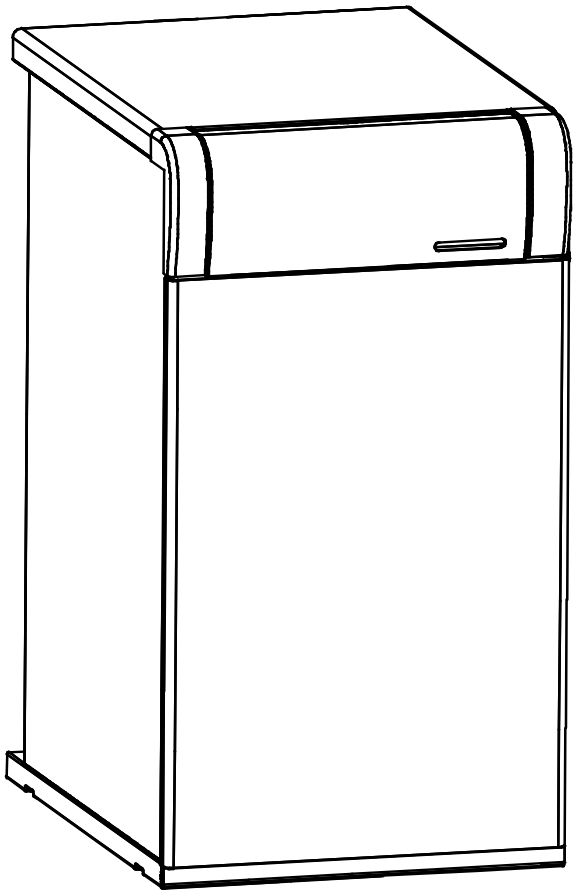
INSTALLATION AND OPERATING INSTRUCTIONS

↪ SIRENA CAL HFD



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CGM-04/392

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Empresa Registrada
ER-0170/1996

DOMUSA TEKNIK

We thank you for having chosen a **DOMUSA TEKNIK** heating boiler. Within the product range of **DOMUSA TEKNIK,** you have chosen the **Sirena** model. This boiler is capable of providing you with the comfort level suitable for your house, and always together with a proper and oil fed hydraulic installation. In addition, you will be able to enjoy a balanced an economical hot water.

This manual forms an essential part of the product and it must be given to the user. Read the warnings and recommendations in the manual carefully, as they contain important information on the safety, use and maintenance of the installation.

These boilers must be installed by qualified personnel only, in accordance with the legislation in force and following the manufacturer's instructions.

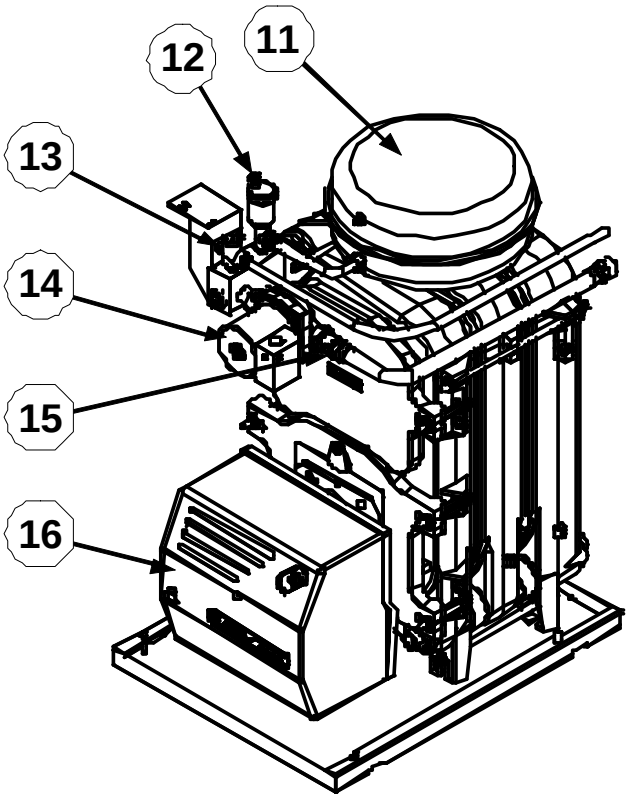
The start-up of these boilers and any maintenance operations must only be carried out by Official Technical Assistance Services of **DOMUSA TEKNIK**.

Incorrect installation of these boilers could result in damage to people, animals or property, and the manufacturer will hold no liability in such cases.

DOMUSA TEKNIK informs all parties concerned that, in compliance with section 1 of the first additional provision of Law 11/1997, the responsibility for delivering packaging waste or used packaging for its proper environmental management will be that of the final owner of the product (Article 18.1 Royal Decree 782/1998). At the end of its useful life, the product must be taken to a selected collection point for electrical and electronic equipment or must be returned to the distributor at the time of purchasing a new equivalent appliance. For more detailed information on the collection schemes available, contact either the collection facilities of the local authority or the distributor where the purchase was made.

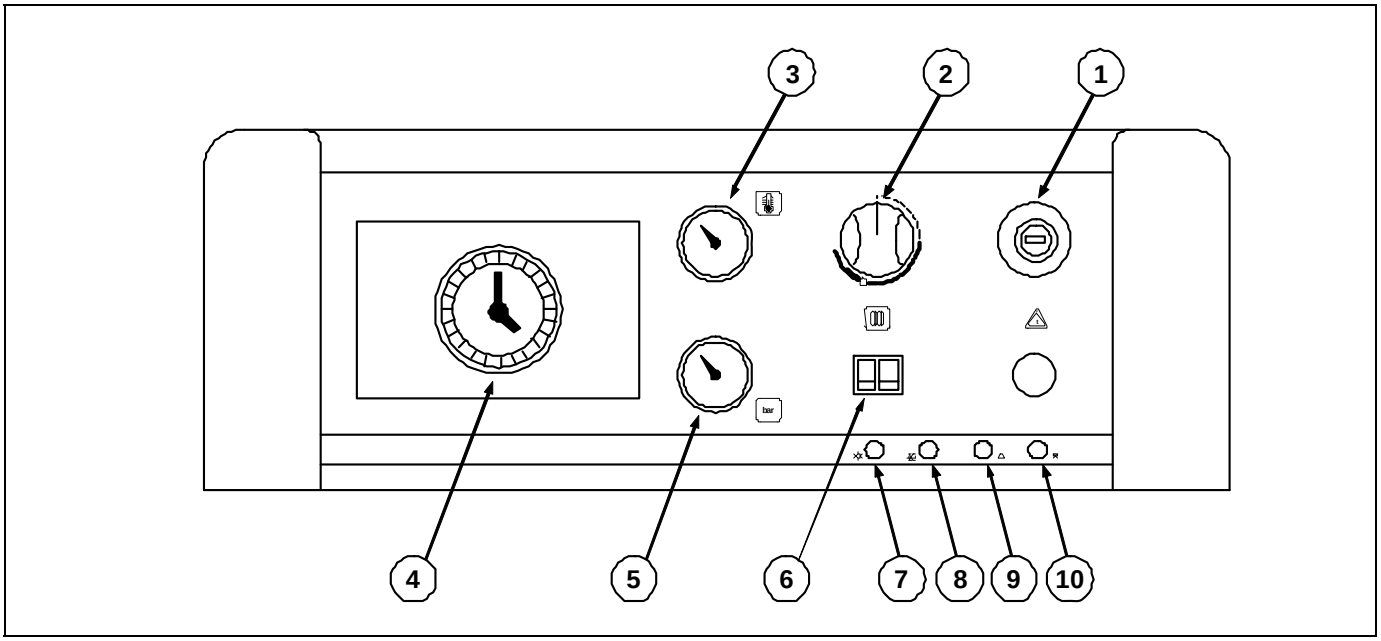
TABLE DES MATIÈRES **Page**

1 LIST OF COMPONENTS



11. Expansion vessel.
12. Automatic air vent.
13. Pressure relief valve.
14. Heating circulating pump.
15. Unidirectional valve.
16. Burner.

2 CONTROL COMPONENTS



1. Safety thermostat:

It ensures that the boiler temperature does not exceed 110 ºC by locking its operation.

2. Control thermostat.

You will be able to, by means of this element, select the heating working temperature, stopping the burner when the boiler temperature reaches that selected or keeping it running as long as the temperature is lower than that pre-set.

