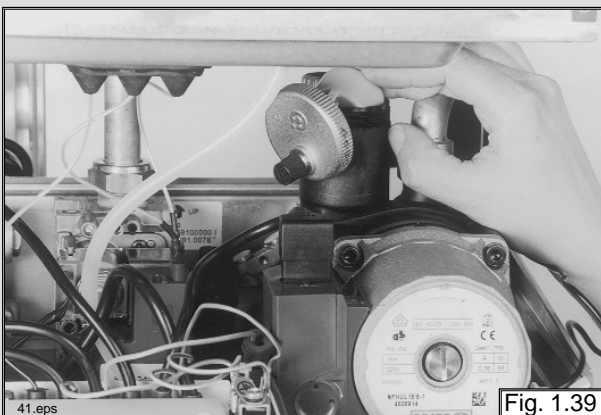
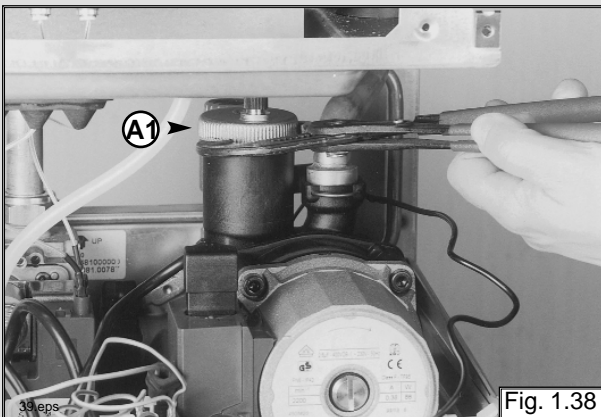
### Removing the safety valve

1. Loosen nut "Z" (FIG. 1.36);
2. Unscrew and remove the valve (FIG. 1.37).



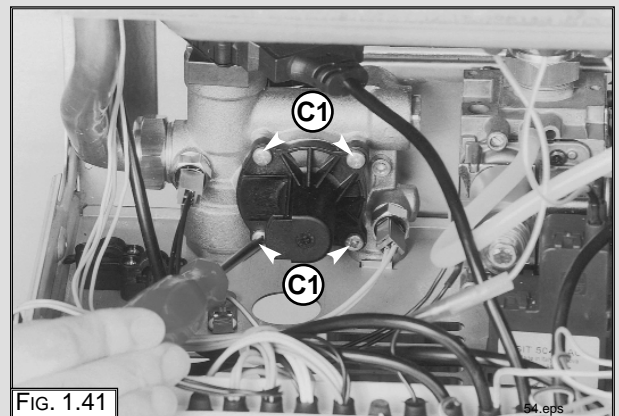
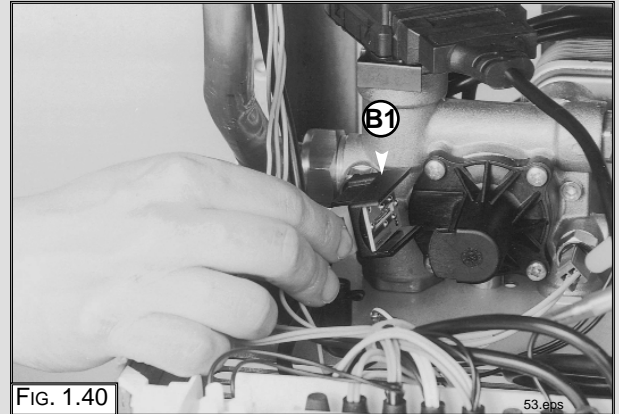
### Removing the automatic air vent

1. Unscrew valve top "A1" (FIG. 1.38);
2. Remove valve (FIG 1.39).



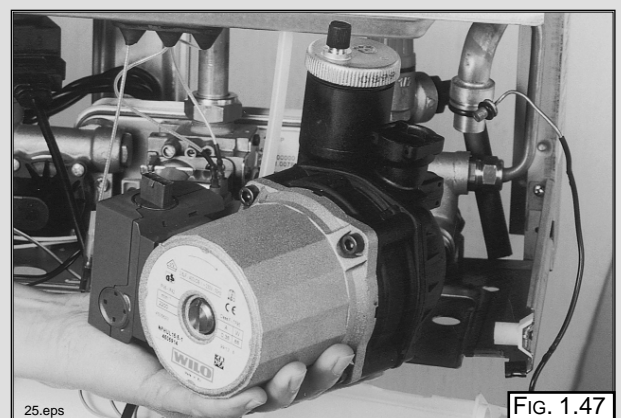
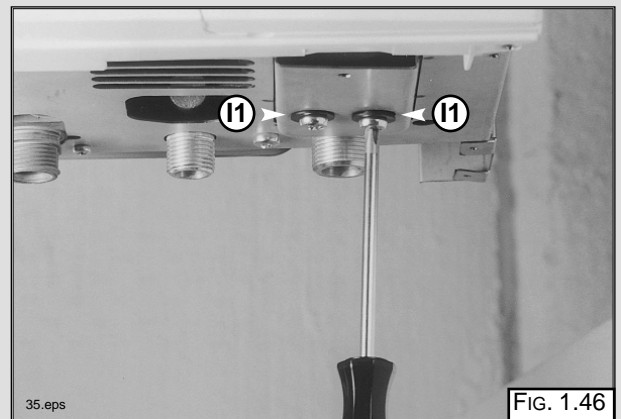
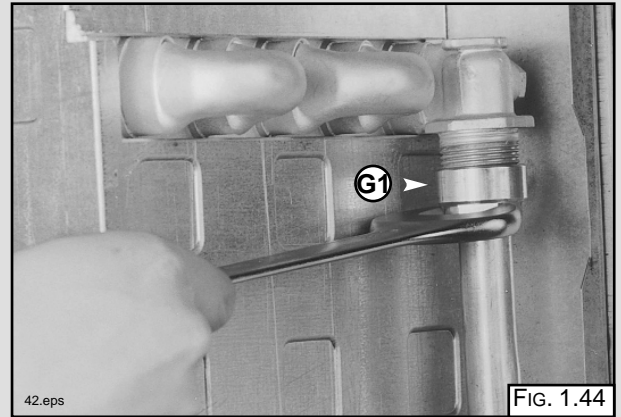
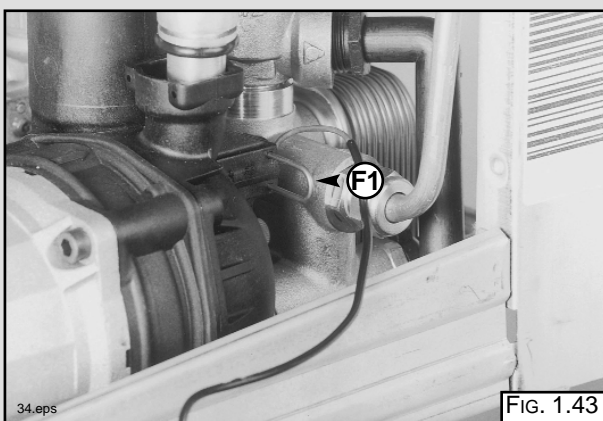
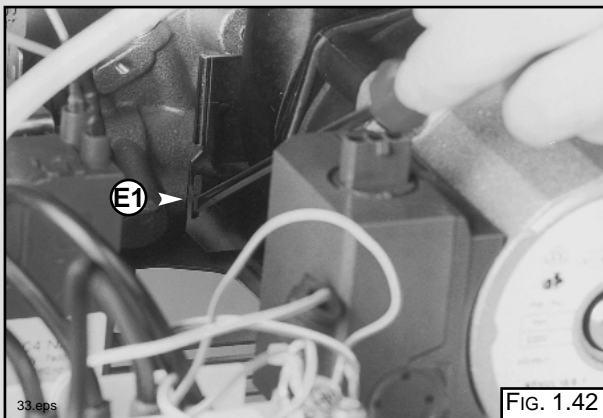
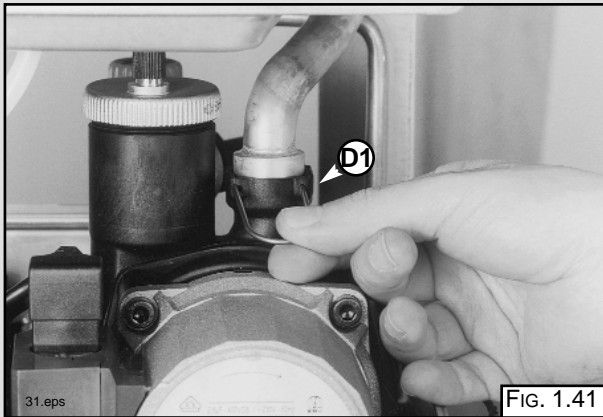
### Removing the main circuit flow switch

