GENUS

Servicing Instructions
Type C Boilers

G.C.N: **41-116-01**
47-116-08
47-116-09
47-116-13

LEAVE THESE INSTRUCTIONS ADJACENT TO THE GAS METER

ARISTON

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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 vary 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.

To dismantle the front part of the casing, proceed as follows:

1. Loosen the two screws “A” located on the bottom part of the boiler until the first thread on the screws appears *(Fig. 1.1)*;
2. Lift the front panel up until it stops with a click and remove the front panel from the rest of the casing *(Fig. 1.2)*;
4. Unhook the two cords from the locating slots *(Fig. 1.3)*.

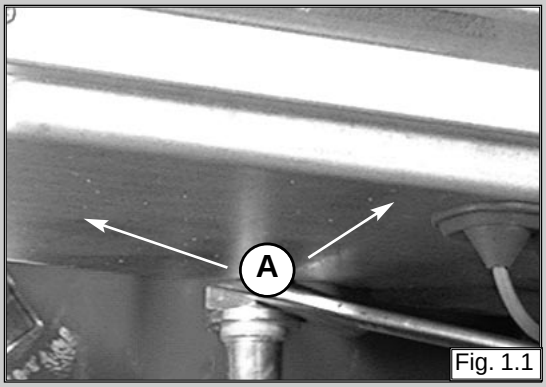


Fig. 1.1

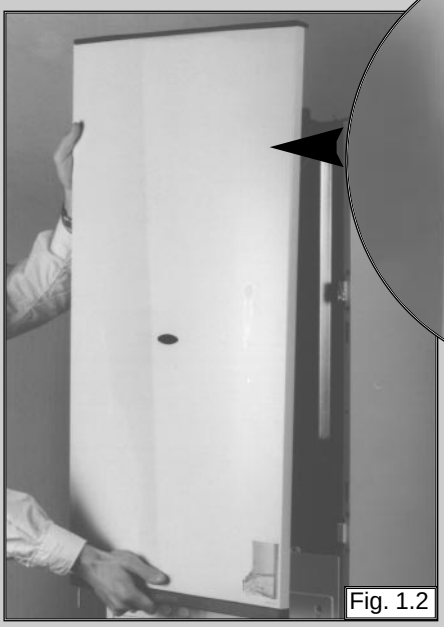


Fig. 1.2

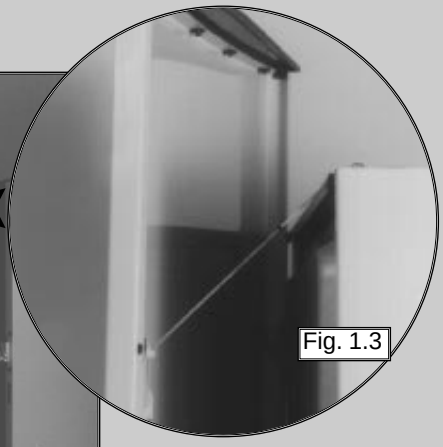


Fig. 1.3

Removing the bottom cover

1. Remove the screws “B”

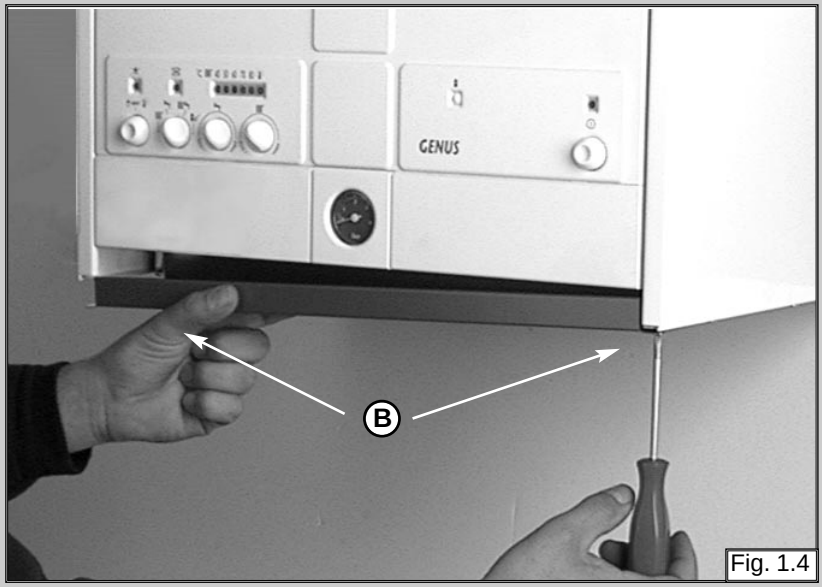


Fig. 1.4

Removing the side panels

1. Remove the screws “C”;
2. Pull the panel away from the boiler, then lift the panel up and away from the boiler.

Fig. 1.5

1.3 *Access to the Combustion Chamber*

Removing the sealed chamber frontal cover

Fig. 1.6

Removing the combustion cover

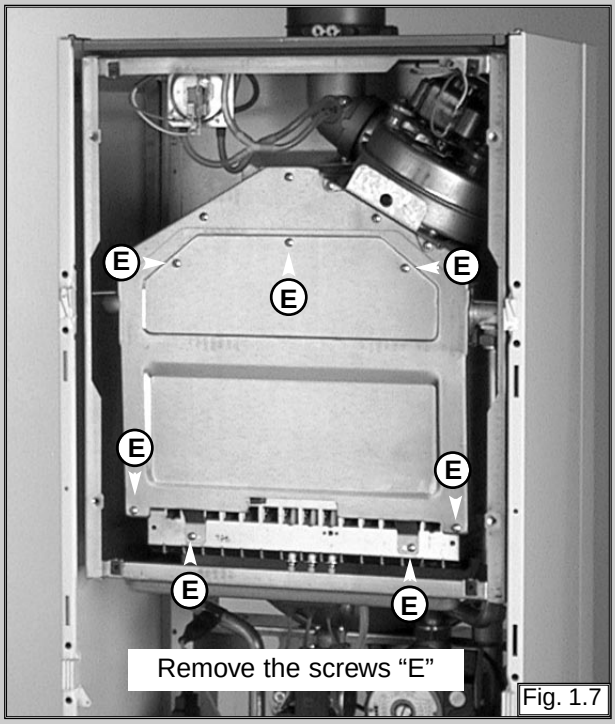


Fig. 1.7

Removing the burner and the injectors

1. Remove the side panels of sealed chamber *(fig. 1.8)*;
2. Remove the screws “F” of the burner *(see fig. 1.9)*;
3. Remove the burner *(see fig. 1.10)*;
4. Remove the injectors using a No. 7 socket spanner;
5. Replace in reverse order.

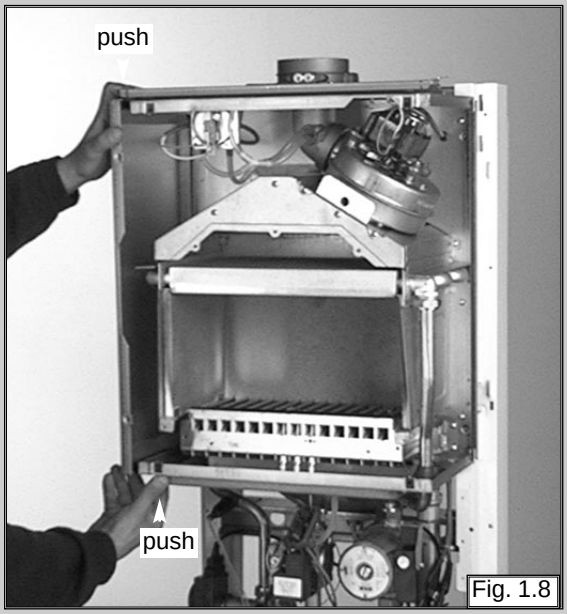


Fig. 1.8

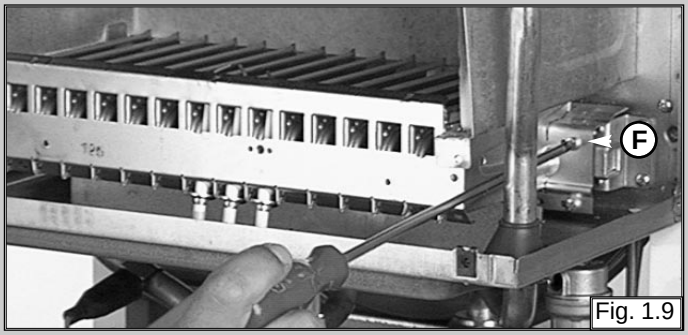


Fig. 1.9

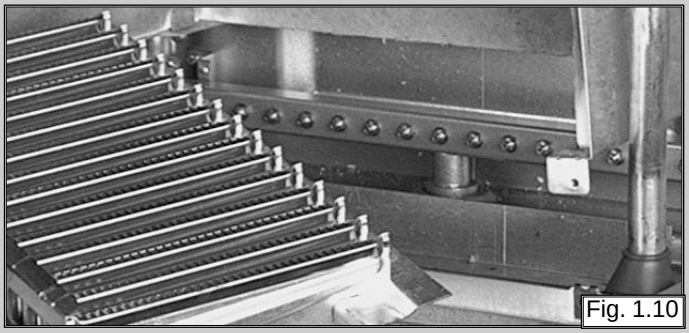


Fig. 1.10

Removing the electrodes

1. Remove rubber gasket “G” *(see fig. 1.11)*;
2. Disconnect ignition leads by pulling downward *(see fig. 1.12)*;
3. To remove the flame sensor disconnect the cable at its only connection point close to the P.C.B. *(see fig. 1.13)*;

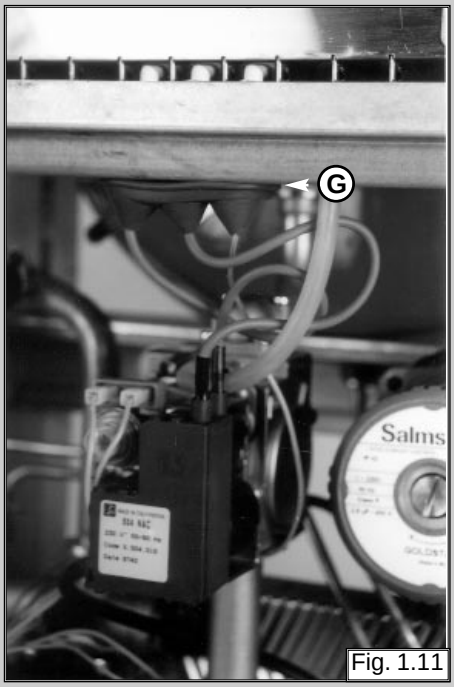


Fig. 1.11


Fig. 1.12

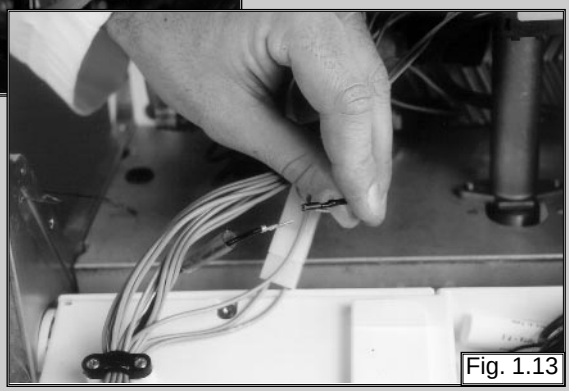


Fig. 1.13

5. Remove screw “H” using a Philips No. 2 star tip screwdriver *(see fig. 1.14)*;
6. Slide the electrode gently downward *(see fig. 1.15).*

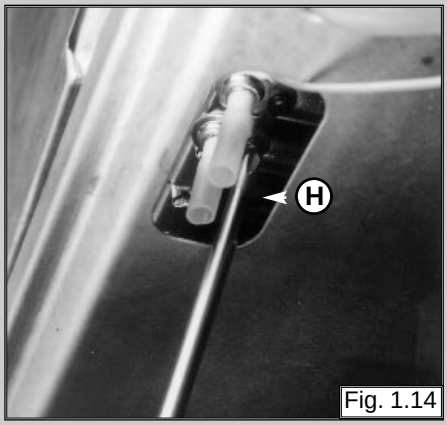


Fig. 1.14

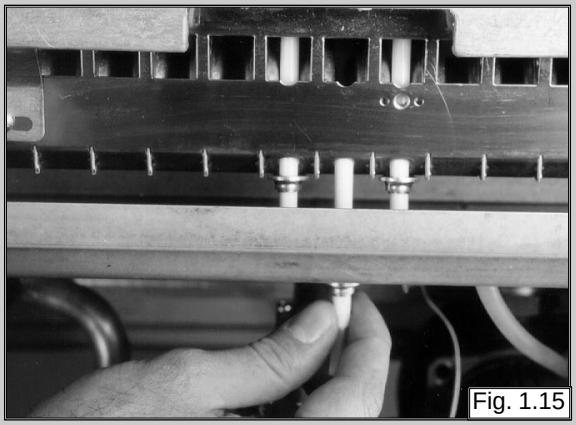


Fig. 1.15

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 main heat exchanger

1. Drain the boiler of water;
2. Release the two connection nuts “I” connecting the exchanger to the flow and return pipes *(see fig. 1.16)*;
3. Pull it straight out *(see fig. 1.17).*

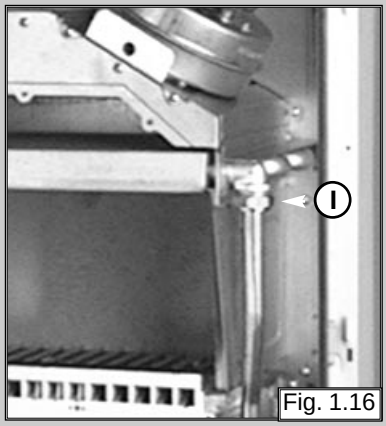


Fig. 1.16

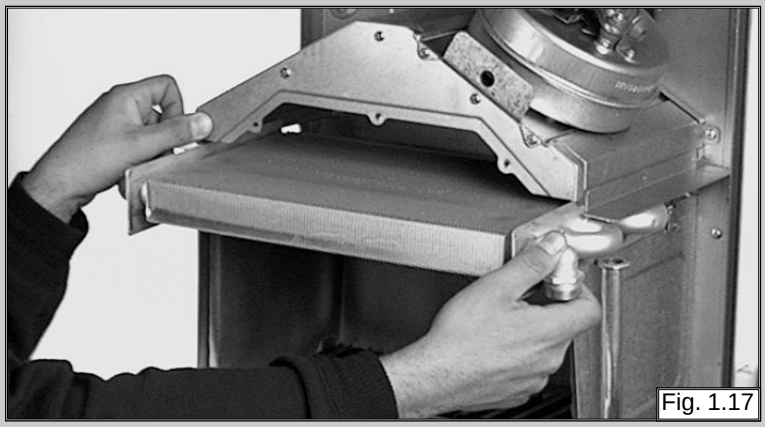


Fig. 1.17

Removing the air pressure switch

1. Disconnect the electrical connections “K” and silicone pipes “L” from their connection points *(see fig. 1.18)*;
2. Remove screws “J” on the top of the sealed chamber *(see fig. 1.19)*; Use a No. 2 star tip screwdriver to remove the switch from the plate.

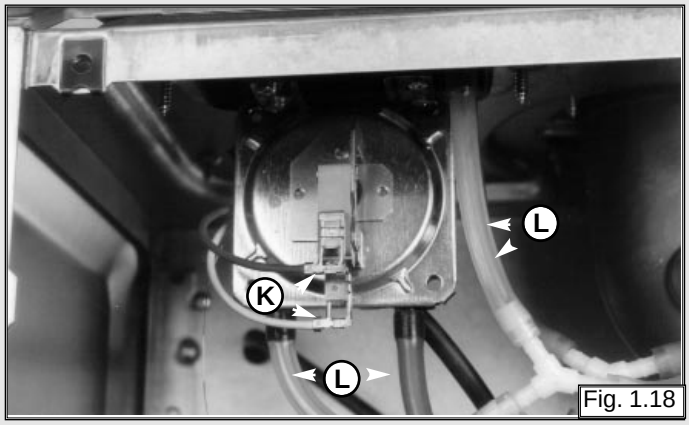


Fig. 1.18

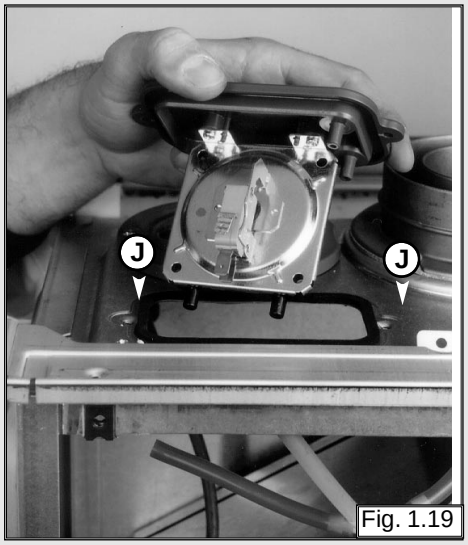


Fig. 1.19

Removing the venturi device

1. Disconnect the silicone pipes “M” and remove the screw “N” *(see fig. 1.20)*;
2. Extract the venturi *(see fig. 1.21)*.

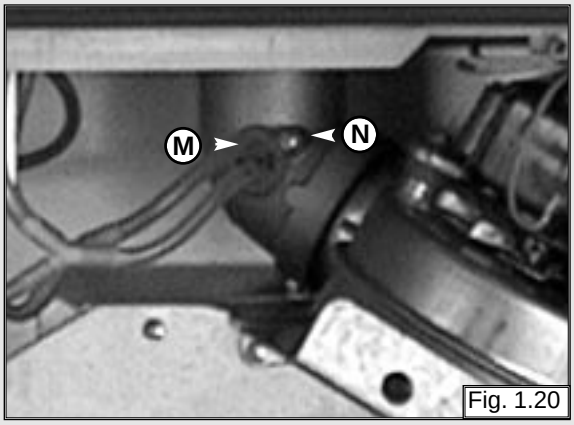


Fig. 1.20

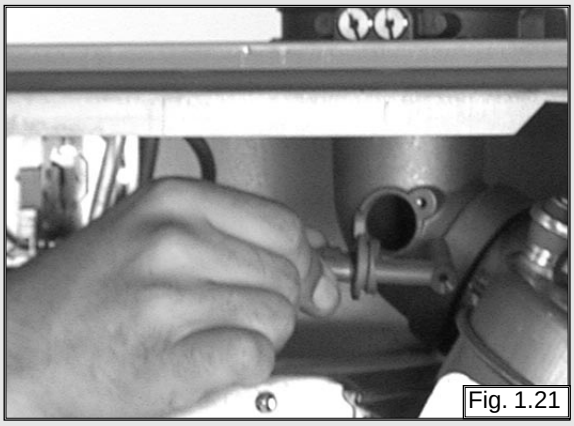


Fig. 1.21

Removing the fan

1. Disconnect electrical connections and remove screws “O” using a No. 2 star tipped screwdriver *(see fig.1.22)*;
2. Pull fan to the right and forward and remove *(see fig.1.23*);
3. Remove fan from mounting plate;
4. Remove screws “P” *(see fig.1.24)*.

