

INSTALLATION AND SERVICING INSTRUCTIONS

IDEA



tipo P



BONGIOANNI

Dear customer,

may we thank you for having chosen a BONGIOANNI product.

This manual has been prepared with the aim to acquaint you with the boiler you have purchased.

Please take time to read it because the instructions and suggestions on the installation, use and maintenance of your boiler will enable you to obtain the best results from our high quality product for a very long time.

Bongioanni spa

CONFORMITY STATEMENT

IDEA boilers are manufactured to the highest standard of quality, performance and safety in accordance with EC standards and requirements.

They comply with Gas Safety Regulations and carry the CE mark.

IDEA boilers are classified as type **B₁₁BS** and are designed for use on gas category **II₂H₃+**.

The Manufacturer will not assume any responsibility for the non observance of any relevant statutory installation requirements, regulations and codes of practice, or any recommendations and instructions included in this manual.

INSTALLATION REQUIREMENTS

The installation of IDEA boilers must be in accordance with relevant statutory requirements, the Gas Safety (Installation and Use) Regulations 1994, Health & Safety at Work Act, Building Regulations, I.E.E. Regulations, Construction (Design & Management) Regulations 1994, Local Authority Bylaws, Local Gas Undertaking Regulations, Local & National Water Byelaws, Fire Authority Regulations and Insurance Company requirements.

The following codes of practice are also applicable:

BS6880	Codes of practice for low temperature hot water heating systems of output greater than 45 kW. Parts 1, 2 & 3: 1988.
CP342	Code of practice for centralised hot water supply, part 2 Buildings other than individual dwellings.
BS6644	1991 specifications for gas fired hot water boilers of rated inputs between 60 kW and 2 MW.
IGE/UP/2	Gas installation pipework, boosters and compressors on industrial and commercial premises.
CIBSE Guide	Reference sections B7, B11 and B13.
BS5440	Installation of flues and ventilation for gas appliances of rated input not exceeding 60 kW.
British Gas IM/11	Flues for commercial and industrial gas fired boilers and air heaters.

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1 DESCRIPTION

1.1 GENERAL REMARKS

IDEA boilers consists of a range of 6 atmospheric gas fired cast iron sectional boilers offering high efficiency and low emissions.

Each heat exchanger comprises:

- one front left section
- a variable number of intermediate sections
- one front right section

all connected to each other by means of bi-conical nipples (St 37-2 DIN 1626).

Each boiler is fitted with a stainless steel multi-bar atmospheric gas burner, for operation with natural gas or LPG.

IDEA boilers are available in the following model configuration:

- **T** = with electric ignition and pilot-thermocouple system for the flame monitoring
- **I** = with electronic ignition and ionisation flame detection.

1.2 BOILER MODELS

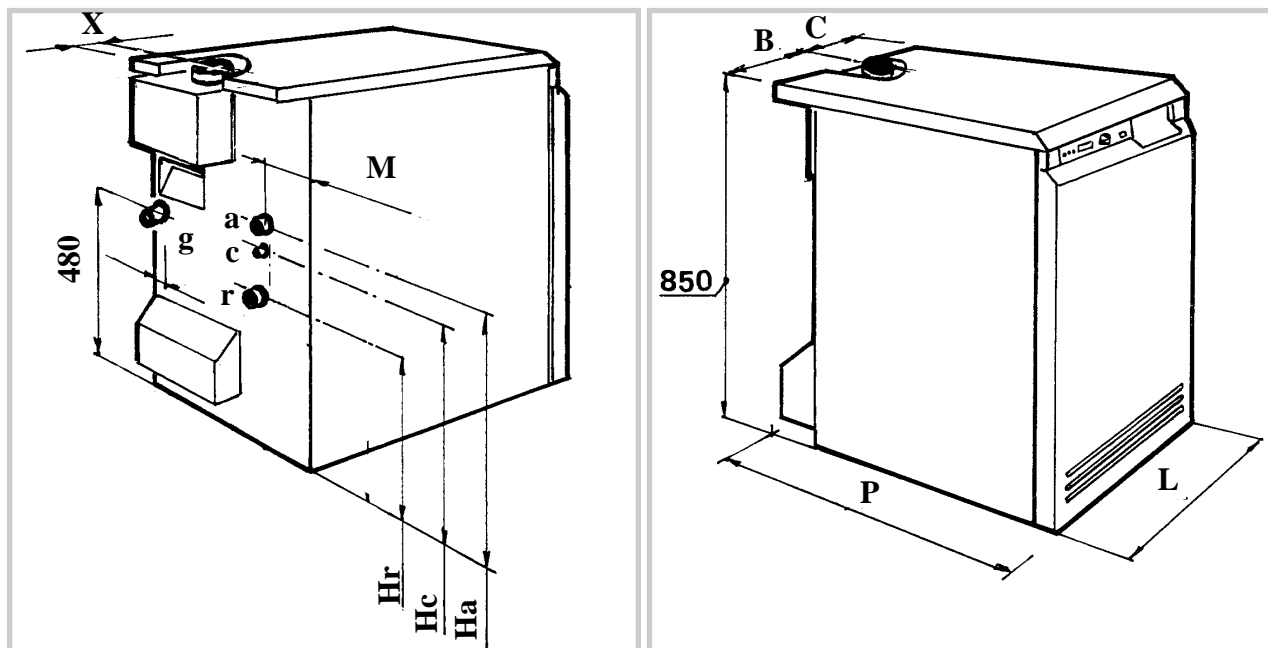
IDEA BOILERS (ELECTRIC IGNITION)

Model	No.of sections	Nominal heat output		Ref. No.	with pump
		Btu/h	kW		and vessel
IDEA/18 T	3	61,400	18	1810003	1810203
IDEA/27 T	4	92,200	27	1810004	1810204
IDEA/36 T	5	122,900	36	1810015	1810215
IDEA/45 T	6	153,600	45	1810006	-
IDEA/54 T	7	184,300	54	1810007	-
IDEA/63 T	8	215,000	63	1810008	-

IDEA BOILERS (ELECTRONIC IGNITION - IONIZED)

Model	No. of sections	Nominal heat output		Ref. No.	with pump
		Btu/h	kW		and vessel
IDEA/18 I	3	61,400	18	1810023	1810223
IDEA/27 I	4	92,200	27	1810024	1810224
IDEA/36 I	5	122,900	36	1810035	1810235
IDEA/45 I	6	153,600	45	1810026	-
IDEA/54 I	7	184,300	54	1810027	-
IDEA/63 I	8	215,000	63	1810028	-