1. Remove the cable of the main circuit flow switch "B1" (FIG. 1.40);
2. Remove the screws "C1" (FIG. 1.41);
3. Remove the main circuit flow switch.



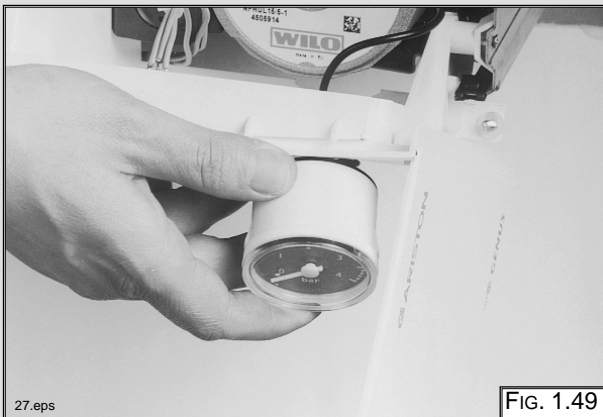
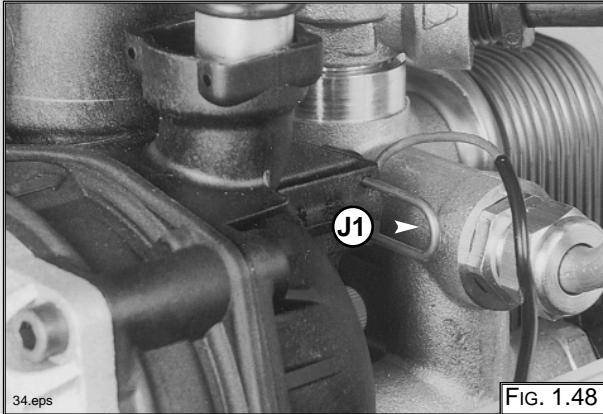
## Removing the pump

1. Remove the U-clip "D1" (FIG. 1.41);
2. Remove the retaining clip "E1" (FIG. 1.42);
3. Remove the U-clip "F1" (FIG. 1.43);
4. Release the nut "G1" (FIG. 1.44);
5. Remove the pipe "H1" (FIG. 1.45);
6. Remove the screws "I1" (FIG. 1.46);
7. Remove the pump (FIG. 1.47).



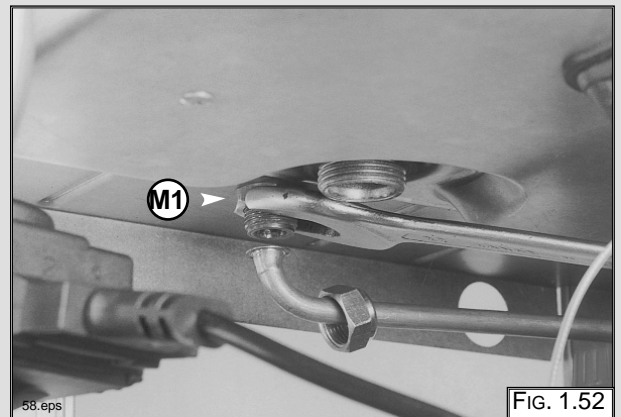
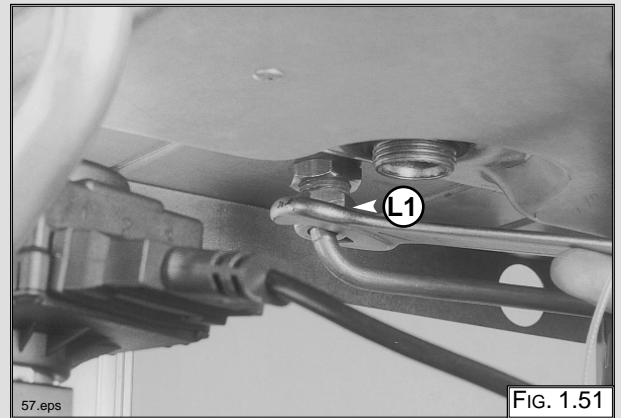
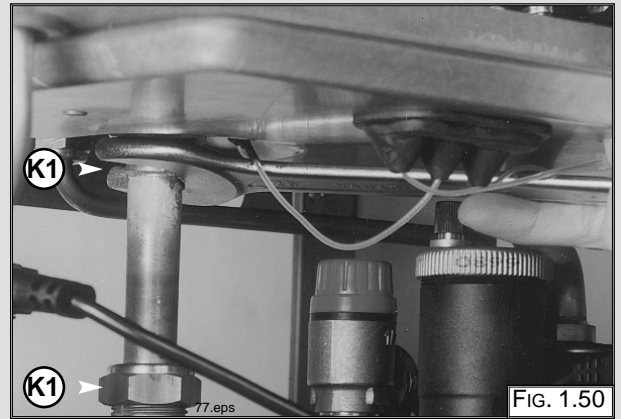
## Removing the pressure gauge

1. Remove the U-clip "J1" and remove the pressure gauge coupling (FIG. 1.48);
2. Push the pressure gauge through the control panel from the rear (FIG. 1.49).



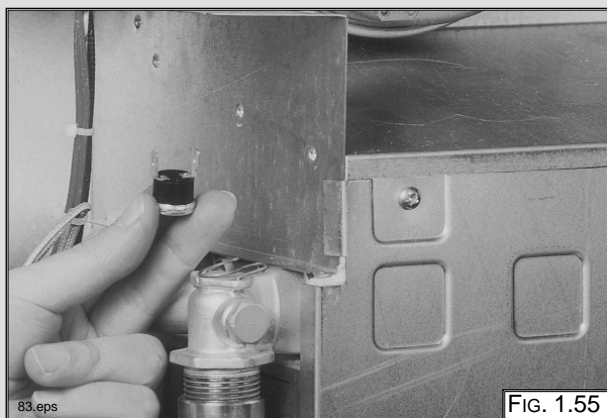
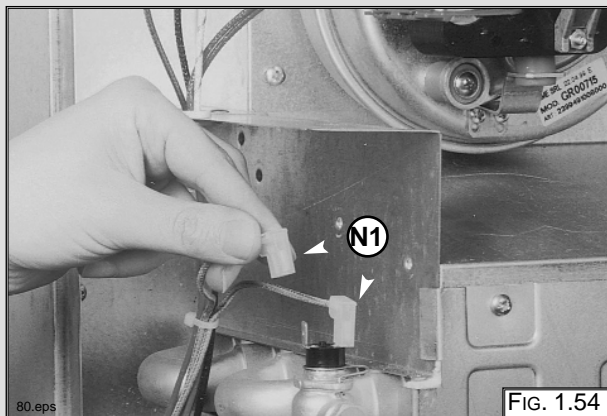
## Removing the expansion vessel

1. Loosen nuts "K1" and remove the gas pipe (FIG. 1.50);
2. Loosen nut "L1" (FIG. 1.51);
3. Remove back nut "M1" (FIG. 1.52);
4. Remove the expansion vessel (FIG. 1.53).