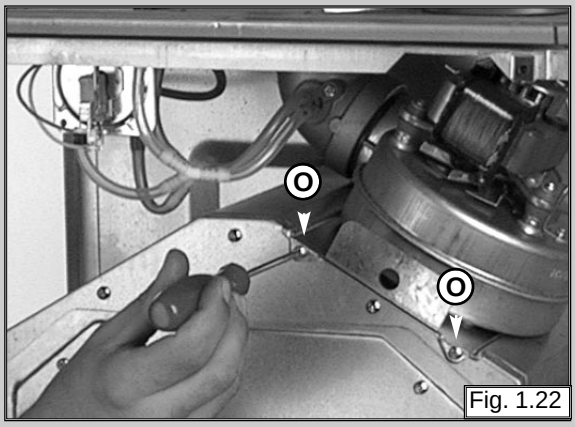


Fig. 1.22

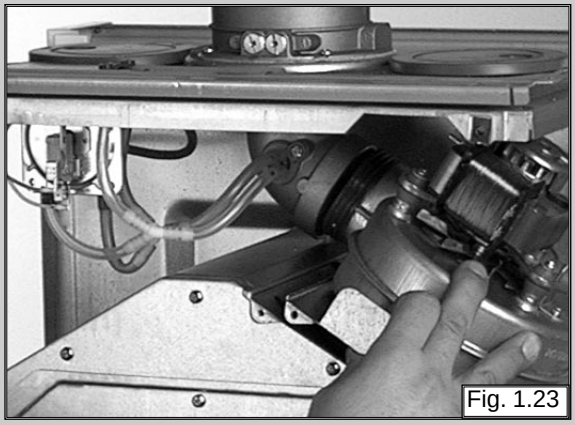


Fig. 1.23

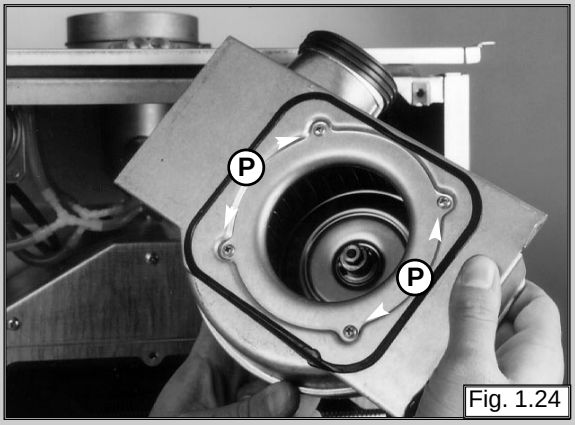
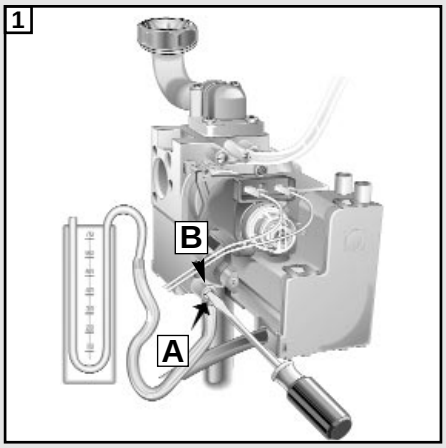
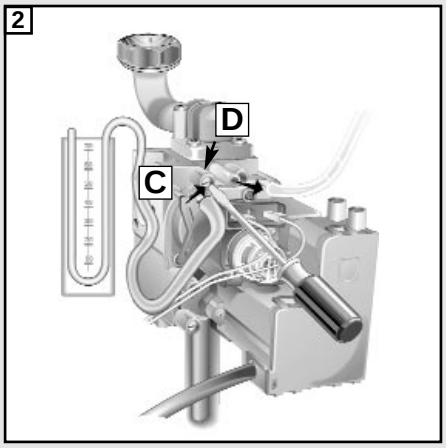


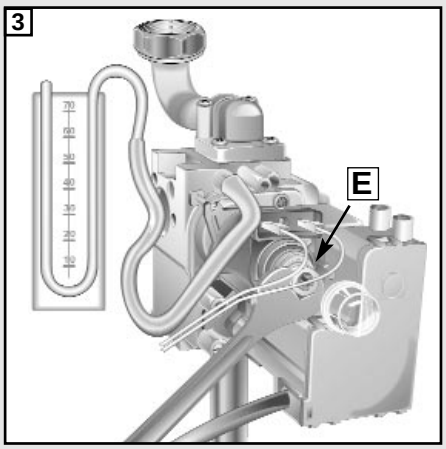
Fig. 1.24

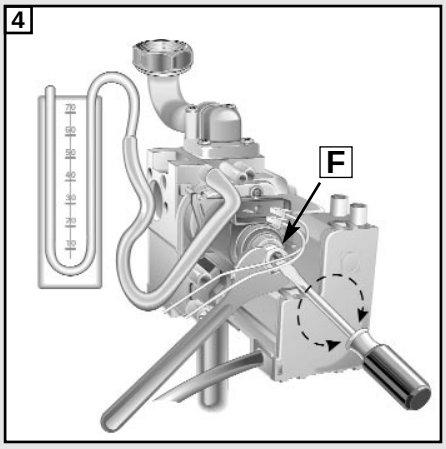
1.4 *Servicing and Removal of the Gas Valve*

SIT SIGMA

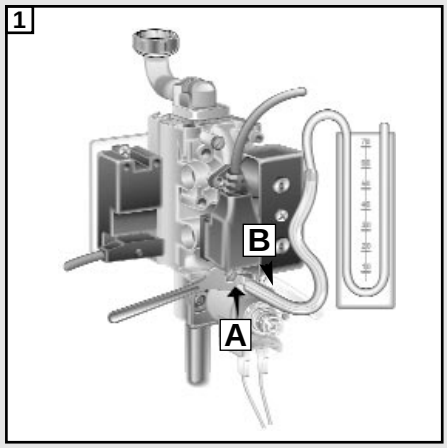


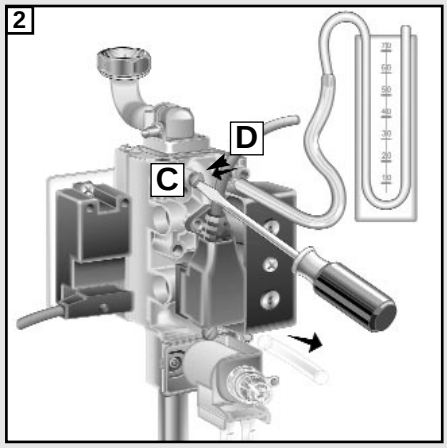


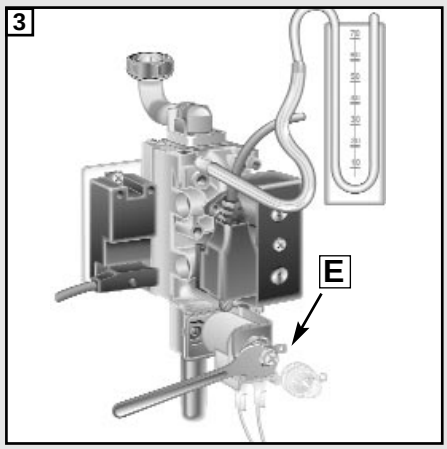


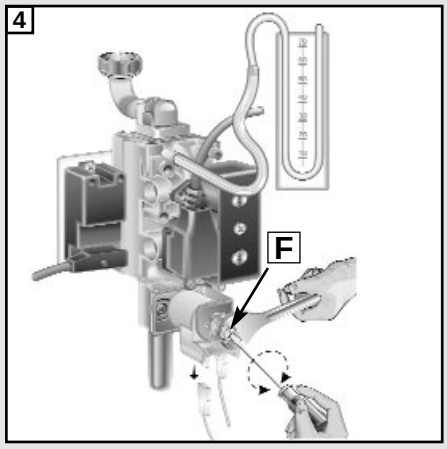


SIT TANDEM









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 < ⏽ > 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 modureg to set the gas pressure (displayed on the pressure gauge) corresponding to the maximum power (see table "A" page 11).
5. To set the minimum power, disconnect a supply terminal from the modureg 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 11).
6. When you have completed the above operations, turn off the hot water tap, re-connect the supply terminal to the modureg on the gas valve and replace the cap on the screw of the modureg.

Setting the maximum heating circuit power

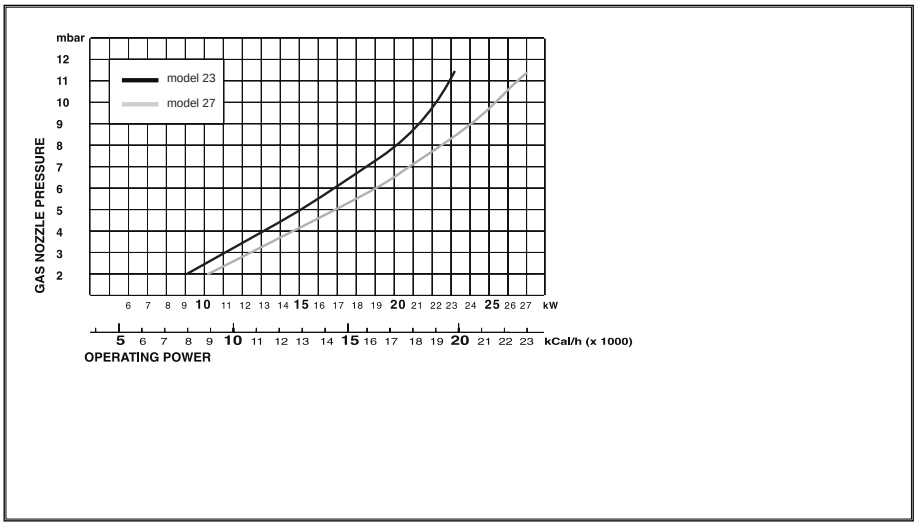
7. To set the maximum heating circuit power, place the On/Off button to position < ⏽ > and the "summer/winter" switch to winter position.
   Turn the knob of the heating thermostat clockwise to maximum;
8. Remove the left hand inspection panel of the P.C.B. and fit a small cross-head screwdriver in to 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 11.
9. Turn off the boiler by placing the main switch to the "Off" position.

Setting pressure for soft ignition.

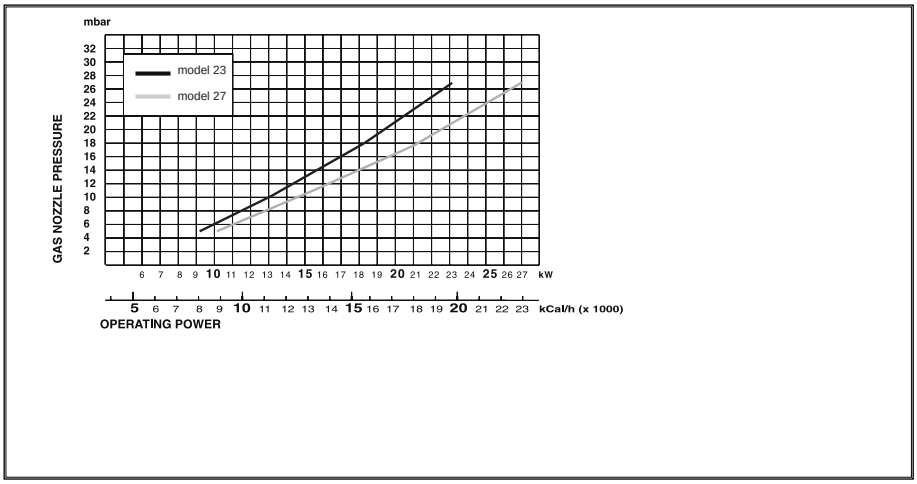
Disconnect the detection electrode connection from the P.C.B. (see fig. 1.13).
Start the boiler and during the ignition sequence adjust the centre potentiometer until the gas pressure reads the required gas pressure as per the table below.
Once the gas pressure is set turn off the boiler and reconnect 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 slow ignition	5 mbar - 1.95 in w.g.	18 mbar - 7.0 in w.g.	19 mbar - 7.4 in w.g.

Regulating the heating power for natural gas (G20)



Regulating the heating power for butane gas (G30)



Regulating the heating power for propane gas (G31)

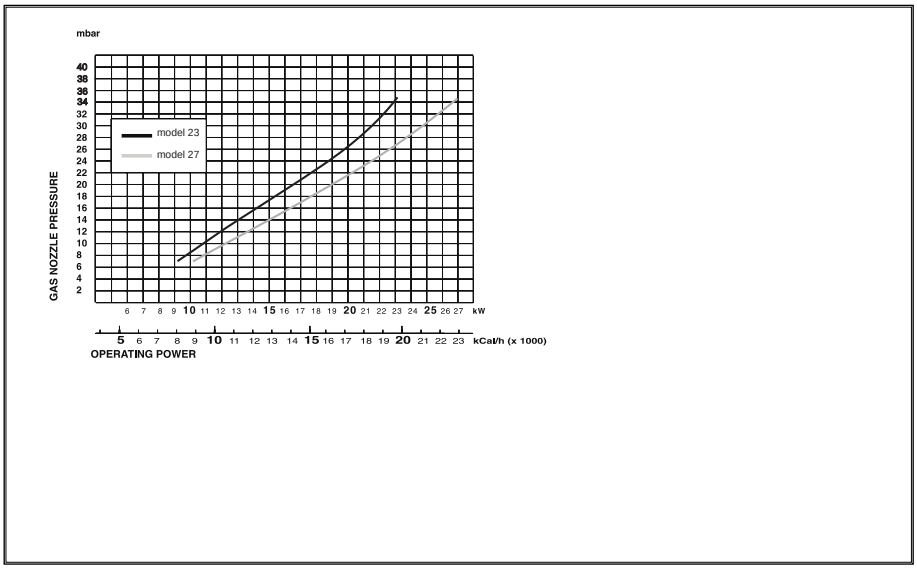
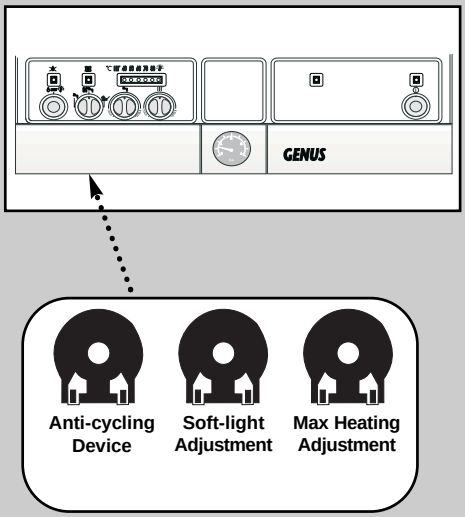


TABLE "A"

GAS REQUIREMENTS		NATURAL GAS (G20)		BUTANE GAS (G30)		PROPANE GAS (G31)	
Gas rate	max	3.0 m^3/h	106.0 ft^3/h	0.88 m^3/h	31.1 ft^3/h	1.15 m^3/h	40.6 ft^3/h
Gas rate	min	1.2 m^3/h	42.3 ft^3/h	0.35 m^3/h	12.3 ft^3/h	0.46 m^3/h	16.2 ft^3/h
Inlet pressure		20 mbar	7.8 in w.g.	28 mbar	10.9 in w.g.	37 mbar	14.4 in w.g.
Burner pressure	max	12.3 mbar	4.8 in w.g.	28 mbar	10.9 in w.g.	37 mbar	14.4 in w.g.
Burner pressure	min	2.0 mbar	0.8 in w.g.	5.1 mbar	2.0 in w.g.	7.0 mbar	2.7 in w.g.
Burner injectors **GENUS 23 MFFI**		13 x 1.25		13 x 0.72		13 x 0.72	
GENUS 27 MFFI - 27 RFFI SYSTEM		15 x 1.25		15 x 0.72		15 x 0.72	
GENUS 30 MFFI		15 x 1.30		15 x 0.77		15 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.

Setting the anti-cycling device

This appliance is equipped with a potentiometer which delays the ignition of the heating control and is situated on the P.C.B. (see the electrical diagrams). By adjusting the potentiometer, it is possible to change the time interval between the burner shutting down and its next ignition.

It is preset at 1 minute and can be adjusted from 0 to 2 minutes.

Use this control in particular situations where continuous shutting down and ignition of the main burner occurs.

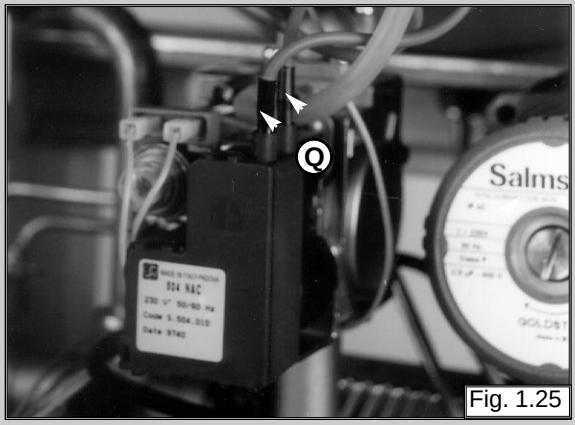


Fig. 1.25

Removing the spark generator (SIT Sigma gas valve)

1. Disconnect ignition leads "Q" by pulling upwards *(see fig. 1.25)*;

2. Remove the screws "R" *(see fig. 1.26)* with a Pozidrive No. 2 star tip screwdriver;

3. Remove the spark generator.

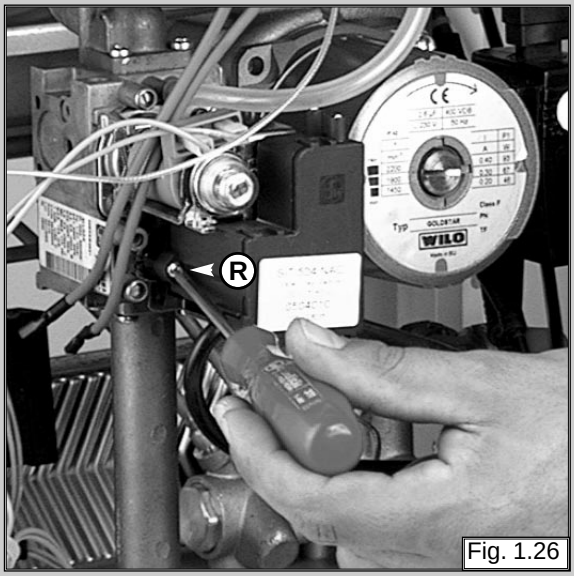


Fig. 1.26

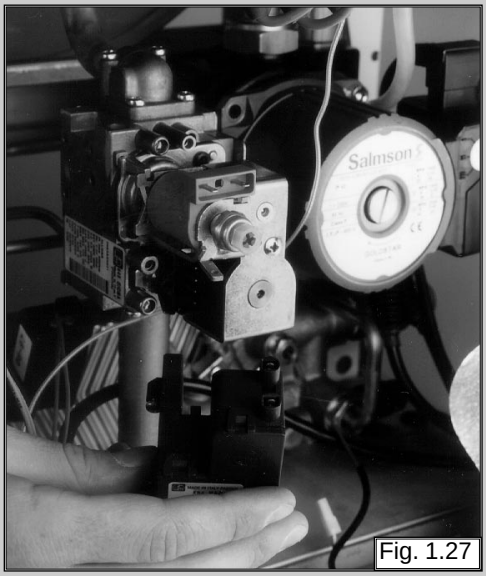


Fig. 1.27

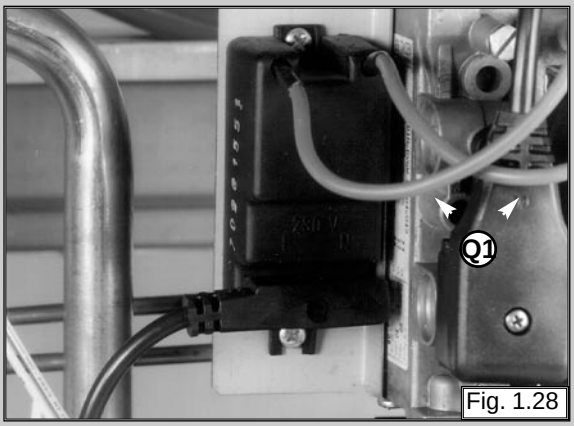


Fig. 1.28

Removing the spark generator (SIT Tandem gas valve)

1. Disconnect ignition leads “Q1” by pulling upwards *(see fig. 1.28)*;
2. Remove the screws “R1” *(see fig. 1.29)* with a Pozidrive No. 2 star tip screwdriver;
3. Remove the spark generator.

