

THESI

23 E - 28 E 24

SE - 30 SE

Quick use

Technical data

THE constructions for installation,
adjustment and maintenance

THE constructions for use

caldaie a gas



Idee che scaldano la vita

G QUICK USE VENT

Dear Customer,

We purposely put this **Quick Start Guide** the beginning of the booklet, to put you in a position to immediately use its boiler.

This Quick Guide: 1) assumes that the boiler has already been subjected to initial activation and arranged to operate by a qualified technician and having met all the conditions for proper operation, including the correct system pressure and the presence alimentazio- ni of water, electricity and gas; 2) it may be partially invalid in the case of the presence of optional Kit.

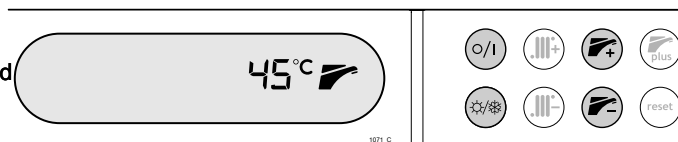
1) Initially, turn on the switch which gives current to the boiler, and that usually is installed on the wall in the vicinity of the boiler itself. "OFF" appears on the display.



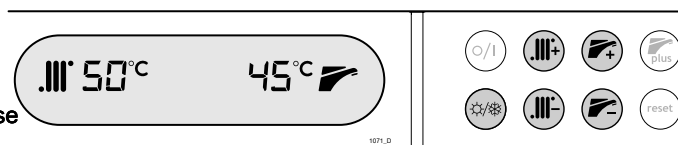
2) then Open the door of the control panel (see photo) and press the button : Now the boiler is ready for the mode Summer or Winter.

- To switch from mode **Summer** to **Winter** and vice versa, using the button

3) The Summer operation is known by symbol that appears on the display AS **gether with the water temperature. Self IT'S SUMMER** and / or you do not want to turn the heat on, choose this mode.



4) The Winter operation is known by symbols is appearing on display together with their temperatures. Self **IS WINTER** and / or you want **turn on the heating**, choose this mode.



- regulate the ambient temperature that want the room thermostat according to the instructions of its manufacturer: the system will start to heat the rooms and the room thermostat to regulate the temperature as stated.

5) We recommend you leave the water temperatures and heating how did set His technician (at least for the first few times of use). If deemed necessary to change them, in the "Operating Instructions" will find tips to improve comfort by adjusting the temperature of hot water and heating. also find the description of the function for delivery of more immediate and comfortable hot water.

6) Now your boiler is already in operation, and will turn on automatically at each heat demand.

7) To put to rest the boiler (stand-by) press the button : The display will "OFF" written.

8) Do not forget to consult the chapters "Warnings" and "Instructions" where you will find, in addition to important information for your safety, the details regarding the controls and indicator lights, and the instructions to resolve quickly (and possibly without charge) the simplest problems.

Thank you for choosing a product

caldaie a gas

 Idee che scaldano la vita

part for the user

THE CONTENTS

Quick start guide	2
Warnings	4
Technical data	6
Instructions for installation	9
Read and safety standards for the specialist Installation of boilers	9
Read and reference standards the installation, operation and maintenance of boilers	9
user Education	10
Positioning the boiler	10
intake air Features	10
Installation inside	10
Outdoor installation in a partially protected (Only "SE" models)	11
Fixing the boiler	12
Hydraulic Connections	13
sanitary water supply	13
Heating system	14
Filling	14
Gas connection	15
Electrical connections	16
Chimney connections THESI "E" (natural draft)	18
Chimney connections THESI "SE" (forced draft)	19
Flue systems THESI "SE"	21
Installation types	23
Zone systems (with valves)	24
Without optional kit "Timer"	24
With optional kit "Timer"	24
Instructions for commissioning, adjustment and maintenance	26
Access to manual devices adjustment of	26
Preliminary checks GAS	27

MAX-MIN pressure adjustment modulation valve GAS	27
Changing Gas	29
Exclusion automatic	By-Pass 30
Emptying system	31
Alarms reserved to the Technical	31
Warnings for servicing	32
Overall Sectional drawing THESI "E"	33
Overall Sectional drawing THESI "SE"	34
Wiring diagram THESI "E"	35
Wiring diagram THESI "SE"	36
Hydraulic diagram THESI	37

Operating instructions	38	
Notes on commissioning device	38	
Requirements	38	
Warnings	39	
Access to the control panel	40	
Instructions for power, operation and shutdown	40	
Turning	40	
Switching off (standby)	40	
Mode "SUMMER"	40	
Mode "WINTER"	40	
PLUS	Function	41
Room temperature setting	41	
..... System filling	41	
Frost protection	42	
Controls and indicators in detail	42	
Boiler blocking and alarm codes	44	
Inactivity of the boiler	50	
Securing	50	
Stand-by and antifreeze / anti-lock function	50	
"Frost Environments"	Function ..	51
Possible failure	52	
Precautions during use	53	

part for the user

for the technician

CAUTION

(For forced draft models)

FOR DIAPHRAGM POSITIONING, READ THE INSTRUCTIONS TO TYPES OF DISCHARGE CONTAINED IN "INSTALLATION."

IMPORTANT

THE COMMISSIONING OF THE BOILER MUST BE CARRIED OUT BY A heating contractor ENABLED UNDER THE LAW 46/90. By entrusting the operations Before Switching to an Authorized Service Center HERMANN it will automatically activate the particular and exclusive Hermann Conventional Warranty. For further information consult the coupon that you find in the envelope of the boiler documents.

The conditions of the HERMANN CONVENTIONAL Guarantee do not affect nor invalidate the rights under the European Directive 1999/44 / EC implemented in Italian law by Legislative Decree 206/2005, of which the User is the Owner.

DECLARATION OF MANUFACTURER

The Hermann boilers have obtained the CE certification (DM 2 April 1998 implementing regulation art.32 Law 10/91) and complies with the following directives and subsequent updates: Gas Directive 90/396; Electromagnetic Compatibility Directive 89/336; Efficiency Directive 92/42 EC; Low Voltage Directive 73/23 EC; meet the minimum efficiency requirements at rated load and at 30% of the load provided by the DPR 412/93 (Implementing Regulation Law 10/91, Art. 4, paragraph 4) and subsequent amendments.



DANGER: All warnings preceded by this symbol **MUST** be followed to avoid mechanical injuries or general origin (eg. Wounds or contusions). **DANGER:** All warnings preceded by this symbol **MUST** be followed to avoid accident of **ELECTRICAL** origin (fulguration).



DANGER: All warnings preceded by this symbol **MUST** be followed to avoid injuries **THERMAL** origin (burns).



Caution: All warnings preceded by this symbol **MUST** be followed to avoid malfunctions and / or damage to the appliance or other objects.

The instruction booklet is an integral and essential part of the product and it is supplied together with the boiler.



Carefully read the instructions contained in the booklet as they provide important information for a safe installation, use and maintenance.

- Keep this booklet for future reference.
- The installation must be performed in compliance with current regulations National and Local, by professionally qualified personnel according to the manufacturer's instructions. It reiterates the utmost importance and binding force of the permanent local ventilation in which the boiler is installed with natural draft or forced draft with suction from the environment (type of unit B2), to be carried out and / or sized in accordance with the rules in force National and Local.
- For professionally qualified personnel it means those having specific technical competence of the components of installations for civil use heating and hot water production, as foreseen in the Law N ° 46 of 05/03/90.
- The executable operations by the user are contained in chapters ONLY "*Quick Start Guide*" and "*Instructions for Use*".
- Does not accept any liability, contractual and extracontractual, for damages caused by incorrect installation or use, or failure to comply with current regulations National and Local and instructions given by the manufacturer.
- *Important: this boiler is used to heat water to a temperature lower than boiling at atmospheric pressure; It must be connected to a heating system and / or to a hot water distribution network compatible to its performance and its power.*
- Keep out of reach of children all the material removed from the boiler (cartons, nails of, plastic bags, etc.) as sources of danger.
- Before carrying out any cleaning or maintenance disconnect the appliance THE COMPRESSOR from the mains power supply using the switch and / or through the appropriate interception organs.
- In case of failure and / or malfunction deactivate the device refraining from any attempt to repair or direct intervention.

The assistance and the repair of the boiler must be carried out by staff **qualified professional**, using original spare parts. Failure to comply with the above may compromise the safety of the appliance.

- If you decide not to use the device, you will have to render harmless those parts that can cause a safety hazard.
- If the appliance is sold or transferred to another owner or if you move and leave the boiler is installed, make sure the manual accompanies the appliance so that it can be consulted by the new owner and / or installer.
- The boiler must be used only for the purpose for which it has been expressly provided for. Any other use is considered improper and therefore dangerous.
- It is forbidden to use the device for purposes other than specified.
- This device must be installed exclusively to wall.

ICINCITAD	U. M.	TE Iseh		TE Iseh		TE Iseh		TE Iseh	
		42S		30		42S		30	
enoizacifire EC	m	BB 14968		BB 14968		BB 14968		BB 14968	
C airogeta		II 3HE		II 3HE		II 3HE		II 3HE	
T opi		BS 1 B				B 22 C-21 C -23 C -24 C -25 C -26 C -28			
Känemanznufidarutar epmé		+ 0+ 60				+ 0+ 60			
G otnemirefridsa		2 Ø	3 G / G Ø	2 Ø	3 G / G Ø	2 Ø	3 G / G Ø	2 Ø	3 G / G Ø

atatacifire T . H	W k	526	526	035	030	526	526	32	32
atatacifire T . H	W k	015	015	312	312	015	015	312	312
aanetocifire T . H	W k	321	321	725	721	327	327	030	030
ainetocifire T . H	W k	91	91	114	114	91	91	116	116
Essal OON		3	1/1	3	1	3	2/2	3	2/2
ON . otarednop	Wk / h	64.1	152.9 / 12.7	94.7	262.1 / 0.32	37	88.1	03.9	99.1
0 otteroc OO% N Q	mPP	460	415.13 / 0.8	769	87.88 / 3.4	269	89.40 / 3.4	543	57.80 / 6.3
OC : N Q	%	4.5	5.5 / 5.5	4.6	5.5 / 5.3	6.7	8.7 / 0.8	6.2	7.6 / 0.8

OTARUSIMOTNEMIDNER

R elanimonotnemidne	%	0.98	1.94	3.92	3.97
R elanimonotnemidne R n	%	8.81	9.88	0.94	1.97

OTNEMADLACSIRITAD

enoisnapseosa	* C	80 +03	80 +03	80 +03	80 +03
V enoisnapseosa	the	8	8	8	8
r P enoisnapseosavenoisie	rab	1	1	1	1
P oizicresexamenoisser	rab	3	3	3	3
T xamarutarepme	* C	85	85	85	85

OIRATINASITAD

P ounitnocaver	/ / nim	3.12	5.18	3.16	7.12
P ounitnocaver	/ / nim	1.10	3.12	1.13	4.13
P oiratinasxamenoisser	rab	6	6	6	6
P oiratinasxamenoisser	rab	0.5	0.5	0.5	0.5
P oiratinasxamenoisser	* C	50 +53	50 +53	50 +53	50 +53

ARAC

EHCIRTELEEHCITSIRETT

Elenoisnet (azneuer F /)	H / W	5 0 3 2 (5 0 0 4 2 0 2)	5 0 3 2 (5 0 0 4 2 0 2)	5 0 3 2 (5 0 0 4 2 0 2)	5 0 3 2 (5 0 0 4 2 0 2)
Elenoisnet (azneuer F /)	W	98	98	0.3 r	3.5
G enoizetorpidodar		5 XPD	5 XPD	5 XPD	5 XPD

TTARAC

ILANOISNEMIDEHCITSIRE

lazzehgra	mm	arugifere V "INOISNEMID"			
P ose	gk	33	33.5	37	38

OTNEMADLACSIRITAD

U / E atartn airatinasauqaatics	crthe	1/2	1/2	1/2	1/2
G occatt A aiadlacallasa	crthe	3/4	3/4	3/4	3/4
D ociracsidobortotemai	mm	3.0	4.0		
oimozehgnu L . xam	m			0. zzo (4)	0. zzo (3)
oimozehgnu L . xam	m			0. zzo (5)	0. zzo (4)
oimozehgnu L . xam	m			0. to 3B	0. 1+B
oimozehgnu L . xam	m			0. (S)	0. (S)
oimozehgnu L . xam	m			6.1 +03	
oimozehgnu L . xam	m			0. (S)	
bimazehgnu xam / enoizarisabuciracs smm 0.8 Ø	m			0. xam 3 = S 1 (4)	0. xam 7 = S (0)