1.3 DIMENSIONAL DRAWINGS



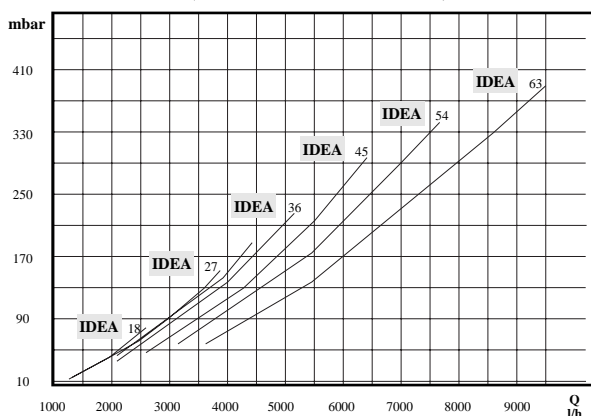
IDEA	L	X	B	C	M	P	Ha	Hc	Hr
18 PV	450	80	290	160	125	600	455	395	280
27 PV	600	90	400	200	195	600	455	395	280
18	450	80	290	160	145	600	530	-	370
27	450	90	250	200	65	600	530	-	370
36	600	75	360	240	135	600	530	-	370
45	600	75	320	280	55	600	530	-	370
54	800	120	480	320	175	640	530	-	370
63	800	120	440	360	95	640	530	-	370

		IDEA PV	IDEA
a	FLOW CONNECTION (installation)	3/4"	1"
r	RETURN CONNECTION (installation)	3/4"	1"
g	GAS CONNECTION	3/4"	3/4"
c	FILL COCK CONNECTION	1/2"	-

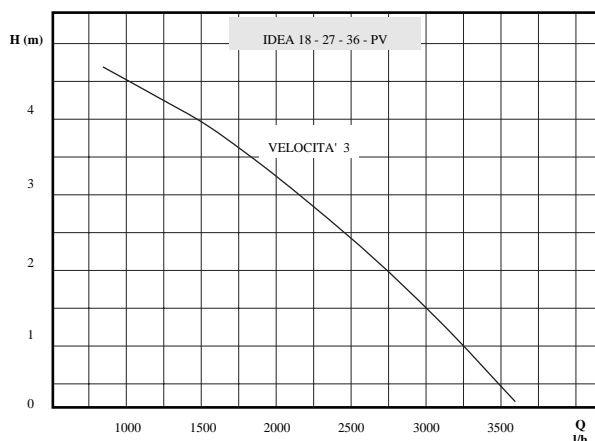
1.4 TECHNICAL DATA

IDEA (P = with Polidoro burner)		18 PV	27 PV	36 PV	18	27	36	45	54	63
No. of sections		3	4	5	3	4	5	6	7	8
Nominal heat input	kW	19.9	29.8	34.8	19.9	29.8	39.7	49.7	59.6	69.5
	Btu/h	67,900	101,700	135,500	67,900	101,700	135,500	169,600	203,400	237,200
Nominal heat output	kW	18	27	31,5	18	27	36	45	54	63
	Btu/h	61,400	92,200	122,900	61,400	92,200	122,900	153,600	184,300	215,000
No. of burner injectors		2	3	4	2	3	4	5	6	7
Pilot injectors Ø (T-model only)										
	Natural Gas G 20 (2 holes)	mm	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29
LPG G30/G 31 (1 hole)	mm	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Burner injectors Ø										
	Natural Gas G 20	mm	2.70	2.70	2.60	2.70	2.70	2.60	2.60	2.60
LPG G30/G 31	mm	1.55	1.55	1.45	1.55	1.55	1.55	1.55	1.55	1.55
Inlet pressure										
	Natural Gas G20	mbar	20	20	20	20	20	20	20	20
LPG G30/G31	mbar	30/37	30/37	30/37	30/37	30/37	30/37	30/37	30/37	30/37
Burner pressure										
	Natural Gas G20	mbar	11,6	11,6	10,1	11,6	11,6	13,2	13,2	13,2
LPG G30/G31	mbar	28/35	28/35	28/35	28/35	28/35	28/35	28/35	28/35	28/35
Gas rate (continuous operation) (15°C ; 1013 mbar)										
	Nat. Gas G20	m ³ /h	2.11	3.15	3.69	2.11	3.15	4.20	5.26	6.31
	LPG G30	kg/h	1.57	2.35	2.75	1.57	2.35	3.13	3.92	4.71
	LPG G31	kg/h	1.54	2.31	2.71	1.54	2.31	3.08	3.86	4.63
Flue outlet Ø	mm	110	130	150	110	130	150	150	180	180
Negative pressure required at flue outlet	Pa	1	1	1	1	1	1	1	1	1
Electrical supply		230 V~ - 50 Hz								
T - model	W	100	100	100	6	6	6	6	6	6
	I - model	W	110	110	110	16	16	16	16	16
Water content	l	11	14	17	11	14	17	20	23	26
Max operating temperature	°C	90	90	90	90	90	90	90	90	90
Max hydraulic pressure	bar	3	3	3	3	3	3	3	3	3
Capacity of expansion vessel	l	10	10	10	-	-	-	-	-	-
Flue gas mass flow	g/s	13	18	26	13	18	226	28	41	43
Flue gas temperature	°C	130	136	115	130	136	125	146	126	135
Weight	kg	115	137	156	107	126	145	167	191	211

WATERSIDE PRESSURE DROP
(not accessoried model)



DISCHARGE HEAD (PV models)



1.5 BOILER COMPONENTS AND ANCILLARIES

1.5.1 GAS VALVES

IDEA BOILERS - ELECTRIC IGNITION

GAS TYPE	NATURAL GAS	LPG
IDEA 18 T	SIT NOVA 820	SIT NOVA 820
IDEA 27 T	SIT NOVA 820	SIT NOVA 820
IDEA 36 T	SIT NOVA 820	SIT NOVA 820
IDEA 45 T	SIT NOVA 820	SIT NOVA 820
IDEA 54 T	SIT NOVA 820	SIT NOVA 820
IDEA 63 T	SIT NOVA 820	SIT NOVA 820

IDEA BOILERS - ELECTRONIC IGNITION/IONIZED

GAS TYPE	NATURAL GAS	LPG
IDEA 18 I	SIT NOVA 822	SIT NOVA 822
IDEA 27 I	SIT NOVA 822	SIT NOVA 822
IDEA 36 I	SIT NOVA 822	SIT NOVA 822
IDEA 45 I	SIT NOVA 822	SIT NOVA 822
IDEA 54 I	SIT NOVA 822	SIT NOVA 822
IDEA 63 I	SIT NOVA 822	SIT NOVA 822

1.5.2

IDEA BOILERS ELECTRIC IGNITION

COMPONENTS:

- on/off switch
- automatic combination gas control valve
- stainless steel multi-bar atmospheric gas burner complete with venturi
- low consumption pilot burner
- ceramic ignition electrode
- thermocouple with interrupter adapter
- electric igniter
- boiler control thermostat
- safety high limite thermostat with thermocouple serial contacts
- flue thermostat with indication lamp for chimney obstruction
- boiler thermometer
- external flue hood
- stove enamelled casing

IDEA BOILERS ELECTRONIC IGNITION

COMPONENTS:

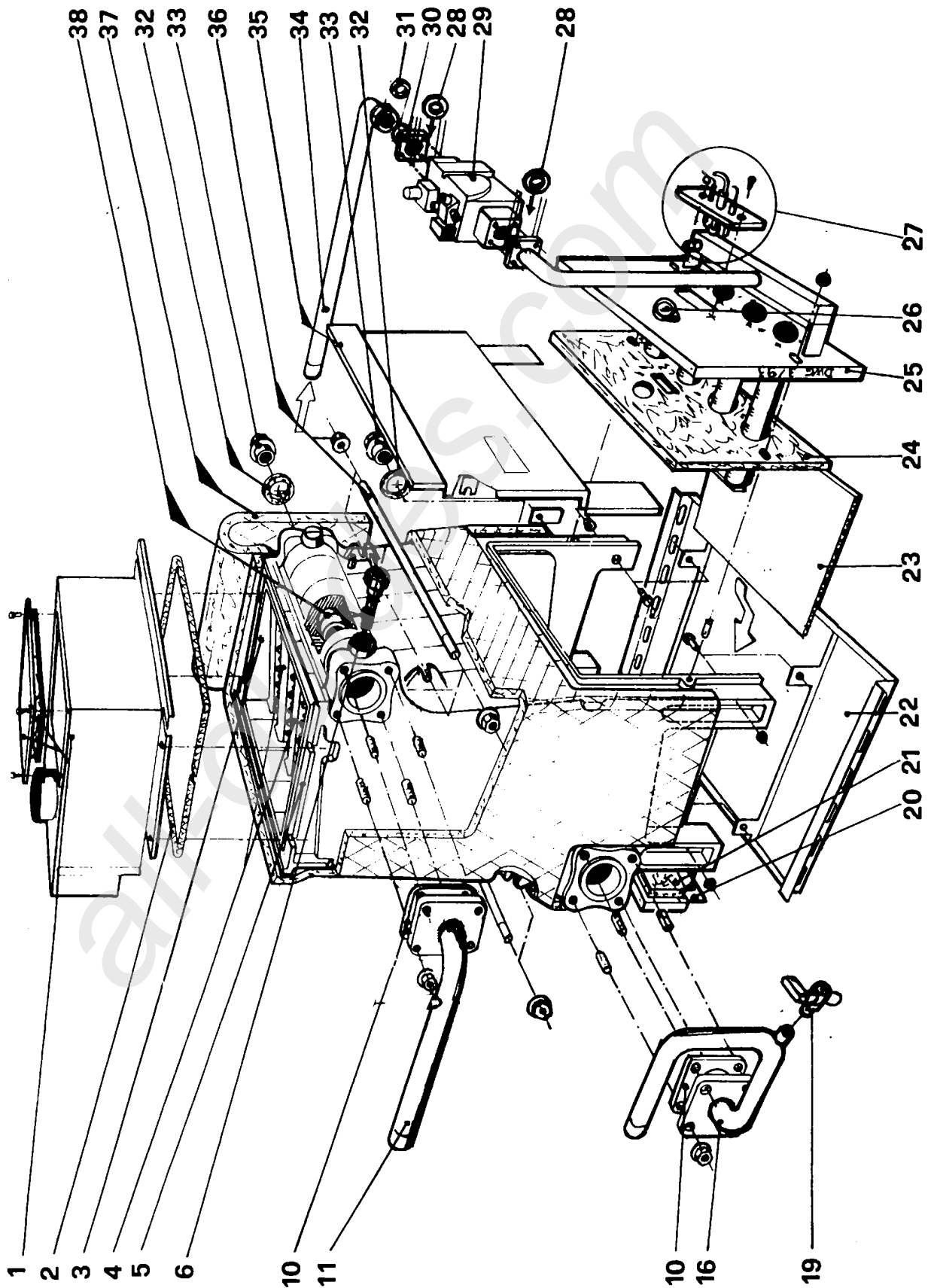
- on/off switch
- automatic combination gas control valve
- stainless steel multi-bar atmospheric gas burner complete with venturi
- electronic flame controller
- ceramic ignition and ionisation electrodes
- boiler lockout/reset button
- boiler control thermostat
- safety high limit thermostat
- flue thermostat with indication lamp for chimney obstruction
- boiler thermometer
- external flue hood
- stove enamelled casing

1.6

EXPLODED DRAWINGS AND PARTS LIST

1.6.1

EXPLODED VIEW OF BOILER BLOCK (unaccessoried version)