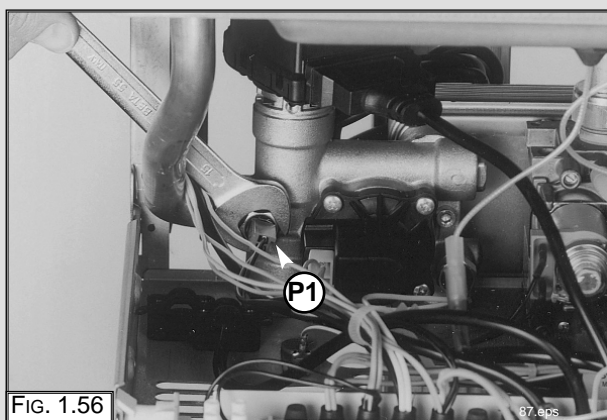
### Removing the overheat thermostat

1. Disconnect the overheat thermostat electrical connections "N1" (FIG. 1.54);
2. Then remove the thermostat from its mounting by releasing the securing clip (FIG. 1.55).



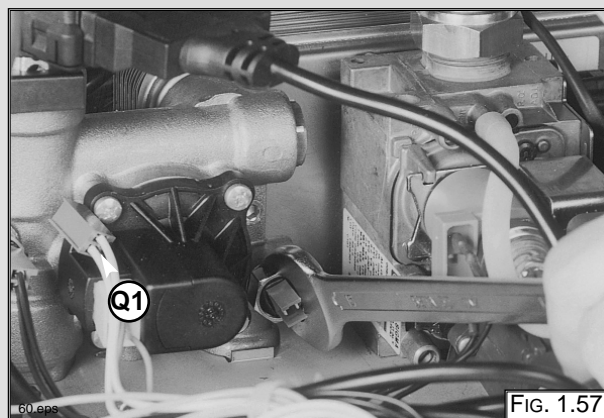
### Removing the heating temperature sensor (N.T.C.)

1. Pull off the electrical connector "P1" and unscrew the sensor probe using a suitable spanner (FIG. 1.56).



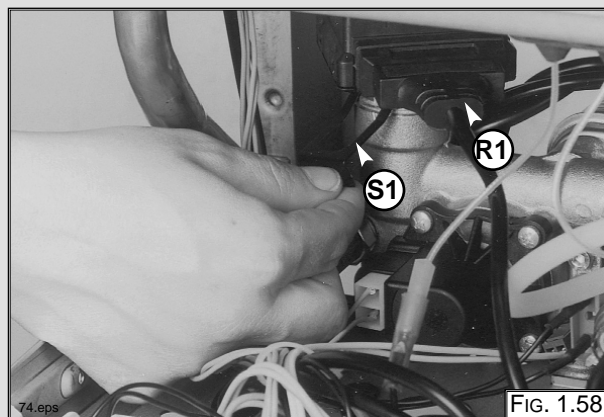
### Removing the D.H.W. temperature sensor (N.T.C.)

1. Pull off the electrical connector "Q1" and unscrew the sensor probe using a suitable spanner (FIG. 1.57).



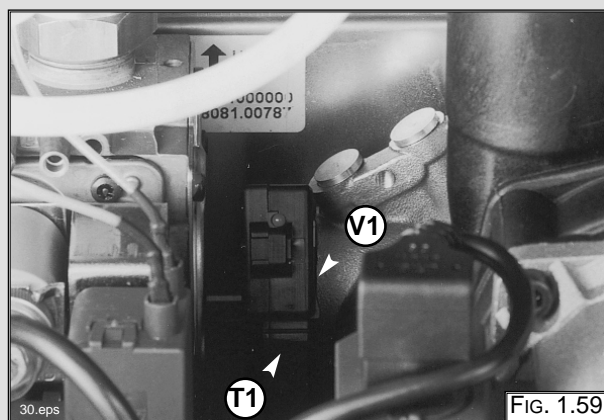
### Removing the diverter valve actuator

1. Unplug the electrical connector "R1" (FIG. 1.58);
2. Release the retaining clip "S1" and remove the diverter valve actuator.



### Removing the D.H.W. flow switch

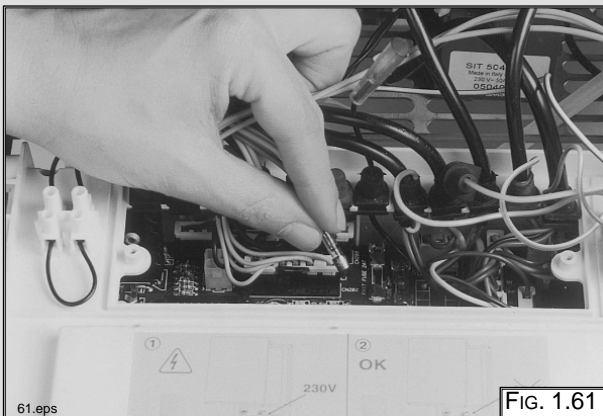
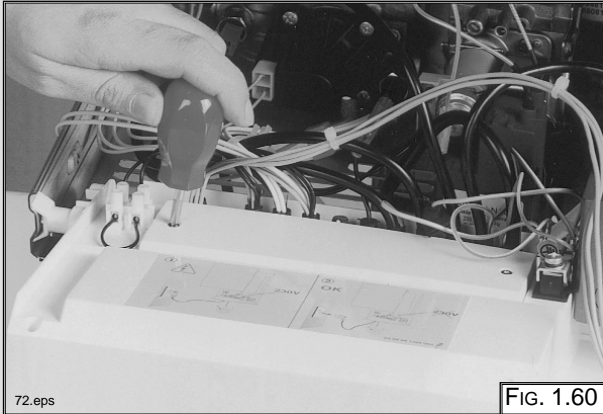
1. Unplug the electrical connector "T1" (FIG. 1.59);
2. Release the retaining clip "V1" and remove the D.H.W. flow switch.