SERP

SAGENOIZATNEMILAINOIS

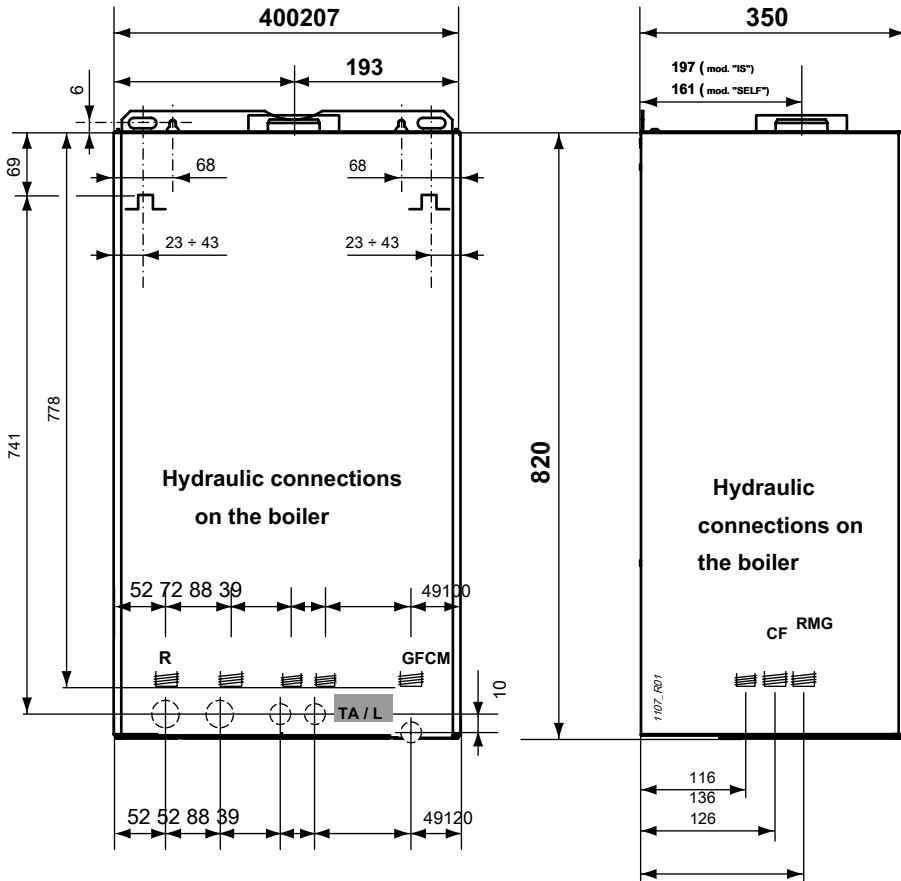
G otnemirefridsa		2 Ø	3 G / G Ø	2 Ø	3 G / G Ø	2 Ø	3 G / G Ø	2 Ø	3 G / G Ø
P elanimonenoisser	rabm	20	3/9 Z	20	3/9 Z	20	3/9 Z	20	3/9 Z
N illeguoremu		13	13	14	14	13	13	14	14
D illeguortemai	0.9 / 1.0	2.0	7/5.75	2.5	7/6.75	2.0	7/5.75	3.0	7/8.8

SAGOMUSNOC

xanQ	crth /	2.71	3.22	2.71	3.38
xanQ	gkh /	2.1 / 1.0.98	2.2 / 6.3.33	2.1 / 1.0.98	2.2 / 5.48
nirQ	crth /	1.11	1.40	1.11	1.40
nirQ	gkh /	0.0 / 3.8.81	1.1 / 4.0.02	0.0 / 3.8.81	1.1 / 4.0.02

DIMENSIONS

THESI E - SE

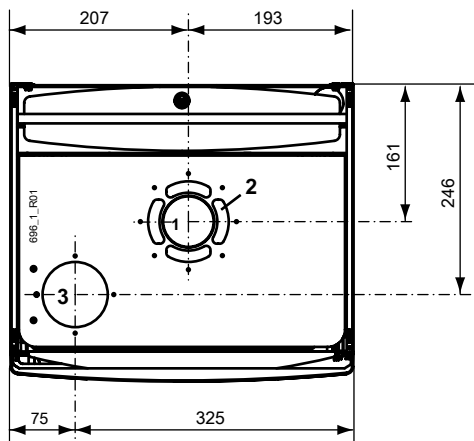


- R** CH return (3/4 ")
- M** System flow (3/4 ")
- C** Hot water outlet (1/2 ")
- F** Cold water inlet (1/2 ")
- TA / L** links Location Area
power supply and room thermostat
- G** Gas (3/4 " - 1/2 ")

Position of ports directly on the boiler position of those who attacked hydraulic wall, with optional kit specific fittings THESI. *These positions are also determining bili direttamen- you at work, do utilizzan- optional metal template*

Attacks Wall
with special fittings kit

Only models
THESI SE 24-30:

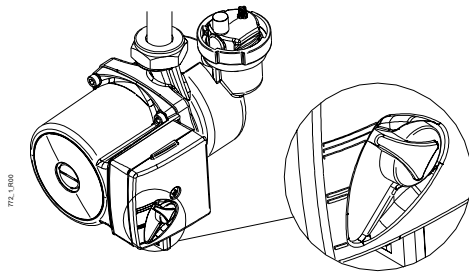
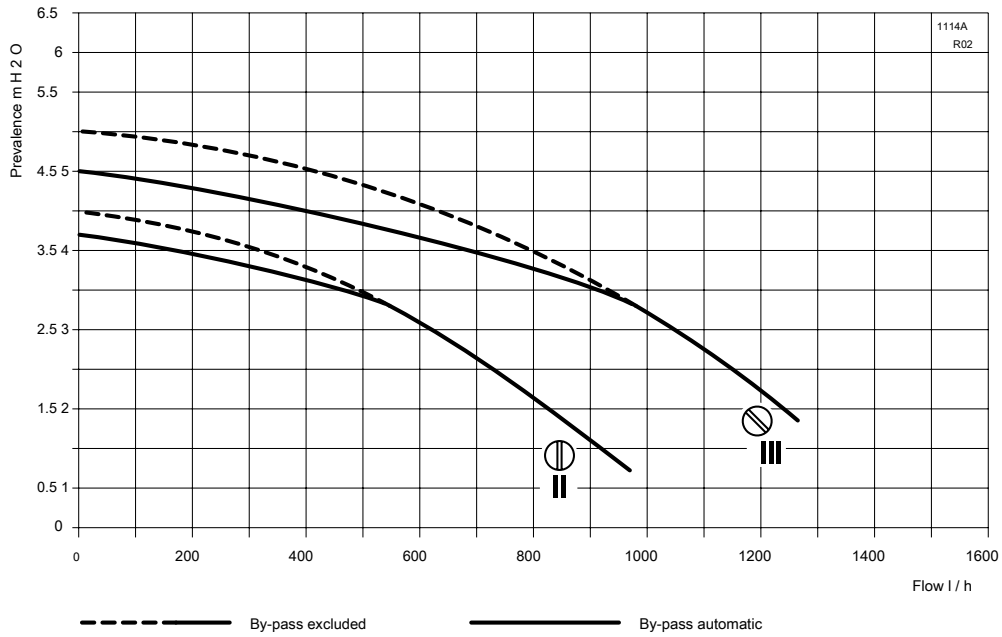


1	S 2 ocirac
	oizarips A 3 elaiissaocamets srepn
	olazippsdametsisrepen A

for the technician

PUMP

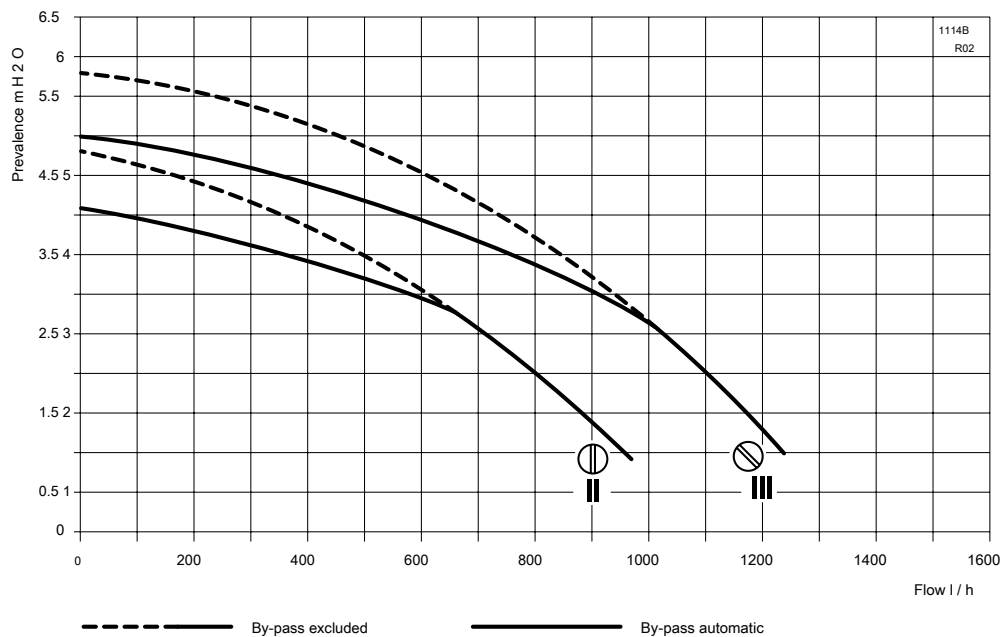
MOD. Thesi 23 E / 24 SE
with selector in speed II and III



Note: It is recommended to select the speed II or III.

AVAILABLE PUMP

MOD. Thesi 28/30 SE
with selector on speed II and III AVAILABLE



for the technician

THE INSTRUCTIONS FOR INSTALLATION

The installation must be performed in compliance with current regulations National and Local, by professionally qualified personnel according to the manufacturer's instructions. References to national laws and regulations, referred to below, are indicative as laws and regulations are subject to change and additions by the competent authority. Also observe any local rules and regulations in force in the territory where the installation takes place.

Read and safety standards for personnel assigned to boilers

Legislative Decree no. April 9, 2008, n ° 81 and subsequent amendments

"Implementation of Article 1 of Law August 3, 2007, 123, relating to the protection of health and safety in the workplace"

Legislative Decree, 04/12/1992, n ° 475

"Implementation of Directive 89/686 / EEC of 21 December 1989 on the approximation of the laws of the Member States relating to personal protective equipment"



During handling, installation and maintenance of boilers, as metal parts, to avoid the possibility of personal injury such as cuts and abrasions. Use gloves during the above operations.

Read and reference standards for the installation, operation and maintenance of boilers

Law 05/03/90 n ° 46 art. 8, 14 and 16

"Safety standards relating to systems."

Law 09/01/91 No. 10

"Rules for the Implementation of the national energy plan on rational use of energy, energy saving and development of renewable sources of energy".

26.08.93 Presidential Decree No. 412 and subsequent amendments

"Rules for the design, installation and maintenance of heating installations of buildings for the purpose of containment of energy consumption, implementing article 4, comma 4 of the law 9th January 1991, n ° 10".

Decree 05/08/19 n ° 192 and subsequent amendments

"Implementation of Directive 2002/91 / EC on the energy performance of buildings".

ANNEX G 19/08/05 Legislative Decree No. 192

Ministerial Decree 03/17/03

"System Manual".

Ministerial Decree 12/04/96

"Approval of the thermal prevention rule fires for the design, construction and operation of heating systems fueled by gaseous fuels com-".

22/01/08 Ministerial Decree No. 37

"Regulations on the Implementation of Article 11 quaterdecies, paragraph 13, letter a) of Law no. 248 of 2 December 2005 on riordi- no provisions regarding activity of the plant installation operations inside the building".

UNI 7129

"Gas plants for domestic use fed by the distribution network".

UNI 7131

"Equipment in liquefied petroleum gas for domestic use have not fed by distribution networks".

UNI 8065

"Water treatment in heating systems for civil use."

Standard for electrical systems CEI 64-8

"Electrical installations."

for the technician

user Education

After installation, the installer must:

- inform the user on the operation of the boiler and the safety devices;
- user deliver this manual and the documentation of competence, duly completed where required.

Positioning the boiler

intake air Features



The installation room of the boiler must be in compliance with UNI 7129.

The air intake must be done in areas without chemical pollutants (fluorine, chlorine, sulfur, ammonia, alkaline agents or the like).

In the case of boiler installation in environments with presence, not negligible, of aggressive chemical substances (for example: hairdressing salons, laundries) is advisable to install equipment of type C.

Internal installation

Having the output lower than 35 kW thermal power (about 30000 Kcal / h), are not required for the particular characteristics of the local installation. In summary, they must be observed all the good installation standards to ensure safe and smooth operation.

IMPORTANT:

Two devices for the same application in the same premises or in premises directly communicating, for a greater overall thermal capacity of 35 kW, and constitute thermal power plant are subject to the provisions of DM 04/12/96.

- The potential of several devices used for different use (eg. Cooking and heating), installed within a single housing unit used for residential purposes, it must not be added.
- The presence of other devices (eg. A cooking) plan may require the creation of additional ventilation / ventilation openings or the increase of existing ones, in accordance with the Standards and National and Local into force.

VENTILATION LOCAL models in case of natural draft or forced draft with suction from the environment (type of appliance B2)



It reiterates the utmost importance and binding force of the permanent local ventilation in which the boiler is installed with natural draft or forced draft with suction from the environment (type of unit B2), to be carried out and / or sized in accordance with the rules in force National and Local.

INSTALLATION IN ROOMS WHERE TEMPERATURE CAN DROP DOWN TO 0 ° C:

The boiler is provided with antifreeze system that prevents the internal organs to reach temperatures below 5 ° C. This system requires the presence of gas and electricity mains, in addition to the correct pressure in the heating system.

In the case of installation in environments where the ambient temperature may reach 0 ° C, it is advisable to protect the heating circuit with an antifreeze liquid. See also section "Filling the system" and "Boiler inactivity".



The natural draft models ("E") **MUST NOT** be installed outside.

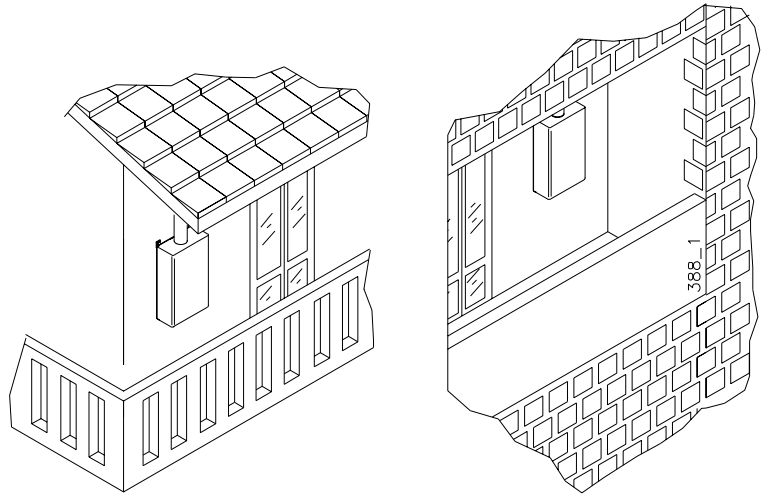
Outdoor installation in a partially protected ("SE" models only)

The models "SELF" forced draft can be installed outside, but only in a partially protected place.