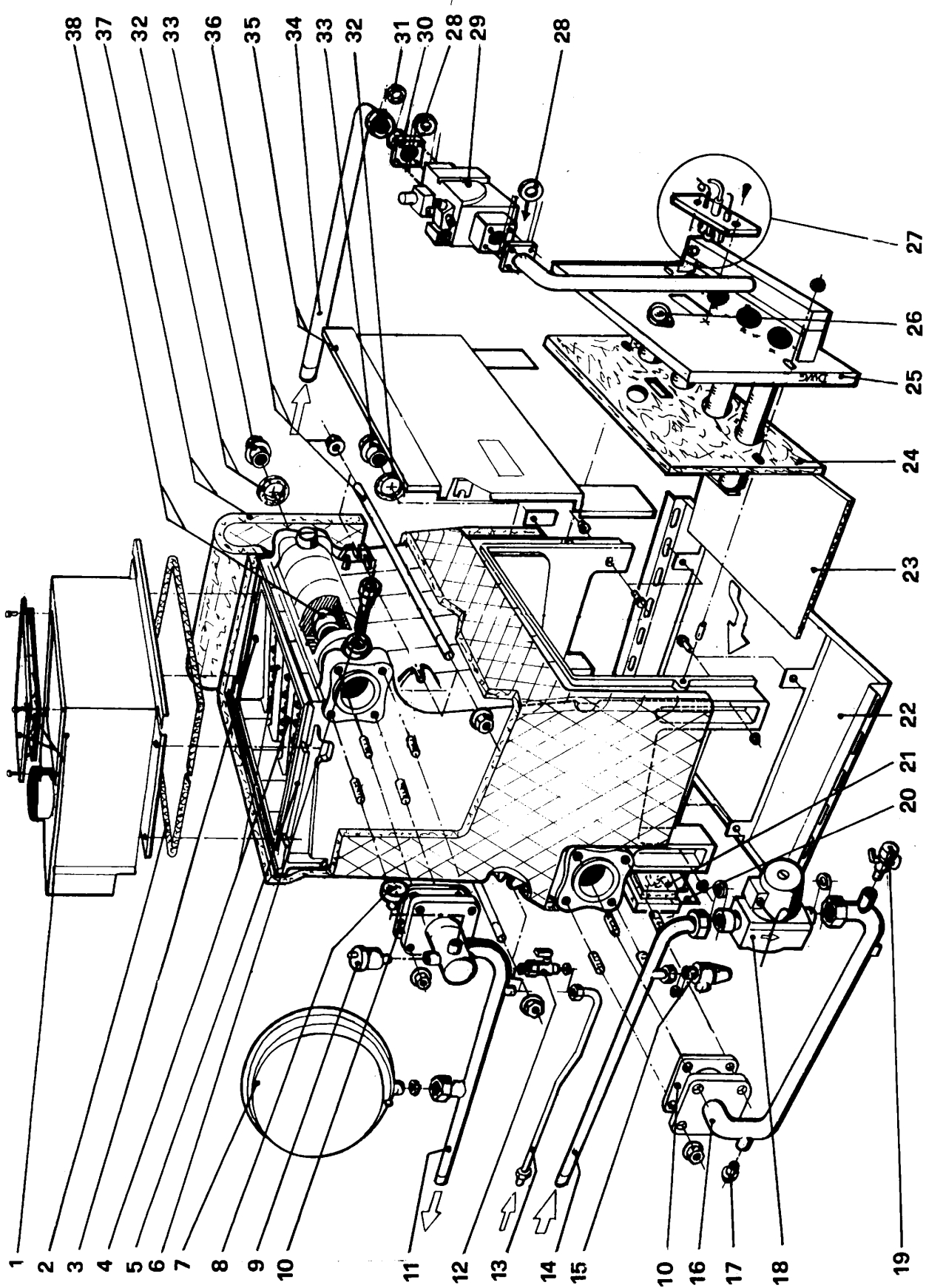
1.6.2

PARTS LIST IDEA UNACCESORIED VERSION

IDEA						
N. DESCRIPTION	18	27	36	45	54	63
1 Flue hood	1846053	1846084	1846055	1846056	1846057	1846058
2 Ceramic rope ø 8	8567000					
3 Front right side section	1830000					
4 Intermediate section	1830500					
5 Front left side section	1830900					
6 Thermostat pocket	1764200					
10 Rubber square gasket	1866000					
11 Pipe	1852202					
16 Pipe	1852100					
19 Cock with cap and chain	8591201					
20 Bottom rear cover plate	1845283	1845284	1845285	1845286	1845287	1845288
21 Insulating rear cover K 45	1866513	1866514	1866515	1866516	1866517	1866518
22 Base tray	1845003	1845004	1845005	1845006	1845007	1845008
23 Plate DB 1200	1892603	1892604	1892605	1892606	1892607	1892608
24 Insulating front cover K 45	1866503	1866504	1866505	1866506	1866507	1866508
25 Gas burner assembly	1855103	1855104	1855105	1855106	1855107	1855108
26 Peep-hole with sight-glass	1855060					
27 Polidoro pilot burner (T-models)	0160300					
27 Ignition electrode (T-models)	0161600					
27 Thermocouple (T-models)	0160500					
27 Electrode fixing bracket (I-models)	1848009					
27 Ignition electrode (I-models)	1861500					
27 Ionisation electrode (I-models)	1861501					
28 Rubber gasket	0166301					
29 Sit 820 gas valve (T-models)	0156100					
29 Sit 822 gas valve (I-models)	1856010					
30 Flange pipe	1852300					
31 Gas sealing rubber gasket	1866001					
32 Gasket	8566000					
33 Blind plug	8589802					
34 Pipe	1851800					
35 Front apron	1845203	1845204	1845205	1845206	1845207	1845208
36 Tie rods	8584002	8584003	8584004	8584005	8584006	8584007
37 Black tissue felt AT 20	1880100					
38 Bi-conical nipple	8589500					

1.6.3

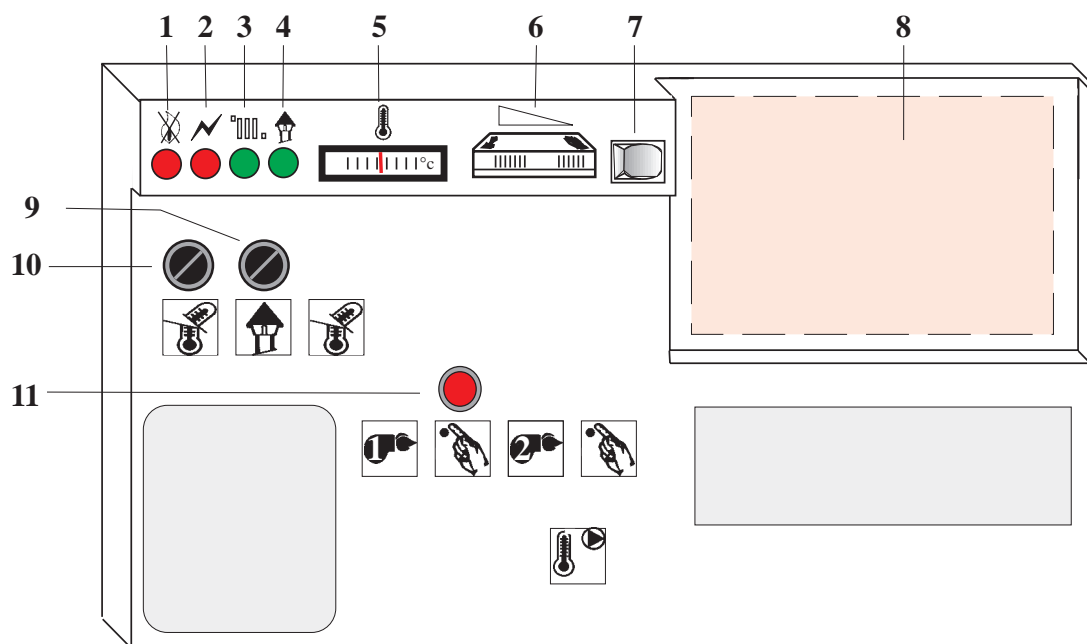
EXPLODED VIEW OF BOILER BLOCK (accessoried version)



1.6.4**PARTS LIST IDEA ACCESORIED VERSION**

IDEA			
N. DESCRIPTION	18 PV	27 PV	36 PV
1 Flue hood	1846053	1846084	1846055
2 Ceramic rope ø 8		8567000	
3 Front right side section		1830000	
4 Intermediate section		1830500	
5 Front left side section		1830900	
6 Thermostat pocket		1764200	
7 Expansion vessel		0162500	
8 Manometer		8561901	
9 Automatic air vent valve		1362101	
10 Rubber square gasket		1866000	
11 Pipe		1851600	
12 Ball cock 3/4 MM mini		1391300	
13 Pipe		1851900	
14 Pipe		1851700	
15 Safety valve 3 bar		8562100	
16 Pipe		1851500	
17 Blind plug		8589604	
18 Circulating pump		0159306	
19 Cock with cap and chain		8591201	
20 Bottom rear cover plate	1845283	1845284	1845285
21 Insulating rear cover K 45	1866513	1866514	1866515
22 Base tray	1845003	1845004	1845005
23 Plate DB 1200	1892603	1892604	1892605
24 Insulating front cover K 45	1866503	1866504	1866505
25 Gas burner assembly	1855103	1855104	1855105
26 Peep-hole with sight-glass		1855060	
27 Polidoro pilot burner (T-models)		0160300	
27 Ignition electrode (T-models)		0161600	
27 Thermocouple (T-models)		0160500	
27 Electrode fixing brackets (I-models)		1848009	
27 Ignition electrode (I-models)		1861500	
27 Ionisation electrode (I-models)		1861501	
28 Rubber gasket		0166301	
29 Sit 820 gas valve (T-models)		0156100	
29 Sit 822 gas valve (I-models)		1856010	
30 Flange pipe		1852300	
31 Gas sealing rubber gasket		1866001	
32 Gasket		8566000	
33 Blind plug		8589802	
34 Pipe		1851800	
35 Front apron	1845203	1845204	1845205
36 Tie rods	8584002	8584003	8584004
37 Black tissue felt AT 20		1880100	
38 Bi-conical nipple		8589500	