## 1.6 ACCESS TO THE CONTROL SYSTEM

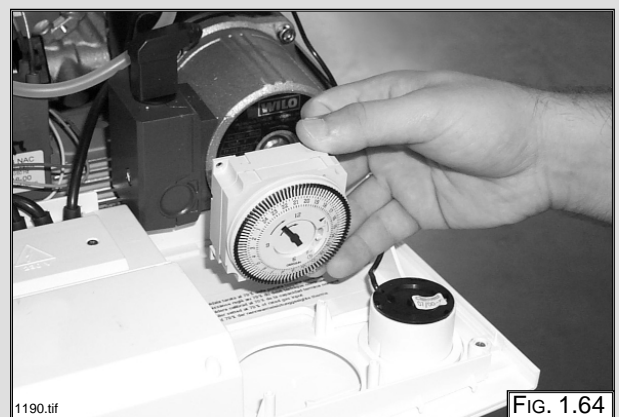
### Checking the fuses

1. Remove the inspection cover on the reverse of the control panel (FIG. 1.60);
2. Remove the fuses (FIG. 1.61).



### Removing the time clock

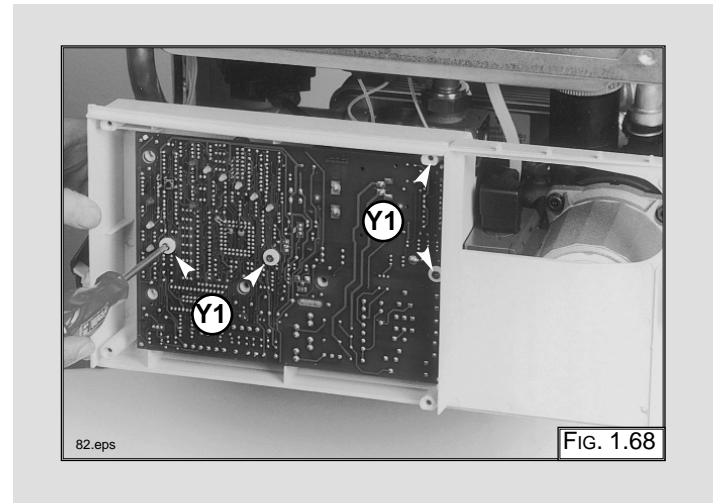
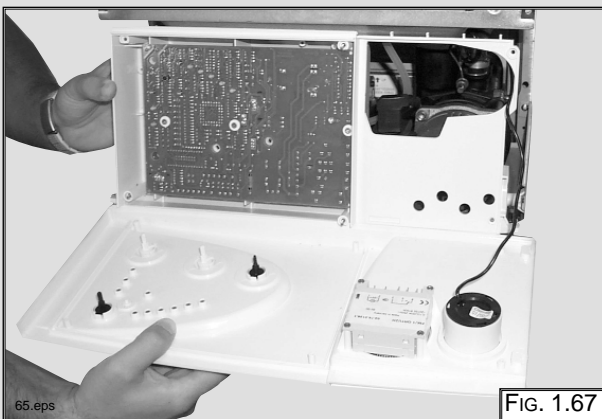
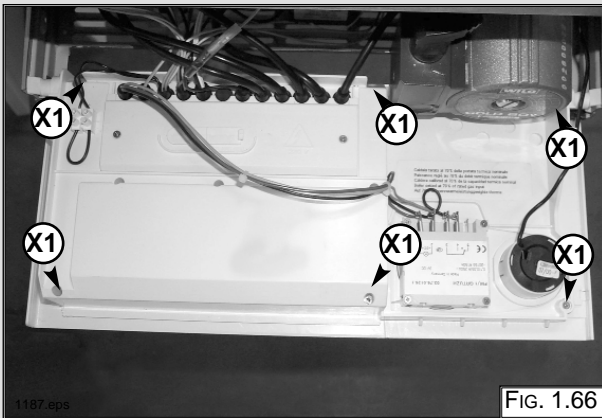
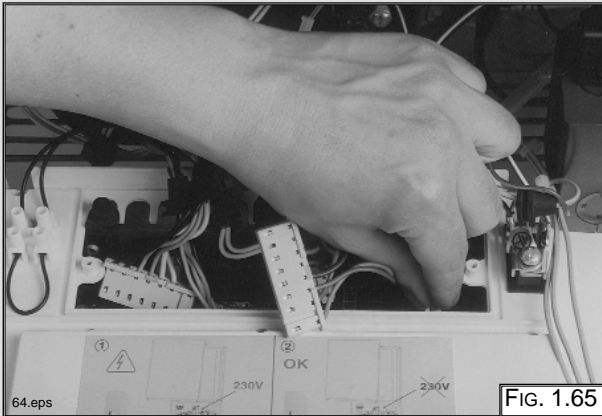
1. Unplug electrical connection "W1" from the clock (FIG. 1.62);
2. Remove the screws "W2" (see fig. 1.63);
3. Remove the clock from the panel (see fig. 1.64).





## Removing the P.C.B.

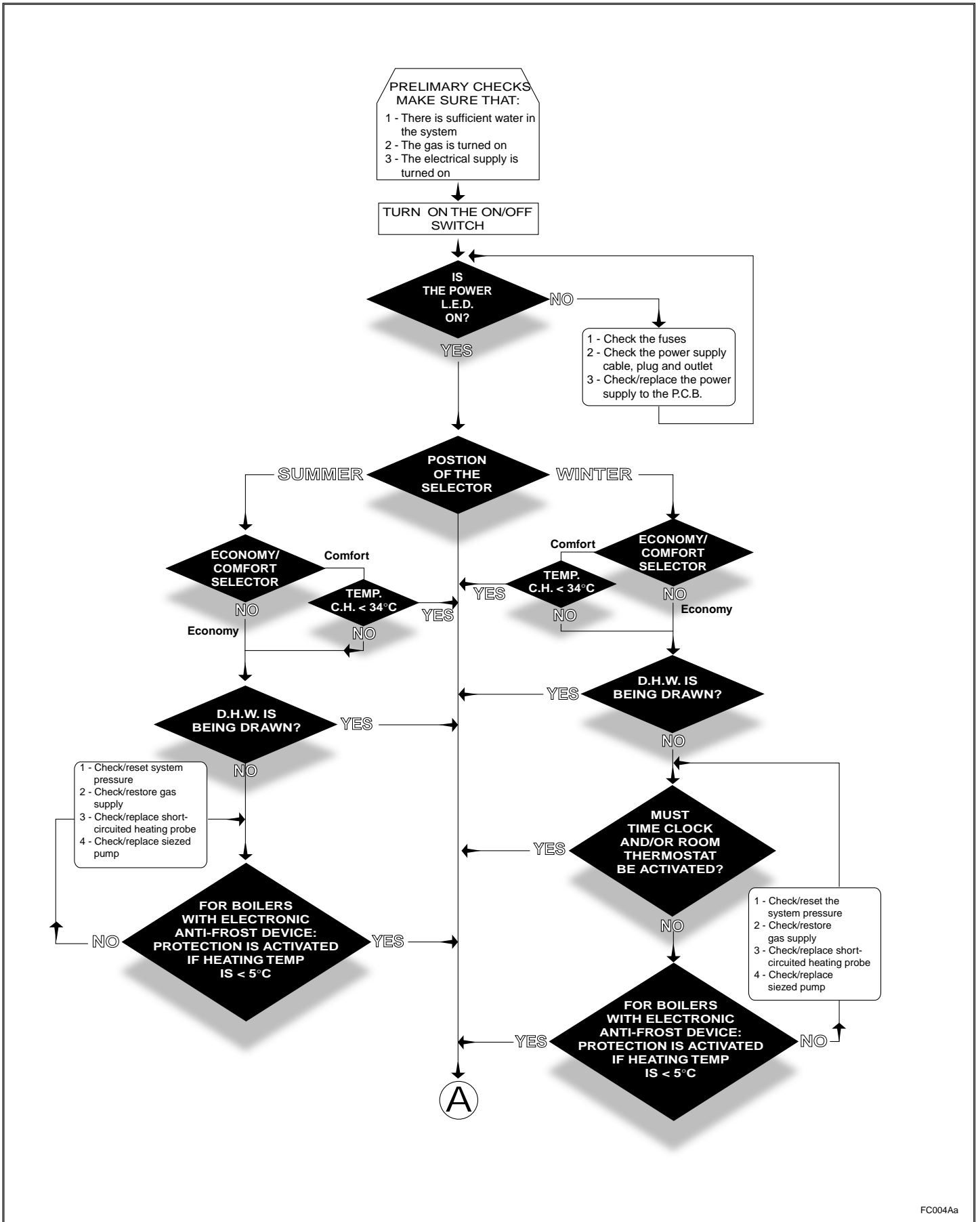
1. Isolate electricity;
2. Remove the inspection cover from the reverse of the control panel;
3. Unplug all electrical connections from the P.C.B. (FIG. 1.65);
4. Remove the screws "X1" (FIG. 1.66);
5. Separate the fascia panel from the rear of the control panel (FIG. 1.67);
7. Remove the screws "Y1" and remove the P.C.B. (FIG. 1.68).