If the environment in which the boiler is installed is later transformed from outer to inner (eg. Veranda), it will be necessary to verify the conformity of the new configuration with current regulations and apply the necessary changes.

Examples of installation partially in place weather-protected



the boiler Fixing

NOTE: It is ordered separately, metal reusable template that facilitates the positioning

namento of attacks (using the Standard Connections Kit) and of the fixing points directly in work. If you do not use the standard connection kit, see the position of the hydraulic connections of the boiler in the figure "SIZE" (section "Technical Data" in this booklet).

- Consider, beyond the dimensions of the boiler, the [C] necessary spaces for maintenance. They are recommended: 50mm and 300mm from the sides from the bottom.
- To fix the boiler with expansion dowels ("stud" type with nut), center the relevant wall holes in paragraphs [A]. To hang it with open hooks, place hooks in such a way that their abutment thread corresponds to the points [B].
- Arrange the pipes of the flow and return, cold water, hot water, gas and electric wiring in the template or the measures in the figure.
- Hang the boiler to the two anchors or hooks, using the holes ([A] for the dowels and [B] for the open hooks).
- **Remove the plastic plugs** placed for the protection of the boiler pipes.
- Connect the boiler to attacks prepared by interposing a tap on the line incoming cold water. We also recommend to prepare also taps on the delivery and return lines of the heating system.

NOTE: The lower grid is spare

disassembled in the package. We should let the grill removed until installation.

- For the connection of the intake and / or exhaust of the models SE, see the paragraph "Flue systems", where the measurements are referred to the upper edge of the boiler.



Gas (1/2 ")



Hot Water Output (1/2 ")



Entrance Cold Water (1/2 ")



Supply system (3/4 ")



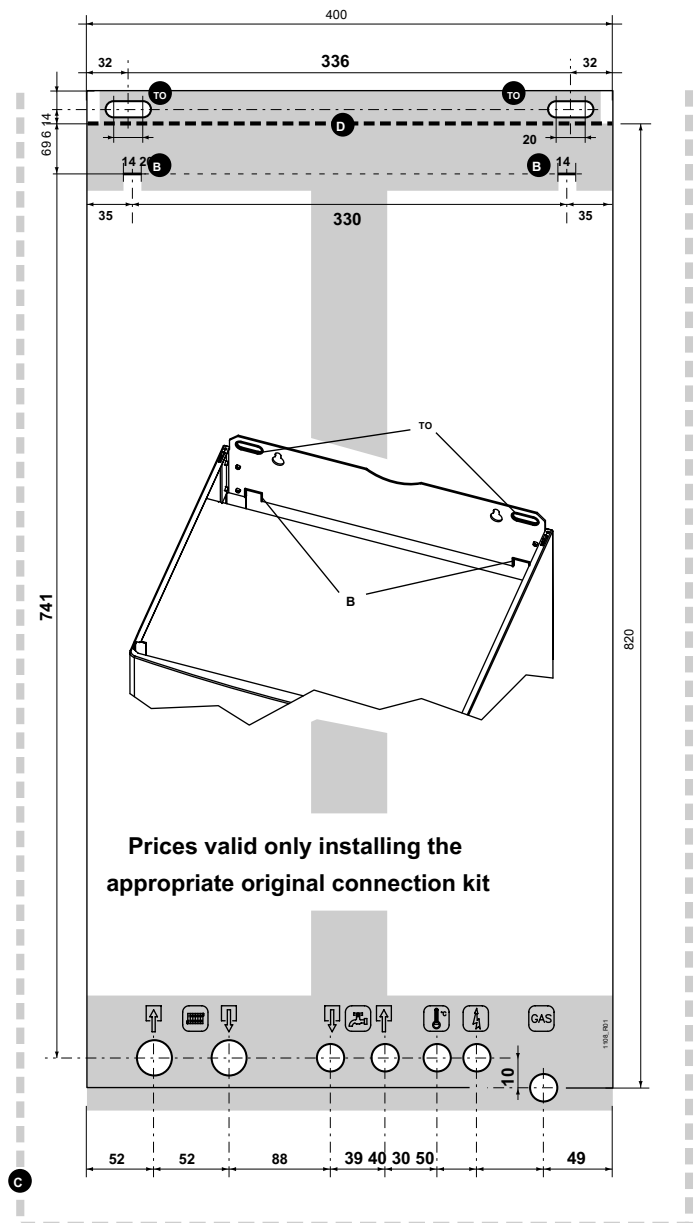
Return system (3/4 ")



power line



Room thermostat



Water installation

RECOMMENDATIONS AND SUGGESTIONS TO AVOID VIBRATIONS AND NOISES IN THE SYSTEM

- Avoid the use of pipes with reduced diameters;
- Avoid using small radius elbows and reductions of important sections.

CLEANING AND PROTECTION SYSTEM

The performance, durability and safety of the boilers, as well as of the thermal plants in general, in all their components, are strictly dependent on the characteristics of the waters that feed them and their treatment.

A proper water treatment makes it possible to protect the plants from corrosion over time (which produce punctures, noise, losses

various, etc.), as well as from the calcareous encrustations, which drastically reduce the heat exchange efficiency (NB 1 mm of calcareous incrustations is able to reduce by more than 18% of the thermal output of the heating body on which it is deposited).

HERMANN guarantees its products only if the water features are compliant with the provisions in the technical UNI CTI 8065 legislation, also referred to in the laws on energy conservation.



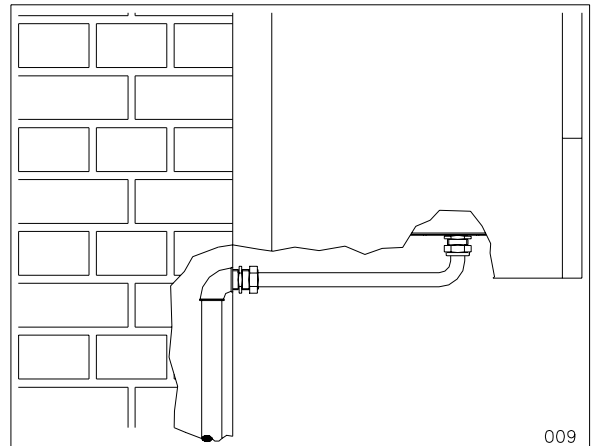
Thoroughly wash the heating system with water before connecting the boiler. This allows cleaning to remove residues such as welding beads, cinders, hemp, putty, muddy deposits of various kinds, rust and other impurities from the pipes and radiators. These substances may be deposited inside the boiler and may damage the circulator.

- **In the case of old plants or particularly dirty, for washing use specific products** It is proven, in the correct dose according to the instructions of their manufacturer.
- If the filling water system has a total hardness greater than 35 ° fr., It is necessary to provide a water softener, while if it has a total hardness of between 15 ° fr. and 35 ° fr. it is sufficient to a conditioning treatment, to bring the characteristics of the water under the conditions foreseen by the UNI CTI 8065.
- For underfloor heating systems and / or at low temperature, the water treatment should be carried out by providing that the chemical product used for water conditioning in the circuit is able to perform an action filming (protection from corrosion and from encrustations) as well as a bacteriostatic and anti-algae.

Domestic water supply

The cold water inlet pressure must not exceed 6 bar. In addition, for the optimal operation of the boiler, it should be higher than 1 bar. A too low pressure input may not allow the correct restoration of the pressure in the heating, and reduce the flow of domestic hot water available from the boiler.

EXAMPLE OF CONNECTION





In the case of higher pressures it is necessary to install a pressure reducing valve upstream of the boiler.

The supply water hardness conditions the cleaning frequency of the exchange coil. In addition, the presence of solid impurities or residues (for example in the case of new plants) could jeopardize the proper functioning of the boiler organs. For production installations domestic hot water to the UNI CTI 8065 provides a protection of the plants safety filter. If the water hardness is greater than 25 ° fr. It is necessary to provide a water softener to restore the hardness to values below 25 ° fr.

Heating system

- Since during operation of the heating system pressure increases, ensure that its maximum value does not exceed the maximum operating pressure (ref. Table "Technical Data").
- Connect the safety evacuation ducts of the boiler to a drain funnel. If not connected to an evacuation, the safety valves when they will flood the local and this does not make responsible for the boiler manufacturer.



Make sure that the pipes of the water and heating are not used as connection for the electrical system ground. They are not suitable for this use.

Filling the

Once you carried out the hydraulic connections you can proceed to the filling of the circuit.



In case the boiler is installed in places where the ambient temperature can fall below 0 ° C, it is advisable to insert in the heating system an antifreeze specific solution for heating systems based on propylene glycol, following the instructions provided from those who produce. Do not add any antifreeze or corrosion products in the heating water in the wrong concentrations. The addition of such substances in the water heating can cause the deformation of the seals and cause non-regular noises during operation.

Hermann The company assumes no liability for any damage.

Inform the user about the antifreeze function of the boiler and on the antifreeze product placed in the heating system.

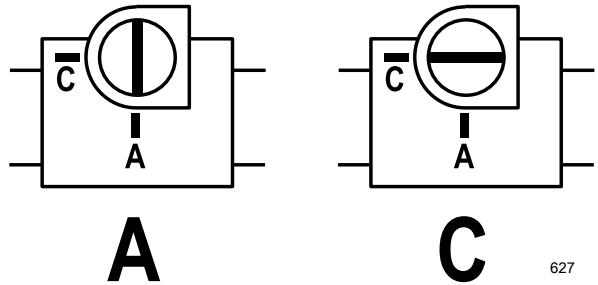
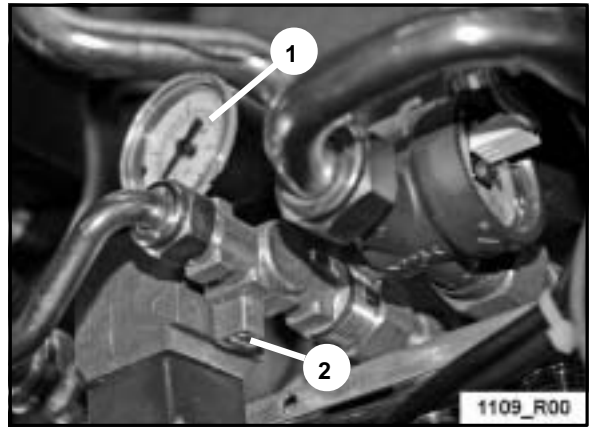


During this operation, the boiler must NOT be powered electrically. If you electrically feeds the boiler, the plant will begin an automatic loading cycle. This operation is not carried out correctly if the system is completely empty, resulting in unnecessarily repeated blocks of the boiler.

The filling operation must be performed with care respecting the following steps:

- Open the vent valves of the radiators;
- open the inlet valve sanitary water;
- verify that the cap of the automatic air vent valve, incorporated in the circulator of the boiler, is partially unscrewed: possibly completely screw and then unscrew 1 turn and a half - 2 turns; let it so even afterwards, for normal operation;

- slowly rotate the screw [2] placed on the solenoid valve water supply, from the position "C" to the position "A" (see figure), by ensuring that any automatic air vent valves installed in the system are functioning properly;
- close the vent valves on the radiators as soon as water flows;
- check on the manometer [1] that the pressure reaches the optimal value of $1 \div 1.5$ bar (minimum 0.5 bar) and then turn the screw [2] in position "C" (closed);
- repeat the above steps until no more air comes from the vent valves.



Note: The boiler is equipped with a filling of the system Automatic to that, in case of drop in pressure in the system, restore the correct pressure. This system requires that the boiler is electrically powered.

gas connection

The installation of the boiler must be performed by a qualified technician, as required by law 46/90, as incorrect installation can cause harm to people, animals or things, for which the manufacturer can not be held responsible. Check the following:

- the cleaning of all the piping of the gas supply in order to avoid any residue that could jeopardize the good operation of the boiler;
- that the gas feed line and the train comply with applicable standards and regulations (UNI 7129 and 7131 - DM 12/04/96);
- the control of internal and external seal and gas connections;
- the supply pipe must have a section greater than or equal to that of the boiler;
- check that the gas is distributed corresponding to that for which the boiler has been regulated; otherwise modify by professionally qualified personnel for the gas conversion;
- upstream with a shut-off valve is installed. Open the meter valve and purge the air contained in the complex piping system appliances, subsequently proceeding appliance to appliance.



It is MANDATORY to insert a TIGHT GASKET, measurement and material must be adequate to connect the GAS attack of the boiler to the supply pipe. The attack is NOT suitable for hemp, Teflon tape and the like.



Using LPG, it is absolutely necessary to install a pressure reducing valve upstream of the boiler.

Due to various installation possibilities, the Standard Connections Kit for THESI series boilers is supplied with the gas tap having the male thread towards jig with a diameter of ½ ". No connecting pipe for gas is therefore expected.

electrical connections

The boiler is equipped with a series of power-pole cable and bipolar cable for the room thermostat.



The room thermostat works **safety extra low voltage (SELV)**: connect it to the terminals **potential free (free contact)** with a thermostat or timer. **It NOT must be connected to energized circuits, for any reason.**



To prevent malfunction due to noise, the low voltage connections (eg. Room thermostat or commercial programmable thermostat, external probe and the original remote control Hermann) must be kept separate from power cables, for example by passing them in separate sheaths.

Connect the device to a network of 220 ÷ 240V-50Hz. In any case, the supply voltage must be within the range of -15% ... + 10% compared to the rated voltage (230V); otherwise it may result in malfunctions or failures (EN50165: 1998 p.19.101.1). It is necessary to respect the polarities LN (phase L = brown; neutral N = blue) - otherwise the boiler will not function - and the ground connection (yellow-green wire).



It MUST be installed upstream of a SWITCH BIPOLA- RE comply with current regulations. The installation must be performed in accordance with the installation rules and regulations.

For the main power supply from the mains, it is not permitted to use adapters, multiple sockets and extensions.

In case of replacement of the power cable use one of the following types of cable: H05VVF or H05-VVH2-F. **It must be connected to the earth according to current IEC standards.** To replace the cable, release the cable fastener placed on fittings bracket, open the lid of the dashboard and disconnect it from the terminals. Proceed in the reverse way to install the new cable. By connecting the cable to the boiler, it is absolutely necessary:

- that the length of the earth conductor is greater than about 2 cm compared to the other conductors (phase, neutral);
- lock the cable in the cable fastener placed on the hydraulic connections.