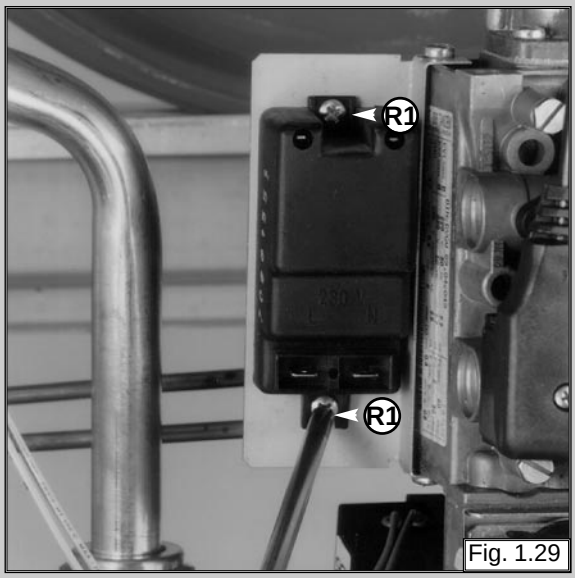


Fig. 1.29

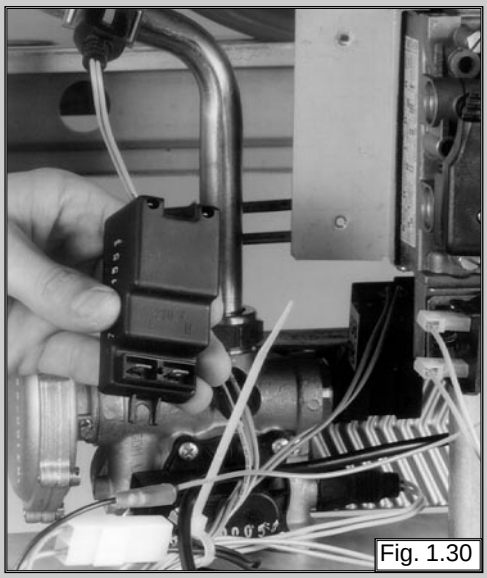


Fig. 1.30

Removing the gas valve

1. Disconnect all the cables from the solenoid and modureg;

2. Remove the spark generator;

3. Release the top nut “S” using a 30 mm open ended spanner *(see fig. 1.31)*;

4. Remove the screws “T” from the bottom of the gas valve pipe *(see fig. 1.32)*.

Attention!! The gas valve is connected with the two pipes (as shown) with an O-ring connection.

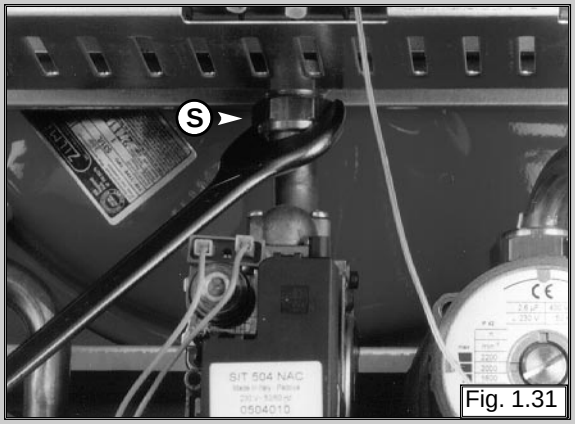


Fig. 1.31

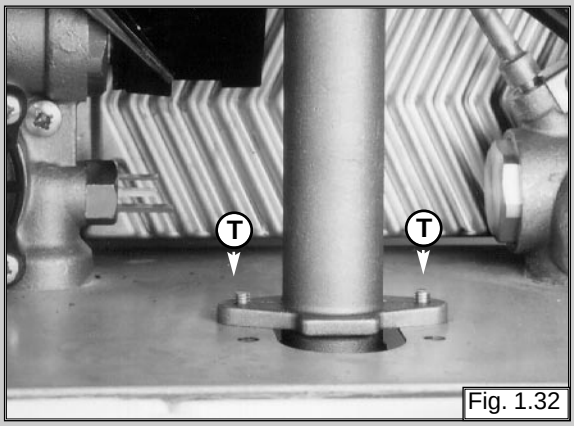


Fig. 1.32

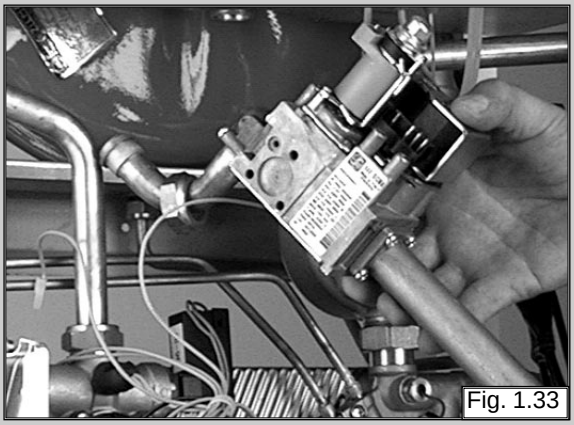


Fig. 1.33


Fig. 1.34

1.5 *Access to Hydraulic Circuits*

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

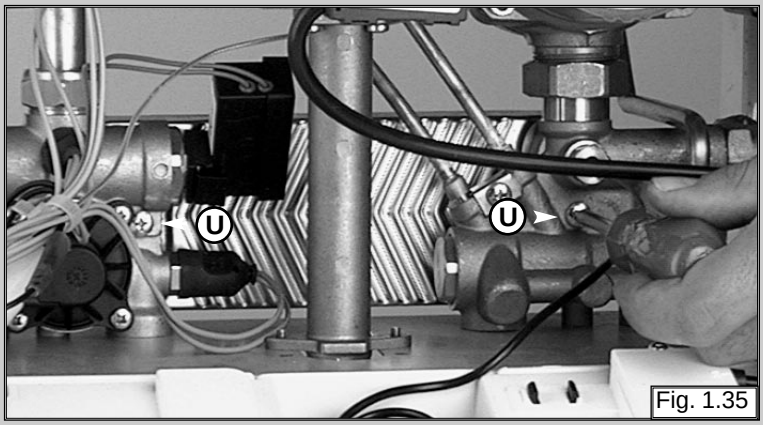


Fig. 1.35

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

1. Remove the screw “U” *(see fig. 1.35)*;

2. Push the exchanger towards the rear of the boiler, lift upwards and remove out of the front of the boiler;

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 “V” *(see fig. 1.36);*
2. Remove the valve.

Fig. 1.36

Removing the automatic air vent
1. Unscrew valve “W” *(see fig. 1.37)*.

Fig. 1.37

Removing the main circuit flow switch
1. Remove the cable of the main circuit flow switch “Y”;
2. Remove the screws “Y1” *(see fig. 1.38)*;
3. Remove the main circuit flow switch.

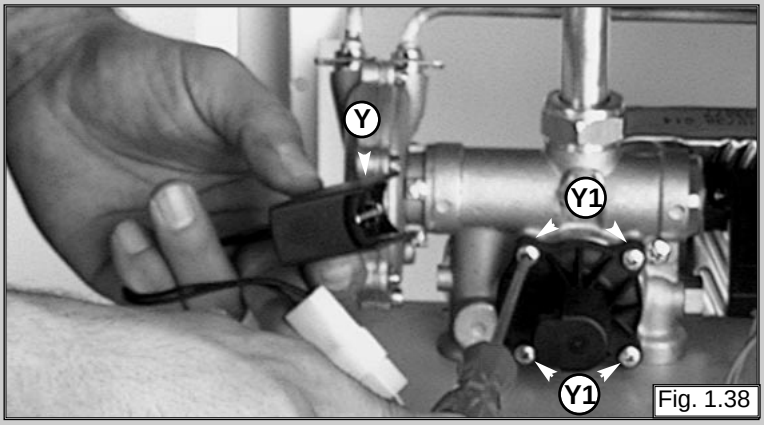


Fig. 1.38

Removing the pump

1. Unscrew “Z” and remove the electrical connection *(see fig. 1.39)*;

2. Release the nuts “A1” and remove the pump *(see fig. 1.40)*.

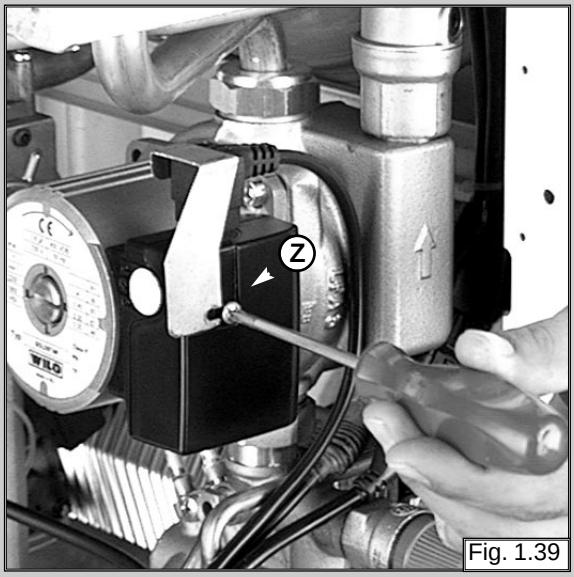


Fig. 1.39

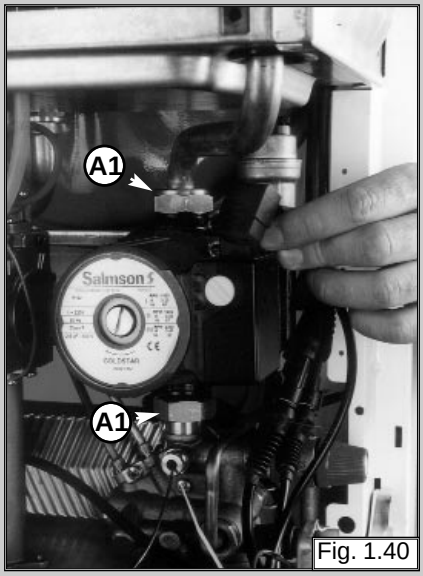


Fig. 1.40

Removing the pressure gauge

1. Remove the pressure gauge cover by pulling *(see fig. 1.41)*;

2. Release coupling “A2” using a 14 mm open ended spanner *(see fig. 1.42)*;

3. Push the pressure gauge through the control panel from the rear *(see fig. 1.43)*.

Fig. 1.41

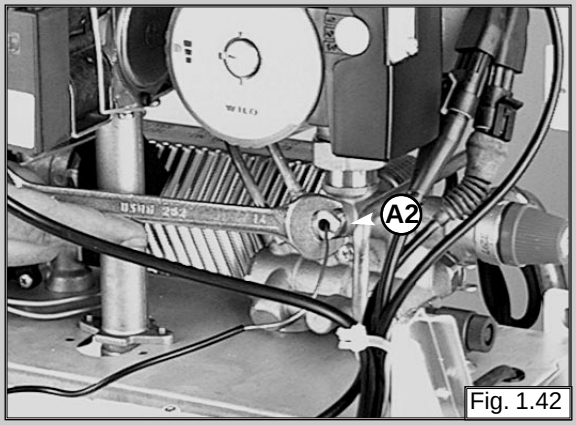


Fig. 1.42

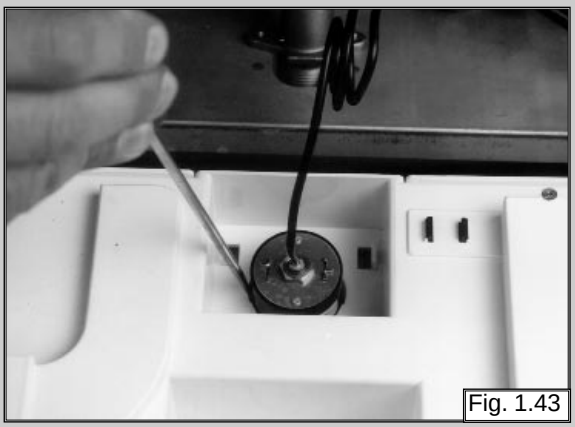


Fig. 1.43

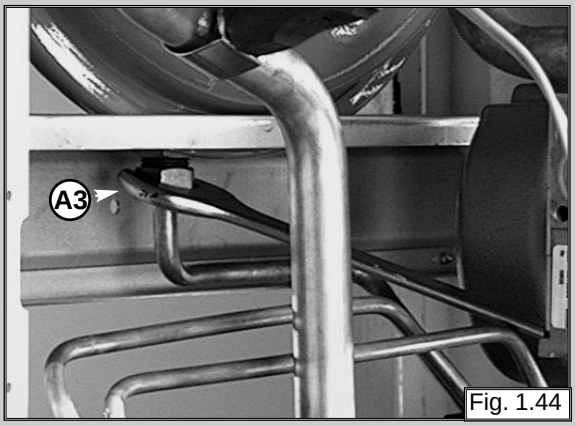


Fig. 1.44

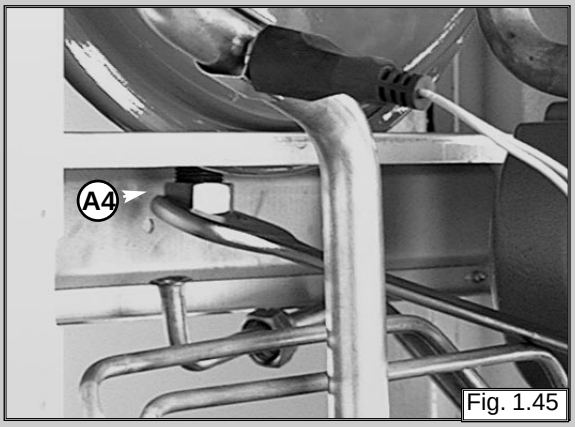


Fig. 1.45

Removing the expansion vessel

1. Remove nut “A3” away from the expansion vessel *(see fig. 1.44)*;

2. Remove nut “A4” *(see fig. 1.45)*;

3. Remove expansion vessel *(see fig. 1.46)*.

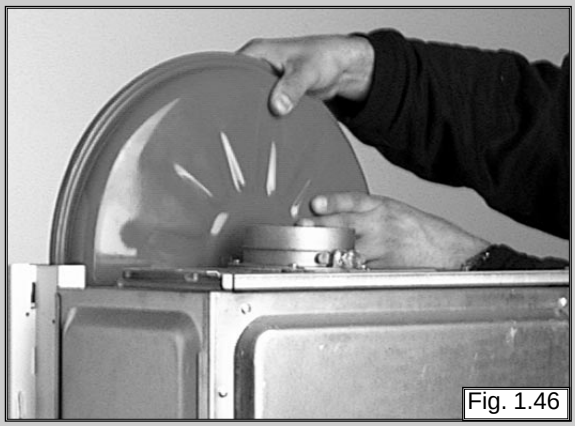


Fig. 1.46

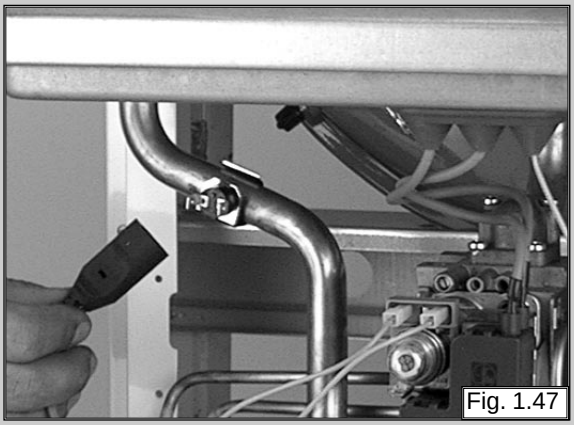


Fig. 1.47

Removing the overheat thermostat

1. Remove the electrical connector by the overheat thermostat *(see fig. 1.47)*;

2. Pull off the thermostat connections. Then remove the thermostat from the pipe by releasing it’s securing clip.

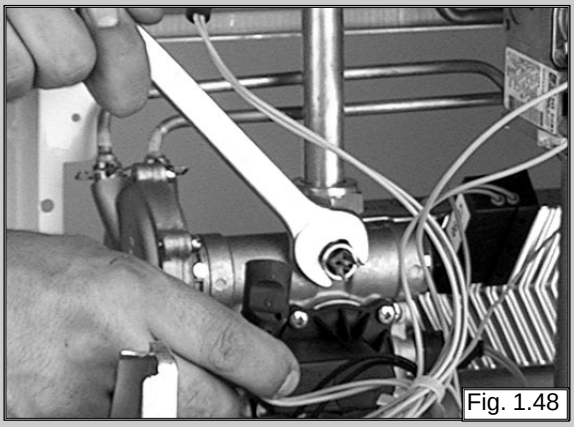


Fig. 1.48

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

1. Remove the electrical connector by pulling off the thermostat connections and unscrewing the sensor probe with a 14 mm open ended spanner *(see fig. 1.48)*.