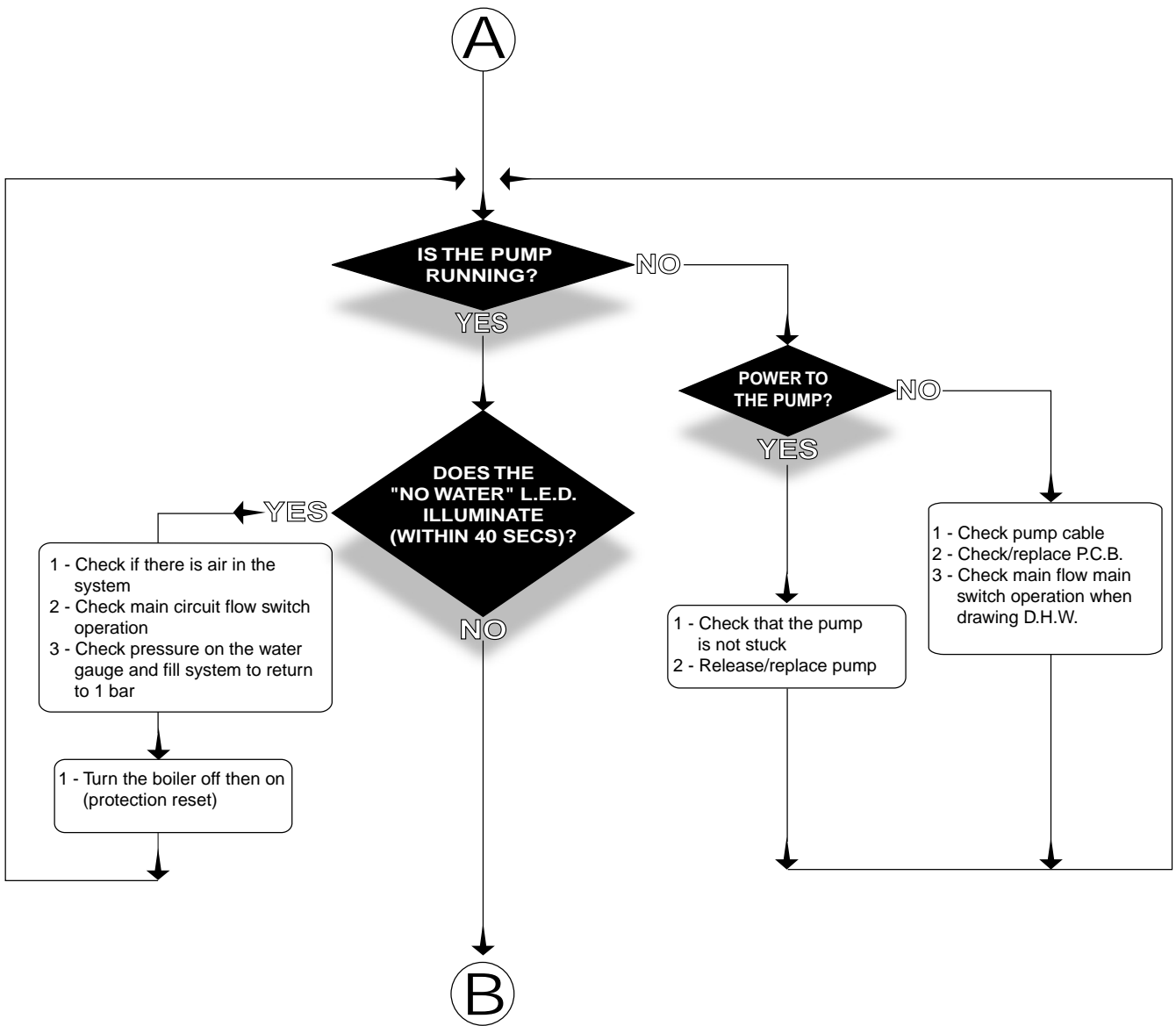


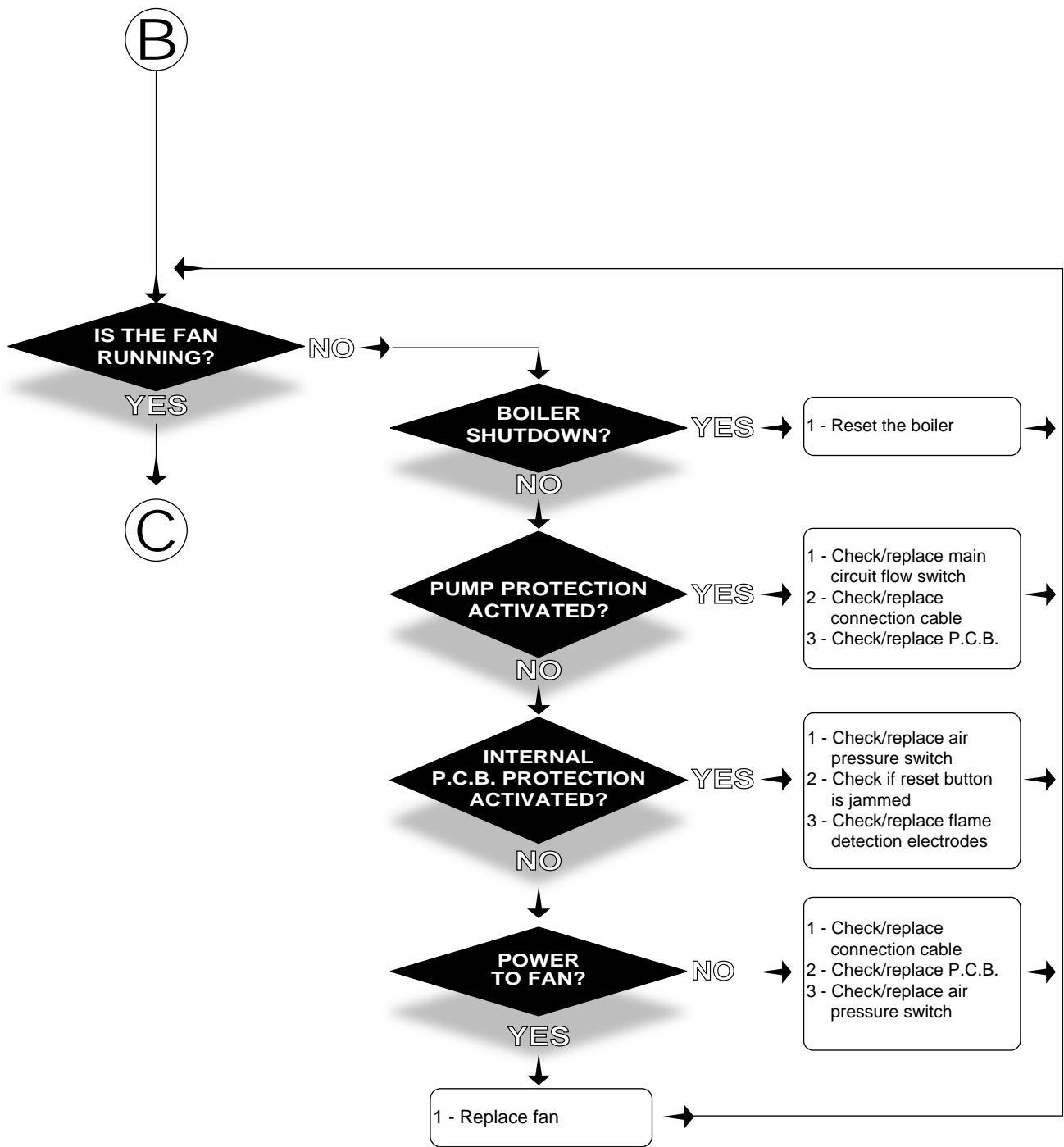
## 2. FAULT FINDING

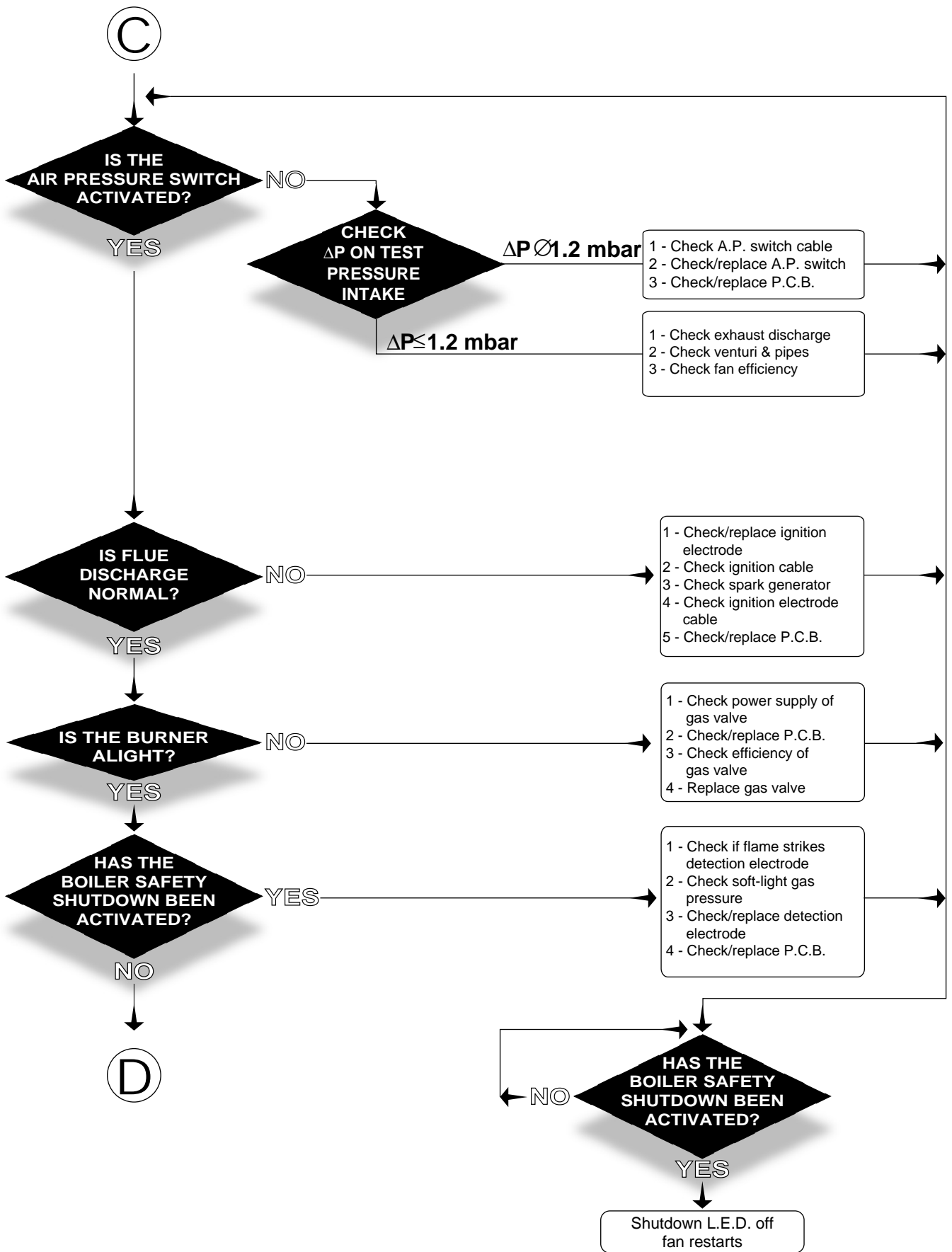
### 2.1 FAULT FINDING GUIDE (FLOW-CHARTS)

It is possible to detect and correct any defect by using the standard fault finding diagrams described in this chapter.

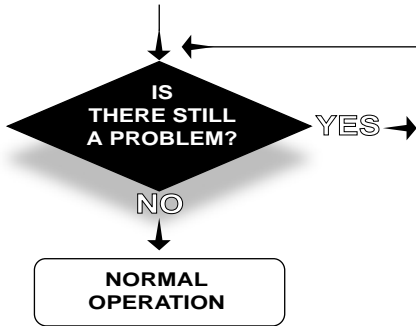








D



	<i>FAULTS</i>	<i>POSSIBLE CAUSES</i>
1	<b>Drawing D.H.W:</b> When you turn on a tap burner switches off	- air in secondary heat exchanger - faulty main circuit flow switch - faulty D.H.W. flow switch
2	<b>Drawing D.H.W:</b> radiators heat up in summer mode	- faulty 3-way valve
3	<b>Drawing D.H.W:</b> insufficient hot water temperature	- check C.H./D.H.W. temperature probes - check gas pressures - check water flow rate - check secondary heat exchanger
4	<b>Drawing D.H.W:</b> noisy operation	- primary heat exchanger faulty or lime-scale deposits - low heating system water pressure - check gas pressures - check C.H./D.H.W. temperature probes
5	<b>Decrease/increase</b> heating circuit pressure	- check for leaks on the heating circuit - faulty filling-loop - faulty secondary heat exchanger - expansion vessel faulty