The unit's electrical safety is only guaranteed when it is well connected to an efficient grounding system, executed as per current safety standards.

Qualified technician must check that the electrical system is adequate for the maximum power absorbed by, indicated on the plate, ensuring in particular that the system cable sections are suitable for the power absorbed.

Remark: HERMANN Ltd. declines any responsibility for damage to people, animals or things caused by failure to connect the grounding of the boiler and the non-compliance.

The connection terminals are located on the PCB. For they are already connected to the power cables and for the room thermostat, but there are other terminals to connect any optional kit. To access it, do the following:

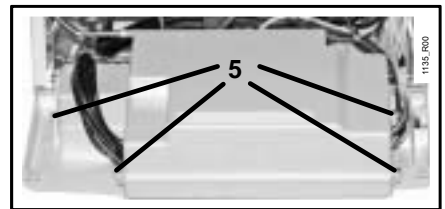
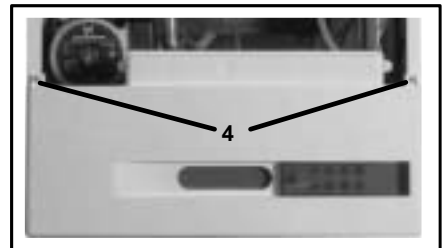
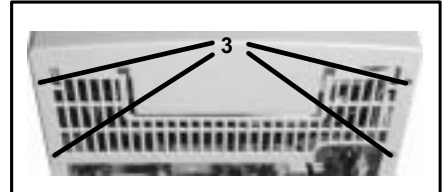
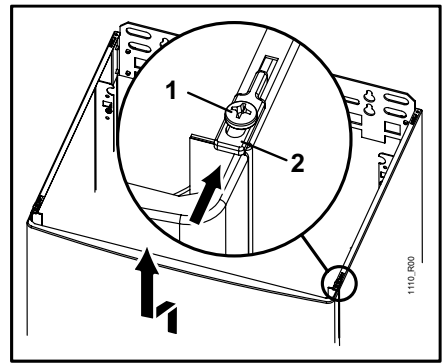


Remove the power supply to the boiler.

- On the upper side of the boiler, loosen and slide the locking platelets [1] and remove front cover [2] upwards;
- To remove lower grid, if present, unscrew the screws [3];

Note: The lower grid is supplied disassembled nell'im-
dance.

- loosen the two fixing screws [4] and remove the dashboard towards the outside along the slots in the two positions, and then tilt it downward;
- unscrew the screws [5] and remove the rear cover of the dashboard;
- make the electrical connections to the terminals of the electronic board. For details, see the Electrical Diagram of this booklet. Insert the new cable gland in free slots;
- Once executed the connections, close the dashboard and the boiler by performing the above operations in the reverse way.



Chimney connections

THESI "E" (natural draft)

Carefully follow the directions given by existing legislation: UNI 7129 and 7131, 26.08.93 Presidential Decree No. 412, as amended.

Indications for connecting the flue pipe to the chimney (unless other laws and regulations, national and / or local):

- Not protrude with the exhaust pipe inside the chimney, but stop before the inner face of the latter. The exhaust pipe must be perpendicular with the opposite inner wall of the chimney or flue.
- At the exit from the boiler, the tube must have a vertical section of a length not less than twice the diameter, measured from the attack of the exhaust pipe.
- After the vertical section of the tube must have an upward trend, with a minimum slope of 3%, with a length in any case not exceeding 2500 mm.

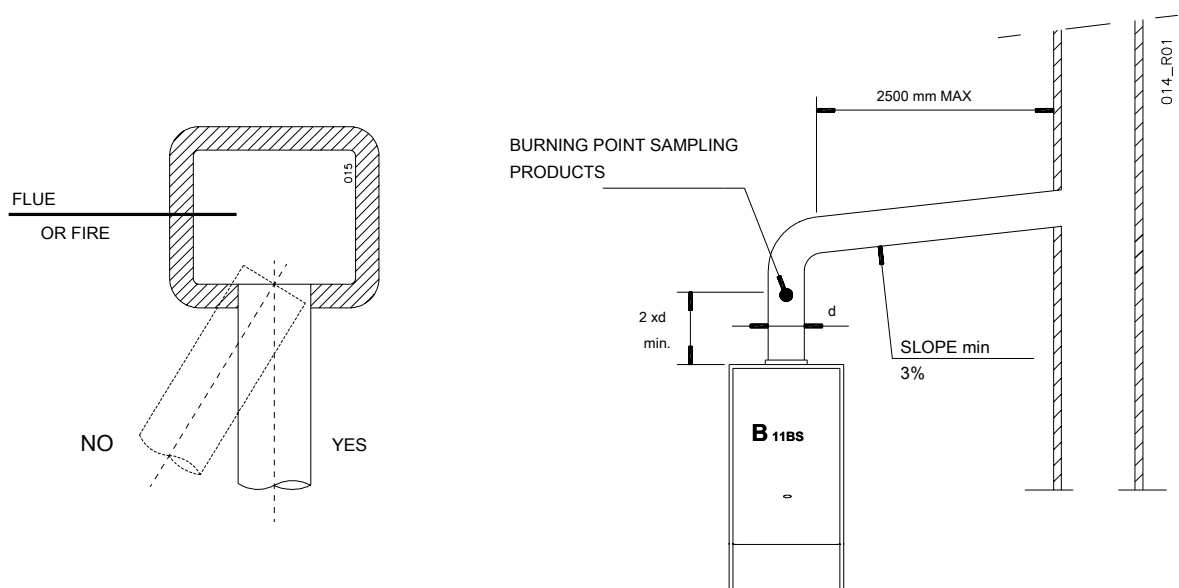


The device is provided with a safety thermostat for chimney draft, which intervenes in the case in which there may be a return to the environment of the combustion products. **This device must never be put out.** The products of combustion if they fall in the environment may cause chronic or acute intoxications with mortal dangers

there. **If it is replaced the thermostat is required to use only original parts.**

In the case of a repeated switching off of the boiler for an intervention of the device, first verify that the air supply systems, environment ventilation and exhaust fumes are efficient and made according to the rules in force.

After every intervention on the safety thermostat, perform a device function test itself (temporarily blocking the exhaust pipe).



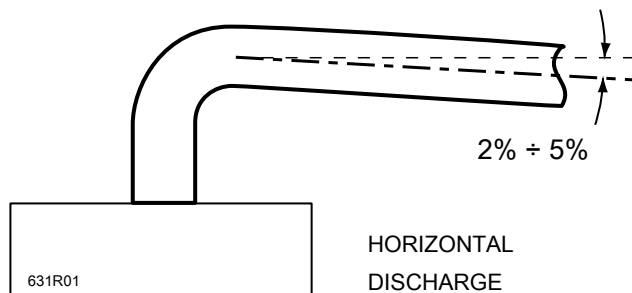
Chimney connections

THESI "SE" (forced draft)

GENERAL FOR THE INSTALLATION OF CHANNELS OF INTAKE AND EXHAUST

In order to ensure the functionality and efficiency of the appliance must be provided for the intake and exhaust channels, for the horizontal sections, a slope between 2% and 5% down from the apparatus and towards the ' external.

In the case of vertical sections of the discharge channel to avoid condensation and reflux of the same in the combustion chamber is necessary to use a special condensate collection kit.

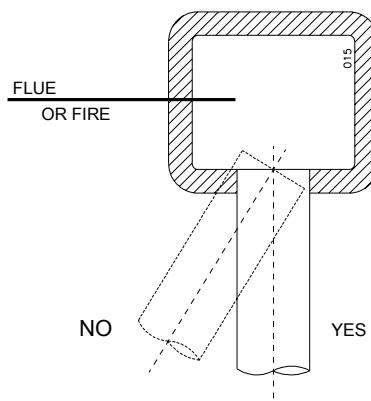
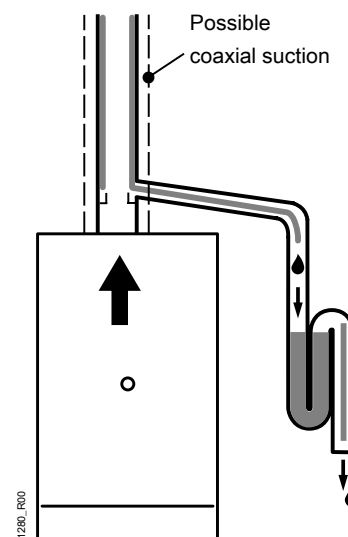


The intake and exhaust systems, where the existing rules do not provide for it, must be protected with accessories and devices to prevent the penetration of atmospheric agents.

Carefully follow the directions given by existing legislation: UNI 7129 and 7131, 26.08.93 Presidential Decree No. 412, as amended. Indications for connecting the smoke duct to the chimney:

- Not protrude with the exhaust pipe inside the chimney, but stop before the inner face of the latter. The exhaust pipe must be perpendicular with the opposite inner wall of the chimney or flue (see figure).

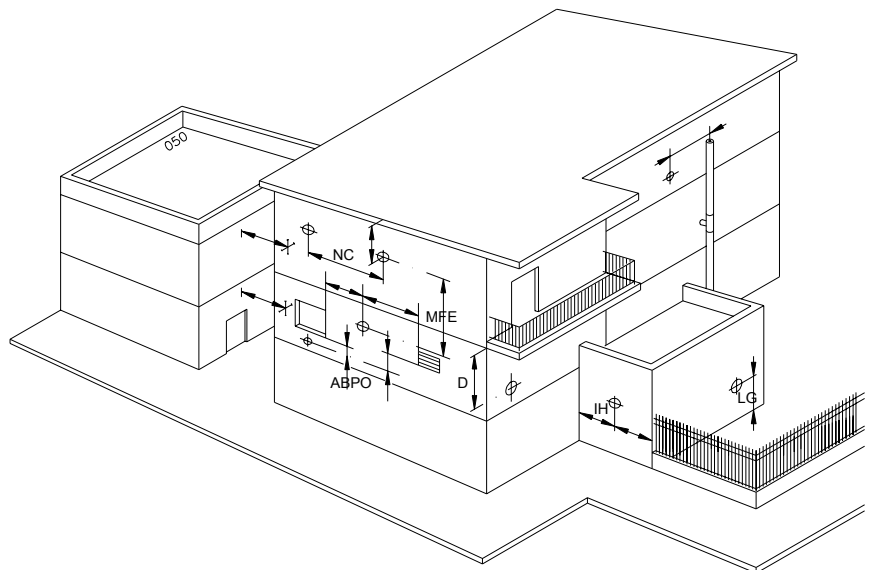
In cases of wall drain the positions shown in the drawing and in the following table must be met:



for the technician

ziso P	elanimretledotnemanoi	D ezntsai	ihccerapp		
			k to 4W * k 7 aoniW mm nim	k 7 ertW k 6 1 aoniW mm nim	k 6 1 ertW k 5 3 aoniW mm nim
S	artsenifotto	TO	0 3	0 5	0 6
	to S enoizareaidarutrepao	B	0 3	0 5	0 6
S	adnorgotto	C	0 3	0 3	0 3
	Enoclabbott*	D	0 3	0 3	0 3
D	etnecaidaartsenifanua	IS	0 4	0 4	0 4
	rutrepaanua D etnecaidaenoizareaida F	F	0 6	0 6	0 6
	Witoaczioidoizaitoa D ***	G	0 3	0 3	0 3
	Edolognanuacifide	H	0 3	0 3	0 3
	Edaznartneiranuacifide	THE	0 3	0 3	0 3
	adoolousla D oitseplacidonaiporta	THE	0 4	0 50	0 50
	udar F elacitrevniilanimrete	M	0 5	0 00	0 50
	teudar F elatnozzironiilanimre	N	0 5	0 3	0 00
	norfeicifrepusanua D aznesetneicipsorpelat	OR	0 50	0 80	0 00
	Edoiggepaortneilanim olladm				
	imufiedocobs				
	toerutrepanocam oiggaruortneilanimre	P	0 50	0 80	0 00
	3 id imufiedocobsolladm				

- * The lower thermal capacity of 4 kW units are not subjected to any limitations as regards the positioning of the terminals, except for the points O and P.
- ** Terminals below a practicable balcony must be placed in such a position that the total path of the smoke from the exit point from the terminal to its outlet point from the external perimeter of the balcony, including the height of possible railings, is not less than 2000 mm .
- *** In the placement of the terminals must be taken distances not less than 500 mm. due to the proximity of sensitive materials to the action of the combustion products (eg, gutters and downpipes made of plastic material, extruded in timber etc.) unless shielding take appropriate measures in respect of such materials. The terminals must be in this case constructed in such a way that the flow of the combustion products is the most upward and suitably shielded possible to temperature effects.