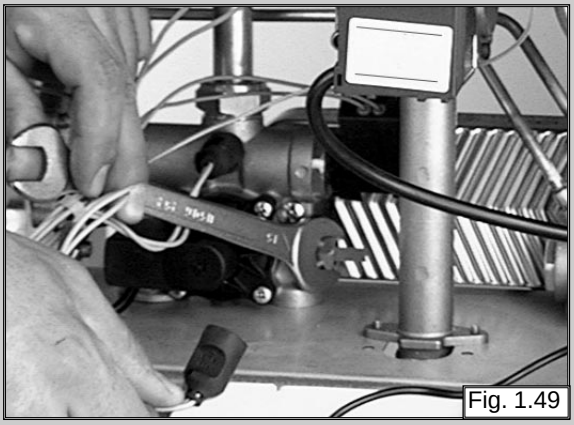


Fig. 1.49

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

1. Remove the electrical connector by pulling off the thermostat connection and unscrew the sensor probe with a 14 mm open ended spanner *(see fig. 1.49)*.

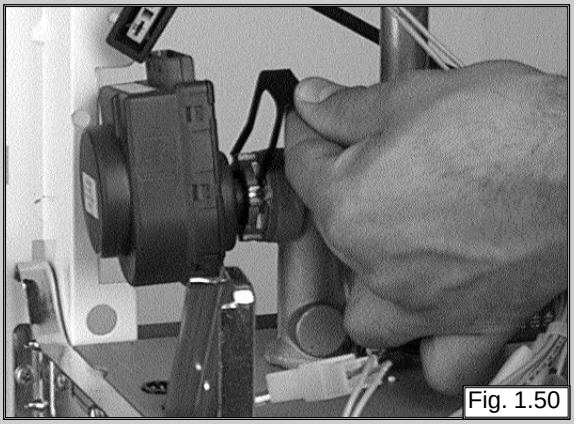


Fig. 1.50

Removing the diverter valve (Genus 27 RFFI only)

1. Remove the circlip and pull the diverter valve to the left.

1.6 *Access to the Control System*

Checking fuse

1. Remove the right hand inspection cover *(see fig. 1.51)*;
2. Remove fuse *(see fig. 1.52)*.

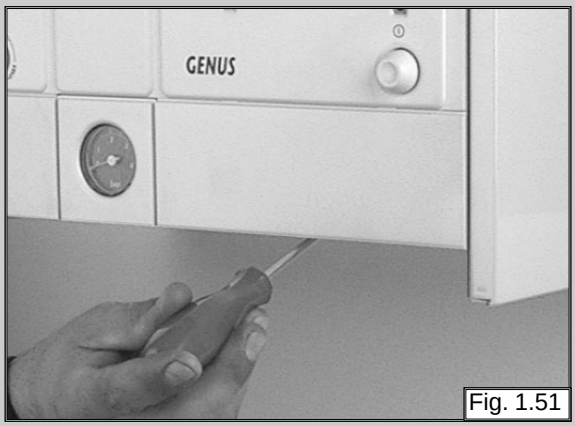


Fig. 1.51

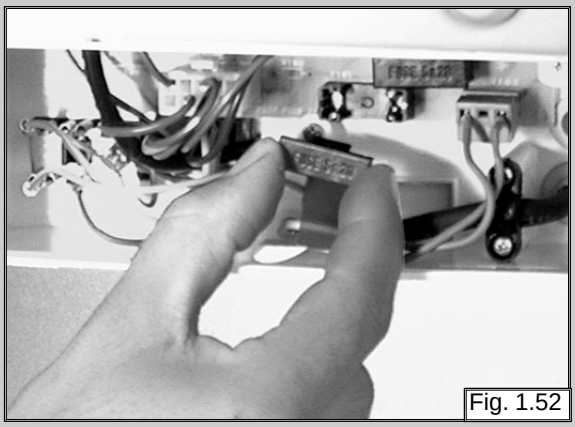


Fig. 1.52

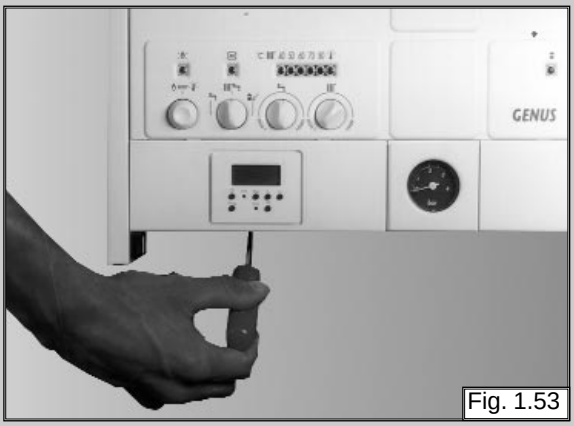


Fig. 1.53

Removing the time clock

1. Remove left hand inspection cover *(see fig. 1.53)*;
2. Remove electrical connection “A5” of the clock *(see fig. 1.54)*;
3. Unscrew “A6” and remove *(see fig. 1.55)*.

N.B.
It is possible to by-pass the time clock in the event of failure by simply unplugging the electrical connection from the P.C.B. *(see fig. 1.54*). This will revert control of the central heating to the room stat connection on the reverse of the control panel.

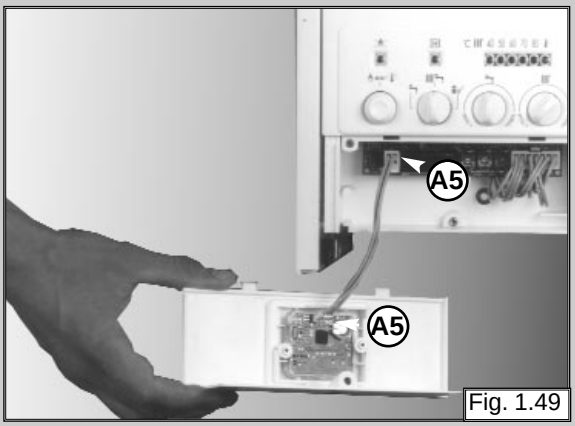


Fig. 1.49

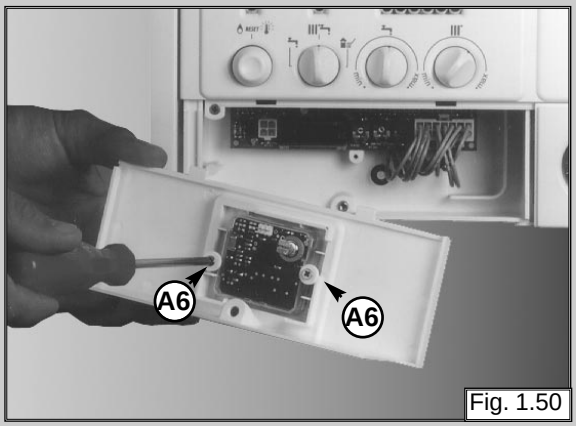


Fig. 1.50

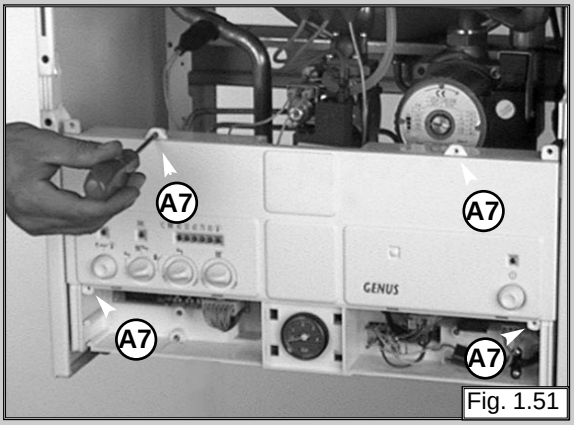


Fig. 1.51

Removing the P.C.B.s

1. Isolate electricity;
2. Remove the front cover of the boiler;
3. Remove both left and right inspection panels;
4. Remove the pressure gauge cover;
5. Remove the mounting screws “A7’ *(see fig. 1.51)*;
6. Disconnect the connection cable”A8” *(see fig. 1.52)*;
7. To remove the 24V P.C.B.: remove the electrical plug connectors and screws “A9” *(see fig. 1.53)*;
8. To remove the 240V P.C.B.: remove the electrical plug connectors and screws “A10” *(see fig. 1.54)*;
9. Replace either P.C.B. in reverse order.

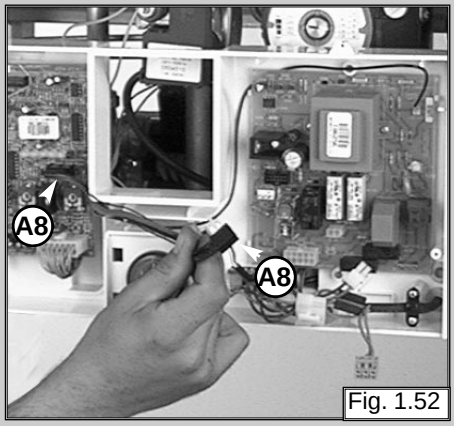


Fig. 1.52

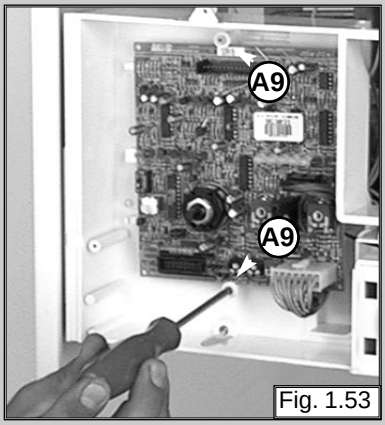


Fig. 1.53

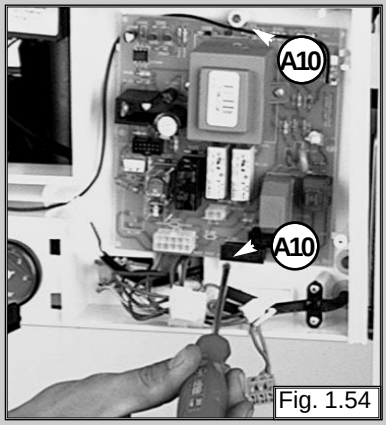
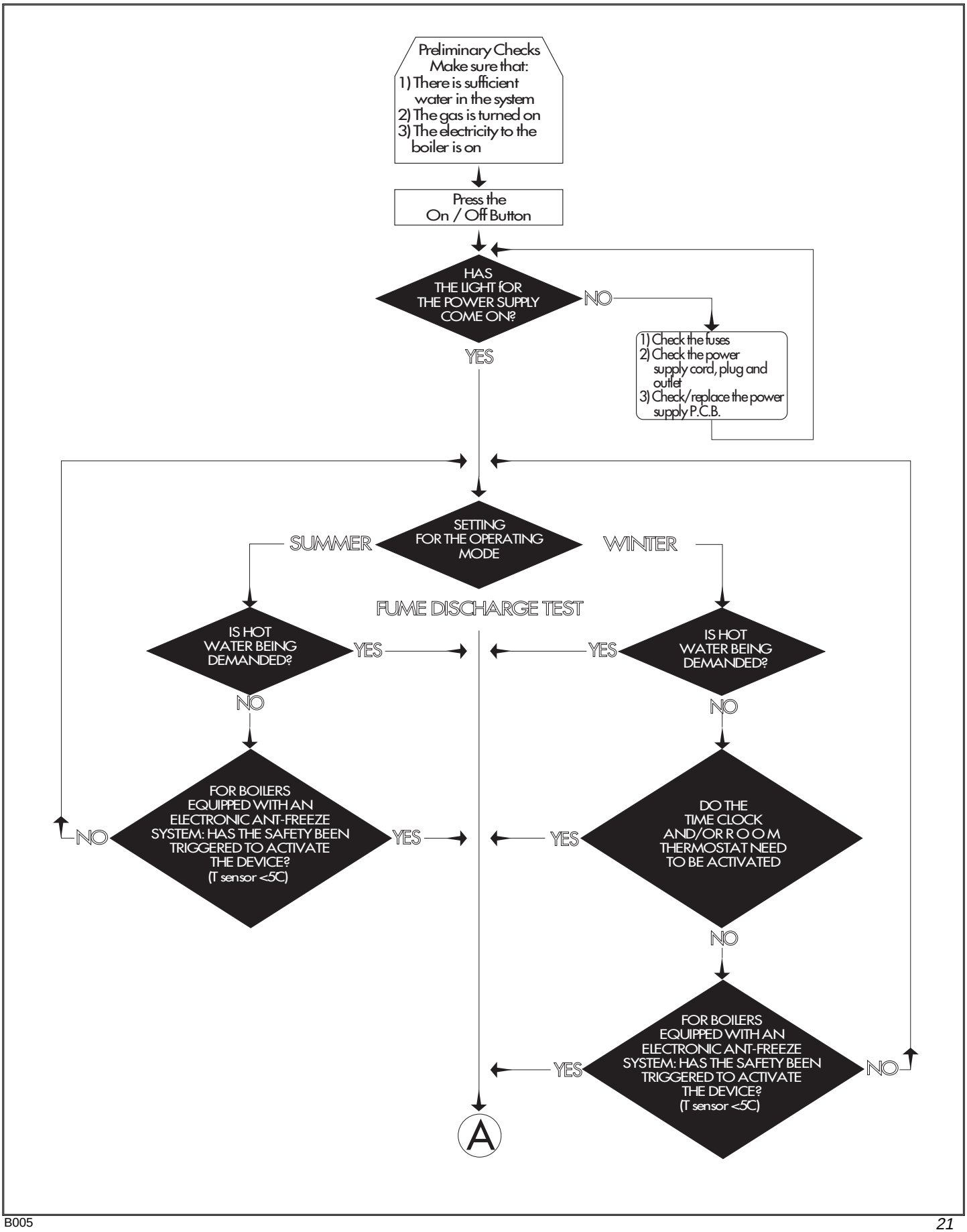