6	<b>Repeated shutdowns</b>	- faulty detection electrodes - check gas settings - check flame detection electric circuit
7	<b>Repeated intervention of safety thermostat</b>	- C.H./D.H.W. temperature probes open circuit - overheat thermostat not calibrated correctly - air in primary water circuit
8	<b>When cold water tap turned off, the boiler ignites</b>	- drop in pressure in the water mains, with consequent water hammer
9	<b>Insufficient radiator temperature</b>	- check C.H. temperature probe - check by-pass - check gas pressures



### 3. **ELECTRICAL DIAGRAMS**

#### **LEGEND:**

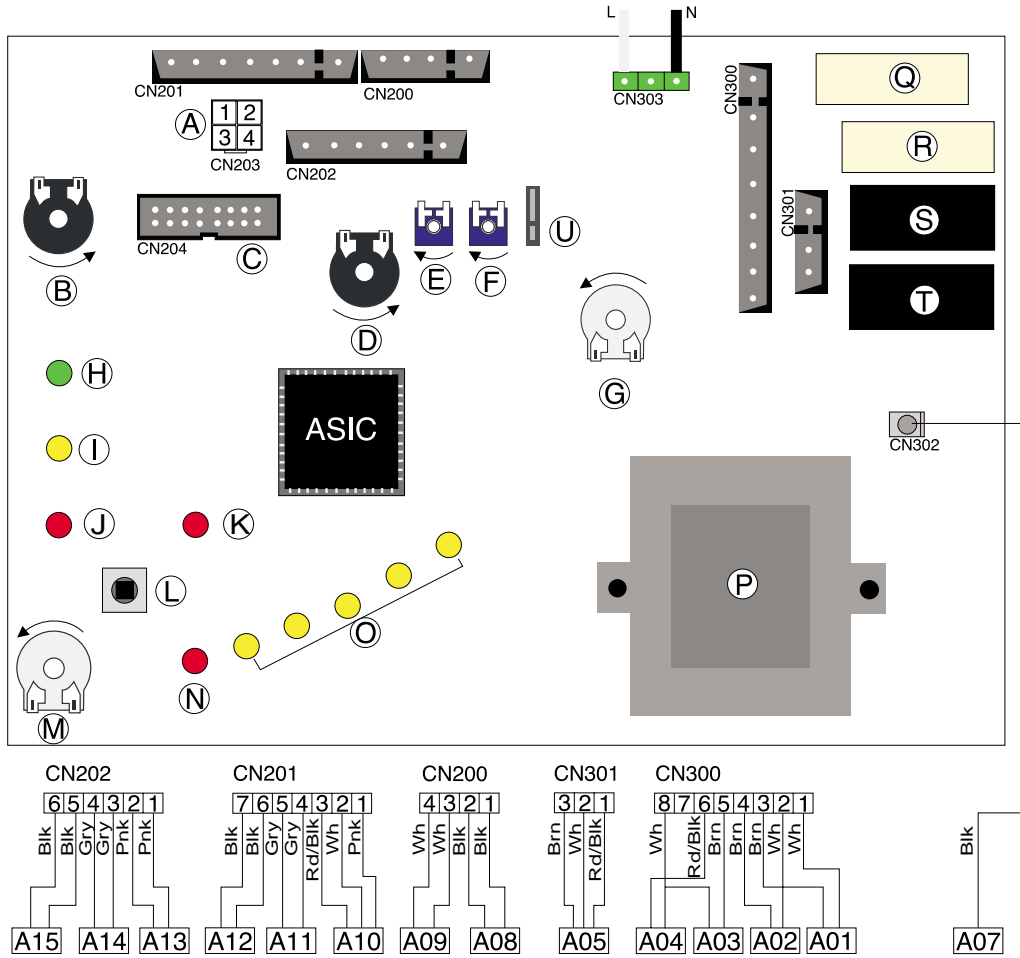
A	=	Time Clock Connector
B	=	Central Heating Selection (Winter) and Temperature Adjustment
C	=	Connector for Total Check System
D	=	Domestic Hot Water Temperature Adjustment
E	=	Soft-light Adjustment
F	=	Maximum Heating Adjustment
G	=	On/Off Switch
H	=	On/Off L.E.D.
I	=	Fume Sensor L.E.D.
J	=	Ignition Failure (Lockout) L.E.D.
K	=	Low System Water Level/Lack of Circulation L.E.D.
L	=	Reset Button
M	=	Economy/Comfort Selector
N	=	Overheat L.E.D.
O	=	Temperature L.E.D.s
P	=	Transformer
Q	=	Circulation Pump Relay
R	=	Fan Relay
S	=	Gas Valve Relay
T	=	Motorised Diverter Valve Relay
V	=	Spark Generator
U	=	Anti-cycling Device Adjustment for Heating