for the technician

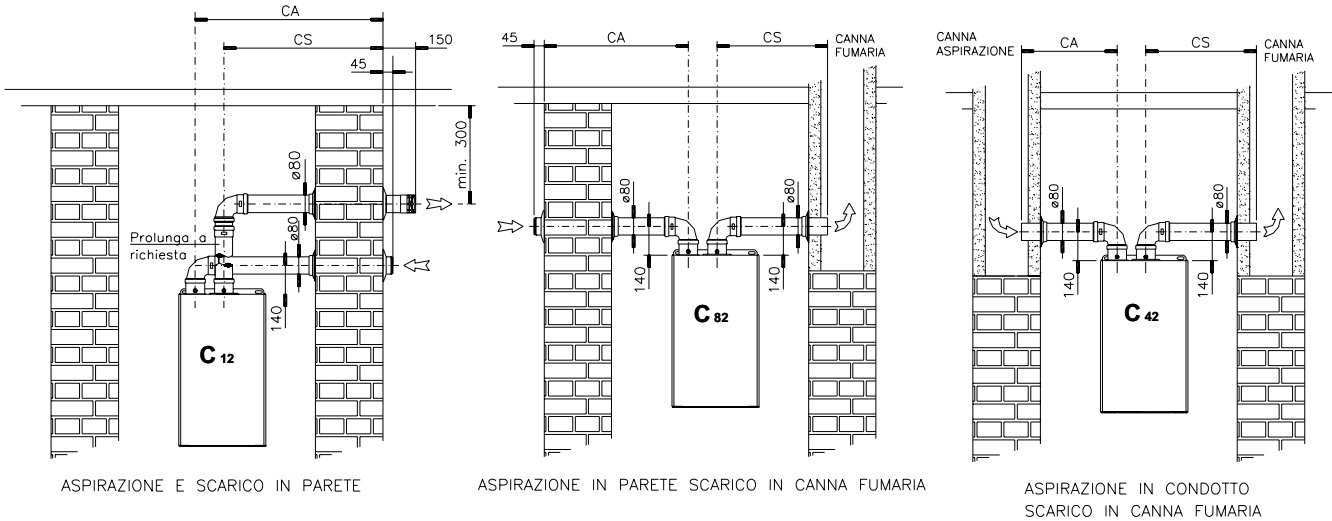
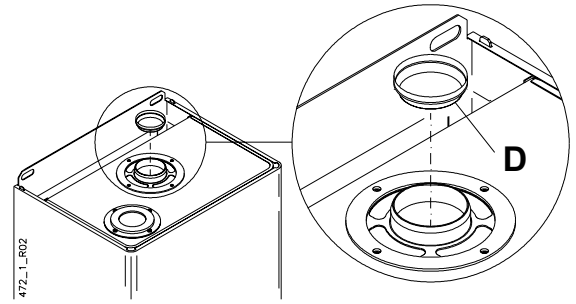
Flue systems

THESI "SE"

EXHAUST AND INTAKE WITH SEPARATE PIPES

i Attention: see table and, if required, install the diaphragm "D" as shown in the figure to the left (to consider each 90° bend additional equivalent to 0.5 linear meters, 45° =

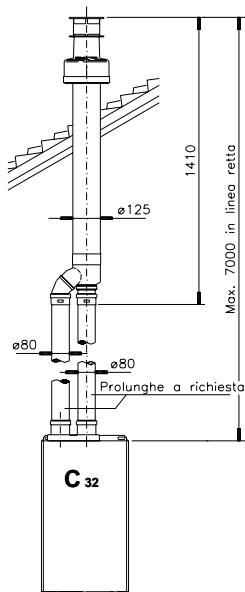
0.25 m).



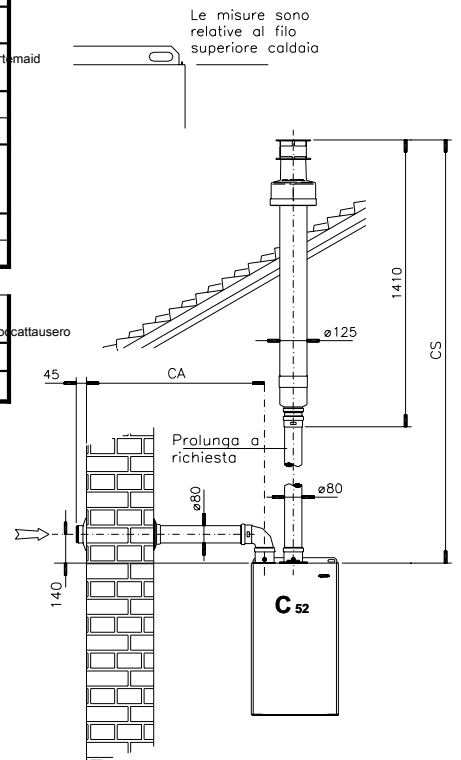
M	itarrapessittodno C0 8			
	AG	SC	SC	D
4.2 ES	0	to 30	20	ON
ES 4.2 noc			40	ON
0.3 ES	0	1+0	10	ON

M	Øm Ø ittdrb8			
	AG	SC	SC	D
4.2 ES	0	1+0	13	ON
0.3 ES	0	1+0	7	ON

(D) use the diaphragm supplied with the boiler.



SISTEMA TUBI SEPARATI CON SDOPPIATORE
SCARICO ASPIRAZIONE VERTICALE



SISTEMA TUBI SEPARATI
SCARICO VERTICALE

NOTE: See "Installation Types" for regulatory requirements for each type of boiler.

Flue systems

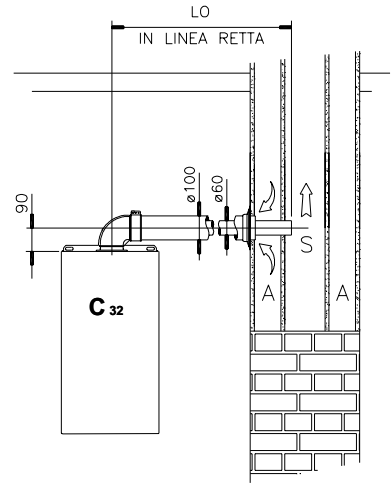
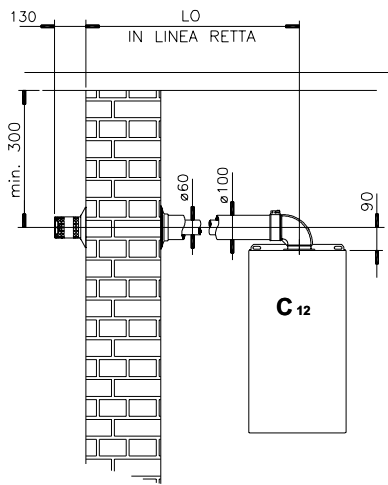
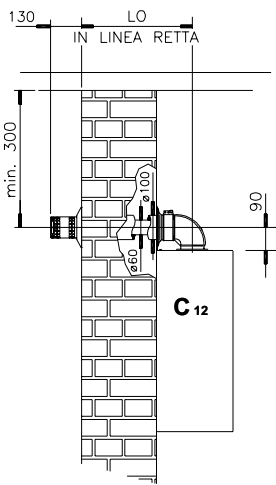
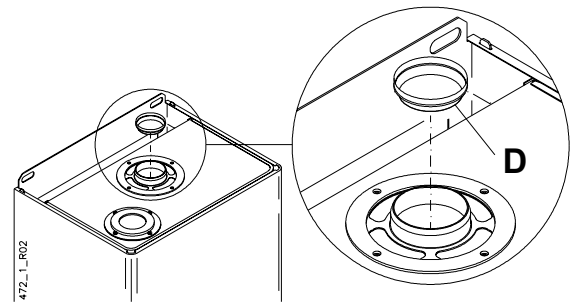
THESI "SE"

INTAKE AND EXHAUST Coaxial



Attention: see table and, if required, install the diaphragm "D" as shown in the figure to the left (to consider each 90° bend additional equivalent to 1 linear meter, at 45° =

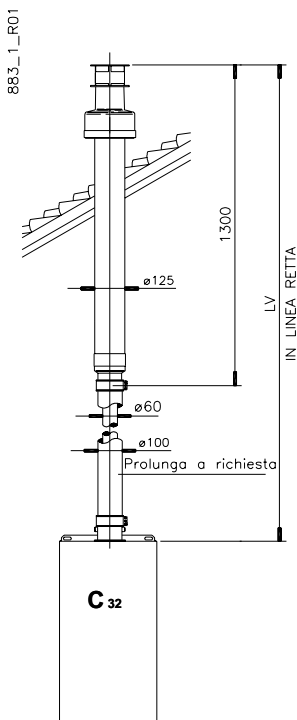
0.5 m).



SISTEMA COASSIALE ORIZZONTALE

Le misure sono relative al filo superiore caldaia

SISTEMA COASSIALE ORIZZONTALE SCARICO IN CANNA FUMARIA COASSIALE



SISTEMA COASSIALE VERTICALE

M olledo	Diametro esterno COL 0			
	+ nimmam M	+ nimmam M	D ammarfai ezzehgulrep ortemaid M (VL or OL) MmX	
4 2 ES	0 + 3	0 + 5	aonif 1 B (4 + 2 to 1 to) DIX	
0 3 ES	0 + 3	0 + 3	ertio2 ON aonif 1 B (6 + 1 ertio) ON	

(D) use the diaphragm supplied with the boiler.

(B) available on request.

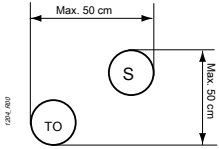
for the technician

NOTE: See "Installation Types" for regulatory requirements for each type of boiler.

Installation Types

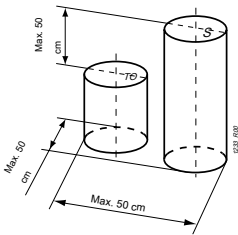
BOILER TYPE C 12

The terminal should be placed on the wall by means of two rosettes, internal and external, supplied with the appropriate kit fumes. For installation refer to the instructions contained in the flue gas kit.



The suction and discharge terminals for separate ducts must be inscribed in a square with 50 cm of side as expected by the UNI EN 483 point 8.2.1.4.

BOILER TYPE C 32



The UNI EN 483, to point 8.2.1.4, prescribes that the outputs (the vertical terminal for separate ducts) should be inscribed in a square of side 50 cm and the distance between the planes of the two orifices must be less than 50 cm. By using the kit original coaxial fumes those requirements are met.

BOILER TYPE C 42

The exhaust system is not supplied by the manufacturer must comply with current regulations concerning the general requirements (UNI EN 1443), sizing (UNI EN 13384 Parts 1 and 2, UNI 10641) and the materials with which it is made.

BOILER TYPE C 52

The terminals (intake and exhaust) should not be installed on opposite walls of the building, as prescribed by the UNI EN 483 at paragraph 8.2.1.4.

BOILER TYPE C 62

The boilers type C 62 include construction of the intake and exhaust with non-original accessories. All of fumisteria accessories not supplied by the manufacturer must comply with the current regulations concerning the general requirements (UNI EN 1443), sizing (UNI EN 13384 Parts 1 and 2, UNI 10641) and the materials with which it is made.

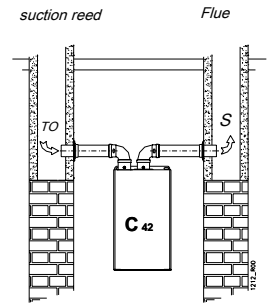
BOILER TYPE C 82

The exhaust system is not supplied by the manufacturer must comply with current regulations concerning the general requirements (UNI EN 1443), sizing (UNI EN 13384 Parts 1 and 2, UNI 10641) and the materials with which it is made.

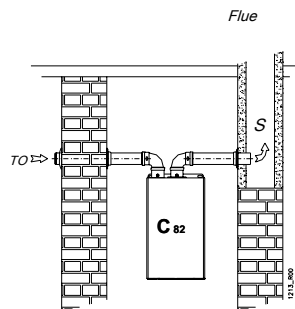
BOILER TYPE B 22

The Type B equipment 22 They must not be connected to a collective pipe. The drain of each device of the above type must be connected to its own single flue or channeled directly into the external atmosphere.

INTAKE DUCT / EXHAUST CHIMNEY C 42

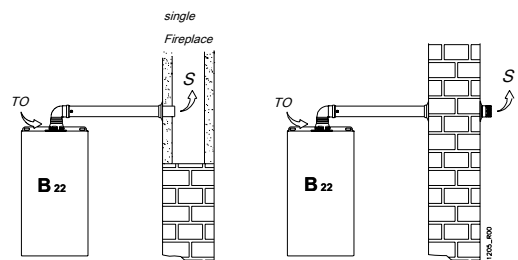


WALL INLET / EXHAUST FLUE C 82



A = Intake pipe
S = Flue

DIRECT INTAKE B 22



A = Intake pipe

S = Flue

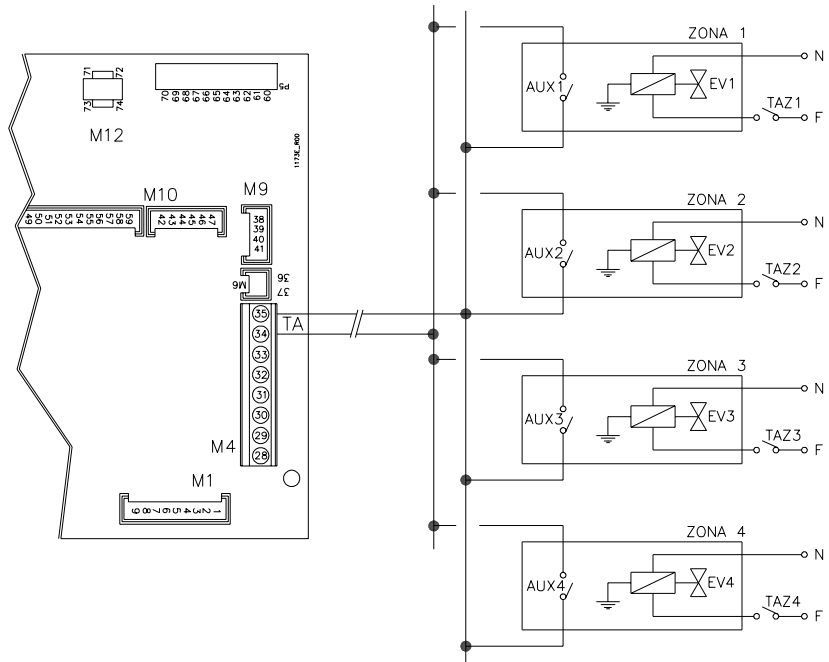
for the technician

Zone systems (with valves)

You can enslave the boiler to a multizone system, where each zone is controlled by a thermostat / timer environment. The plant of each zone will be powered by means of the relevant area with auxiliary contact valve. The closure of one or more auxiliary contacts, connected in parallel, give the consent to the boiler for the heating operation.

Without optional kit "Timer"

In the diagram is shown an example with 4 high-temperature zones. The auxiliary contacts of the zone valves control the boiler through the inlet for Environment thermostat (TA). For high + low temperature mixed systems it is essential to use the kit for low temperature systems (optional) because the boiler can not operate at low temperature.