1.6.5 CONTROL PANEL



N.	DESCRIPTION	FUNCTION
1	RED LAMP "LOCKOUT" (I-model only)	TO INDICATE LOCKOUT OF IONISATION CONTROL
2	RED LAMP "BOILER VOLTAGE"	TO INDICATE 220V BOILER VOLTAGE
3	GREEN LAMP "PUMP OPERATING"(PV-models)	TO INDICATE OPERATION OF CIRCULATING PUMP
4	RED LAMP "CHIMNEY OBSTRUCTED"	TO INDICATE OBSTRUCTION OR INADEQUACY OF THE CHIMNEY
5	BOILER THERMOMETER	TO CHECK THE BOILER WATER TEMPERATURE
6	BOILER THERMOSTAT	TO REGULATE THE BOILER WATER TEMPERATURE
7	ON/OFF SWITCH	TO SWITCH THE BOILER ON/OFF
8	KNOCKOUT	FOR OPTIONAL CLIMATIC CONTROLLER
9	FLUE THERMOSTAT RESET BUTTON	TO RESET THE FLUE THERMOSTAT
10	SAFETY THERMOSTAT RESET BUTTON	TO RESET THE SAFETY THERMOSTAT
11	CONTROL RESET RED BUTTON (I-models only)	TO RESET THE IONISATION FLAME CONTROL

COMPONENTS OF THE CONTROL PANEL

REF. NO.	DESCRIPTION	*	**	REF. NO.	DESCRIPTION	*	**
1849100	COMPLETE CONTROL PANEL (boilers from 3 to 7 sections)	x	-	8587518	IGNITER	x	-
1849102	COMPLETE CONTROL PANEL (boilers from 3 to 7 sections)	-	x	1871700	THERMOSTAT DIAL	x	x
1849108	COMPLETE CONTROL PANEL (boilers with 8 sections)	x	-	1872207	PLASTIC CABLE CLAMP	x	x
1849118	COMPLETE CONTROL PANEL (boilers with 8 sections)	-	x	1872550	HONEYWELL FLAME CONTROLLER	-	x
1872202	PANEL FRONT PLASTIC COVER	x	x	8562706	LIMIT THERMOSTAT 110°C 220 V	-	x
1872200	PANEL REAR PLASTIC COVER	x	x	8562701	LIMIT THERMOSTAT 110°C mmV	x	-
8584747	HINGE 4 x 40 FOR COVER	x	x	8562799	BOILER THERMOSTAT	x	x
0172701	WIRED CONNECTION for SIT NOVA VALVE	x	x	8562858	THERMOMETER	x	x
0672501	CONNECTION MM 540	-	x	8572525	CONTROL FLAME RESET	-	x
1861500	ELECTRODE FOR IGNITER	-	x	8572539	RED LENS ø 6	x	x
1861501	ELECTRODE IONIZATION CONTROL	-	x	8572540	GREEN LENS ø 6	x	x
0161600	ELECTRODE FOR IGNITER	x	-	8572541	RED LAMP	x	x
1872512	P.C.B. TYPE A FOR "MICRO" CONTROLLER	x	x	8572542	GREEN LAMP	x	x
				8572543	BLACK BIPOLAR SWITCH	x	x
				8562713	FLUE THERMOSTAT (boilers from 3 to 7 sections)	x	x
				8562703	FLUE THERMOSTAT (boilers with 8 sections)	x	x
				8592360	MICRO SWITCH WITH IGNITION CABLES	x	-

* T-MODELS

** I-MODELS

2**INSTALLATION AND OPERATING INSTRUCTIONS****2.1****BOILER INSTALLATION**

The location chosen for the boiler must allow for the provision of a satisfactory flue and provide an adequate space for servicing and air circulation around the boiler, in accordance with requirements of Local Regulations, particularly in order to avoid any possible risk for the user or malfunctioning of the boiler.

2.2**GAS CONNECTION**

The gas connection should comply with relevant requirements of Gas Safety (Installation and Use) Regulations.

Gas supply pipework should be fitted in accordance with CP.331/3 taking into account the size of the boiler (see technical data § 1.4).

2.3**WATER CONNECTION**

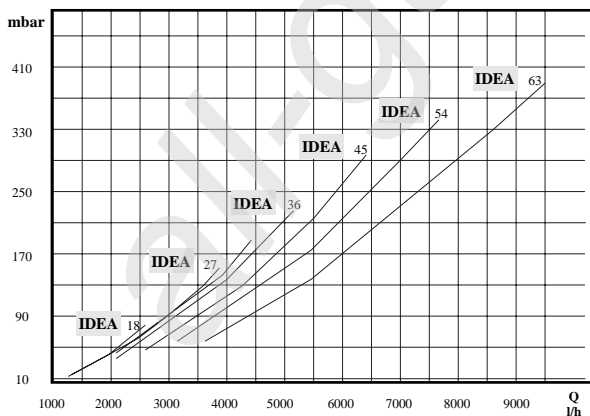
The connection of the boiler to the water system should comply with all appropriate regulations. In the case of installations in known hard water areas (hardness greater than 20 French degrees) appropriate treatment of the system fill water is strongly recommended.

If there is a need to treat the water with an anti-freeze agent, then carefully follow the recommendations of the anti-freeze supplier/manufacturer, especially when mixing water with the antifreeze.

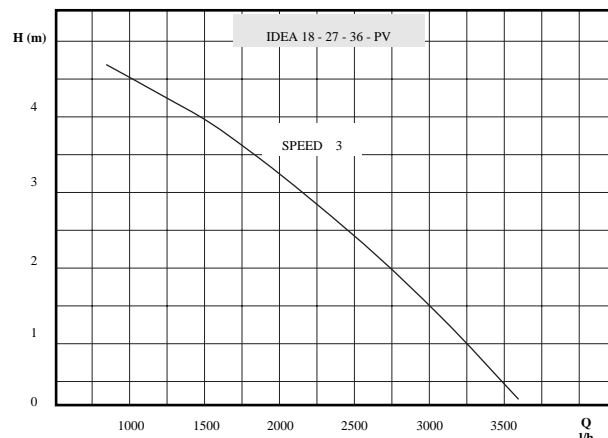
The IDEA accessoried boilers are fitted with a 3-speed circulating pump.

Listed below are graphs showing waterside pressure drop and discharge head.

WATERSIDE PRESSURE DROP
(unaccessoried models)



DISCHARGE HEAD
(PV models)

**2.4****FLUE CONNECTION**

The boiler should be connected to the chimney with rigid flue pipes and fittings, constructed and dimensioned according to the Local Regulations in force.

The flue thermostat is pre-set and its sensor is positioned so as to operate in accordance with set Standards.

It is therefore **absolutely forbidden** to either modify or reposition the thermostat bulb or electrical connections, or replace it with a non-original part..

2.5

ELECTRICAL SUPPLY AND CONNECTION

The electrical installation and connection must be in accordance with the latest Local Authority Regulations.

To simplify installation and servicing operations, all our gas boilers are fitted with a **P.C.B. TYPE A**.