3. Thermometer:

It indicates the boiler water temperature.

4. Timer Optional):

It is an optional element capable of operating in a weekly or daily basis, allowing the switching ON/OFF cycles of the boiler to be selected.

5. Pressure gauge

It indicates the installation pressure.

6. Main selector:

It allows the boiler to be switched on and off by pushing "**O/I**" button.

7. Pilot Summer:

When lit, it indicates that the service is selected Summer (A.C.S. only).

8. Pilot Winter:

When lit, it indicates that the service is selected Winter (heating + A.C.S.).

9. Blocked due to temperature pilot light:

When lit, it indicates that the boiler operation has been blocked due to excessive temperature (higher than 110ºC).

10. Burner blocked pilot light:

When lit, it indicates that the boiler operation has been blocked due to blocking of the burner.

3 INSTALLATION INSTRUCTIONS

The boiler has to be installed by personnel authorised by the Department of Industry in accordance with the regulations and normative in force on this matter. Notwithstanding, it will be necessary to comply with the following recommendations when installing the boiler:

3.1 Location

The boiler is to be installed into a sufficiently ventilated site.

3.2 Uptake

It is essential for this type of boiler to be connected to an uptake, being defined as that flue being capable of generating a depression (in our case of 1.5 mmH_2O for **Sirena Cal HFD**). It is advisable, for the uptake to be capable of generating a depression, to follow the recommendations described below:

- It is to be provided with a suitable thermal insulation.
- It is to be separately fitted, building an uptake for each boiler.
- It is to be vertically mounted and angles higher than 45º are to be avoided.
- It is to stick up a metre through the roof ridge beam or any adjacent building.
- It is always to have the same section, the circular one is recommended, and it will never be less than the boiler outlet diameter.

However, they will always be built in accordance with the standards corresponding to the normative on installation.

3.3 Hydraulic installation

The hydraulic installation is to be carried out by skilled personnel complying with the installation standards and taking the following recommendations into account:

- A thorough interior cleaning of the installation piping is to be performed prior to the switching on of the boiler.
- It is recommended that cut-off valves be interspersed between the installation piping and the boiler, in order to simplify the maintenance tasks.

3.4 Electric installation

The boiler is ready to be connected at 220 V 50 Hz on plugs 1 and 2 of the terminal strip. **Do not forget to do grounding.**

In addition, the boiler is provided with two terminals for the room thermostat connection (see Electrical Diagram). For that, the bridge joining both terminals is to be removed and the room thermostat is to be connected there.

3.5 Oil installation

The model **Sirena** is supplied with an oil burner **Domestic** (see the model in the Technical Data). For a correct oil line installation proceed in accordance with the burner instructions.

4 INSTALLATION WATER-FILLING

In order to fill the installation, open the filling valve up to the pressure gauge *(5)* indicates a pressure between 1 and 1.5 bar. Filling is to be carried out slowly and with the automatic air vent open, so that the installation air will be released. In addition, the other parts of the installation are to be properly drained by means of the air vent valves fitted for such a purpose. Once the installation has been filled up, close the filling valve.

NOTE: Switching on the boiler without water could result in serious damage to it.

5 SAFETY LOCKING

The boiler is provided with two types of operating safety locking:

5.1 Temperature safety locking

This locking is indicated by the temperature locked out neon light *(9)*. It will occur every time the temperature in the boiler exceeds 110º C. The safety thermostat *(1)* built-in button will be pressed in order to unlock it, once the plug covering this button has been previously loosened.

5.2 Burner locking

This locking is indicated by the burner locked out neon light *(10)*. It is caused by any failure which could exist in the burner or oil line. To unlock, press the burner lighted push button which becomes put on *(16)*.

NOTE: If any of these lockings were repetitive, contact the nearest authorised Technical Assistance.

6 BOILER OPERATION

Select the temperature desired in the control thermostat *(2)* and in the room thermostat (if any). Switch on the boiler setting the main selector *(6)* to "I" position and to "❄" position. The burner will start operating up to the boiler reaches the temperature selected on the control thermostat (it should be between 60 ºC and 85 ºC). In its turn, the circulating pump will start operating. When the room temperature is higher than or equal to that rated on the installation room thermostat (if any), the circulating pump will stop

6.1 Boiler operation with a Sanit hot water tank

The model **Sirena Cal HFD** can be supplied with a **Sanit** DHW tank of **DOMUSA TEKNIK** to install them in combination, to obtain a high production of DHW. For a correct installation of the tank follow carefully the installation and operating instructions included with the tank.

The boilers are supplied with an optional heating outlet IC' (see Dimensions) to connect the DHW tank **Sanit** to the boiler. To work with the combination of the boiler and **Sanit** DHW tank, the boiler's main selector has two different positions, Summer and Winter:

- Summer position ☼: The boiler will supply, at this position, only DHW, putting on the burner and the DHW circulating pump (summer pump) up to the tank reaches the temperature selected on the DHW regulation thermostat, placed on the main board of the tank. When the temperature selected in the DHW tank is reached, the burner and the summer pump will stop.

- Winter position ❄: The boiler will be, at this position, capable of heating the DHW tank and heating installation, giving priority to the DHW production.

7 TIMER-BASED OPERATION (OPTIONAL)

The boiler **Sirena** can be supplied with a timer, as an option, to be mounted on the main board. The boiler and the timer are supplied with an easy mounting system, which consist in a 12-pole connector *(X12)* shown in the Electrical Diagram.

Boilers equipped with a timer have the possibility of operating in three positions, depending on which the programmer switch is:

- **Run (I):** In this position, the boiler will operate continuously, irrespective of the position of programmer tabs.

- **Automatic** 🕒: When the timer switch is at this position, the boiler will operate with switching ON/OFF cycles according to the programmer tabs. The boiler will be switched ON at the positions on which tabs are pressed outwardly, and it will be switched OFF at those positions on which tabs are pressed inwardly.

- **Stop (O):** The boiler will be disconnected at this position.

In order to set the time on the timer, set the current time over the arrow provided in the timer for such a purpose.

8 BOILER STOP

Set the main selector *(6)* to "**O**" position in order to stop completely the boiler.

9 START-UP

The start-up of the boiler, for the **validity of warranty** to be in force, is to be carried out by a **Technical Assistance Service authorised by DOMUSA TEKNIK**. Prior to proceeding to such a start-up, the following steps will be performed:

- The boiler is to be electrically connected to the mains.

- The installation has to be filled up with water (manometer between 1-1.5 bar).

- Oil is to come up to the burner at a pressure not higher than 0.5 bar.

In order to start up the boiler, set the main selector, control thermostat, and the timer and the room thermostat (if any), at the desired position.

10 EQUIPMENT DELIVERY

The Technical Assistance Service, once the first start-up has been carried out, will explain the boiler operation to the users by informing them about the most necessary remarks.

The fitter will be responsible for explaining to the users the operation of any control or regulation device that is a part of the installation and it is not supplied with the boiler.

11 BOILER MAINTENANCE

In order to maintain the boiler under correct operating conditions, a checking operation is to be made by DOMUSA TEKNIK's authorised personnel on a yearly basis. Notwithstanding:

- Once a year, we recommend to clean carefully boiler chamber and flue gases pipes.

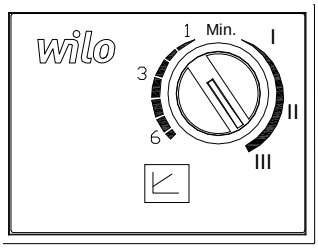
- The installation pressure is to be maintained between 1 and 1.5 bar.

- If your boiler has been stopped for a long period of time, you should ensure that circulating pumps operate properly. For that, remove the front plug of the pump, leaving the pump shaft exposed. If the shaft does not rotate, switch off the pump by means of the main selector ***(1)***. Press lightly the shaft by means of a suitable screwdriver and make it rotate in both directions. Switch on the selector again

12 CIRCULATING PUMPS FLOW CURVES

It will be possible to obtain, in the following charts, the hydrodriving pressure available in the installation at the boiler exit, having taken the boiler pressure drop into account.