With optional kit "Timer"

When present the optional kit "Timer" is not possible to connect the auxiliary contacts of the valves TA at the entrance of the boiler, because it is reserved for signals for the Timer. You need to install "kit for zone systems" (optional) which has two functions:

- controlling the valve of the "Zone 1" where the timer control (that the valve need not be equipped with auxiliary contact is installed);
- receive the heating activation signal required by the auxiliary contacts of the other zones and activate accordingly the boiler.

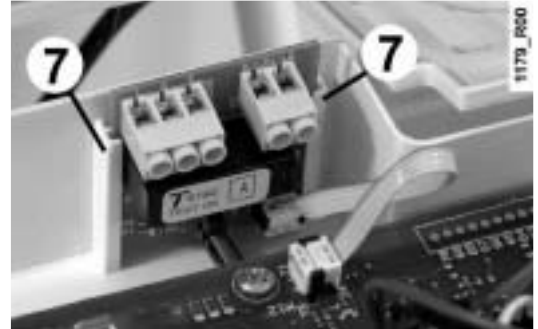
INSTALLATION AND WIRING

- Remove the power supply to the boiler.
- Log on to the dashboard, and open the rear cover of the instrument panel (see "Accessing adjustment manual devices" ch. "Instructions for commissioning, adjustment and maintenance").



CAUTION: Before performing the following operations, make sure that the solenoid valves are not energized.

- Connect the power cable [1] of the solenoid valve in the area in which the "Timer is installed", see the figure below, to the connector terminals "M1" [2] of the kit card (1 = NA / 2 = C / 3 = NC), inside the dashboard of the boiler;
- connected in parallel to the "clean" contacts coming from other areas, (eg auxiliary end-of-stroke contacts of the solenoid valves or thermostatic valves);
- connect the cable [3], from the "parallel" of the auxiliary contacts, the connector "M2" [4] of the kit tab, inside the dashboard of the boiler;
- insert the connector [5] of the kit card into the connector [6] in modulation PCB in the boiler;
- insert the adapter kit into the guide rails [7] inside the dashboard of the boiler;
- close the dashboard cover and close the boiler;
- re-electrically powering the boiler.

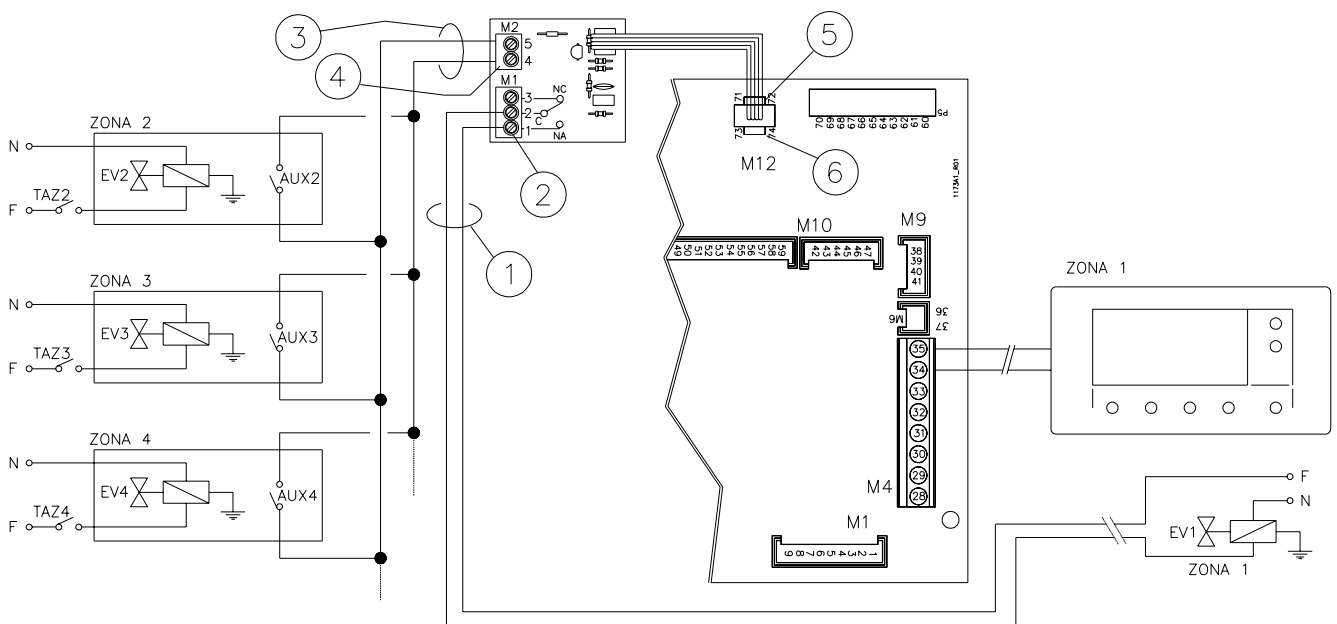


The kit for zone systems can function correctly in all modal ity adjustment climatica of the "Timer", then even in modulating mode.

Note: The proposed scheme is indicative and describes an example of electrical connection for the applied typical kit of the cation, which provides zone valves with auxiliary contact, controlled by thermostats zone environment.



The hydraulic system solutions and the relative type of auxiliary electrical signaling of the state of the zones, which may be of different types, to be adopted based on the number of zones, the size of the plant and the rules of the art.



for the technician

THE INSTRUCTIONS FOR COMMISSIONING, ADJUSTMENT AND MAINTENANCE



WARNING: The following actions are to be performed by professionally qualified personnel.



At the end of the measurements and / or adjustments, remember to tighten pressure tapping point screws and **ALWAYS** check the absence of gas leaks!



Before turning on the boiler verify that the pump is not blocked due to inactivity: unscrew the cap at the center of the cap to gain access to the rotor shaft, and turn it manually using a screwdriver or other suitable tool. During the commissioning of the new boiler service it is necessary to operate the burner for 30 minutes before proceeding to the combustion control, because in said time interval is producing the vapors of any manufacturing residues which could distort the



analysis of the fumes.

Accessing adjustment manual devices

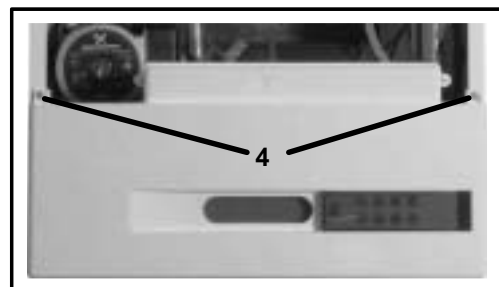
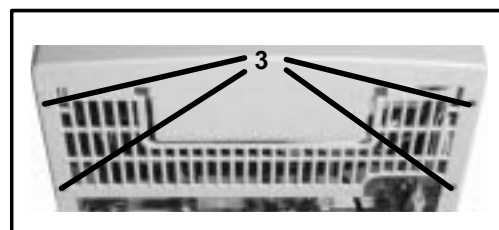
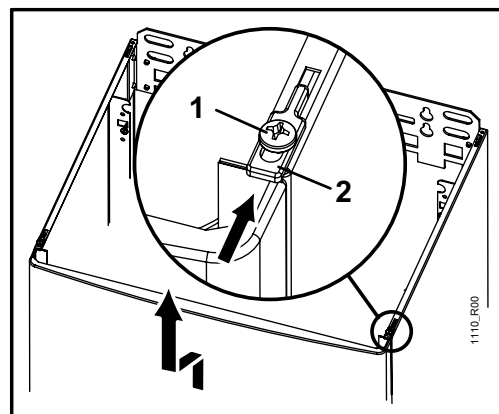
1. On the upper side of the boiler, loosen and slide the locking platelets [1] and remove front cover [2] upwards;

2. To remove lower grid, if present, unscrew the screws [3];

*Note: The lower grid is supplied disassembled nel-
the packaging.*


3. unscrew the two fixing screws [4] and extract the dashboard towards the outside along the slots in the two positions, and then tilt it downward;

4. After the adjustments follow the operations in reverse order.

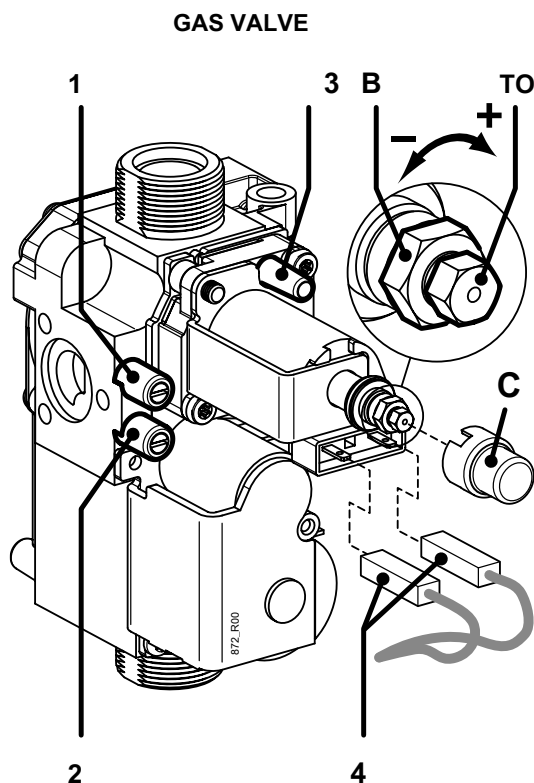


Preliminary checks GAS

The boiler leaves the factory already calibrated and tested for the type of gas for which is requested. However, it is advisable to check that the type of gas and the burner pressures are correct, following the procedures described in this section.

- All connections to the boiler (water, gas, heating and electricity plant) must be efficient;
- the boiler must be in stand-by, that is, with the inscription **"OFF"** visible on the display. If necessary, set the boiler in stand-by by pressing the button  O/I ;
- to execute the control of the pressures to the burner, insert the pressure gauge sensors in pressure tapping on the gas valve (see figure).

NB: To check that the pressure and the flow rate of gas network are sufficient to ensure the proper functioning of the device to perform the measurement with the burner on.








PRESSURE OUTLETS: 1 = 2 = Gas outlet Gas inlet 3 = socket "Vent" (mod. SE)

Pressure adjustment

MAX-MIN modulation valve

GAS

- Loosen (2-3 turns) the screw of the socket outlet pressure [1] of the gas valve and insert the manometer sensor. In the "SE" models unthread from the "Vent" [3] the silicon tube coming from the sealed chamber;
- activate the boiler to the MAX power (no modulation) by using the function *"Chimney sweep"*:
 - a boiler in stand-by mode (ie, with the inscription "OFF" visible on the display) keep pressed the buttons **reset** is  for at least 5 seconds. The display shows the message **service** ;
 - press (one or more times if necessary) button + or - until the number merely to the left of the written **service** is **"12"**;
 - press the button + The number to the right of writing **service** will increase from **"0"** A.D **"1"** and the burner will turn on at full power, without modulation, for a period sufficient to make the checks and measures (also displays the symbol ). The heat dissipated is disposed to the heating system;


Note: the burner will turn off when reaching the flow temperature heat- to 85 ° C. In any case, the boiler will exit the programming mode and turn off the burner after 15 minutes.

- verify that the measured pressure corresponds to the MAX value indicated in the table, corresponding to the model of boiler and gas in use;

Modello		Metano		Gasolio		Gasopropano	
		bar	cmHg	bar	cmHg	bar	cmHg
32 SEHE	Pressore XAM	2.15	27	7.23	78	5.30	53
	Pressore NIM	2.5	26	4.8	49	4.8	49
82 SEHE	Pressore XAM	3.16	39	7.29	85	5.39	65
	Pressore NIM	2.9	30	6.1	62	6.1	62
42 SEHES	Pressore XAM	2.13	25	7.27	82	4.35	52
	Pressore NIM	2.2	22	4.5	46	4.5	46
03 SEHES	Pressore XAM	2.17	30	8.25	92	6.32	69
	Pressore NIM	2.2	22	5.2	53	5.2	53

- extract one of the connectors [4] which feed the modulation coil; verify that the measured pressure corresponds to the MIN value indicated in the table, corresponding to the model of boiler and the gas being used, then reinsert the connector;
- in the case of an adjustment correction is required, referring to the figure, proceed as follows:

- remove the protective cap [C];
- adjust the MAX pressure acting on the big nut [B] (8 mm). By rotating clockwise the pressure increases, counterclockwise it decreases;
- extract again one of the connectors [4];
- adjust MIN pressure acting on the small nut [A] (5 mm), taking care not to contemporarily move the large nut [B]. By rotating clockwise the pressure increases, counterclockwise it decreases;
- reinsert the connector [4] and verify that MAX pressure is not changed;
- refit the cap [C];

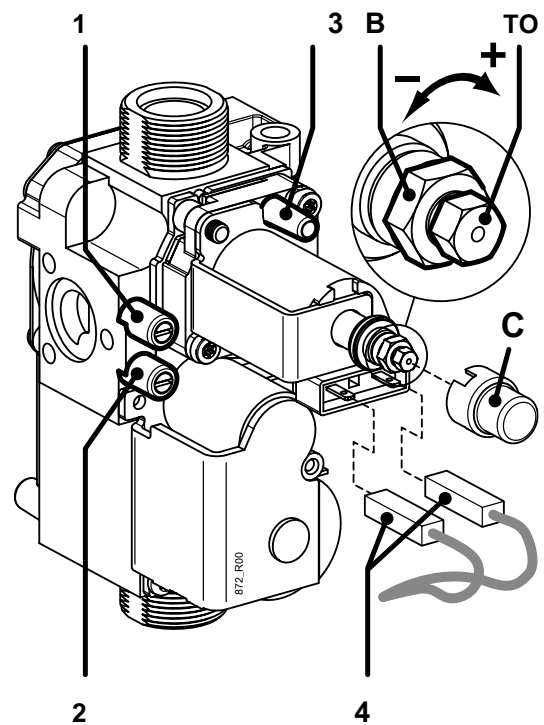
- turn off the burner by pressing the button 

 **Important: lock the CONTROL VALVE after any setting.**

- in "SE" models reinsert the tube in the "Vent" [3] of the gas valve. CAUTION: after insertion of the tube into the socket "VENT" the value detected by the manometer could decrease due to pressure compensation. This is normal and does not imply any change of the regulation;

- screwed into the screw of the socket outlet pressure [1] and verified the absence of gas leaks.