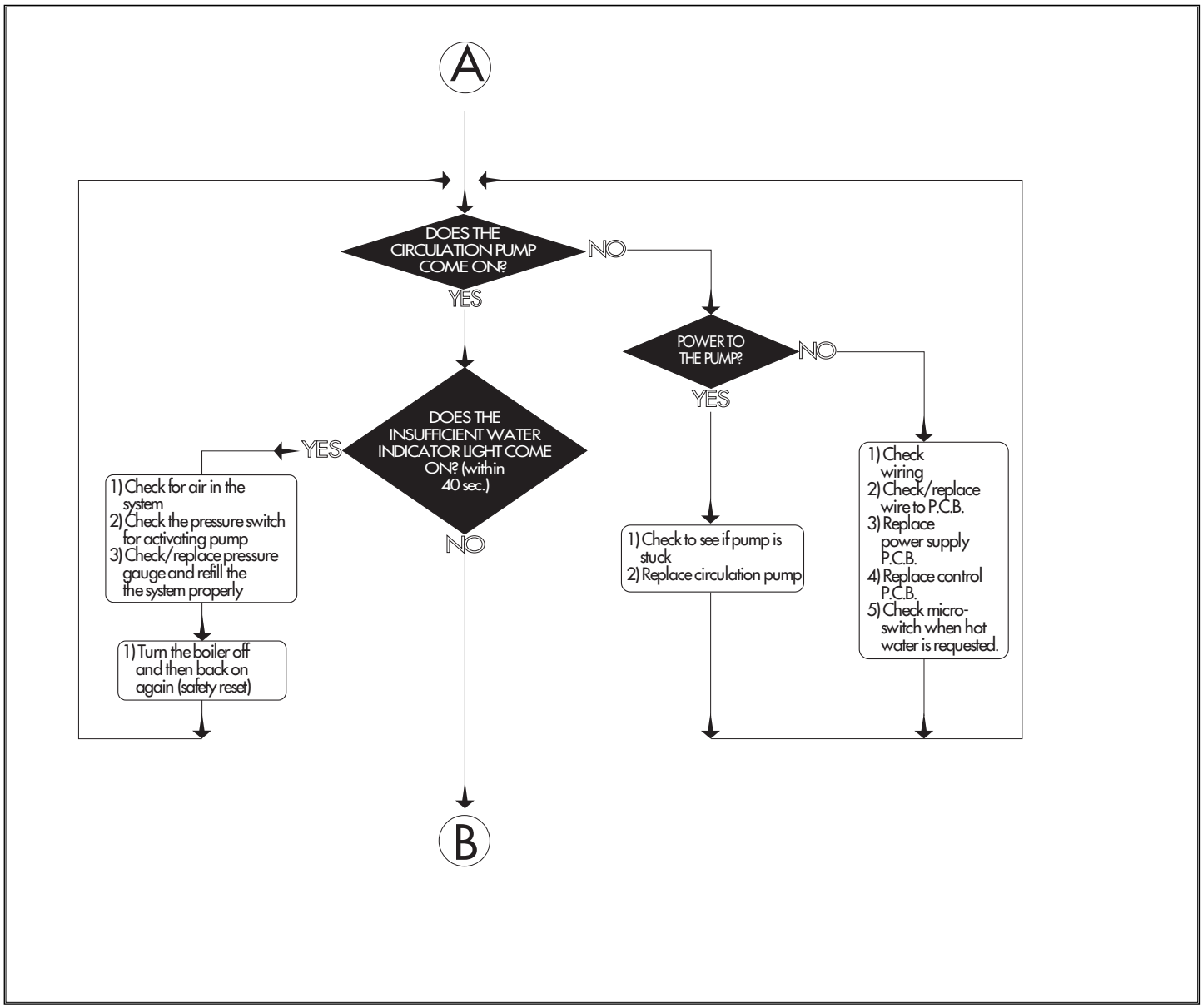
Fig. 1.54

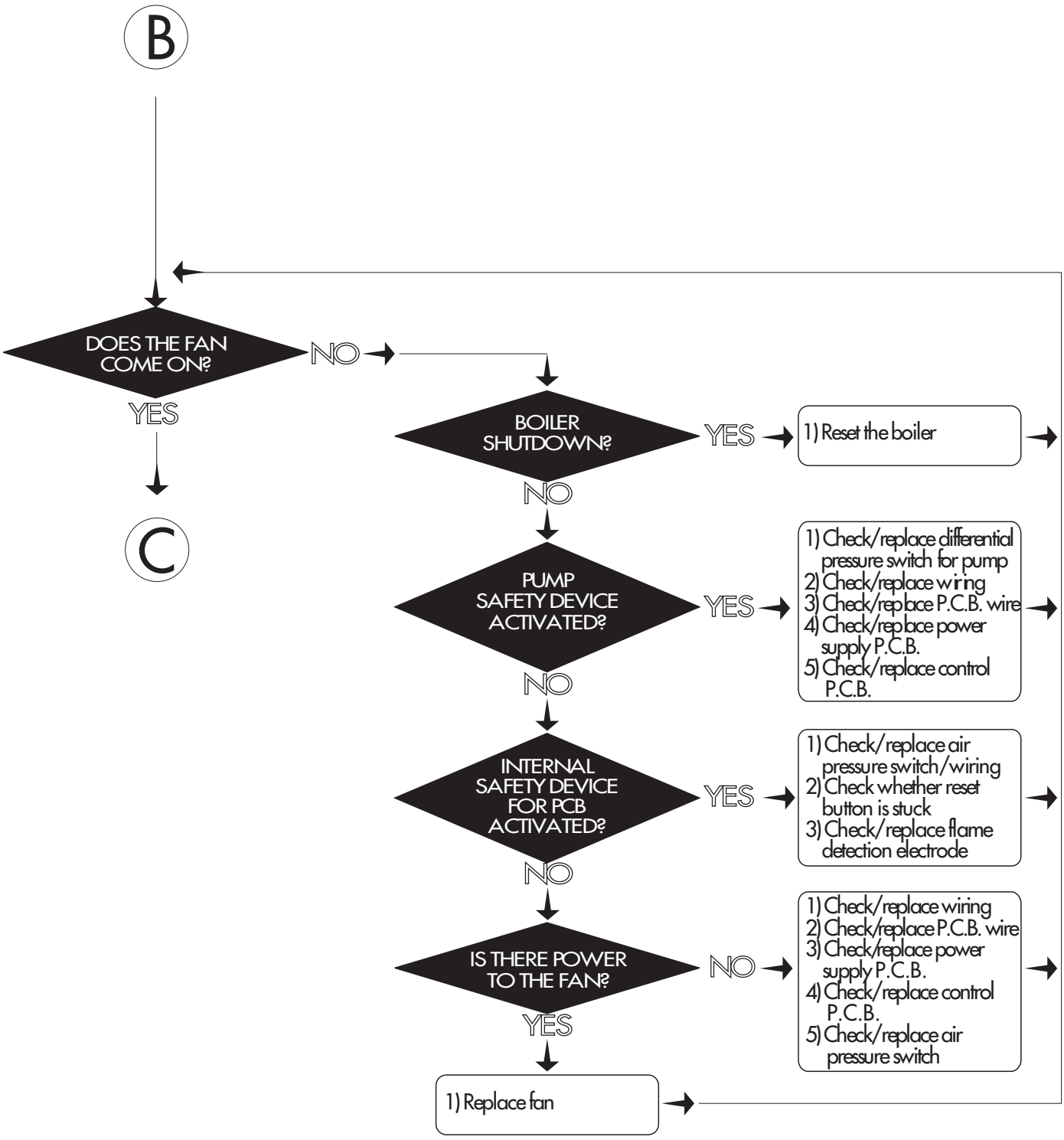
2. FAULT FINDING

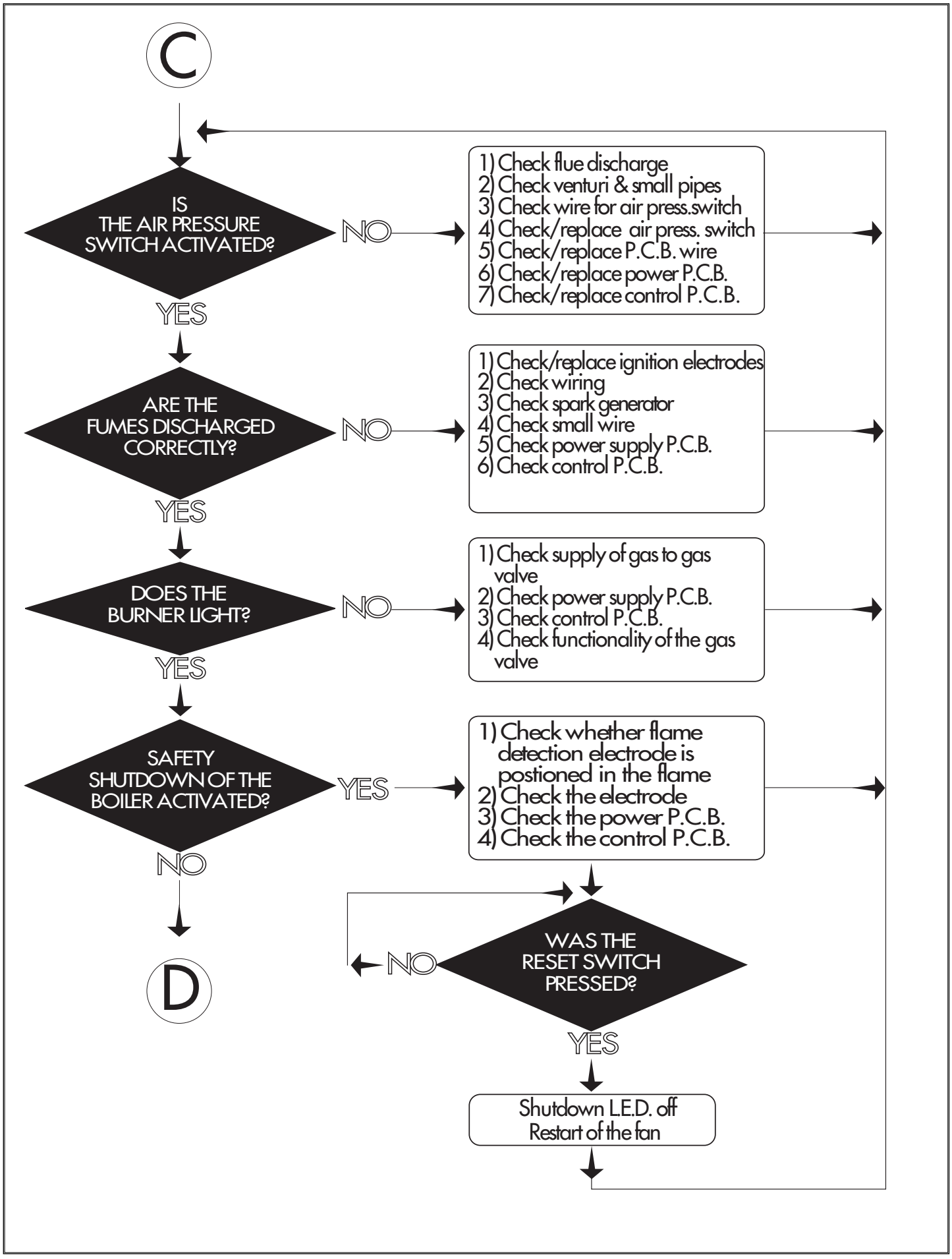
2.1 *Fault Finding Guide (Flow-chart)*

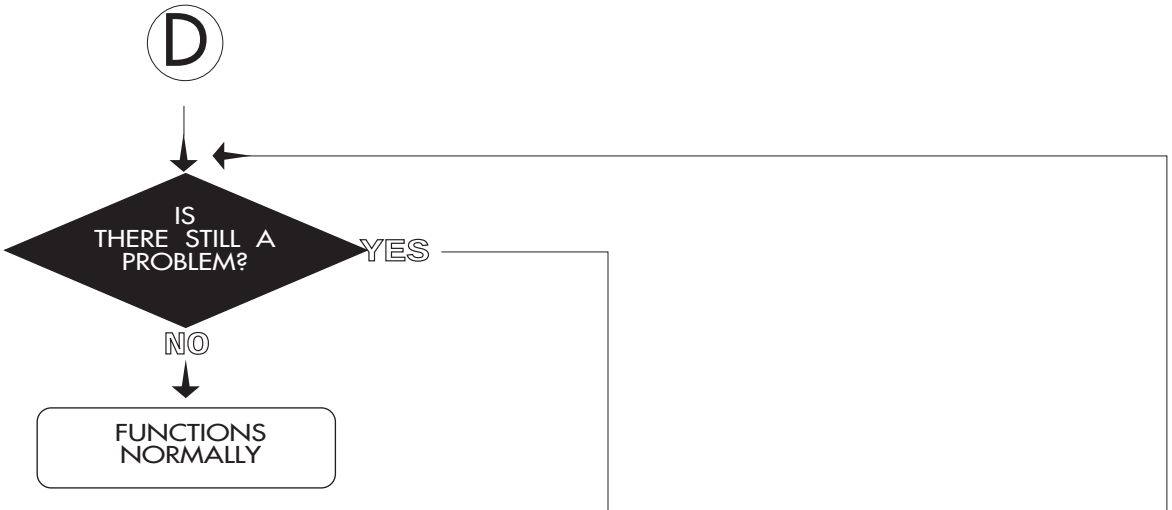
It is possible to detect and correct any defect by using the standard fault finding diagrams described in this chapter.




A
DOES THE CIRCULATION PUMP COME ON?
NO
YES
POWER TO THE PUMP?
NO
YES
DOES THE INSUFFICIENT WATER INDICATOR LIGHT COME ON? (within 40 sec.)
YES
NO
1) Check for air in the system
2) Check the pressure switch for activating pump
3) Check/replace pressure gauge and refill the the system properly
1) Turn the boiler off and then back on again (safety reset)
1) Check to see if pump is stuck
2) Replace circulation pump
1) Check wiring
2) Check/replace wire to P.C.B.
3) Replace power supply P.C.B.
4) Replace control P.C.B.
5) Check micro-switch when hot water is requested.
B


B
DOES THE FAN COME ON?
NO
YES
C
BOILER SHUTDOWN?
YES
1) Reset the boiler
NO
PUMP SAFETY DEVICE ACTIVATED?
YES
1) Check/replace differential pressure switch for pump
2) Check/replace wiring
3) Check/replace P.C.B. wire
4) Check/replace power supply P.C.B.
5) Check/replace control P.C.B.
NO
INTERNAL SAFETY DEVICE FOR PCB ACTIVATED?
YES
1) Check/replace air pressure switch/wiring
2) Check whether reset button is stuck
3) Check/replace flame detection electrode
NO
IS THERE POWER TO THE FAN?
NO
1) Check/replace wiring
2) Check/replace P.C.B. wire
3) Check/replace power supply P.C.B.
4) Check/replace control P.C.B.
5) Check/replace air pressure switch
YES
1) Replace fan


C
IS THE AIR PRESSURE SWITCH ACTIVATED?
NO
1) Check flue discharge
2) Check venturi & small pipes
3) Check wire for air press.switch
4) Check/replace air press. switch
5) Check/replace P.C.B. wire
6) Check/replace power P.C.B.
7) Check/replace control P.C.B.
YES
ARE THE FUMES DISCHARGED CORRECTLY?
NO
1) Check/replace ignition electrodes
2) Check wiring
3) Check spark generator
4) Check small wire
5) Check power supply P.C.B.
6) Check control P.C.B.
YES
DOES THE BURNER LIGHT?
NO
1) Check supply of gas to gas valve
2) Check power supply P.C.B.
3) Check control P.C.B.
4) Check functionality of the gas valve
YES
SAFETY SHUTDOWN OF THE BOILER ACTIVATED?
YES
1) Check whether flame detection electrode is postioned in the flame
2) Check the electrode
3) Check the power P.C.B.
4) Check the control P.C.B.
NO
D
WAS THE RESET SWITCH PRESSED?
NO
YES
Shutdown L.E.D. off
Restart of the fan

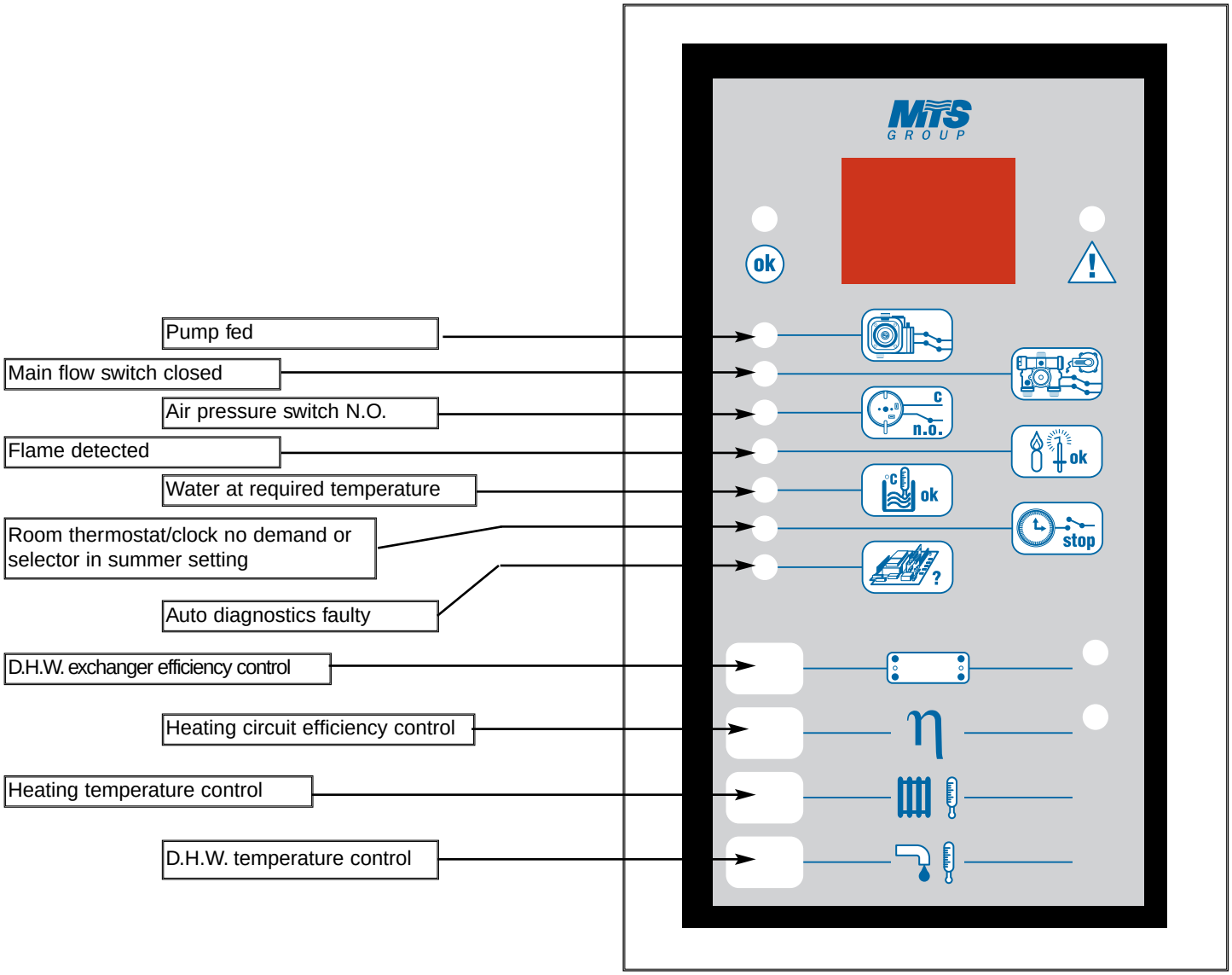


	LIST OF MALFUNCTIONS	POSSIBLE CAUSES
1	Delivery of hot water for domestic use: when the tap is turned on, the burner goes out.	- Air in the secondary exchanger - Hot water pressure switch is defective - 3-way valve is defective
2	Delivery of hot water for domestic use: the radiatores are heated in summer mode.	- 3-way valve is defective
3	Delivery of hot water for domestic use: water temperature is not satisfactory.	- Check sensors for domestic and heating water - Check gas settings and regulation - Check water flow rate - Check secondary exchanger
4	Delivery of hot water for domestic use: noisy operation.	- Primary exchanger is defective - Low water pressure in heating system - Check gas settings and regulation - Check ntc sensor for domestic hot water
5	Drop/increase in pressure in primary circuit.	- Check for leaks in heating circuit - Defective water supply inlet valve - Secondary exchanger is defective - Expansion vessel is empty
6	Repeated shutdowns.	- Detection electrodes are defective - Check gas settings and regulation - Check electrical circuit for flame detection
7	Safety thermostat is triggered repeatedly.	- Faulty (contacts)N.T.C. sensors-heating/hot water - Defective (poorly calibrated) safety thermostat - Presence of air in the primary water circuit
8	When the cold water tap is turned off, the boiler comes on.	- Drop in pressure in the water mains, resulting in water hammering
9	Temperature of radiators not satisfactory.	- Check N.T.C. sensor for heating - Check by-pass - Check gas settings and regulation

2.2 *Fault Finding Using the Total Check System*

	Signalling
	Boiler Off
1	Auto diagnostic state
2	Spark ignition state
3	Boiler functioning normally
4	Lockout
5	Boiler thermostat satisfied
6	Room thermostat/clock no demand or selector in summer setting

	Malfunction
A	Faulty ventilation system
b	Air pressure switch stuck in N.O. position
C	Faulty reset switch
d	Faulty main circuit flow switch
E	Faulty flame detection
F	Faulty overheat thermostat
G	Faulty exhaust fumes sensor
I	Faulty heating sensor (N.T.C.)
m	Faulty D.H.W. sensor (N.T.C.)