Connect the boiler to the **electrical supply** (see technical data § 1.4) ensuring that polarity is correct (PH = phase into pole 1 - N = neutral into pole 2) and that it is earthed properly

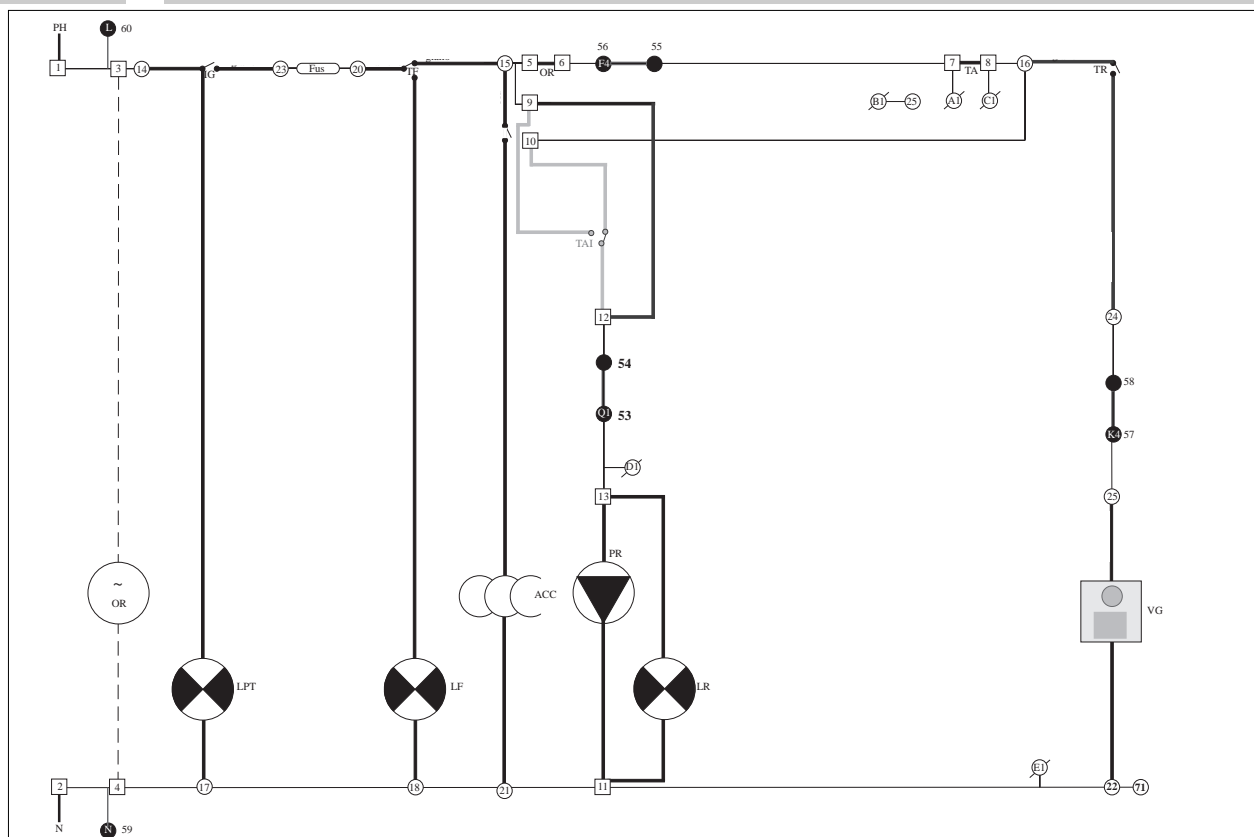
The room thermostat should be connected between terminals No.7 and No.8 after removing the yellow-red cable bridge between them.

The time clock should be connected between terminals No.5 and No.6 after removing the yellow-red cable bridge between them.

The terminal boards marked from No.53 to No.60 should be used to implement the climatic controller “Micro”. Instructions for connection are detailed on the booklet

2.5.1

IDEA BOILERS WITH ELECTRIC IGNITION



LEGEND :

□	Terminal
②	Connection on P.C.B.
ACC	Electric igniter
FUS	Fuse
IG	Main switch
LF	Flue safety thermostat indicator lamp
LPT	Voltage indicator lamp
LR	Heating function indicator lamp (model PV only)
~ OR	Supply for time clock
OR	Connections for time clock
PR	Circulating pump (model PV only)
TAI	Pump overrun relay
TA	Connections for room thermostat
TF	Flue thermostat
TR	Boiler control thermostat
VG	Gas valve

CONNECTION OF CIRCULATING PUMP (unaccessoried models).

It can be made between terminals 11 and 13.
(should the boiler fitted with a water storage calorifier, then follow the instructions delivered with the same).

CONNECTION OF THE PUMP OVERRUN RELAY (OPTIONAL)

Ensure that pump has been connected between terminals 11 and 13.

After having removed the cable bridge between terminals 9 and 12, the three faston male terminals of overreun relay should be connected as follows:

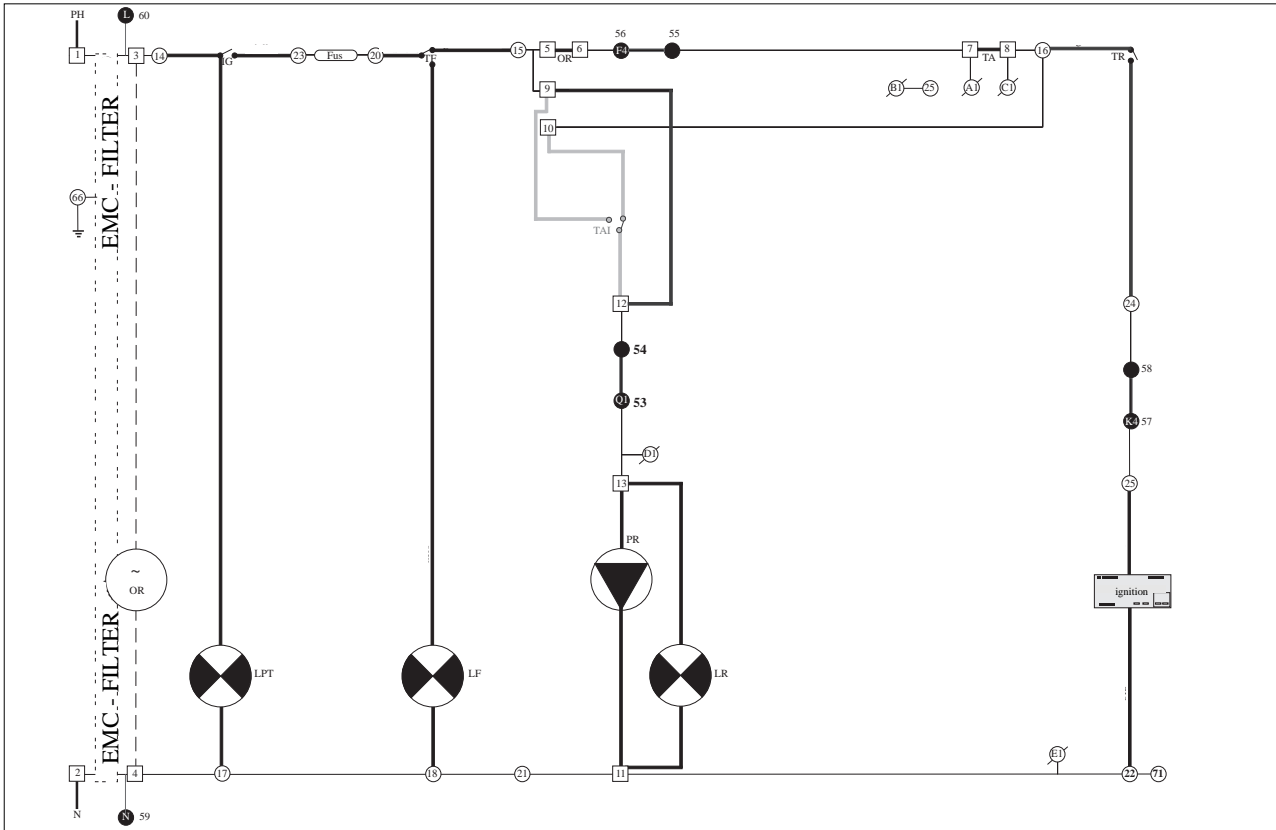
C(C)	to terminal	12
NC(1)	to terminal	10
NO(2)	to terminal	9