12.1 Characteristic curves of the pump.



The pump can be adjusted in two ways:

1-Constant speed I, II, III (traditional mode):

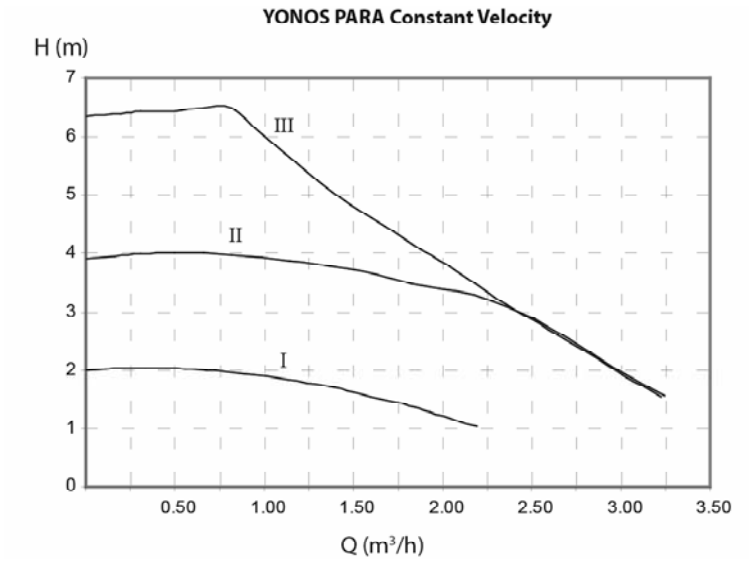
The pump operates at a constant, pre-set speed.

2-Variable differential pressure (Δp-v):

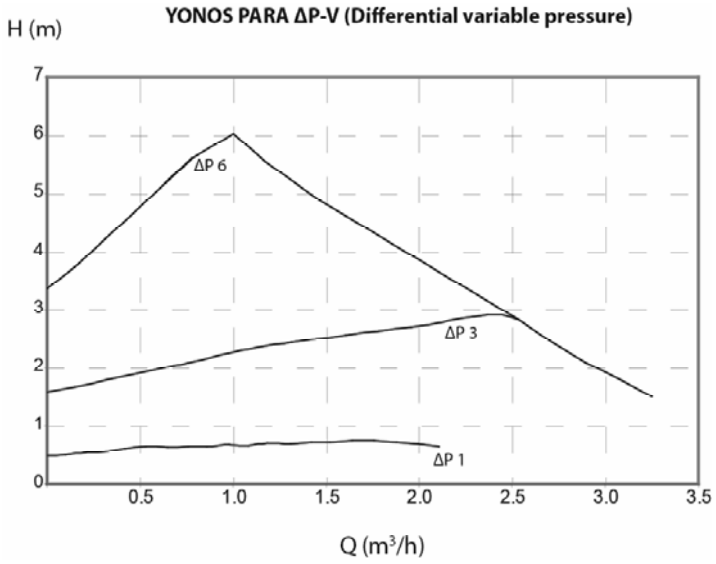
The setpoint value of the differential pressure H increases in a straight line between ½H and H within the permitted flow margin. The differential pressure generated by the pump is adjusted to the appropriate setpoint value of differential pressure.

The graphs below show the operating curves for the pump integrated in the kit. These graphs show the curves, corresponding to the different options of the circulating pump.

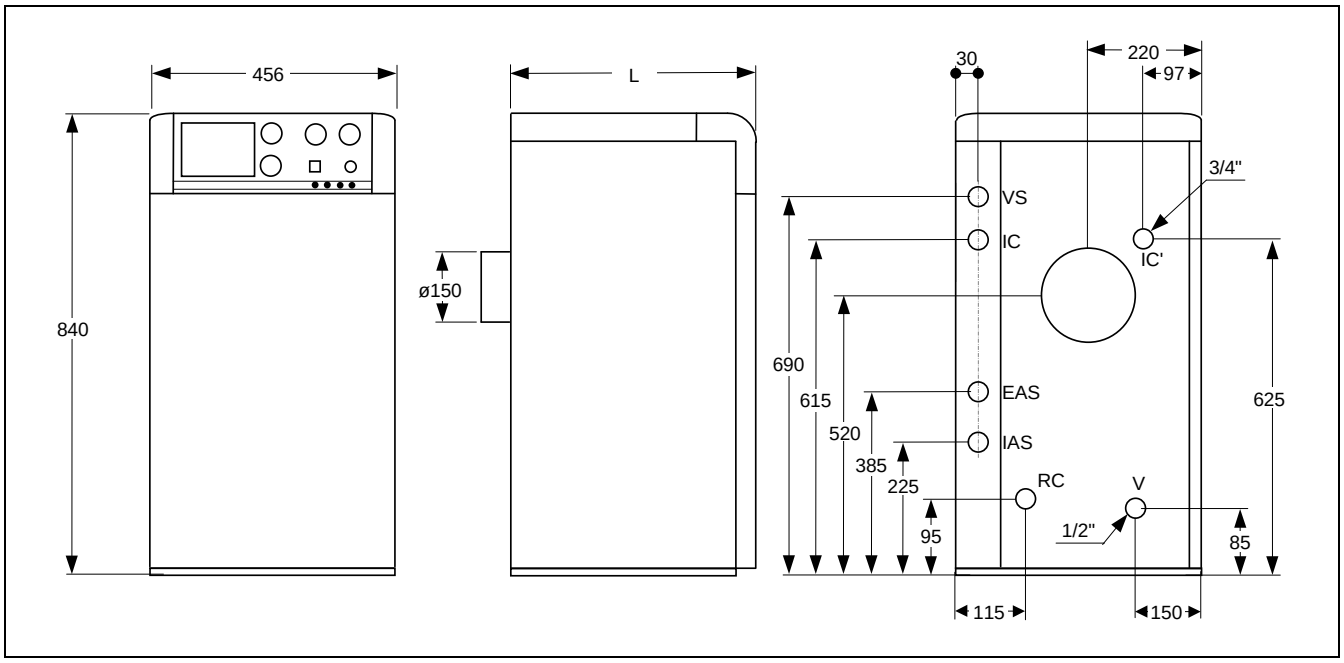
Characteristic curve of the circulation pump for the constant speed mode I, II, III:



Characteristic curve of the circulation pump for the variable differential pressure mode:



13 DIMENSIONS



IC: Heating outlet.
IC': Optional heating outlet (CAL HFD).
RC: Heating inlet.
V: Drainage
VS: Pressure relief valve.