A01	=	Circulation Pump
A02	=	Fan
A03	=	Spark Generator/Gas Valve Supply
A04	=	Motorised Diverter Valve
A05	=	Flame Detection Circuit
A06	=	Detection Electrode
A07	=	Main Circuit Temperature Probe
A08	=	Domestic Hot Water Temperature Probe
A09	=	Domestic Hot Water Flow Switch
A10	=	Main Circuit Flow Switch
A11	=	Modulator
A12	=	Air Pressure Switch
A13	=	Safety Thermostat
A14	=	External (Room) Thermostat

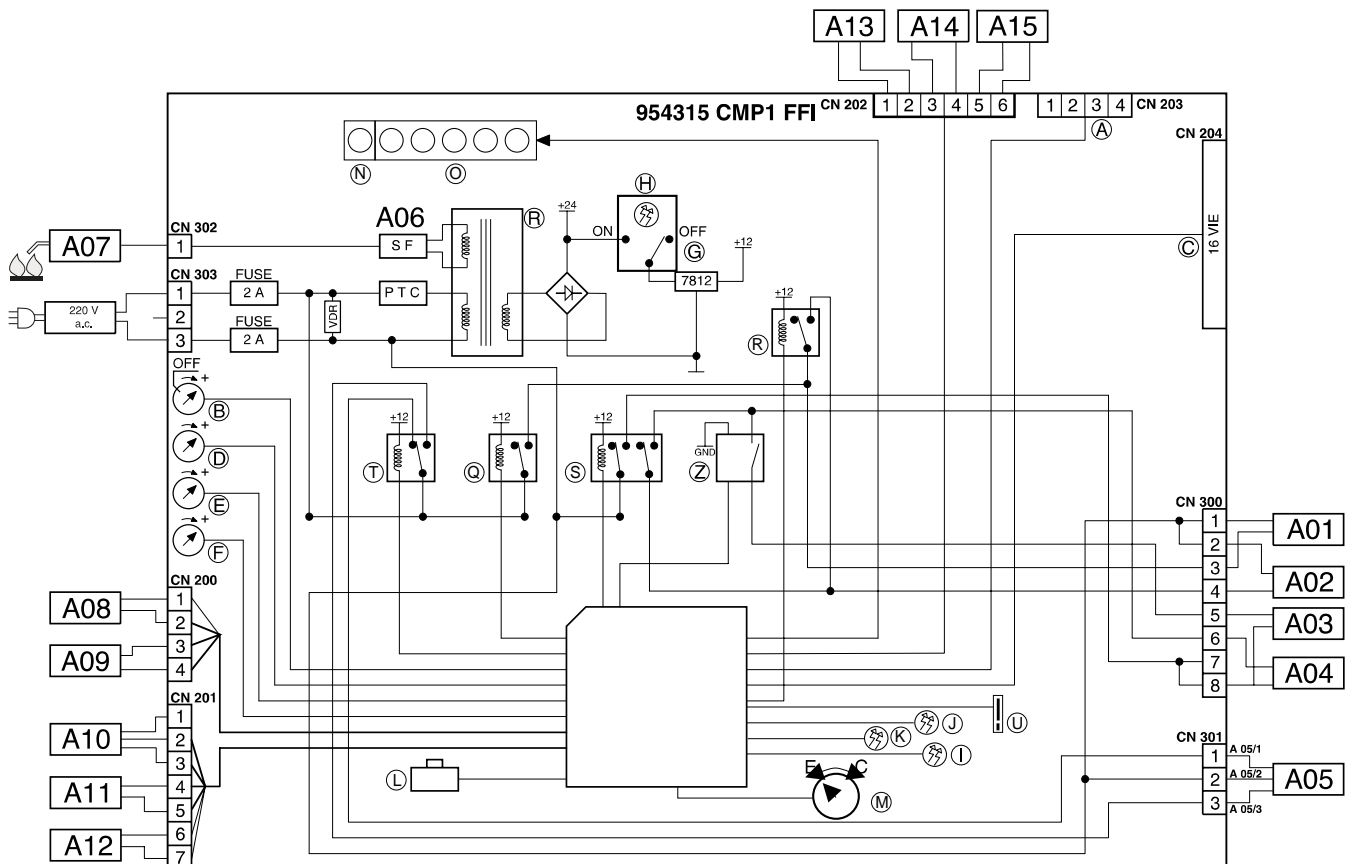
#### Colours:

Gry	=	Grey
Wh	=	White
Pnk	=	Pink
Brn	=	Brown
Bl	=	Blue
Blk	=	Black
Rd/Blk	=	Red/Black