WARNING

The pump overrun relay TAI should have the possibility to be setted at a temperature **HIGHER** than that of the boiler control thermostat TR.

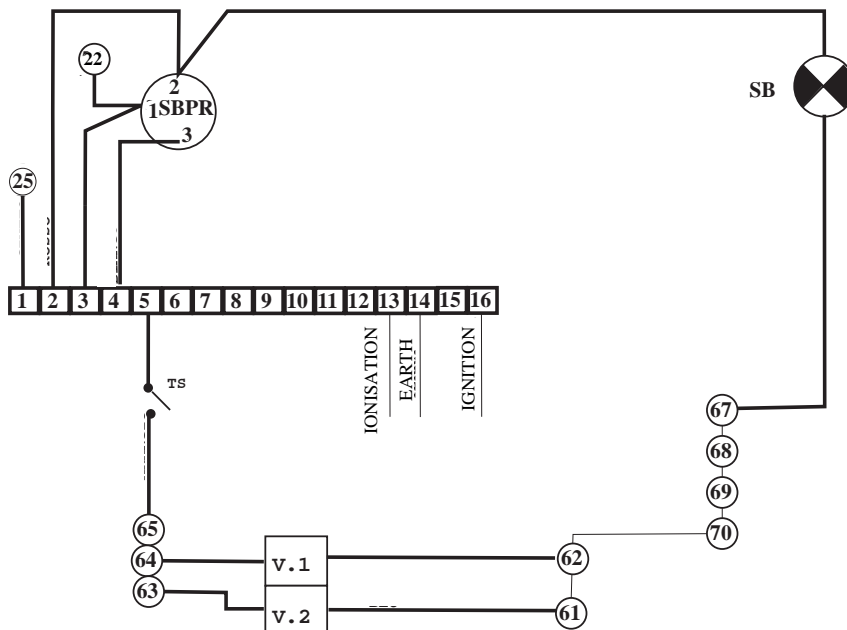
2.5.1

IDEA BOILERS WITH ELECTRONIC IGNITION



The legend and instructions for the connection of the circulating pump are on the previous page

The connections between control panel and ionisation panel are already made by Bongioanni, as shown below.



2.6

CASING ASSEMBLY

IDEA boilers are supplied complete with assembled casing.

Electrical and water connections can be made very easily without the need to desmantle any part of the casing.

It is sufficient to open the front door to have complete access to the control panel.

2.7

FIRST LIGHTING AND BOILER CONTROL

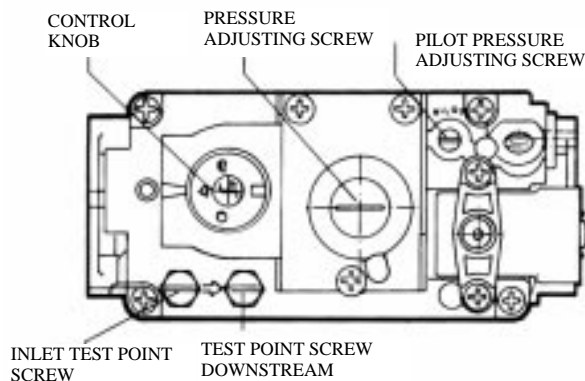
Ensure that system and boiler are filled with water and both have been perfectly vented.

Ensure that boiler has been supplied to operate with the appropriate type of gas, otherwise see § 2.7.3 (Changing gas type).

Shut the gas cock, remove the inlet pressure point screw on the gas valve and connect a water column manometer. Open the gas cock and check that the inlet gas pressure value is 20 mbar or slightly higher. (Warning: if pressure value is not stable or greater than 37 mbar it will be necessary to fit a pressure reducing valve to the gas inlet. Apply to a qualified Gas Service Engineer). Turn the boiler main switch on position **I** after checking that there is voltage on net (voltage indicator lamp should be on before turning main switch).

2.7.1

IDEA BOILERS WITH ELECTRIC IGNITION



- Turn the control knob to pilot position.
- Press it fully. As soon as gas flows from pilot burner, the ignition electrode will spark.
- Check that spark is approx 5 mm. long.
- When pilot burner lights, wait approx. 20 seconds before releasing the knob. The pilot burner should

stay alight. If not, repeat the operation. Ensure that thermocouple voltage (measured as near as possible to the valve) is 5 mV at least.

- Turn the knob to burner position.
- Remove the gas test point screw downstream. Move the water column manometer to the pressure test point downstream the burner. Refit the inlet test screw.
- Turn the boiler thermostat dial to the required temperature. When burner is fully ignited, set the burner gas pressure to the pressure shown in the technical data table 1.4 according to the gas type used.
- Seal the adjustment screw.
 - If burner does not ignite, then check that the correct electrical supply is being fed to the gas valve.
 - If there is voltage, then check that gas rate is sufficient before replacing gas valve.
 - If there is no voltage, check function of main switch, flue safety thermostat, time clock, room thermostat, boiler control thermostat.
- Switch the burner off using the main switch. Wait 30 seconds at least. Re-light the burner and check the slow ignition (approx. value: 8 mbar.).

2.7.2**IDEA BOILERS WITH ELECTRONIC IGNITION**

- Turn the boiler thermostat dial to the required temperature. As soon as gas flows from the main burner, the ignition electrode will spark.
If not, check that the correct voltage is being supplied to the gas control valve.
 - If there is voltage, then replace the gas control.
 - If there is no voltage, then check the function of main switch, flue safety thermostat, time clock, room thermostat, boiler control thermostat.
- Ensure that electrode spark is 5 mm. long and that it shoot out between ignition plug and gas outlet slots on the burner.
If there is spark but main burner does not ignite, ensure that:
 - gas installation has been completely vented;
 - voltage arrives to gas valve.
 If the burner lights but the ignition spark keeps operating and after a few seconds the ionisation control trips, ensure that:
 - on control panel phase is connected to pole 1 and neutral to pole 2;
 - ionisation plug is not broken or incorrectly positioned or damaged because of humidity;
 - installation has been correctly earthed and that the earth cable connected to the burner is adequately secured.
- Turn off the boiler main switch. Remove the test point screw downstream the burner. Move the water column manometer to the pressure test point downstream the boiler. Refit the inlet test screw. When burner is fully ignited, set the burner gas pressure to the pressure shown in the technical data table 1.4 according to the gas type used. Seal the adjustment screw.
- Switch the burner off using the main switch. Wait 30 seconds at least. Re-light the burner and check the slow ignition (approx. value: 8 mbar.).