MODEL	IC/IC' RC/RC'	DIM. L
HFD-30	3/4"M	650
HFD-40	1"M	750
HFD-50	1"M	850

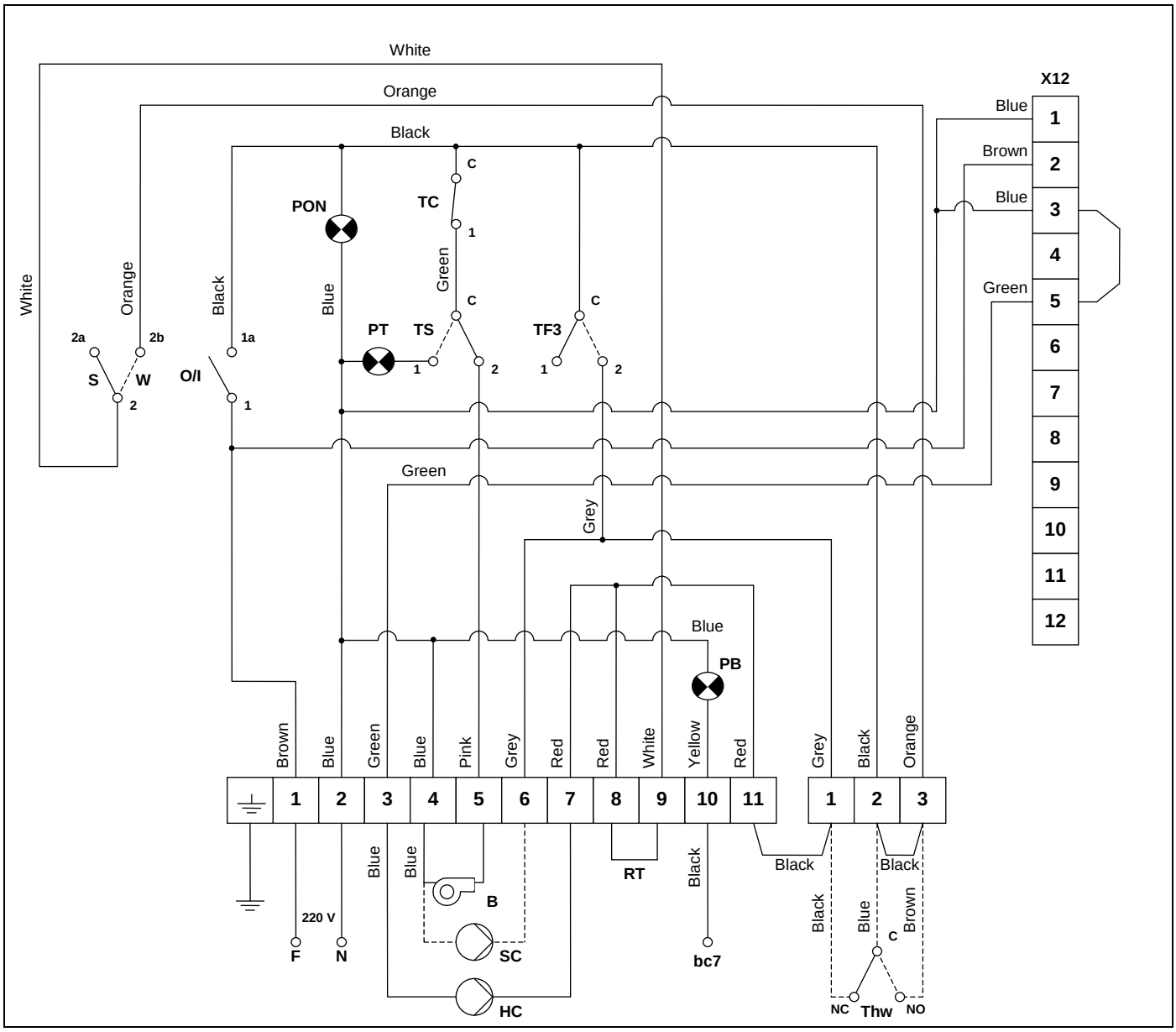
.

14 TECHNICAL DATA

14.1 Acumulateur BT Duo 150-250

SIRENA CAL HFD			30 HFD	40 HFD	50 HFD
Boiler type	-		Low temperature		
			Heating only		
Rated heat output	P_{rated}	kW	29	40	50
Useful heat output	P_4	kW	28,1	39,4	50,8
Useful heat output (30%)	P_1	kW	8,9	12,1	15,6
Seasonal space heating energy efficiency	η_S	%	86	87	86
Useful efficiency	η_4	% (PCI)	91,5	94,7	94,5
		% (PCS)	86,3	89,3	89,1
Useful efficiency (30%)	η_1	% (PCI)	97,5	97	96,3
		% (PCS)	92,0	91,4	90,8
Auxiliary electricity consumption at full load	el_{max}	kW	0,152	0,161	0,161
Auxiliary electricity consumption at part load	el_{min}	kW	0,055	0,056	0,056
Auxiliary electricity consumption in standby mode	PSB	kW	0,003	0,003	0,003
Standby heat loss	P_{stby}	kW	0,106	0,094	0,141
Emissions of nitrogen oxides	NOx	mg/kWh	126	105	128
Heating temperature adjustment	ºC		60-85		
Maximum safety temperature	ºC		110		
Maximum pressure for heating mode	bar		3		
Heating expansion vessel capacity	Lts		8	12	12
Heating water volume	Lts		16,2	20,2	24,2
Water pressure drop	mbar		100	204	263
Fume temperature	ºC		213	213	208
Volume on fume side	Lts		11,4	17,5	23,5
Maximum fume flow	Kg/s		0,0132	0,0186	0,0245
Fume pressure drop	mbar		0,17	0,18	0,20
Combustion chamber length	mm		300	400	500
Combustion chamber type	-		wet, with three fume outlets		
Burner adjustment type	-		ON / OFF		
Electrical supply	-		~220-230 V - 50 Hz - 200 W		
Gross weight	Kg		144	171	198

15 ELECTRICAL DIAGRAMS

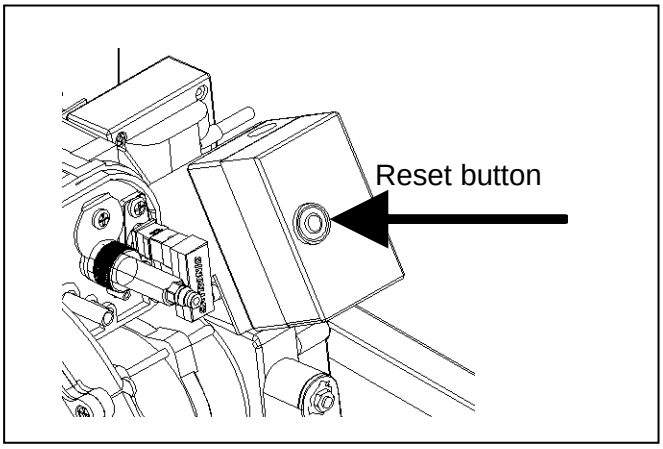


B: Burner.
SC: DHW tank Pump (summer pump).
HC: Heating circulating Pump.
RT: Room thermostat.
bc7: Terminal no. 7 of Burner Control.
O/I: Main Selector.
S/W: Summer-Winter selector.
Thw: DHW tank thermostat.

TC: Control Thermostat (on boiler).
TS: Safety Thermostat (on boiler).
TF3: Antiinertia Thermostat: 93 ºC (on boiler).
PON: ON-OFF neon light.
PT: Temperature locked out neon light.
PB: Burner locked out neon light.
X12: Timer mounting connector.

16 BURNER CONTROL OPERATING SEQUENCE

The burner's LMO control box has a reset button which is the key element for resetting the burner control and activating/deactivating the diagnosis functions.
The multi-colour LED on the reset button is the indicator for visual diagnosis. The button and the LED are located under the transparent cover of the reset button. During normal functioning, the various operating statuses are indicated in the form of colour codes (see the colour code table below). During ignition, the indication is as shown in the following table:



Colour code table for multi-colour indicator lights (LEDs)		
Status	**Colour code**	**Colour**
Wait time «tw», other standby statuses	○.....	Off
Fuel pre-heater on	●.....	Yellow
Ignition phase, controlled ignition	●○●○●○●○●○●	Flashing yellow
Functioning, flame OK	□.....	Green
Functioning, flame not OK	□○□○□○□○□○	Flashing green
External light during burner ignition	□▲□▲□▲□▲□▲	Red/green
Undervoltage	●▲●▲●▲●▲●	Yellow/red
Failure, alarm	▲.....	Red
Error code output (see «Error code table»)	▲○ ▲○ ▲○ ▲○ ▲○	Flashing red
Interface diagnosis	▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲	Flashing red light

….. **Steady light**

○ **Off**

▲ **Red**

● **Yellow**

□ **Green**

17 FAILURES

This section provides an index of the most common failures in both the burner and boiler.

17.1 Burner error code

We have already mentioned that the burner is equipped with a cut-out system, indicated by the reset button light. It may cut out accidentally, and in this case the steady red light on this button will come on. You may unblock it by pressing the button for approx. 1 second. When the burner is blocked and the steady red light is on, visual failure diagnosis may be activated, in accordance with the error code table. To enter visual failure diagnosis mode, hold down the reset button for at least three seconds.

Error code table		
Red flashing LED code	**"AL" on term. 10**	**Possible cause**
Flashes 2 times	On	No flame established when ignition safety time ends. - Fuel valves defective or dirty - Flame detector defective or dirty - Burner maladjustment, no fuel - Ignition unit defective
Flashes 4 times	On	External light during burner ignition
Flashes 7 times	On	Excessive flame loss during functioning (limited number of repetitions) - Fuel valves defective or dirty - Flame detector defective or dirty - Burner maladjustment
Flashes 8 times	On	Supervision of fuel pre-heater time
Flashes 10 times	On	Cabling fault or internal failure, output contacts, other failures

During the failure diagnosis time, the control outputs are disabled and the burner remains off.
To exit failure diagnosis and activate the burner again, reset the burner control. Hold down the reset button for approx. 1 second (<3 s).