GAS VALVE



PRESSURE OUTLETS: 1 = 2 = Gas outlet Gas inlet 3 = socket "Vent" (mod. SE)

Changing Gas








WARNING: The following actions are to be performed by professionally qualified personnel.

Consult the manufacturer for the supply of the gas change nozzles.



Using LPG, it is absolutely necessary to install a suitable pressure reducer upstream of the boiler.

1. A boiler in stand-by mode (ie, with the inscription "OFF" visible on the display) keep pressed the buttons and **reset**  for at least 5 seconds: the display shows **service** with a number in the left and one on the right; press the button  until a left appears number 1. Then press the button  or  to set the number of right as if-gue:
0 if henceforth the boiler will operate at METHANE
1 if henceforth the boiler will operate in LPG and store the setting by pressing the button  .

2. Check that the pressure and the flow rate of the gas network are sufficient to ensure the correct operation of the appliance.

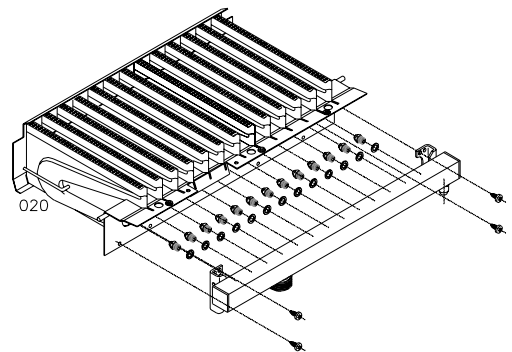
3. Disconnect the power supply to the boiler.

4. Remove the front shell; in the "SE" models disassemble the sealed combustion chamber.

5. Remove the tube that connects the gas valve with the ramp door nozzles;

6. remove and replace the ramp nozzles * with the ones suitable for the available gas, using a 7-mm wrench (see Fig. BURNER). Then reattach the ramp and the pipe, replacing gaskets; check the tightness with burner. On "SE" models, close sealed combustion chamber.

RAMP REMOVAL TIPS AND



* Install Kit nozzles **with washers** provided, even if the nozzles present in the boiler series, are originally devoid of washer.

LEDOM	Q at	SONATEM		GPG 3 1		
		ILLEGU Min(0 0)	ILLEGU Min(0 0)	P Rabm	ILLEGU Min(0 0)	P Rabm
3 2 ISEHT	13	2 0			75	
8 2 ISEHT	14	2 5			76	
4 2 ISEHES	13	2 0	20		75	3/9Z
0 3 ISEHES	14	3 0			78	

7. Check, with burner, that the pressure upstream of the boiler is:

Methane = min.17 - max.25 mbar

Butane = min.28 - max.30 mbar

Propane = min.35 - max.40 mbar

To end the calibration values refer to the data in the table "Technical data";

8. repeating the pressure adjustments MAX-MIN GAS valve as described in the preceding pages;

9. verify that there are no gas leaks;

10. apply the sticker indicating the type of gas (supplied with the kit) suitable area on "WARNING" label of the boiler.

Exclusion Automatic

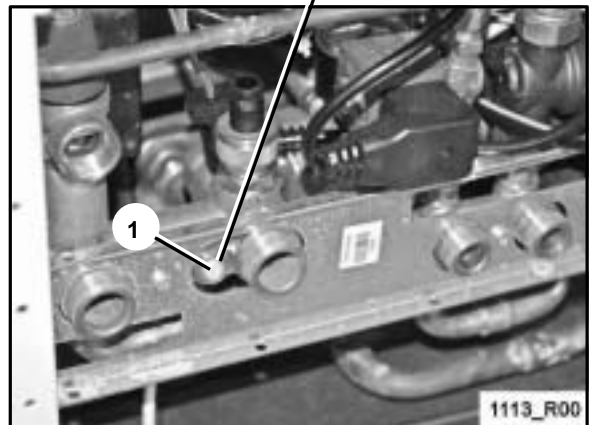
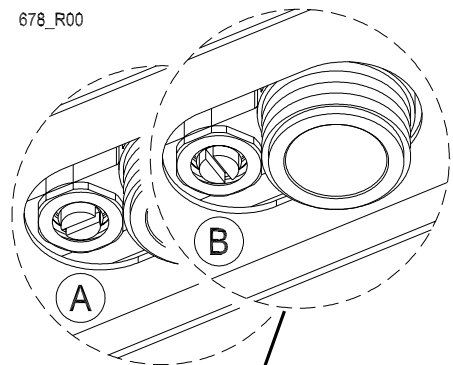
By-Pass

This model of boiler is equipped as standard with automatic By-Pass. In the fully open condition is guaranteed a flow rate sufficient for the normal operation of the boiler, ie without making intervene the safety devices. However, it is possible, in case of necessity, to exclude the By-Pass, proceeding as follows:

1. Turn off the boiler by pressing the button O/I .
2. Turn the screw on the By-Pass (detail 1 in the picture) until the screw is cut at the position "B".

To return the by-pass in initial opening to rotate the screw at the position "A".

678_R00

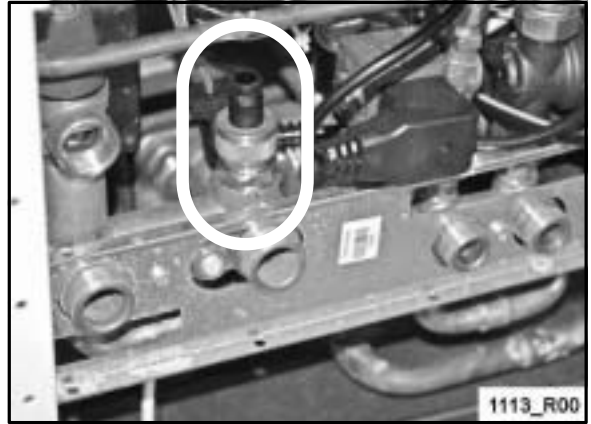


VIEW FROM THE BOTTOM OF THE BOILER

Emptying facility

In the case where it is necessary to empty the system, proceed as described below:

- Insert a rubber hose on the drain valve (shown in the figure);
- connect the other end of the rubber to the appropriate drain pipe;
- open the tap by rotating counterclockwise the knurled knob;
- when the pressure is COMPLETELY drained, you can open the vent valves of the radiators, to allow the air inlet and complete plant draining;
- such operation is finished, close the drain valve by turning clockwise the ring nut, and the vent valves that have opened.



VIEW FROM THE BOTTOM OF THE BOILER

Alarms reserved to the Technical

As a result of a malfunction, the boiler may stop responding and display an alarm code on the display.

You (Technical) will receive the User's call to some of these alarm codes, especially those accompanied by the **service** on display.

Note: in the "Boiler blocking and alarm codes" in Section "Instructions for Use" is present a complete list of alarms, including those recoverable by you. The alarm codes are accompanied by its name and guiding principles to the identification of the fault, leaving the analysis and the operational details to the professionalism of the Technical and documentation reserved for Assistance Centers, which can be obtained from our After-sales Service.

Care instructions



All maintenance operations and gas conversions **MUST BE CARRIED OUT BY QUALIFIED** pursuant to Law n. 46 of 5 March 1990 and in accordance with UNI 7129 and 7131 and updates. In addition, the **MAINTENANCE** operations must be performed according to the manufacturer's specifications and compliance with applicable regulations and CEI and must be carried out in accordance with legislation *vigen- you*. To maintain the energy performance of the boiler, it is advisable to activate the electronic counter, which will signal the User when maintenance will be required, without prejudice to the maximum limit on the periodicity established by the legislation. The "E" models natural draft should be serviced annually.

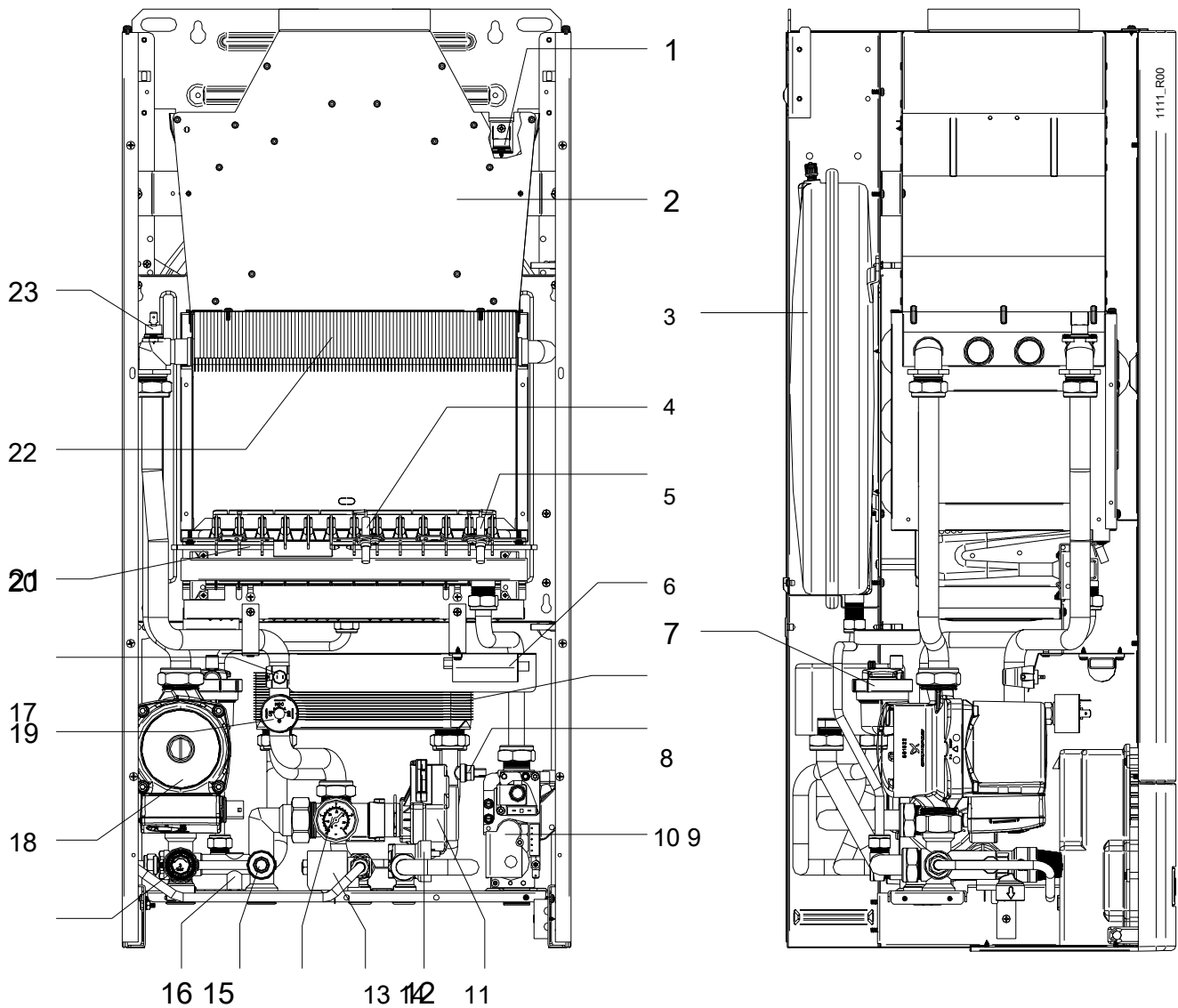
An accurate maintenance is always a source of savings and safety and normally involves the following steps:

- Remove any possible oxidization from burners;
- Clean heat exchangers and electrodes;
- Check integrity and stability of the ceramic fiber coverings in the combustion chamber, and replace if necessary;
- ignition control, switching off and operation;
- fitting seal control and gas and water connection pipes;
- Control of the gas consumption at the maximum and minimum power;
- Check intervention of the safety devices;
- Verify correct functioning of control and adjusting devices;
- Periodically check the absence of spillage of combustion products toward the internal environment, the smooth operation and integrity of the conduit and / or exhaust system of fumes;
- Resetting the maintenance counter (if it has been activated, even if the alarm has not appeared);
- In case of work or maintenance to structures located in the vicinity of the flue gas ducts and / or in the exhaust fumes of the devices and their accessories, switch off the appliance;
- Never leave containers or flammable substances in the room where the appliance is installed;
- Do not carry out the cleaning of the room, in which the boiler is installed, when the same is in operation;
- The cleaning of the panels must be made only with soapy water. Do not clean casing, other painted or plastic parts with paint thinner.
- In any case of parts replacement, it is imperative to use original spare parts suitably prepared by HERMANN.

HERMANN declines any responsibility in case of non-original components.