2.7.3**CHANGING GAS SUPPLY TYPE**

IDEA boilers are supplied for use on Natural Gas. Should they be used with LPG, just ask for gas transformation kit to be sent for changing from Natural Gas to LPG.

BOILER MODEL	KIT REF. NO.	No./ ø INJECTORS	ø pilot injectors
Idea 18	1885123	2/1,55	0,24
Idea 27	1885124	3/1,55	0,24
Idea 36	1885135	4/1,55	0,24
Idea 45	1885126	5/1,55	0,24
Idea 54	1885127	6/1,55	0,24
Idea 63	1885128	7/1,55	0,24

Changing from Natural Gas to LPG:

- Exchange the injectors of main burner.
- Fully tighten the pressure regulator screw and replace the pressure regulator cap by the one (without hole) supplied with the kit.
- Check the burner pressure upstream the gas valve and set the pressure regulator according to values quoted on Technical Data Table 1.4.
- Check that burner pressure value downstream the gas valve corresponds to what reported on Technical Data Table 1.4. Seal the pressure regulating screw.

Changing from LPG to Natural Gas:

- Exchange the injectors of main burner.
- Set the burner pressure according to values quoted on Technical Data Table 1.4.
- Replace the pressure regulator cap by the one supplied with the kit.
- Seal the pressure regulating screw.

2.7.4**CHECKING THE FLUE THERMOSTAT**

It is strongly recommended that the efficient and safe operation of the flue thermostat is checked as follows:

- temporarily obstruct the flue above the draught diverter with an insulating material capable of enduring temperature of approx. 300°C
- open all the windows of boiler room to ensure air circulation before lighting the boiler
- the burner should stop within 2 minutes and the signal lamp indicating chimney should light (if not, flue thermostat should be replaced)
- turn off the main switch, turn off gas supply at the gas service cock
- refit the flue duct
- remove the temporary flue obstruction
- wait until the thermostat phial has cooled (approx. 10 minutes after intervention)
- reset the flue thermostat
- re-light the boiler.

SHOULD THE FLUE THERMOSTAT SIGNAL LAMP LIGHT AT ANY TIME DURING NORMAL OPERATION, CHECK THE CHIMNEY DRAUGHT.

3**BOILER OPERATING AND MAINTENANCE****Guidance for the User**

The only operation that the end user can carry out on the boiler are as follows:

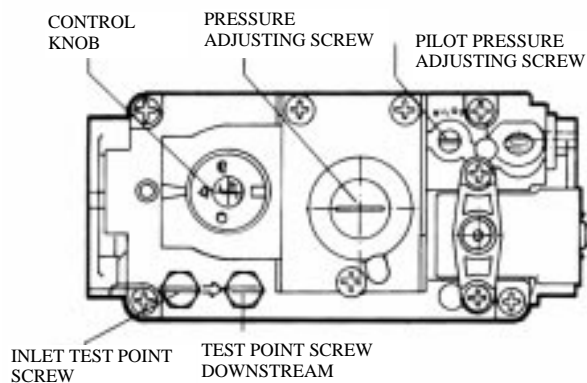
- check the presence of water in the boiler and installation (once a week at least)
- Reset of circulating pump, when fitted, after a period of inactivity of more than 15 days. [Switch off the boiler, unscrew the pump screw (it is normal that a small quantity of water overflows) and release the disk wheel by means of a screw driver].
- Reset of limit thermostat when pilot burner does not stay alight after ignition (IDEA boilers with electric ignition).
- Reset of limit thermostat and of boiler lockout button, when boiler is tripped (IDEA boilers with electronic ignition).
- In case of doubts, or should the boiler go to lockout for more than three times, then apply to a Qualified Gas Service Engineer.

3.1**SWITCHING THE BOILER ON**

- Open gas cock
- turn main switch ON
- Adjust boiler thermostat dial to the minimal temperature.

3.1.1

IDEA BOILERS WITH ELECTRIC IGNITION



- Turn the control knob to pilot position.
- Press it fully. As soon as gas flows from pilot burner, the ignition electrode will spark.
- When pilot burner lights, wait approx. 20 seconds before releasing the knob. The pilot burner should stay alight. If not, repeat the operation.
- Turn the knob to burner position.
- Turn the boiler thermostat dial to the required temperature.
- Should any problem occur during boiler

ignition, even though all operations have been made correctly, then apply to a qualified Gas Service Engineer.

3.1.2

IDEA BOILERS WITH ELECTRONIC IGNITION

- Turn the boiler thermostat dial to the required temperature. As soon as gas flows from pilot burner, the ignition electrode will spark.
- After approx. 10 seconds the igniter will stop sparking and main burner will remain alight.
- Should any problem occur during boiler ignition, even though all operations have been made correctly, then apply to a qualified Gas Service Engineer.

3.2

SWITCHING THE BOILER OFF

- Turn main switch OFF
- Turn OFF gas supply.

WARNING: If the boiler is located in a place where temperature can drop under 0°C, it is strongly recommended to put antifreeze into the installation.

3.3

WARNING

Servicing and cleaning must be carried out each year by a Qualified Gas Service Engineer on a regular basis, to ensure boiler efficiency and long life.

3.4

CLEANING THE BOILER

To clean the boiler it is suitable to apply to a Qualified Gas Service Engineer, proceeding as follows:

- disconnect and remove the burner, cleaning it thoroughly with the help of a vacuum cleaner and dusting brush.
- Dismantle the flue hood for cleaning
- Clean the fins/flue passes of the heat exchanger using flue brush.
- Clean the chimney/check for obstruction.

To clean the boiler casing use a damp dusting cloth.

WARNING: Always turn off the electrical supply before starting

Do not use detergents or solvents. To remove particularly resistant stains, use alcohol. Re-check thermostat settings and reconnect the electrical supply.

3.5

FLUE SAFETY THERMOSTAT

RE-STARTING THE BOILER

The activation of the flue safety thermostat is indicated by a red signal lamp on the control fascia corresponding to the symbol “chimney obstructed”.

To re-start the boiler proceed as follows:

- turn off power supply
- remove the casing front panel to reach the flue thermostat reset button
- remove (unscrew) the plastic cover on the reset button
- push down the red reset button
- refit the plastic cover and re-assemble the casing front panel
- turn on power supply.

WARNING: should the flue safety thermostat trip more than three times, it is absolutely vital to call for a Qualified Service Engineer to check for the possible cause of failure. Should the chimney draught be inadequate, then corrective action must be taken.

PROHIBITION: the flue safety thermostat has been pre-setted and its sensor positioned in such a way that the device will trip in accordance with the Regulations in force.

Therefore it is absolutely forbidden to change either the phial position or electrical connection. It is also forbidden to replace the flue safety thermostat with another of non-original supply.



**12010 VIGNOLO (CN) - Via Cervasca, 6 - TEL. (0171) 407111
TELEX: 226662 SARB I - FAX: (0171) 407350**