17.2 Boiler failures

FAILURE	CAUSE	REMEDY
RADIATOR DOES NOT HEAT	- The pump does not rotate - Air in hydraulic circuit	Unlock the pump Drain the installation and boiler (The air vent plug is always to be loose)
EXCESSIVE NOISE	- Poorly-adjusted burner - There is no sealing on the uptake - Unstable flame - Uptake with no thermal insulation	Adjust properly Eliminate the leakage Check the burner Insulate properly

17.3 Circulating pump status codes

The high efficiency pumps of the **Bio M Underfloor Heating Hydraulic Kit** include a Led (light) which displays their status.

PUMP LIGHT	DESCRIPTION	STATUS	CAUSE	SOLUTION
It is lit green	The pump is functioning	The pump operates according to its setting	Standard functioning	
It flashes red/green	The is ready for service but is not functioning	The pump will start up again automatically once the error has been solved	1. Low voltage U<160 V or Excess voltage U>253 V	1. Check the power supply 195 V<U<253 V
			2. Excess temperature of the module: the temperature of the motor is too high	2. Check the room temperature and that of the fluid
Flashes red	The pump is out of order	The pump is stopped (blocked)	The pump does not start up automatically.	Change the pump. Please contact your nearest official technical assistance service to have it replaced
Light off	There is no power supply	The electrical system is not receiving power supply	1. The pump is not connected to the power supply	1. Check the connection of the cable
			2. The LED is faulty	2. Check if the pump works
			3. The electrical system is faulty	3. Change the Pump. Change the pump. Please contact your nearest official technical assistance service to have it replaced

18 BURNER

18.1 Mounting

Fix the burner support to the boiler. Fix the burner to the support. This allows a correct inclination of the flame tube towards the combustion chamber. Mount the oil aspiration and return tubes, including the oil-filter in the aspiration.

18.2 oil installation

"Domestic" burner is equipped with a self-aspiration pump, which allows the aspiration of combustible from the tank which is installed in a lower level than the burner, as long as the pressure measured with a vacuometer in the pump does not exceed 30 cmHg.

18.3 start up of the burner

Make sure that there is combustible in the tank, also that the oil valves are open and there is electric connection to the burner. Switch on the main switch. Unscrew the air-drains screw (manometer tap). Then, when the electrovalve opens, take the photocell sensor out of its place and approach it to a luminous source until oil comes out. Disconnect the burner and screw the drains-screw

18.4 burner combustion adjustment

Observe the flame. If there is not enough combustion air, it will be dark and it will produce smoke which will close the uptake.

On the other hand, if there is too much combustion air, the flame will be white or white-blue coloured, reducing the efficiency and therefore not fulfilling the anti-pollution norms. Besides, the excess of air may difficult the ignition process.

The flame must be kind of orange coloured.

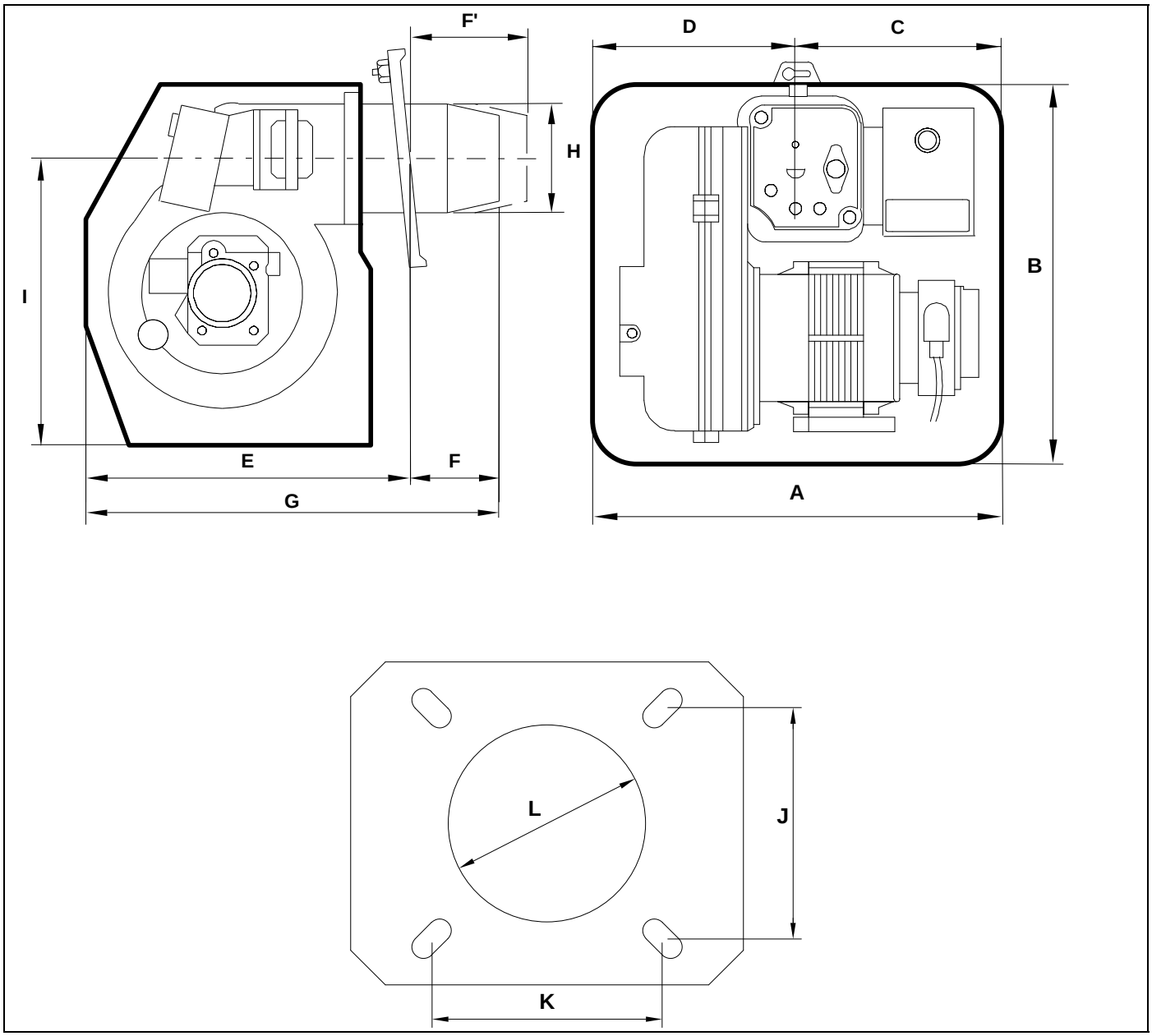
Due to the construction of the boiler, if it is difficult or impossible for you to see its flame, the combustion airflow can be set-up observing the smoke coming out from the chimney. If it is dark, the air in the burner will have to be increased and if it is white, the air in the burner will have to be decreased until there is no smoke at all.

If you are provided with a device, which verifies the composition of the combustion gases, it will be the best guide to adjust the flame, but if you do not have it, follow the preceding indications.

18.5 selection of oil nozzle

Go to the chart shown on page no.5 and select the correct oil nozzle in accordance with the pressure, bearing in mind that 1 Kg/h of oil approximately produces 11.86 kW.

18.6 DIMENSIONS



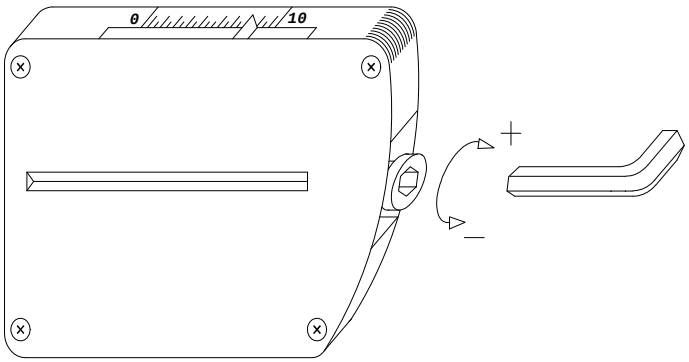
DIMENSIONS TABLE

DIMENSION	A	B	C	D	E	F	F'	G	H	I	J	K	L
(mm)	292	265	140	152	215	75	98	290	ø80	205	100	100	ø90

F: Domestic D-3.
F': Domestic D-4.