3. ELECTRIC DIAGRAMS

Legend:

AT = High Voltage P.C.B.
BT = Low Voltage P.C.B.
A = Remote Connector Kit
B = Flame Failure L.E.D.
C = Insufficient Water Pressure L.E.D.
D = Water Temperature Indicator L.E.D.s
E = Overheat Thermostat Warning L.E.D.
F = System Reset Button
G = Selector Knob for Operating Mode
H = Domestic Hot Water Temp. Adjustment
I = Central Heating Temp. Adjustment
J = Wire Connector for Room Thermostat
K = Connector for Total Check System
L = Selector for Local/Remote Control
M = Anti-cycling Device Adjustment for Heating
N = Soft-light Adjustment
O = Max Heating Temperature Adjustment
P = Time Clock Connection
Q = On/Off L.E.D.
R = On/Off Switch
S = Interface Wire for P.C.B.s
T = Relay Motorised Valve
U = Ignitor Relay
V = Gas Valve Relay
W = Fan Relay
X = Circulation Pump Relay
Y = Selector TCS2
Z = Link for Continuous Pump Run
Aa = Adaptor (British Gas use only)

A01 = Air Pressure Switch
A02 = Fan
A03 = Gas Valve
A04 = Ignitor
A05 = Motorised Valve
A06 = Circulation Pump
A07 = Flame Detector
A08 = Earth Terminal
A09 = Flame Detection Circuit
A10 = Flame Indicator L.E.D.
A11 = Transformer
A12 = Filter

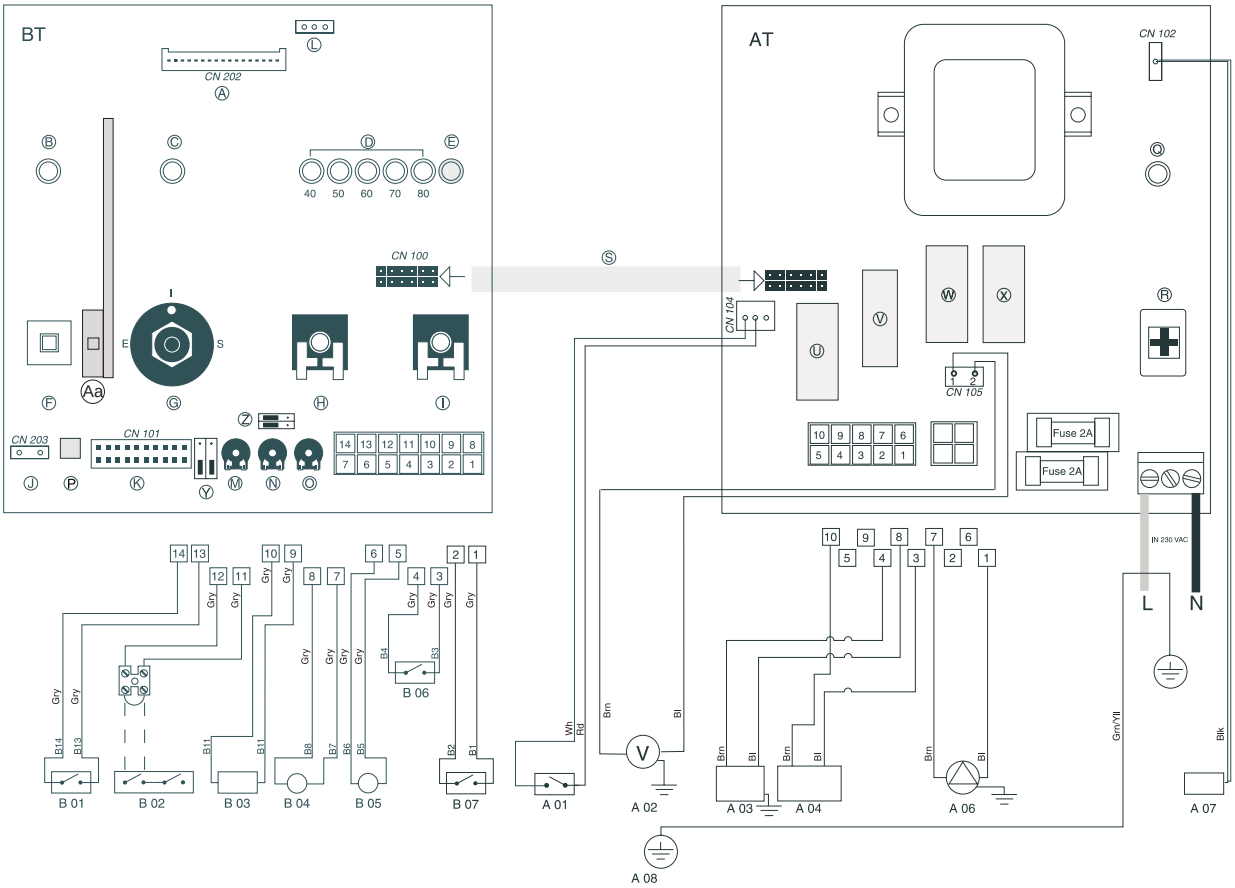
B01 = Over Heat Thermostat
B02 = External Thermostat
B03 = Gas Valve Modulator
B04 = D.H.W. Probe Sensor Cylinder (RFFI SYSTEM models only)

B05 = Heating Sensor
B06 = Pressure Switch for Heating Circuit
B07 = Microswitch for Diverter Valve (MFFI models only)

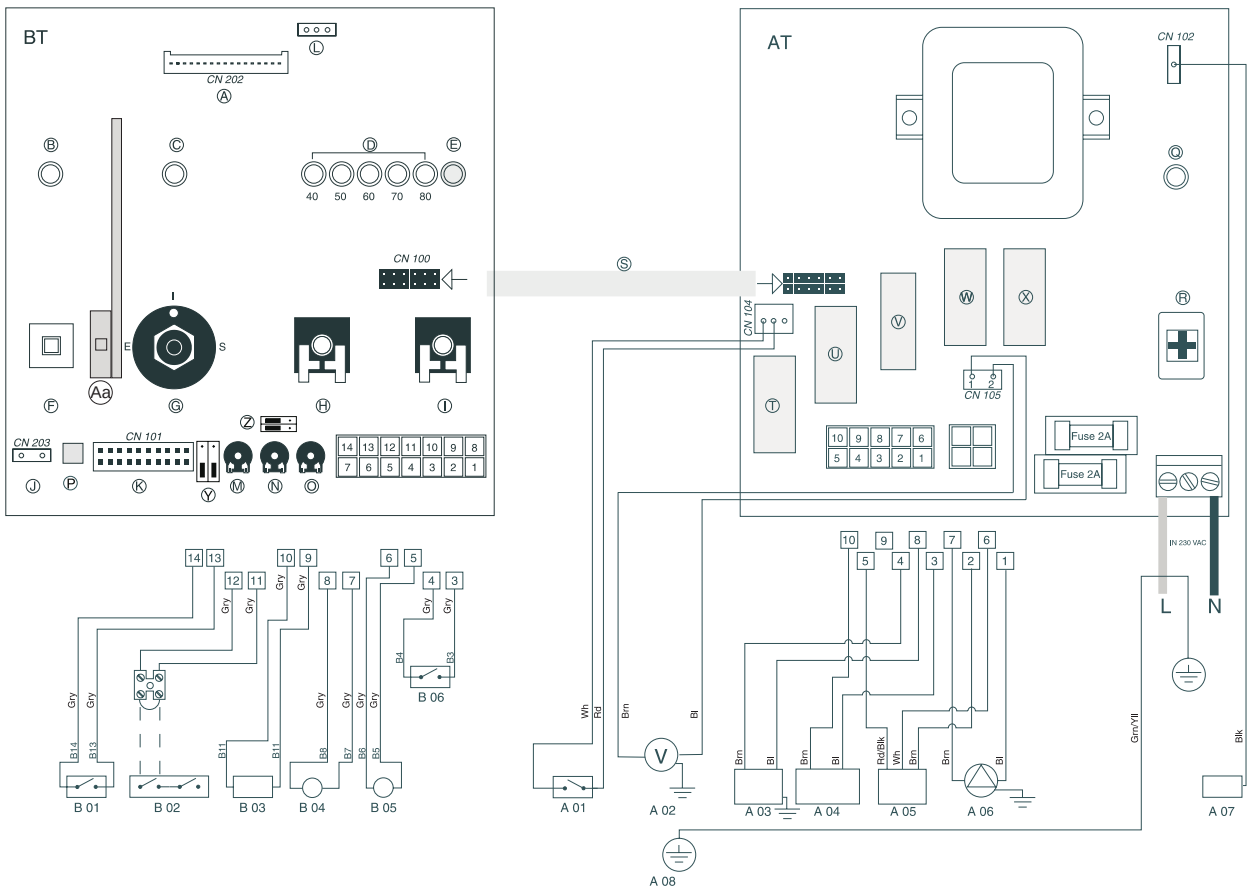
Colours

Gry = Grey
Rd = Red
Bl = Blue
Grn/Yll = Yellow/Green
Wh = White
Brn = Brown
Blk = Black
Wh/Rd = White/Red

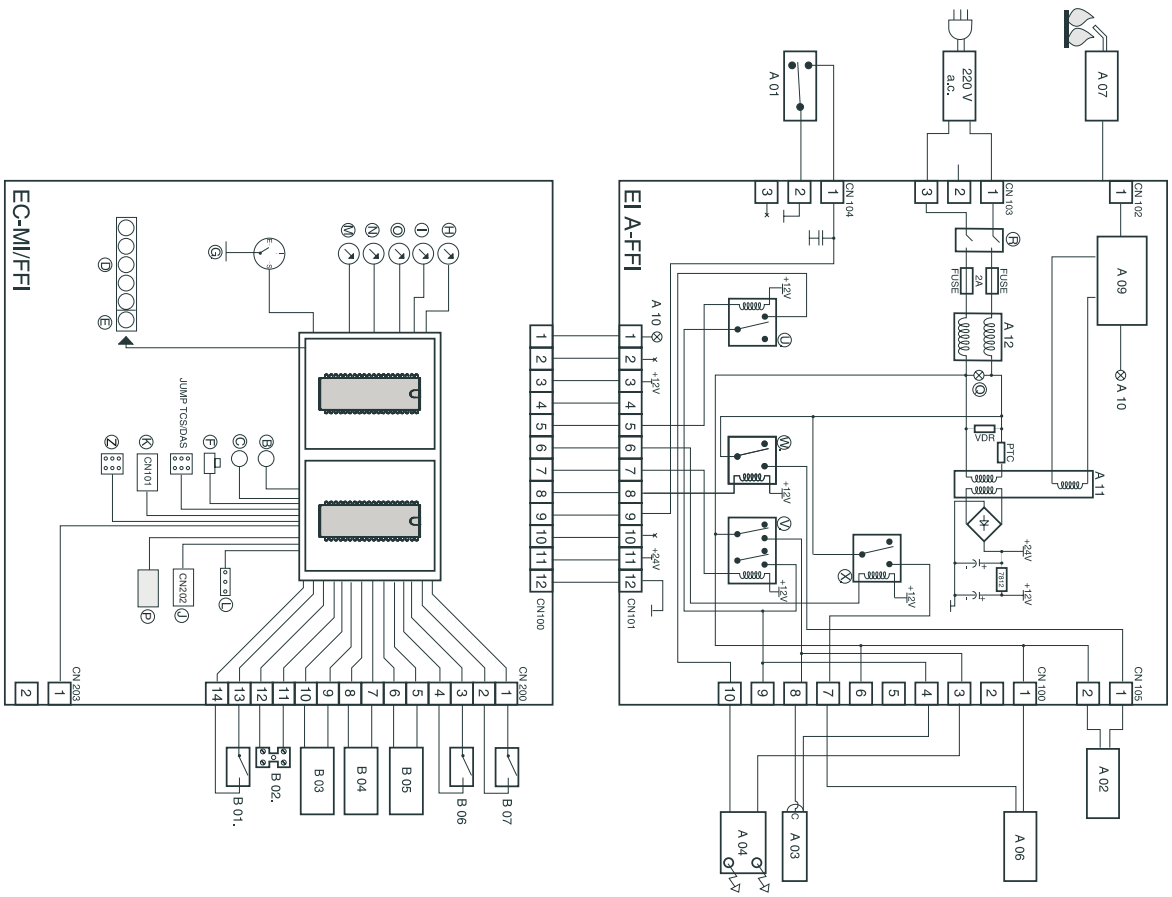
GENUS 23/27/30 MFFI



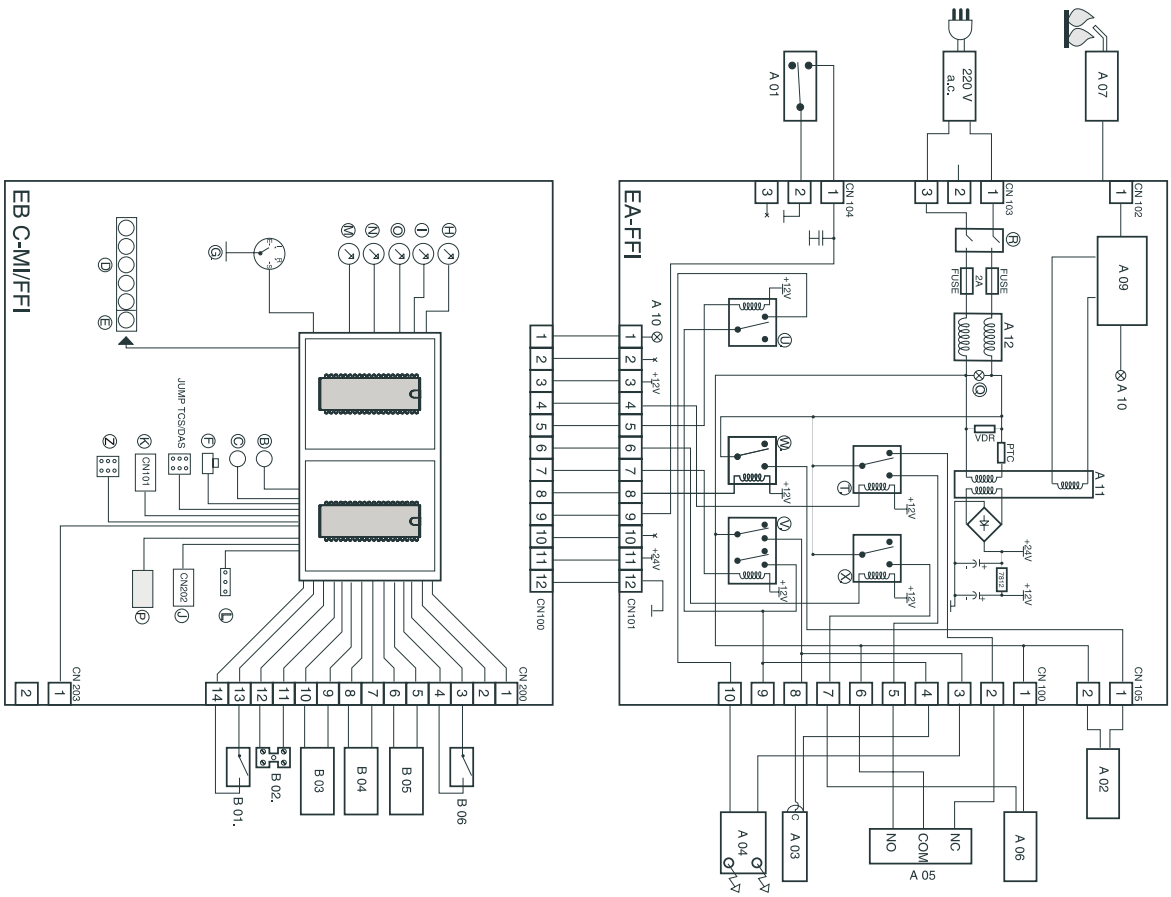
GENUS 27 RFFI SYSTEM



GENUS 23/27 MFFI

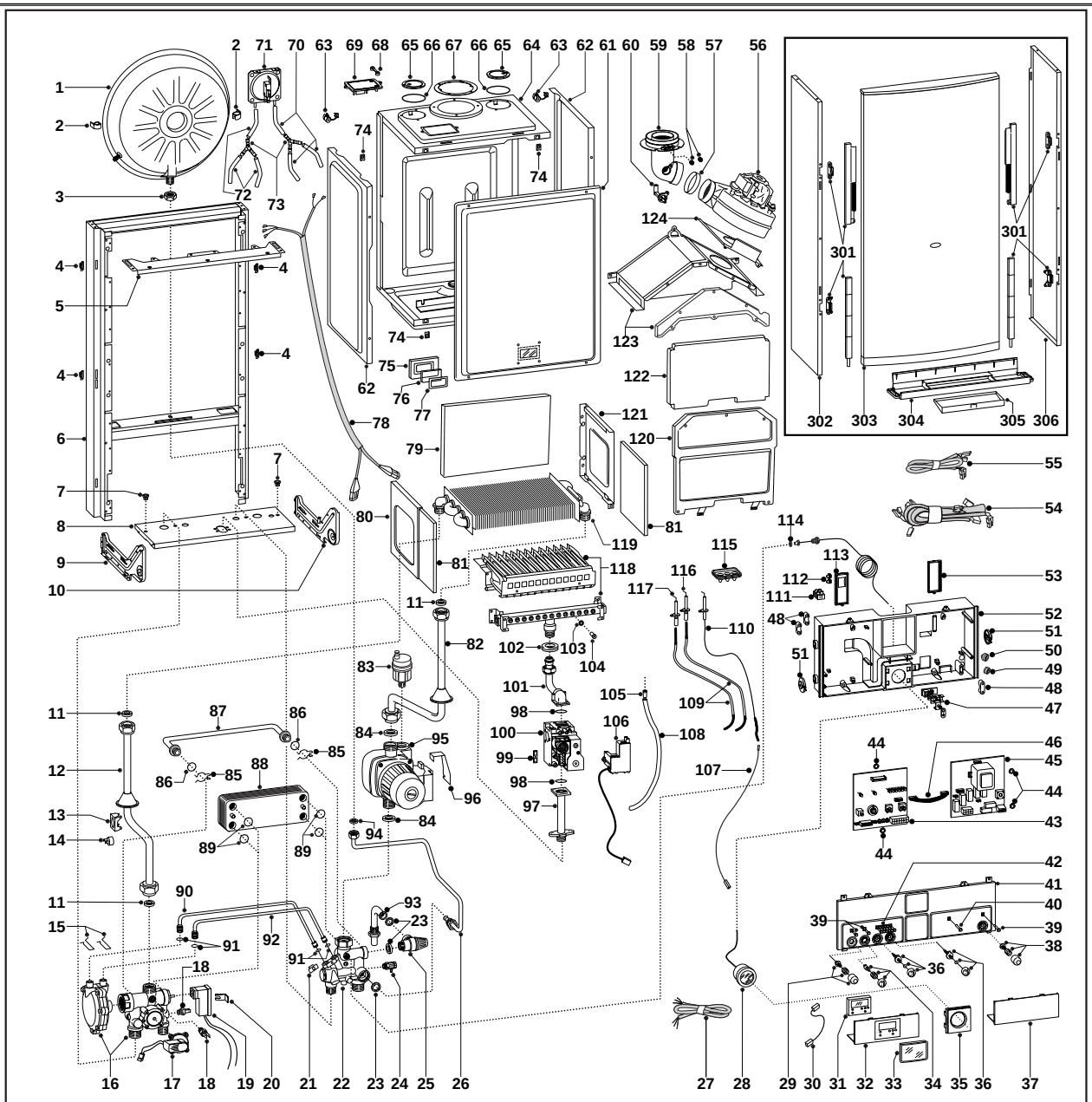


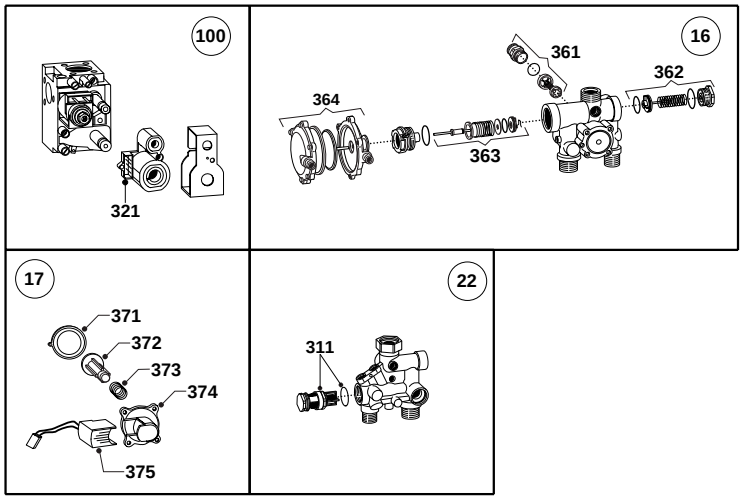
GENUS 27 RFFI SYSTEM



4. SHORT SPARE PARTS LIST

GENUS 23/27 MFFI (SIT Sigma Gas Valve)