# microGENUS 23/27 MFFI



SE017A

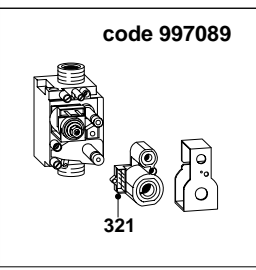
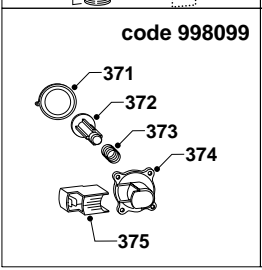
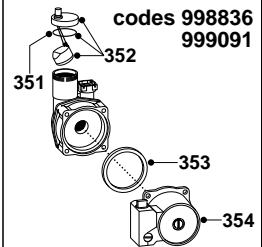
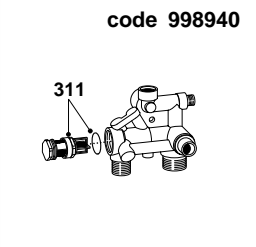
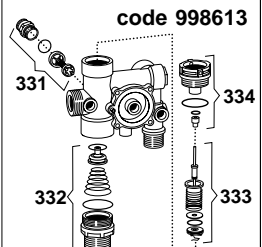
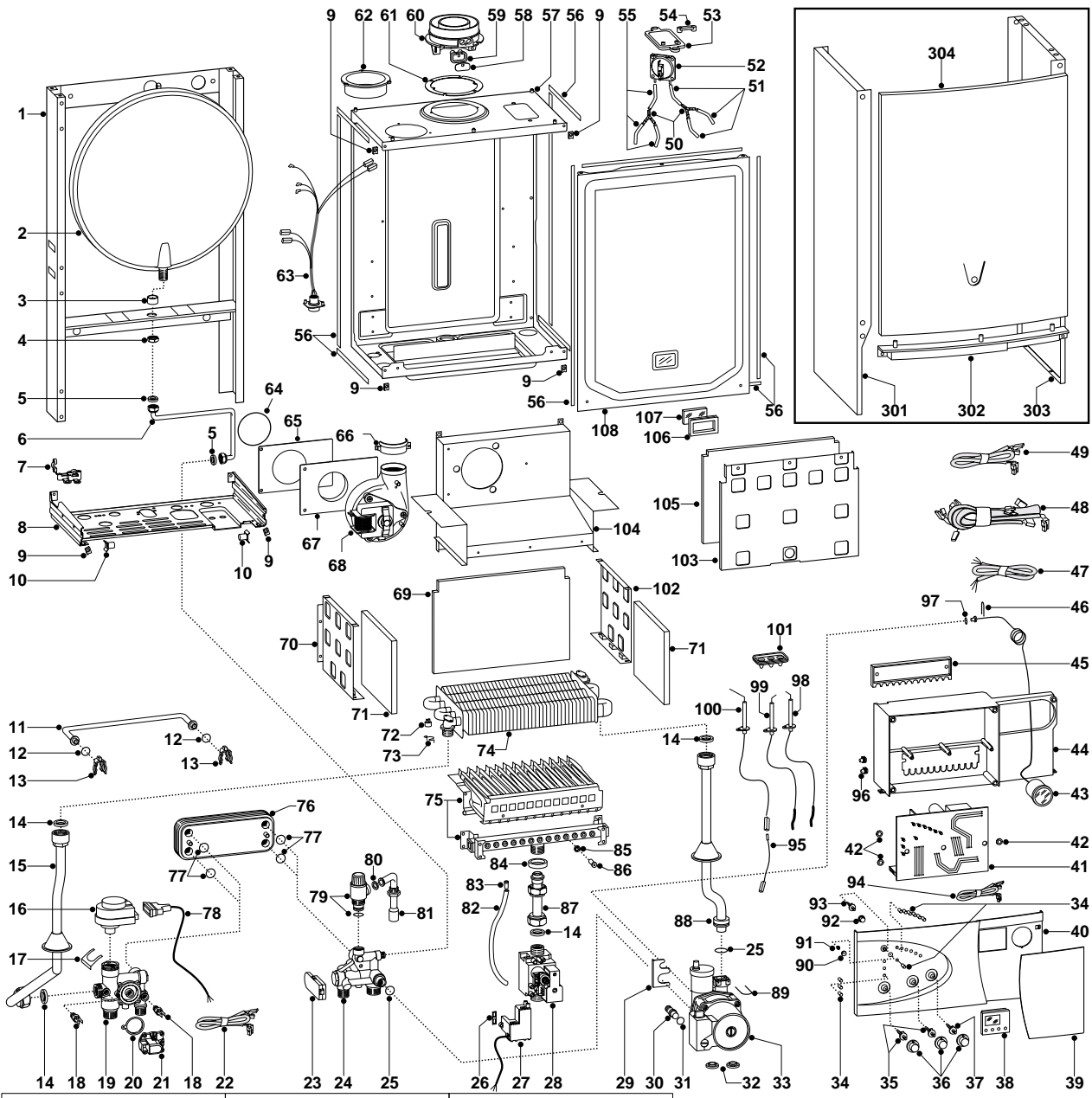


SF014A



# 4. SHORT SPARE PARTS LIST

## microGENUS 23/27 MFFI



MODELS	CHARACTERISTICS	SERIAL NO: VALIDITY	REF.
MICROGENUS 23 MFFI	METHANE	2320005600001	A
MICROGENUS 23 MFFI	LPG	2320005600001	B
MICROGENUS 27 MFFI	METHANE	2320005600001	C
MICROGENUS 27 MFFI	LPG	2320005600001	D

## microGENUS 23/27 MFFI

Key no.	G.C. part no.	Description	ARISTON Part No.
2	E61 468	Expansion vessel	998616
5	164 282	Gasket 3/8"	573521
12	E61 475	O-ring	998077
14	164 225	Gasket 3/4"	573520
16	E25 427	Motor (3- Way valve)	997147
17	E61 429	Fixing clip (motor)	997077
18	164 338	Temperature probe (C.H.W.)	569236
19	E61 478	Flow group	998613
20	E24 077	Diaphragm (main flow switch)	571547
21	E61 479	Main circuit flow switch	998099
24	E61 482	Return group	998940
25	E61 483	O-ring	998424
26	E25 529	Gasket	574279
27	E61 848	Spark generator	998645
28	E61 485	Gas valve (SIT 845 SIGMA)	997089
33 AB	E61 490	Pump	998836
33 CD	E61 881	Pump	999091
38		Time clock	999599
41	E61 519	P.C.B. (CMP1-FFI)	998947
43	E61 520	Pressure gauge	999245
52AB	E61 530	Air pressure switch	573989
52CD	E03 818	Air pressure switch	571651
66AB		Fan	999397
66CD	E61 967	Fan	998894
72	E25 425	Thermostat (overheat)	997206
74AB		Main exchanger	998620
74CD	E61 546	Main exchanger	998893
75A	E61 547	Burner 12 ramp (natural gas)	998618
75B	E61 549	Burner 12 ramp (LPG)	998669
75C	E61 972	Burner 14 ramp (natural gas)	998887
75D	E61 974	Burner 14 ramp (LPG)	998939
76AB	E26 767	Secondary exchanger (p-type 23kW)	571646
76CD	E26 657	Secondary exchanger (p-type 27kW)	573295
77	E26 658	O-ring (secondary exchanger)	573825
79	E26 378	Safety valve (1/2" 3 bar)	573172
98	E61 565	Electrode (Ignition R.H.)	998623
99	E61 567	Electrode (Ignition L.H.)	998622
100	E61 569	Detection electrode	998624
311		D.H.W. actuator kit	998941
321	E25 582	Operator coils (SIT SIGMA)	997029
331	E61 647	Central heating by-pass kit	998490
332	E61 648	Heating spring kit	998718
333	E61 649	3-way spring kit	998975
334	E61 650	Actuator bush	998974
351	E61 652	Gasket (auto air vent)	998644
352	E61 654	Auto air vent	998643
353	E61 656	Gasket (pump head)	998738
354 AB	E61 660	Pump head (Gold 15/5)	998961
354 CD	E62 030	Pump head	999207
371	E24 077	Diaphragm (main flow switch)	571547
372	E24 077	Magnet (main flow switch)	571772
373	E24 076	Spring (main flow switch)	571771
374	E24 075	Main flow switch top cap	571770
375	E61 663	Main flow switch reed system	998172
381	E61 665	Burner jet 1.25 full kit (Natural gas)	998716
382	E61 667	Burner jet 0.72 full kit (LPG)	998717



Manufacturer: **Merloni TermoSanitari SpA - Italy**

Commercial subsidiary: **MTS (GB) LIMITED**

MTS Building

Hughenden Avenue

High Wycombe

Bucks HP13 5FT

Telephone: (01494) 755600

Fax: (01494) 459775

internet: <http://www.mtsgb.ltd.uk>

E-mail: [info@mtsgb.ltd.uk](mailto:info@mtsgb.ltd.uk)

**Technical Service Hot Line: (01494) 539579**