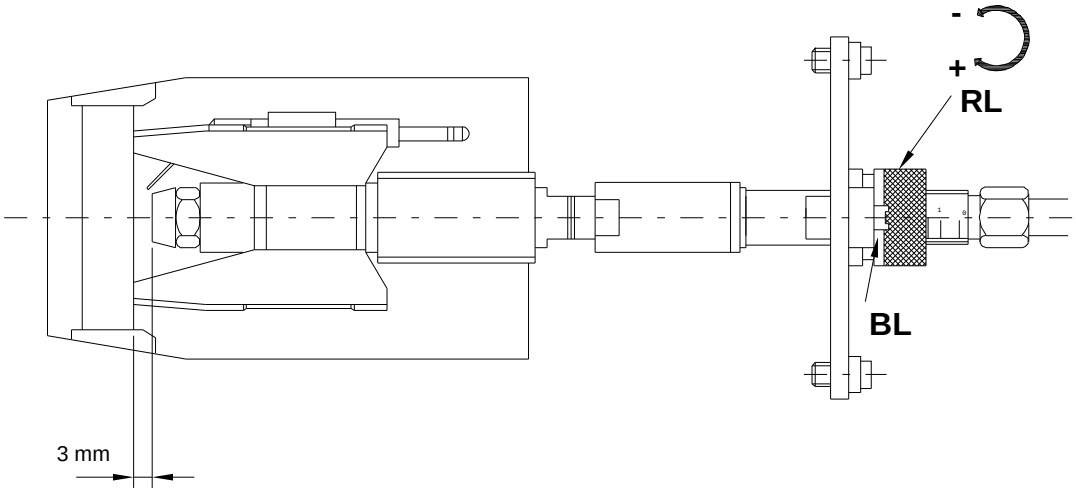
18.7 primary combustion air adjustment

To adjust the primary combustion air, turn the screw as shown on the drawing by means of a 6 mm. Allen wrench. To increase the airflow, turn it to the right and to decrease it, turn it to the left.



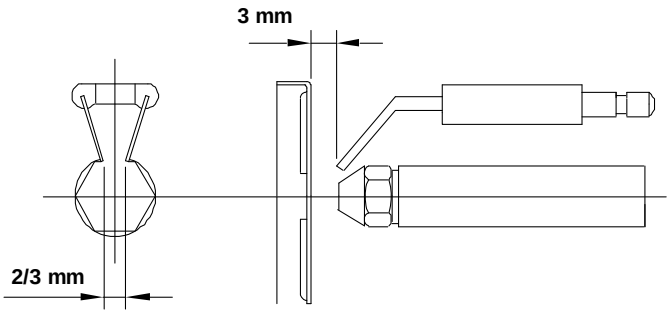
18.8 combustion line adjustment

To adjust the combustion line, unscrew the combustion line blocking screw **"BL"**. Turn the line adjustment screw **"RL"** to the right to increase the airflow and to the left to decrease it. After the adjustment has been made, screw the combustion line blocking screw **"BL"**.



18.9 correct positioning of ignition electrodes

To assure a good ignition of the burner **Domestic**, it is necessary to respect the measures shown in the drawing. Besides, before mounting the flame tube again, make sure that the blocking screws of the electrodes have been fixed.



18.10 oil pressure adjustment

To adjust the pressure of the oil pump, turn the screw **(1)** to the right in order to increase it and to the left in order to decrease it.

1 - Pressure adjustment.

2 - Vacuometer nipple.

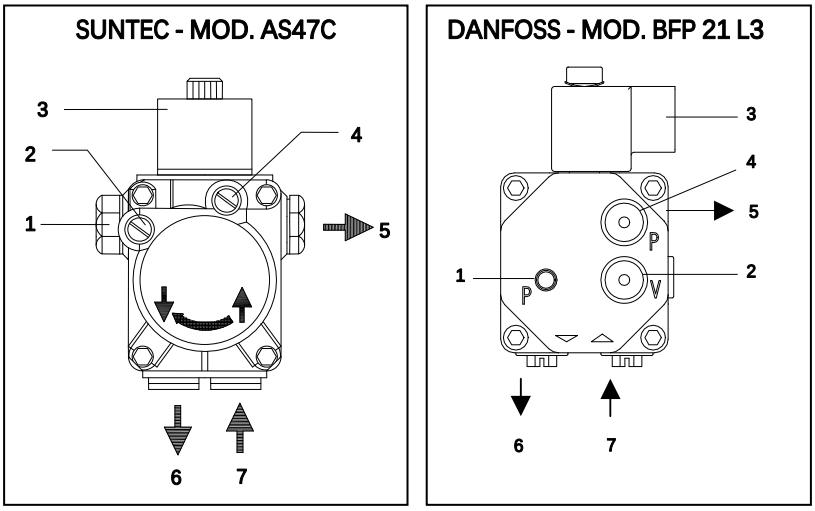
3 - Electrovalve.

4 - Manometer nipple.

5 - Oil outlet.

6 - Oil return.

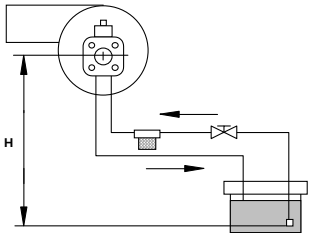
7 - Oil inlet.



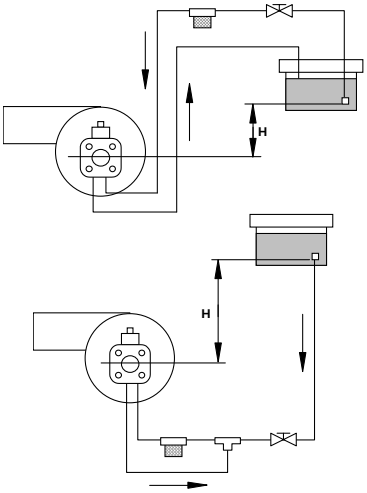
18.11 oil installation diagrams

These diagrams and charts belong to oil line installations without reductions and with a perfect hydraulic sealed. It is highly recommended to use copper pipes. Depression of maximum 0,4 bar (30 cmHg) must not be exceeded.

In aspiration installation



In charge installation



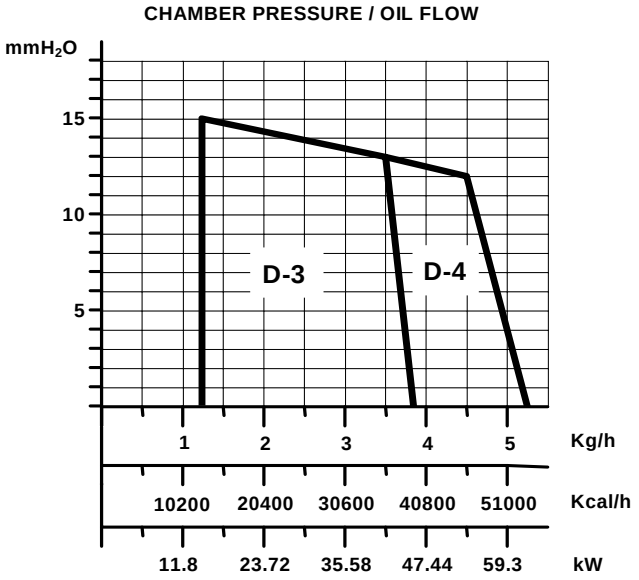
In aspiration installation		
H (m)	Pipes length	
	∅in 8 mm.	∅in 10 mm.
0,0	25	60
0,5	21	50
1,0	18	44
1,5	15	38
2,0	12	26
2,5	10	26
3,0	8	20
3,5	6	16

In charge installation		
H (m)	Pipes length	
	∅in 8 mm.	∅in 10 mm.
0,5	10	20
1,0	20	40
1,5	40	80
2,0	60	100

18.12 Technical data

MODEL	D-3	D-4
Min. heat outlet Kg/h	1,5	2,3
Max. heat outlet Kg/h	3	4,65
Min. heat outlet kW min.	17,7	27,2
Max. heat outlet kW max.	35,5	55,2
Motor power at 2800 r.p.m.	90-110 W	
Type of control	Mono-stage	
Electrical power	220/230 V - 50 Hz	
Weight Kg	12,5	
Pre-heater	Optional	