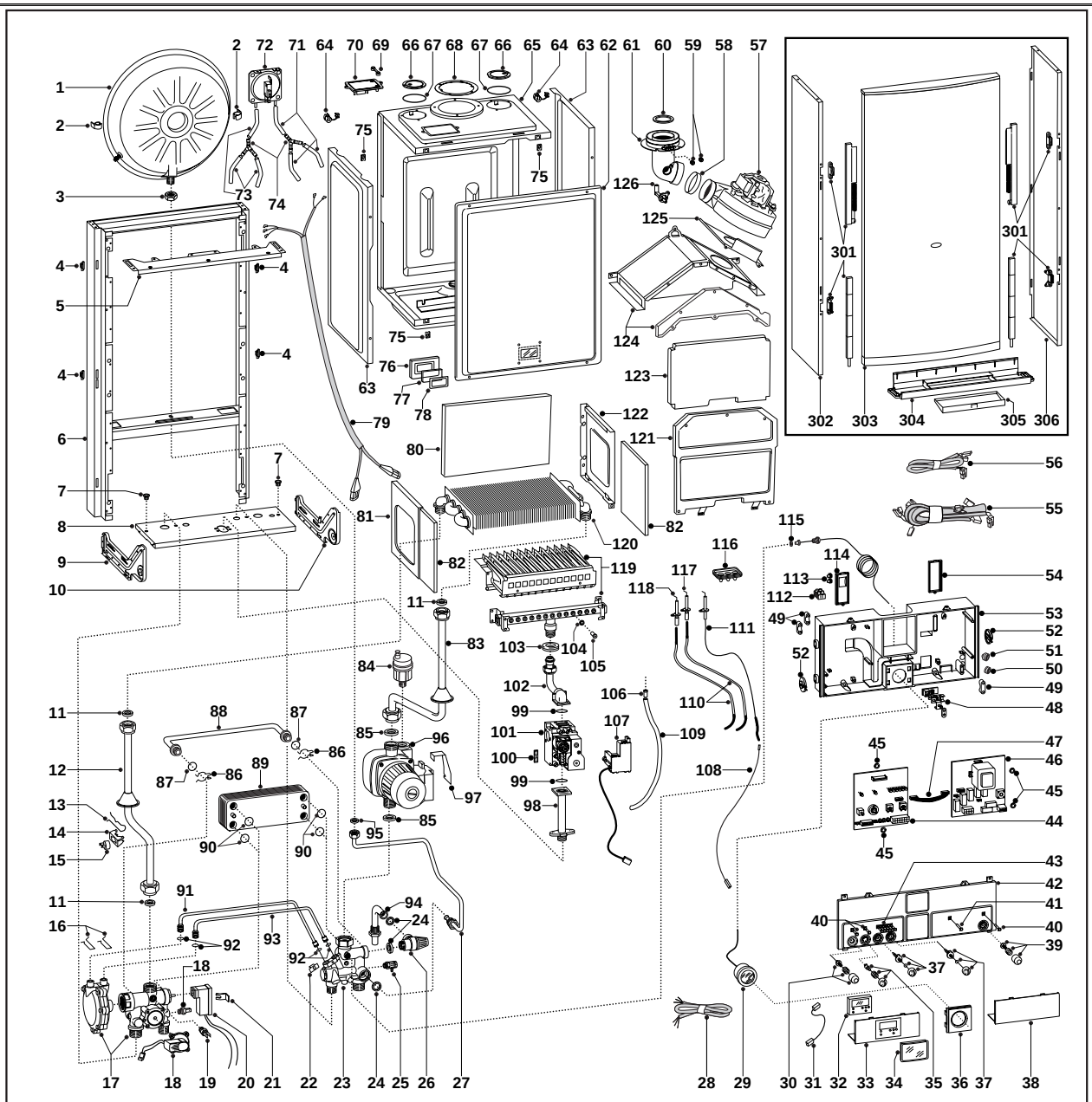


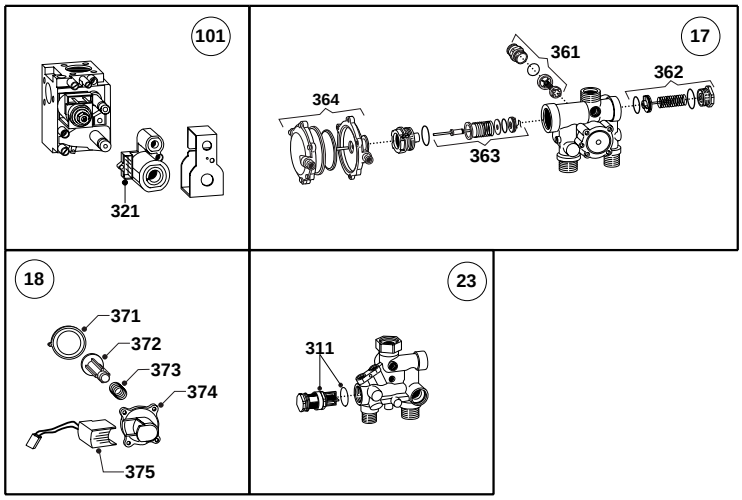


ARISTON
GENUS 23/27 MFFI

B005

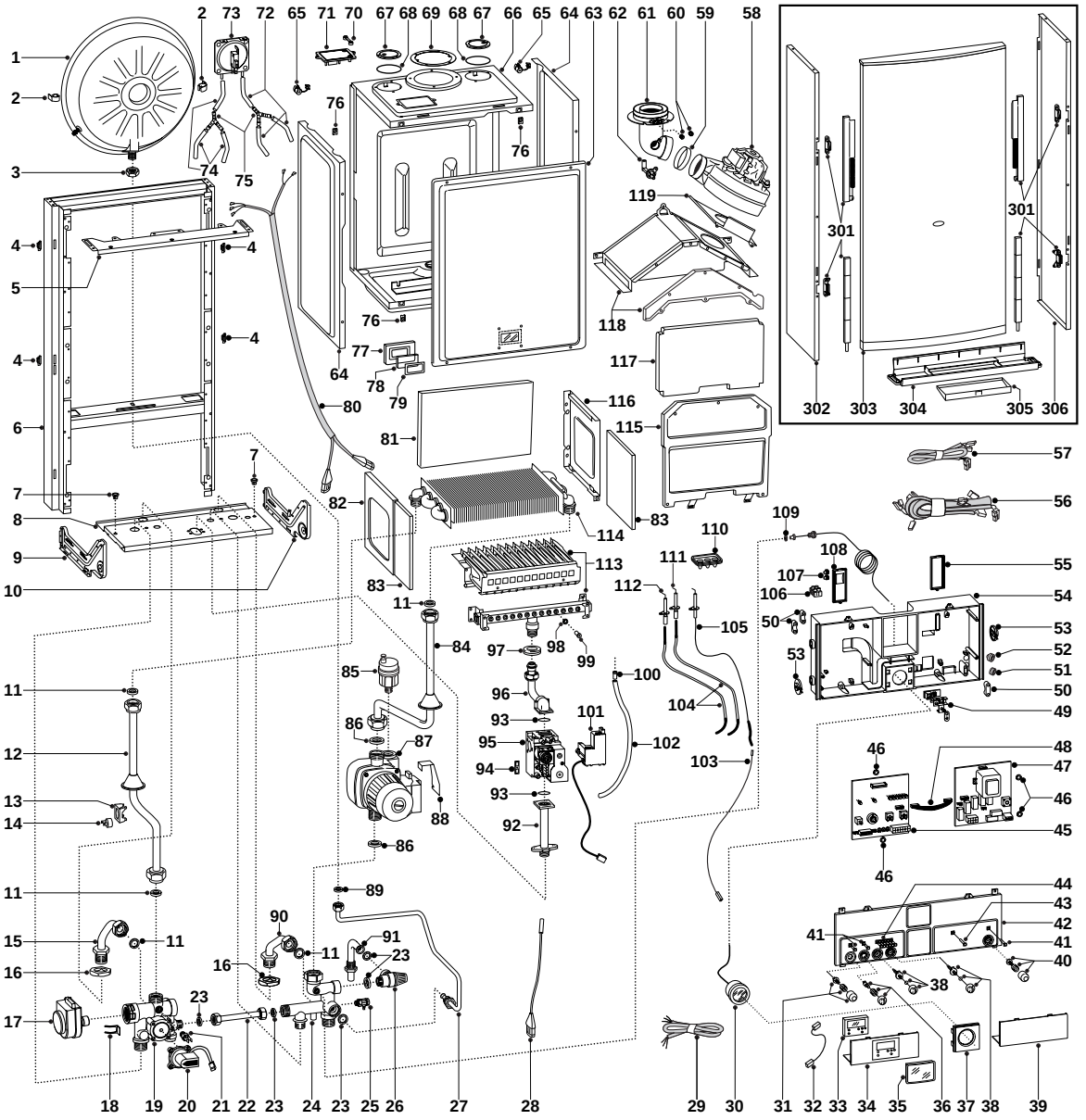
GENUS 30 MFFI (SIT Sigma Gas Valve)





ARISTON
GENUS 30 MFFI

GENUS 27 RFFI SYSTEM (SIT Sigma Gas Valve)



ARISTON

GENUS 27 MFFI SYSTEM

GENUS 23/27 MFFI (SIT Sigma Gas Valve)

Key no.	G.C. part no.	Description		ARISTON Part No.
1		Expansion vessel		573294
11	164 225	Gasket 3/4"		573520
14		Overheat thermostat		997206
17		Main flow Switch		573224
18	164 338	Temp probe (C.H.W.)		569236
19		Microswitch for 3-way/main flow group		573340
23	164 229	Gasket 1/2"		573528
24	378 814	Manual vent cock		573727
25		Safety valve 3 bar 1/2"		573172
28		Pressure gauge		571649
31		Time clock		997208
43		P.C.B. E C-MI/FFI		953045
45		P.C.B. EI A-MFFI		952981
46		P.C.B. cable		952610
56AB		Fan		572989
56CD		Fan		572990
57		Fan inlet gasket		573343
60		Venturi (exhaust manifold/header)		573314
71AB	E03 818	Air pressure switch		571651
71CD	E02 071	Air pressure switch		571652
74		Fastening spring		570717
83	379 079	Automatic air release valve		564254
84	164 230	Gasket 1"		569387
86		O-ring		571449
88AB		Secondary exchanger (plate-type) exchanger 23kW		571646
88CD		Secondary exchanger (plate-type) exchanger 27kW		573295
89		O-ring (secondary exchanger)		573825
91		20-18 O-ring		571807
94	164 282	Gasket 3/8"		573521
95AB		Pump		997150
95CD		Pump		997151
98		O-ring (13)		571965
99		Gasket		574279
100		Gas valve (SIT Sigma)		574232
106		Spark generator		574233
110	379 981	Detection electrode		573441
114	164 261	Gasket 1/4"		569390
116	379 979	Ignition electrode (R.H.)		569560
117	379 980	Ignition electrode (L.H.)		569561
118A	E02 026	Main burner		572271
118B		Main burner		572277
118C	E02 078	Main burner		572343
118D		Main burner		572372
119AB		Main exchanger		572749
119CD		Main exchanger		572835
301		Front panel runner kit		571993
311		D.H.W. actuator kit		571444
321		SIT Sigma gas valve operator coils		997029
361		Heating by-pass kit		571443
362		D.H.W. pressure switch kit		571442
363		3-way spring kit		571447
364		D.H.W. diaphram valve		571446
371		Main flow switch diaphram		571547
372		Main flow switch magnet		571772
373		Main flow switch spring		571771
374		Main flow switch top cap		571770
375		Main flow switch reed system		573138
381	164 311	Burner jet 1.25 full kit (Natural gas)		569281
382		Burner jet 0.72 full kit (LPG)		569282

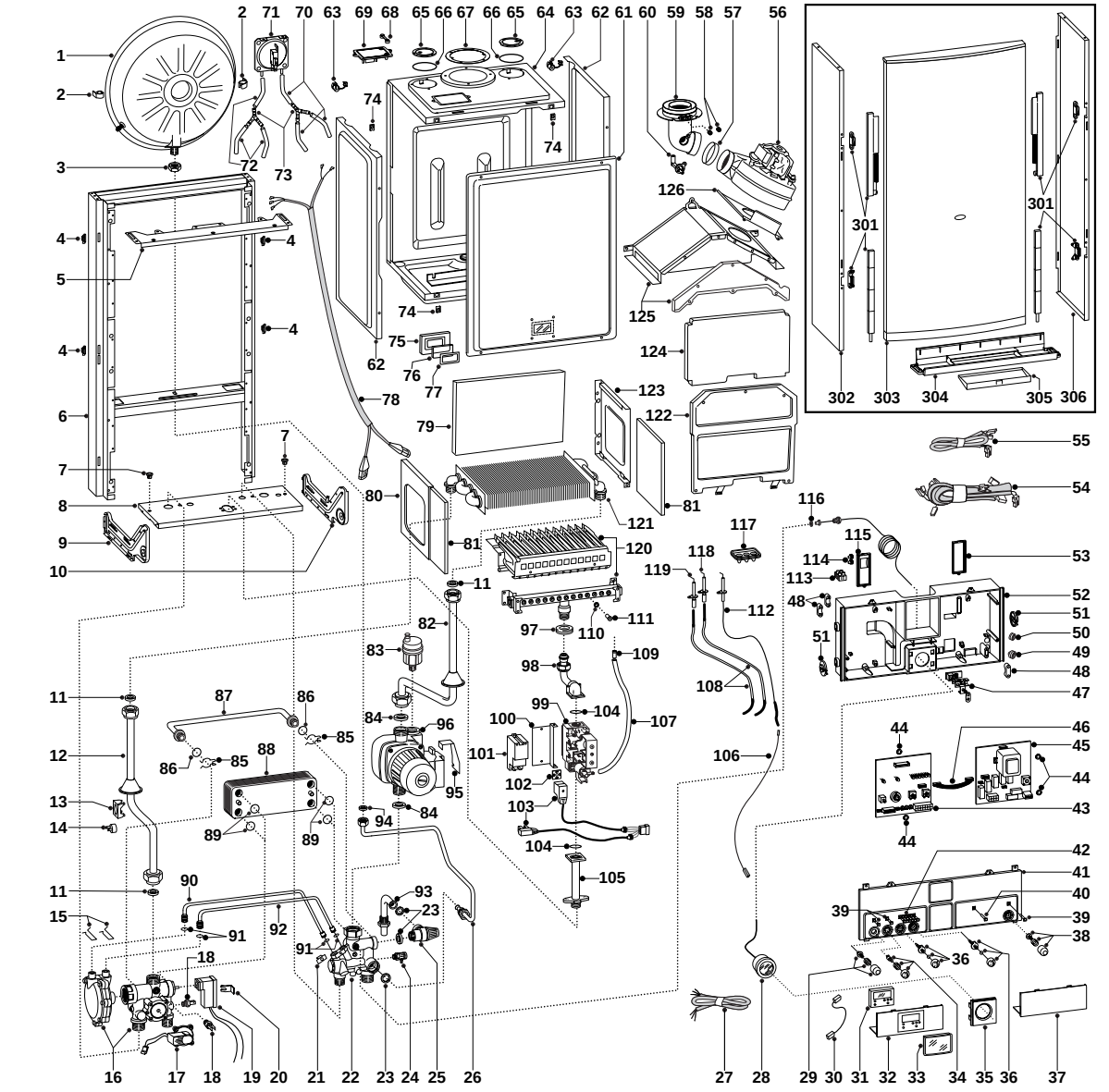
GENUS 30 MFFI (SIT Sigma Gas Valve)

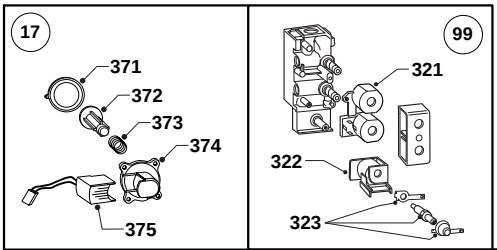
Key no.	G.C. part no.	Description		ARISTON Part No.
1		Expansion vessel		573294
11	164 225	Gasket 3/4"		573520
15		Overheat thermostat		997206
16		Main flow Switch		573224
19	164 338	Temp probe (C.H.W.)		569236
20		Microswitch for 3-way/main flow group		573340
24	164 229	Gasket 1/2"		573528
25	378 814	Manual vent cock		573727
26		Safety valve 3 bar 1/2"		573172
29		Pressure gauge		571649
32		Time clock		997208
44		P.C.B. E C-MI/FFI		953045
46		P.C.B. EI A-MFFI		952981
47		P.C.B. cable		952610
57		Fan		572990
58		Fan inlet gasket		573343
72	E02 071	Air pressure switch		571652
75		Fastening spring		570717
84	379 079	Automatic air release valve		564254
85	164 230	Gasket 1"		569387
87		O-ring		571449
89		Secondary exchanger (plate-type) exchanger 27kW		573295
90		O-ring (secondary exchanger)		573825
92		O-ring (20-18)		571807
95	164 282	Gasket 3/8"		573521
96		Pump		997151
99		O-ring (13)		571965
100		Gasket		574279
101		Gas valve (SIT Sigma)		574232
107		Spark generator		574233
111	379 981	Detection electrode		573441
115	164 261	Gasket 1/4"		569390
117	379 979	Ignition electrode (R.H.)		569560
118	379 980	Ignition electrode (L.H.)		569561
119A		Main burner		998110
119B		Main burner		998111
120		Main exchanger		572835
126		Venturi (exhaust manifold/header)		573314
301		Front panel runner kit		571993
311		D.H.W. actuator kit		571444
321		SIT Sigma gas valve operator coils		997029
361		Heating by-pass kit		571443
362		D.H.W. pressure switch kit		571442
363		3-way spring kit		571447
364		D.H.W. diaphram valve		571446
371		Main flow switch diaphram		571547
372		Main flow switch magnet		571772
373		Main flow switch spring		571771
374		Main flow switch top cap		571770
375		Main flow switch reed system		573138
381		Burner jet 1.30 full kit (Natural gas)		998152
382		Burner jet 0.77 full kit (LPG)		998432

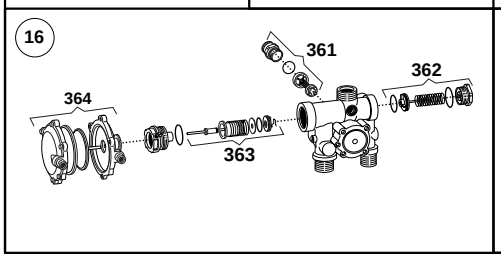
GENUS 27 RFFI SYSTEM (SIT Sigma Gas Valve)