18.13 working diagram



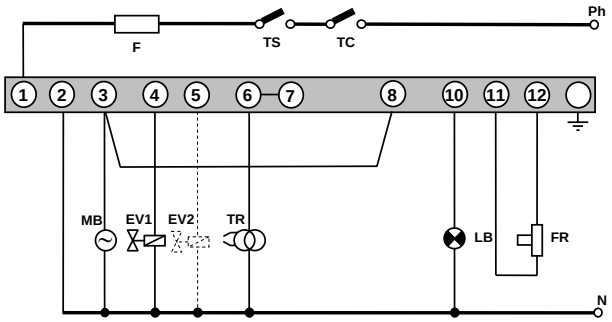
18.14 oil flow versus nozzle and pump pressure

GPH	9 Atm. Kg/h	10 Atm. Kg/h	11 Atm. Kg/h	12 Atm. Kg/h	13 Atm. Kg/h	14 Atm. Kg/h	15 Atm. Kg/h	16 Atm. Kg/h	17 Atm. Kg/h
0,40	1,45	1,55	1,60	1,67	1,75	1,80	1,87	1,94	1,97
0,50	1,80	1,90	2,00	2,10	2,20	2,27	2,33	2,34	2,35
0,55	2,00	2,10	2,20	2,30	2,40	2,50	2,60	2,68	2,71
0,60	2,20	2,30	2,40	2,50	2,60	2,70	2,80	2,90	3,00
0,65	2,35	2,50	2,60	2,70	2,80	2,90	3,05	3,10	3,20
0,75	2,70	2,85	3,00	3,15	3,25	3,40	3,50	3,60	3,70
0,85	3,10	3,25	3,40	3,55	3,70	3,80	4,00	4,10	4,20
1,00	3,60	3,80	4,00	4,20	4,35	4,50	4,70	4,80	4,90
1,10	4,00	4,20	4,40	4,60	4,80	5,00	5,10	5,65	5,75

18.15 electrical diagrams

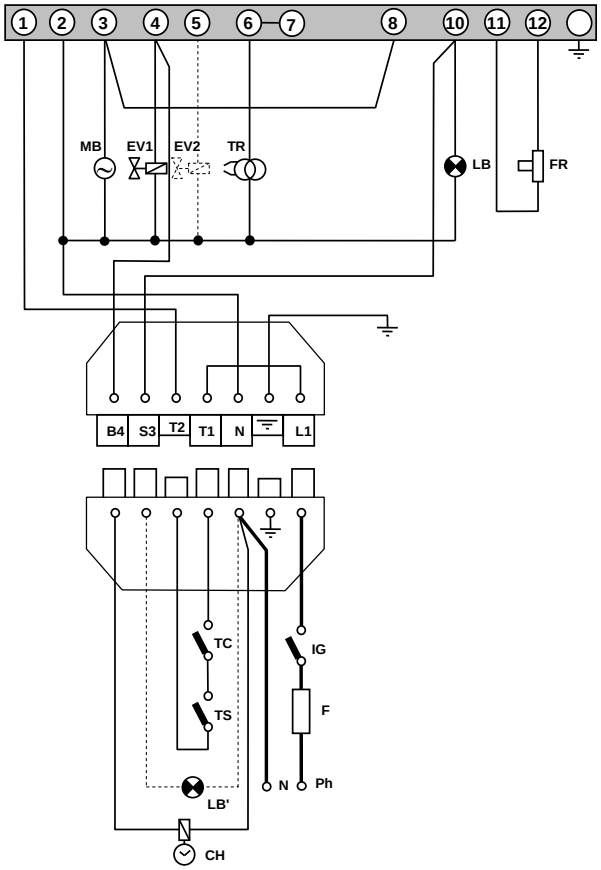
WITHOUT CONNECTOR

WITHOUT PRE-HEATER



WITH CONNECTOR

WITHOUT PRE-HEATER



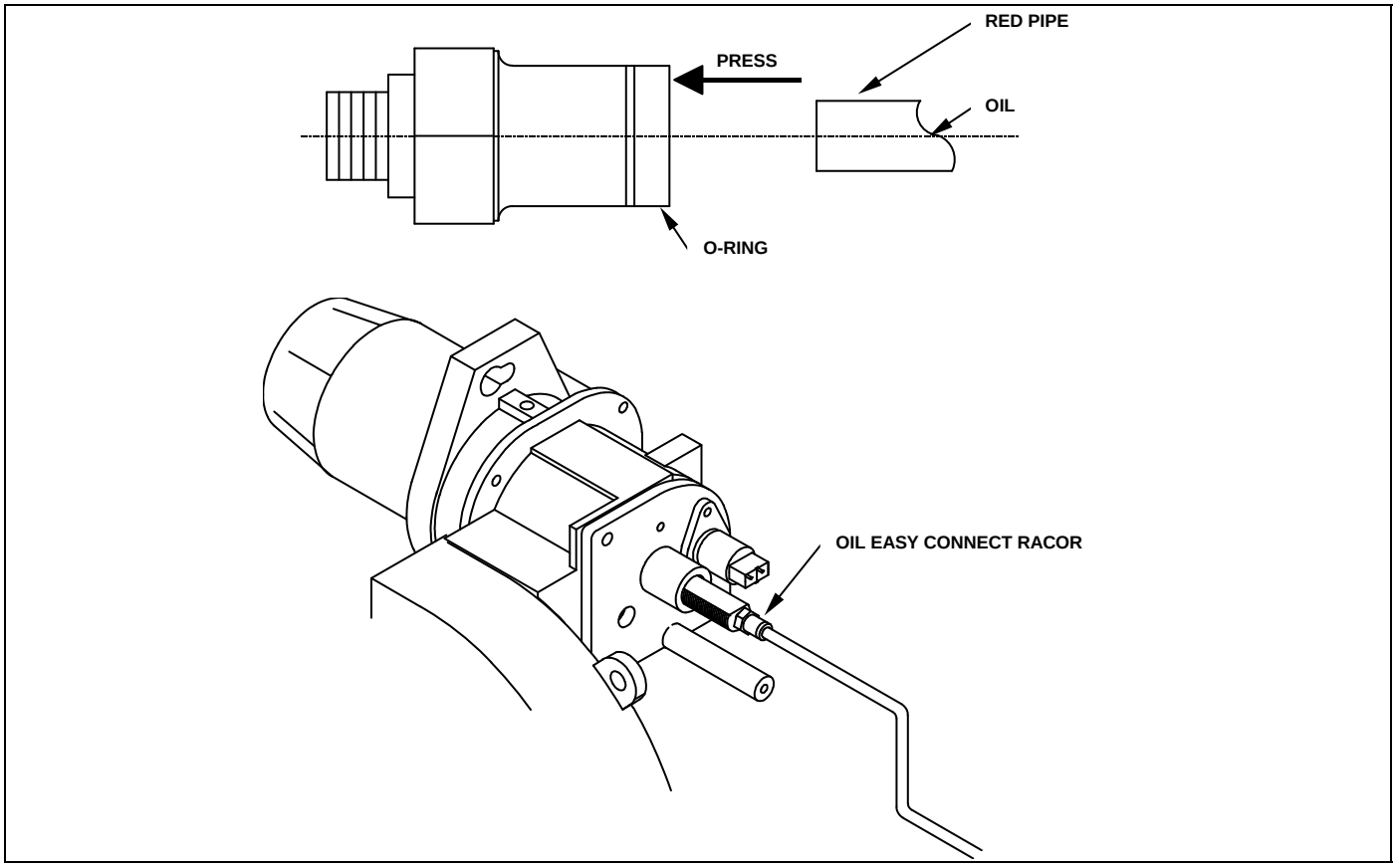
B4: Contact of hour-counter.
S3: Contact of blocking lamp.
TC: Control thermostat.
TS: Safety thermostat.
CH: Hour-counter.
IG: General switch.
F: Fuse.
LB: Blocking lamp.
LB': External blocking lamp.

FR: Photocell sensor.
TR: Ignition transformer
MB: Oil pump.
MB': Auxiliary oil pump.
EV: Electrovalve.
Ph: Phase.
N:Neutral

18.16 OIL EASY CONNECTION

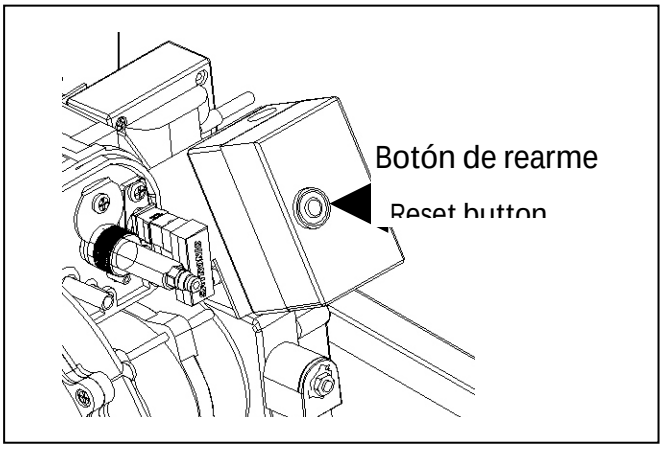
To connect and disconnect the red oil tube to the combustion line, proceed as follows:

- Press the connector o-ring in the direction of the arrow shown below, and simultaneously pull the red tube.



18.17 BURNER CONTROL OPERATING SEQUENCE

The burner's LMO control box has a reset button which is the key element for resetting the burner control and activating/deactivating the diagnosis functions.
The multi-colour LED on the reset button is the indicator for visual diagnosis. The button and the LED are located under the transparent cover of the reset button. During normal functioning, the various operating statuses are indicated in the form of colour codes (see the colour code table below). During ignition, the indication is as shown in the following table:



Colour code table for multi-colour indicator lights (LEDs)		
Status	**Colour code**	**Colour**
Wait time «tw», other standby statuses	○.....	Off
Fuel pre-heater on	●……	Yellow
Ignition phase, controlled ignition	●○●○●○●○●○●	Flashing yellow
Functioning, flame OK	□……	Green
Functioning, flame not OK	□○□○□○□○□○	Flashing green
External light during burner ignition	□▲□▲□▲□▲□▲	Red/green
Undervoltage	●▲●▲●▲●▲●	Yellow/red
Failure, alarm	▲……	Red
Error code output (see «Error code table»)	▲○ ▲○ ▲○ ▲○ ▲○	Flashing red
Interface diagnosis	▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲	Flashing red light

….. Steady light

○ Off

▲ Red

● Yellow

□ Green

19 . TROUBLESHOOTING

This section provides a list of the most common burner and boiler failures.

19.1 Burner error code

We have already mentioned that the burner is equipped with a cut-out system, indicated by the reset button light. It may cut out accidentally, and in this case the steady red light on this button will come on. You may unblock it by pressing the button for approx. 1 second. When the burner is blocked and the steady red light is on, visual failure diagnosis may be activated, in accordance with the error code table. To enter visual failure diagnosis mode, hold down the reset button for at least three seconds.

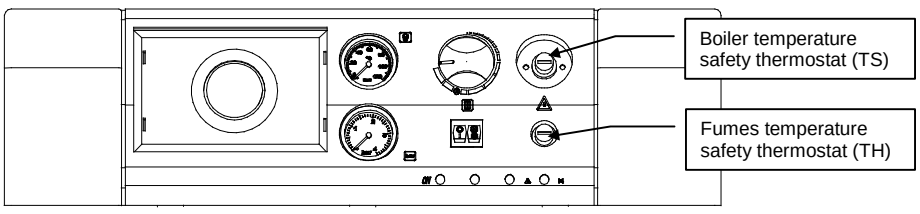
Error code table		
Red flashing LED code	**"AL" on term. 10**	**Possible cause**
Flashes 4 times	On	No flame established when ignition safety time ends. - Fuel valves defective or dirty - Flame detector defective or dirty - Burner maladjustment, no fuel - Ignition unit defective
Flashes 4 times	On	External light during burner ignition
Flashes 7 times	On	Excessive flame loss during functioning (limited number of repetitions) - Fuel valves defective or dirty - Flame detector defective or dirty - Burner maladjustment
Flashes 8 times	On	Supervision of fuel pre-heater time
Flashes 10 times	On	Cabling fault or internal failure, output contacts, other failures

During the failure diagnosis time, the control outputs are disabled and the burner remains off.
To exit failure diagnosis and activate the burner again, reset the burner control. Hold down the reset button for approx. 1 second (<3 s).

19.2 Boiler failures

FAILURE	CAUSE	SOLUTION
RADIATOR DOES NOT HEAT UP	- The pump is not turning - Air in hydraulic circuit	Unblock the pump Drain the installation and the boiler (the automatic air bleed valve cap must always be loose)
EXCESSIVE NOISE	- Burner badly adjusted - Flue not correctly sealed - Flame unstable - Flue not insulated	Correctly adjust it Eliminate any leaks Examine the burner Suitably insulate it

19.3 Thermostat



If the boiler goes into safety lockout due to overheating of the boiler (TS) or fumes (TH), reset by pressing the appropriate button on the thermostat. To access the buttons, unscrew the black cap.

20 GUARANTEE CONDITIONS

DOMUSA TEKNIK guarantees the normal operation of its products in accordance with the following conditions and periods of time, as from the date of their START-UP.

1 Years for electric and hydraulic elements: pumps, valves, etc.

5 Years for boiler shells.

5 Years for Hot Water Tank.

This warranty does not include those failures produced by misure or inappropriate installation, unsuitable energy or fuel, failures generated by feeding waters with physical-chemical characteristis such as to produce deposits or corrosion, mishandling of the equipment and, as a general rule, anything beyond **DOMUSA TEKNIK**´s control.

The warranty will be considered null and void in the following cases:

1. The boiler has been installed without meeting the laws and regulations in force regarding the subject matter.

2. The boiler has been started up by personnel other than those authorized by **DOMUSA TEKNIK**.

21 CONDITIONS DE LA GARANTIE

La **garantie contractuelle de DOMUSA TEKNIK** couvre l'utilisation normale des produits fabriqués par DOMUSA Calefacción S.Coop., dans les conditions et les délais suivants :

1. Cette **garantie commerciale** est valable pour les périodes suivantes à compter de la **date de mise en service officielle (déclaration sur le site GESNET)** qui devra avoir lieu au plus tard **3 mois après la fin de l'installation** du matériel:

   - **2 ans** pour les éléments électriques et hydrauliques (pompes, vannes, etc.)
   - **5 ans** pour les corps de chauffe.
   - **5 ans** pour les ballons sanitaire.
   - **8 ans** pour les capteurs solaire.
   - **8 ans** pour ballons solaire.

   Pendant une période de 2 ans à compter de la date de mise en service officielle, le technicien agréé réalisera la réparation entièrement gratuite pour l'usagé de tout vice ou défaut de fabrication.

   Après ces 2 ans et jusqu'à la fin de la garantie, les frais de main-d'œuvre et de déplacement seront à la charge de l'usager.

2. La maintenance annuelle obligatoire (Arrêté du 15 septembre 2009–NOR DEVE0918467A) n'est pas comprise dans les termes de cette garantie.

3. Pour la maintenance et possible intervention en réparation des capteurs, il est indispensable de prévoir un accès suffisant à ces derniers. Les frais pouvant découler d'un accès insuffisant ne pourront en aucun cas être pris en charge par DOMUSA TEKNIK.

4. La **mise en service** et la **maintenance annuelle** doivent être exclusivement réalisées par un professionnel agréé par DOMUSA TEKNIK sous peine de perdre la garantie contractuelle.

5. Causes **d'annulation de la garantie contactuelle** :

   - Si la chaudière n'a pas été installée dans le respect de la législation et des DTU.

6 .Seul **la garantie des pièces la première année** hors main d' oeuvre et hors déplacement sera retenu si :

   - Si la mise en service n'a pas été réalisée dans un délai de 3 mois après la fin de l'installation de la chaudière.

   - Si la mise en service n'a pas fait l'objet d'une déclaration officielle sur le site de gestion SAV officiel de DOMUSA TEKNIK (www.satdomusateknik.com).

   -Si la **maintenance annuelle** n'a pas été réalisée à la fin de la première année par un professionnel agréé par DOMUSA TEKNIK. (un professionnel sera agrée par DOMUSA TEKNIK lorsqu'un contrat engagera les deux parties).

Les avaries provoquées par un mauvais usage ou une installation incorrecte, une source d'énergie ou un combustible inapproprié, une eau d'alimentation corrosive ou calcaire, une manipulation incorrecte de l'appareil et, en général, tout motif étranger à DOMUSA TEKNIK, sont exclues de cette garantie.

Cette garantie n'affecte pas les droits légaux dont bénéficie le consommateur.

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