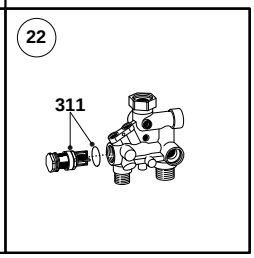
Key no.	G.C. part no.	Description		ARISTON Part No.
1		Expansion vessel		573294
11	164 225	Gasket 3/4"		573520
14		Overheat thermostat		997206
17		Motorised valve motor		997147
20		Main flow switch		573224
21	164 338	Temp probe (C.H.W.)		569236
23	164 229	Gasket 1/2"		573528
25	378 814	Manual vent cock		573727
26		Safety valve 3 bar 1/2"		573172
28		D.H.W. probe		950650
30		Pressure gauge		571649
33		Time clock		997208
45		P.C.B. EB C MI/FFI		953095
47		P.C.B. E A-FFI/P		952935
48		P.C.B. cable		952610
58		Fan		572990
59		Fan inlet gasket		573343
62		Venturi (exhaust manifold/header)		573314
73	E02 071	Air pressure switch		571652
76		Fastening spring		570717
85		Automatic air release valve		564254
86	379 079	Gasket 1"		569387
87		Pump		997151
89	164 282	Gasket 3/8"		573521
93		O-ring (13)		571965
94		Gasket		574279
95		Gas valve (SIT Sigma)		574232
101		Spark generator		574233
105	379 981	Detection electrode		573441
109	164 261	Gasket 1/4"		569390
111	379 979	Ignition electrode (R.H.)		569560
112	379 980	Ignition electrode (L.H.)		569561
113A	E02 078	Main burner		572343
113B		Main burner		572372
114		Main exchanger		572835
301		Front panel runner kit		571993
321		Sit Sigma gas valve operator coils		997029
361		Heating by-pass kit		571443
362		Sanitary pressure switch kit		571987
363		Way and unit kit		571447
375		Main flow switch reed system		573138
381	164 311	Burner jet 1.25 full kit (Natural gas)		569281
382		Burner jet 0.72 full kit (LPG)		569282

GENUS 23/27 MFFI (SIT Tandem Gas Valve)





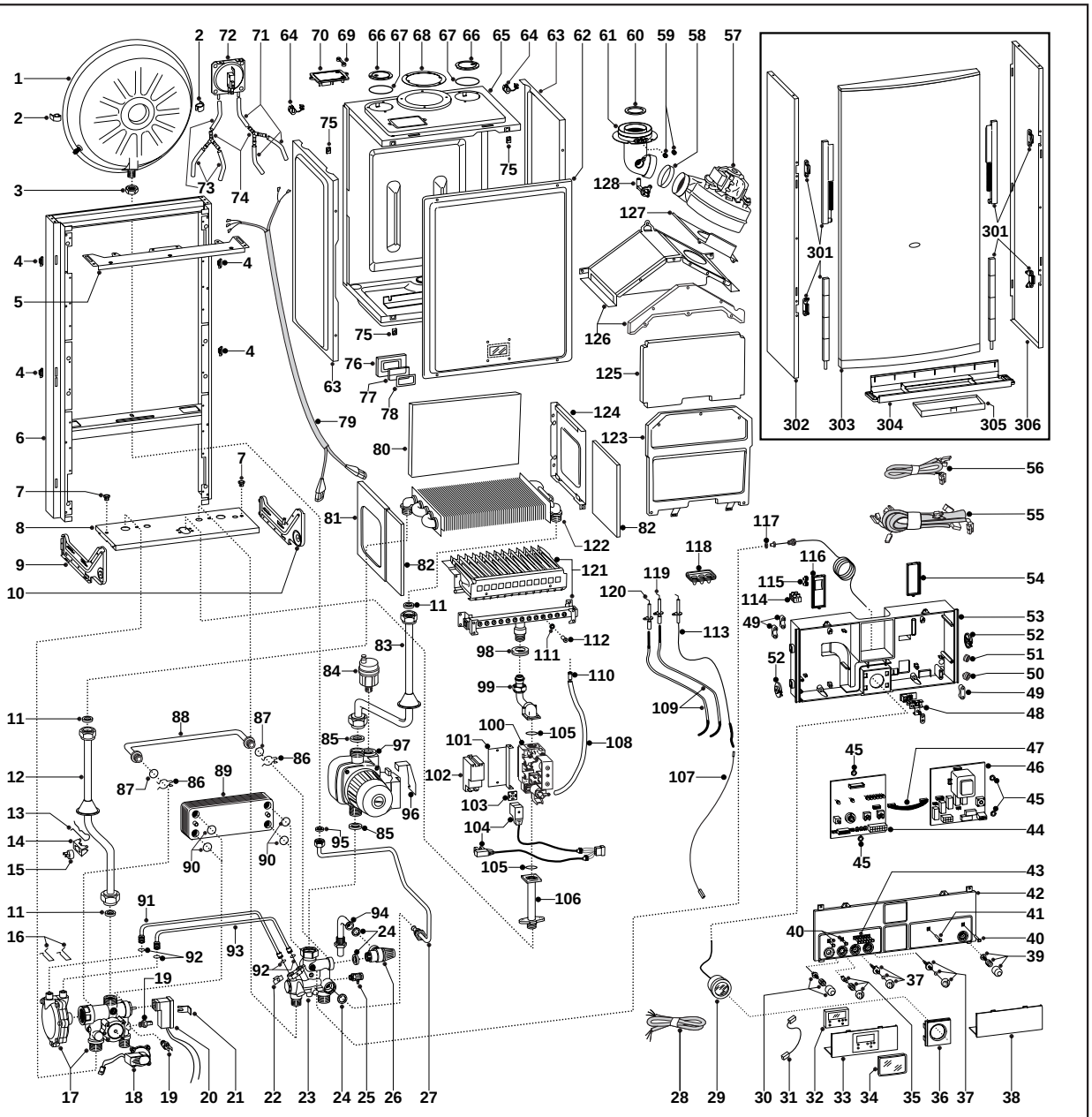


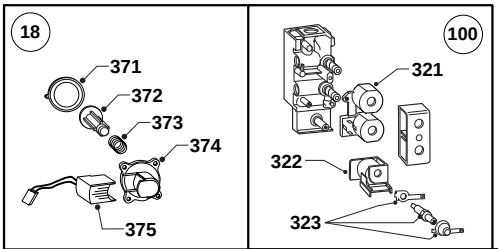


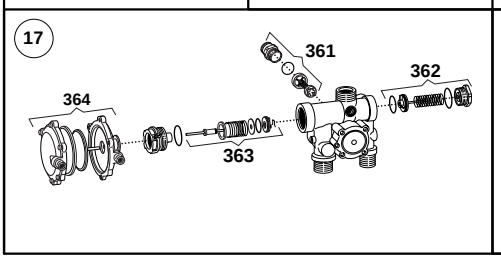
ARISTON

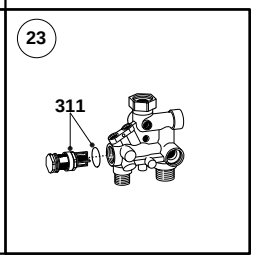
GENUS 23/27 MFFI

GENUS 30 MFFI (SIT Tandem Gas Valve)



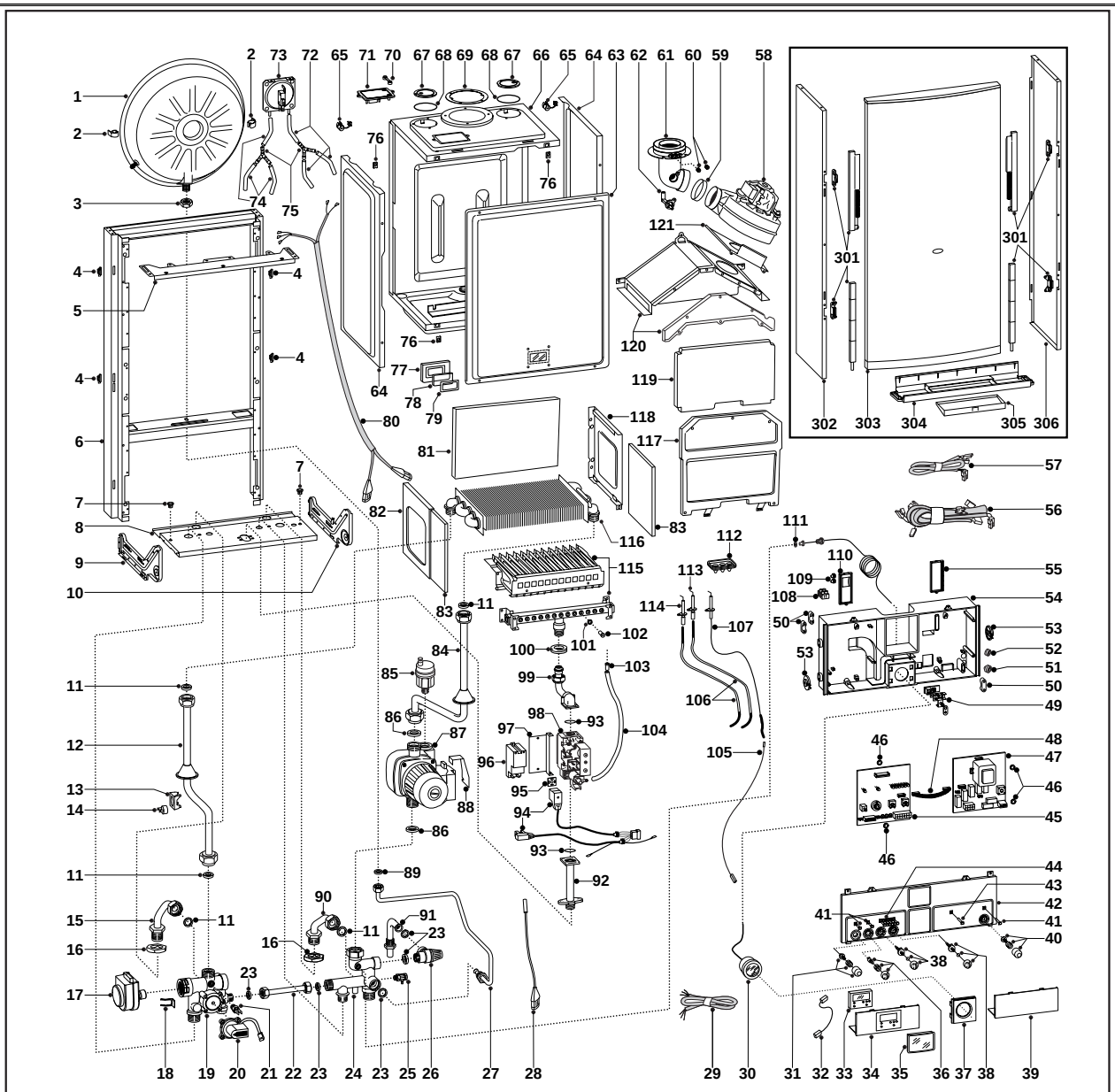


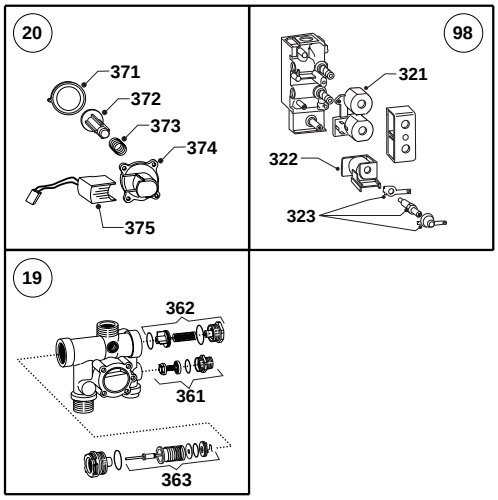




ARISTON
GENUS 30 MFFI

GENUS 27 RFFI SYSTEM (SIT Tandem Gas Valve)





ARISTON

GENUS 27 MFFI SYSTEM

GENUS 23/27 MFFI (SIT Tandem Gas Valve)

Key no.	G.C. part no.	Description		ARISTON Part No.
1		Expansion vessel		573294
11	164 225	Gasket 3/4"		573520
14		Overheat thermostat		997206
17		Main flow Switch		573224
18	164 338	Temp probe (C.H.W.)		569236
19		Microswitch for 3-way/main flow group		573340
23	164 229	Gasket 1/2"		573528
24	378 814	Manual vent cock		573727
25		Safety valve 3 bar 1/2"		573172
28		Pressure gauge		571649
31		Time clock		997208
43		P.C.B. E C-MI/FFI		953045
45		P.C.B. EI A-MFFI		952981
46		P.C.B. cable		952610
56AB		Fan		572989
56CD		Fan		572990
57		Fan inlet gasket		573343
60		Venturi (exhaust manifold/header)		573314
71AB	E03 818	Air pressure switch		571651
71CD	E02 071	Air pressure switch		571652
74		Fastening spring		570717
83	379 079	Automatic air release valve		564254
84	164 230	Gasket 1"		569387
86		O-ring		571449
88AB		Secondary exchanger (plate-type) exchanger 23kW		571646
88CD		Secondary exchanger (plate-type) exchanger 27kW		573295
89		O-ring (secondary exchanger)		573825
91		O-ring (20-18)		571807
94	164 282	Gasket 3/8"		573521
96AB		Pump		997150
96CD		Pump		997151
99	379 976	Gas valve (SIT Tandem)		570732
101		Spark generator		573023
104		O-ring (13)		571965
112	379 981	Detection electrode		573441
116	164 261	Gasket 1/4"		569390
118	379 979	Ignition electrode (R.H.)		569560
119	379 980	Ignition electrode (L.H.)		569561
120A	E02 026	Main burner		572271
120B		Main burner		572277
120C	E02 078	Main burner		572343
120D		Main burner		572372
121AB		Main exchanger		572749
121CD		Main exchanger		572835
301		Front panel runner kit		571993
311		D.H.W. actuator kit		571444
321	378 978	SIT Tandem gas valve operator coils		570712
322	378 815	SIT Tandem modureg coil		573740
323	164 303	Gas modulator cartridge		573745
361		Heating by-pass kit		571443
362		D.H.W. pressure switch kit		571442
363		3-way spring kit		571447
364		D.H.W. diaphram valve		571446
371		Main flow switch diaphram		571547
372		Main flow switch magnet		571772
373		Main flow switch spring		571771
374		Main flow switch top cap		571770
375		Main flow switch reed system		573138
381	164 311	Burner jet 1.25 full kit (Natural gas)		569281
382		Burner jet 0.72 full kit (LPG)		569282

GENUS 30 MFFI (SIT Tandem Gas Valve)

Key no.	G.C. part no.	Description		ARISTON Part No.
1		Expansion vessel		573294
11	164 225	Gasket 3/4"		573520
15		Overheat thermostat		997206
18		Main flow Switch		573224
19	164 338	Temp probe (C.H.W.)		569236
20		Microswitch for 3-way/main flow group		573340
24	164 229	Gasket 1/2"		573528
25	378 814	Manual vent cock		573727
26		Safety valve 3 bar 1/2"		573172
29		Pressure gauge		571649
32		Time clock		997208
44		P.C.B. E C-MI/FFI		953045
46		P.C.B. EI A-MFFI		952981
47		P.C.B. cable		952610
57		Fan		572990
58		Fan inlet gasket		573343
72	E02 071	Air pressure switch		571652
75		Fastening spring		570717
84	379 079	Automatic air release valve		564254
85	164 230	Gasket 1"		569387
87		O-ring		571449
89		Secondary exchanger (plate-type) exchanger 27kW		573295
90		O-ring (secondary exchanger)		573825
92		O-ring (20-18)		571807
95	164 282	Gasket 3/8"		573521
97		Pump		997151
100	379 976	Gas valve (SIT Tandem)		570732
102		Spark generator		573023
105		O-ring (13)		571965
113	379 981	Detection electrode		573441
117	164 261	Gasket 1/4"		569390
119	379 979	Ignition electrode (R.H.)		569560
120	379 980	Ignition electrode (L.H.)		569561
121A		Main burner		998110
121B		Main burner		998111
122		Main exchanger		572835
128		Venturi (exhaust manifold/header)		573314
301		Front panel runner kit		571993
311		D.H.W. actuator kit		571444
321	378 978	SIT Tandem gas valve operator coils		570712
322	378 815	SIT Tandem modureg coil		573740
323	164 303	Gas modulator cartridge		573745
361		Heating by-pass kit		571443
362		D.H.W. pressure switch kit		571442
363		3-way spring kit		571447
364		D.H.W. diaphram valve		571446
371		Main flow switch diaphram		571547
372		Main flow switch magnet		571772
373		Main flow switch spring		571771
374		Main flow switch top cap		571770
375		Main flow switch reed system		573138
381		Burner jet 1.30 full kit (Natural gas)		998152
382		Burner jet 0.77 full kit (LPG)		998432

GENUS 27 RFFI SYSTEM (SIT Tandem Gas Valve)

Key no.	G.C. part no.	Description		ARISTON Part No.
1		Expansion vessel		573294
11	164 225	Gasket 3/4"		573520
14		Overheat thermostat		997206
17		Motorised valve motor		997147
20		Main flow switch		573224
21	164 338	Temp probe (C.H.W.)		569236
23	164 229	Gasket 1/2"		573528
25	378 814	Manual vent cock		573727
26		Safety valve 3 bar 1/2"		573172
28		D.H.W. probe		997274
30		Pressure gauge		571649
33		Time clock		997208
45		P.C.B. EB C MI/FFI		953095
47		P.C.B. E A-FFI/P		952935
48		P.C.B. cable		952610
58		Fan		572990
59		Fan inlet gasket		573343
62		Venturi (exhaust manifold/header)		573314
73	E02 071	Air pressure switch		571652
76		Fastening spring		570717
85	379 079	Automatic air release valve		564254
86	164 230	Gasket 1"		569387
87		Pump		997151
89	164 282	Gasket 3/8"		573521
93		O-ring (13)		571965
96		Spark generator		573023
98	379 976	Gas valve (SIT Tandem)		570732
107	379 981	Detection electrode		573441
111	164 261	Gasket 1/4"		569390
113	379 979	Ignition electrode (R.H.)		569560
114	379 980	Ignition electrode (L.H.)		569561
115A	E02 078	Main burner		572343
115B		Main burner		572372
115		Main exchanger		572835
301		Front panel runner kit		571993
311		D.H.W. actuator kit		571444
321	378 978	SIT Tandem gas valve operator coils		570712
322	378 815	SIT Tandem modureg coil		573740
323	164 303	Gas modulator cartridge		573745
361		Heating by-pass kit		571443
362		D.H.W. pressure switch kit		571442
363		3-way spring kit		571447
371		Main flow switch diaphram		571547
372		Main flow switch magnet		571772
373		Main flow switch spring		571771
374		Main flow switch top cap		571770
375		Main flow switch reed system		573138
381	164 311	Burner jet 1.25 full kit (Natural gas)		998152
382		Burner jet 0.72 full kit (LPG)		998432

NOTES

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
Technical Service Hotline: (01494) 539579

23 99 84 1267 000 - B005 Stampa: **Bieffe** Recanati