"At the end of the control operations and maintenance of the system the operator has the obligation to prepare and sign a report, to be issued to the plant manager, who must underwrite copy for receipt. ... "(DPR 412/93 and subsequent amendments)

Total Section drawing THESI "E"



1 Flue thermostat 2 Flue hood 3 Expansion vessel 4 detection electrode 5 Ignition electrode 6 Lighter discharge valve 7 automatic air vent

13 System loading solenoid valve 14 Pressure gauge 15 exhaust system tap 16 By-pass system 17 Safety valve 3 bar 18 Circulator

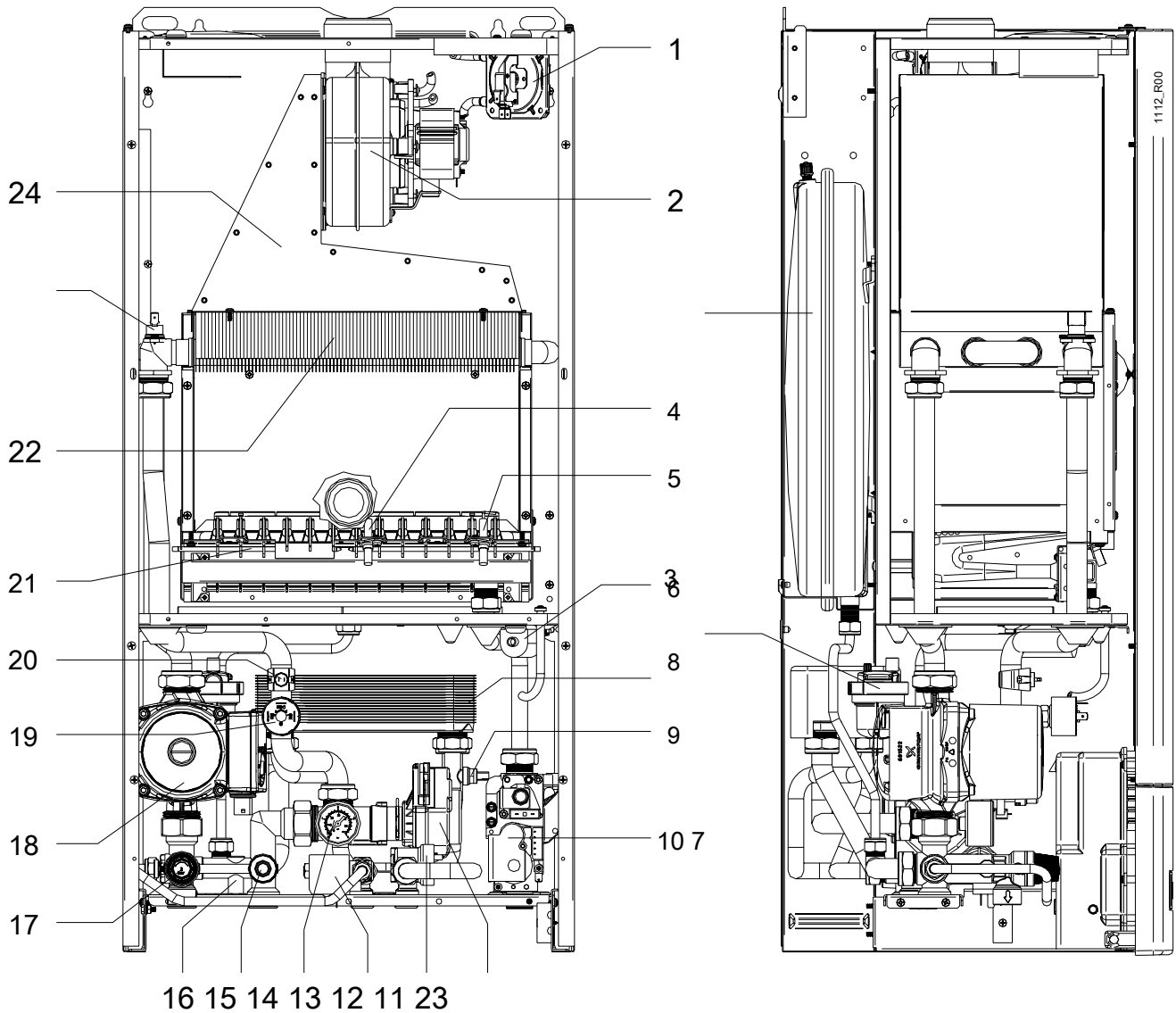
(Incorporated the circulator) 8 DHW exchanger 9 DHW temperature control sensor 10 Gas valve

19 water pressure switch (Minimum pressure) 20 temperature control probe heating 21 Burner 22 Primary exchanger 23 Safety thermostat temp. max. water

11 motorized diverter valve 12 Flowmeter

for the technician

Total Section drawing THESI "SE"



1 Flue pressure switch 2

Fan

3 Expansion vessel 4 detection electrode 5

Ignition electrode 6 Lighter discharge valve

7 automatic air vent

13 System loading solenoid valve 14 Pressure

gauge 15 exhaust system tap 16 By-pass system 17

Safety valve 3 bar water pressure switch 18

circulator 19

(Incorporated the circulator) 8 DHW
exchanger

9 DHW temperature control sensor 10 Gas valve

11 motorized diverter valve 12 Flowmeter

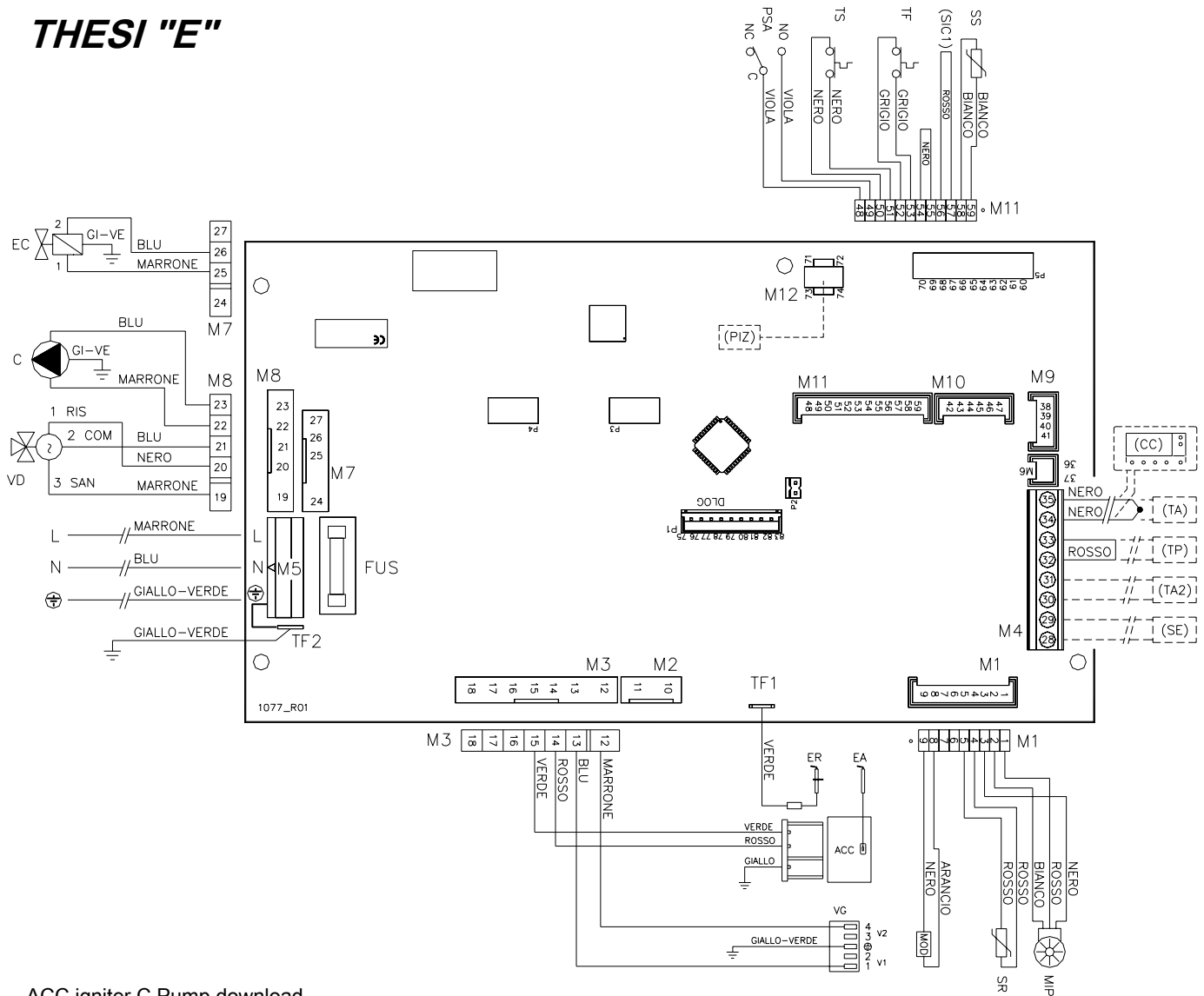
(Minimum pressure) 20 temperature
control probe

heating 21 Burner 22 Primary exchanger 23 Safety
thermostat temp. max. water 24 conveyor fumes

for the technician

Wiring diagram

THESI "E"



ACC igniter C Pump download

EA Ignition electrode

EC loading facility Solenoid ER sense electrode FUS

Fuse F2A (rapid 2A) MOD Modulator

MIP Flow Meter PSA Low water pressure

switch SR Heating sensor SS probe thermostat

TS Safety thermostat TF Health fumes

VD 3 way motorized valve (diverter) VG gas valve (coils)

External components, optional:

(CC) Timer

To install, remove the junction between the two conductors, and possibly extend, or replace the cable directly on the terminals. Max 50m, non-polarized connection. Not alongside power lines but provide a separate duct.

(PIZ) Preparation Kit for installations in areas

use only if input is connected to the TA Timer optional DC, because in this case it is not possible to connect the auxiliary contacts of other zones in parallel at RT. See also "Plant Kit zones" in the section "Installation".

(SE) external temperature probe (SIC1)

Generic Security

Eventually used during the installation kit and non-standard systems.

(TA) room thermostat

To install, remove the junction between the two conductors and optionally extend. To control multiple zones with the same type of system temperature, and only if it is not the present CC, TA connected in parallel to the auxiliary contacts of the zones.

(TA2) Input for telephone dialer (TP)

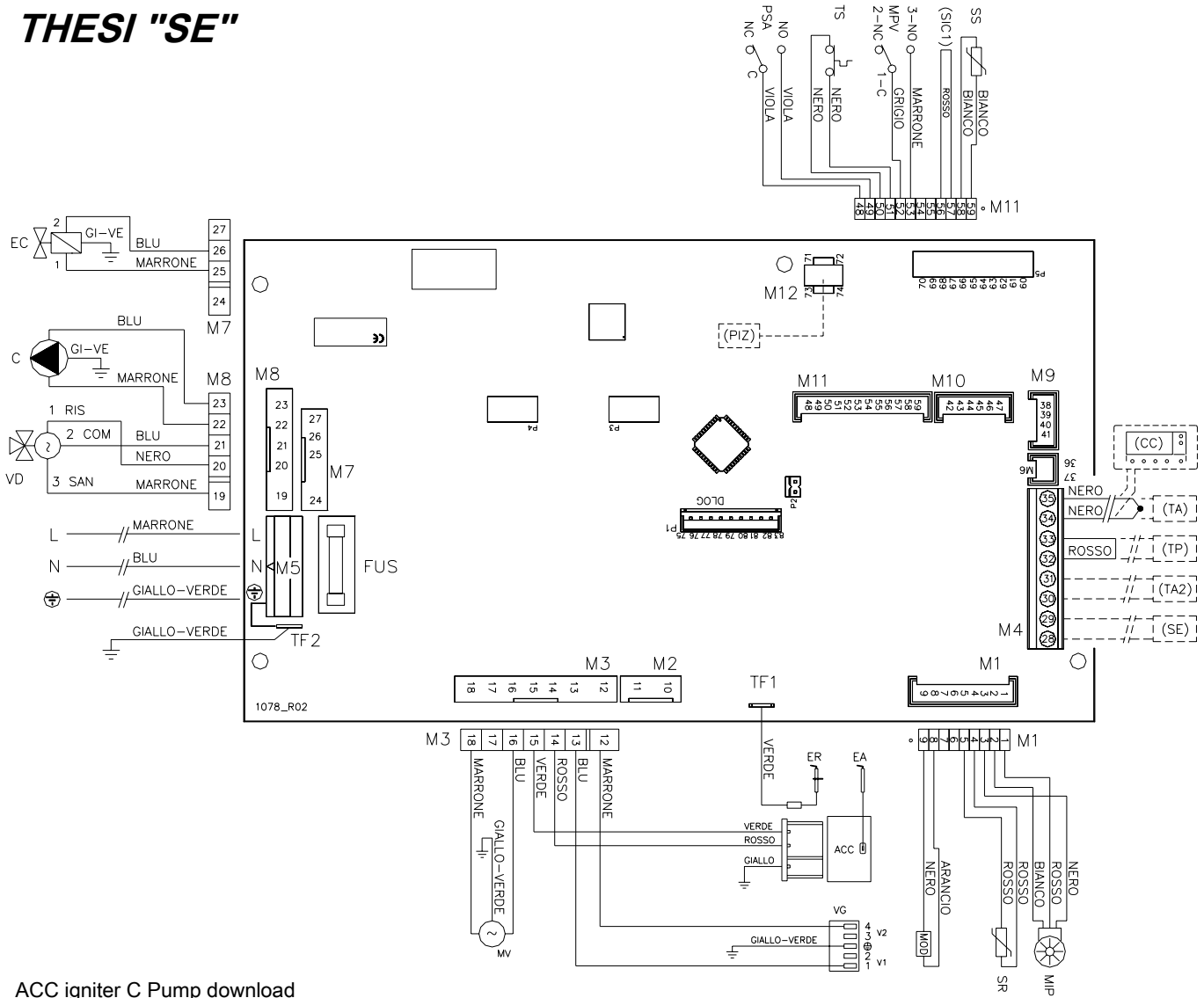
Input for safety thermostat floor systems

To install, remove the bridge.

for the technician

Wiring diagram

THESI "SE"



ACC igniter C Pump download

EA Ignition electrode

EC Solenoid Loading plant ER sense electrode FUS

Fuse F2A (rapid 2A) MOD Modulator

MIP Flow Meter MPV Flue pressure

switch MV Fan motor

PSA Low water pressure switch SR Heating

sensor SS Probe Health TS Safety thermostat

VD 3 way motorized valve (diverter) VG gas valve (coils)

External components, optional:

(CC) Timer

To install, remove the junction between the two conductors, and possibly extend, or replace the cable directly on the terminals. Max 50m, non-polarized connection. Not alongside power lines but provide a separate duct.

(PIZ) Preparation Kit for installations in areas

use only if input is connected to the TA Timer optional DC, because in this case it is not possible to connect the auxiliary contacts of other zones in parallel at RT. See also "Plant Kit zones" in the section "Installation".

(SE) external temperature probe (SIC1)

Generic Security

Eventually used during the installation kit and non-standard systems.

(TA) room thermostat

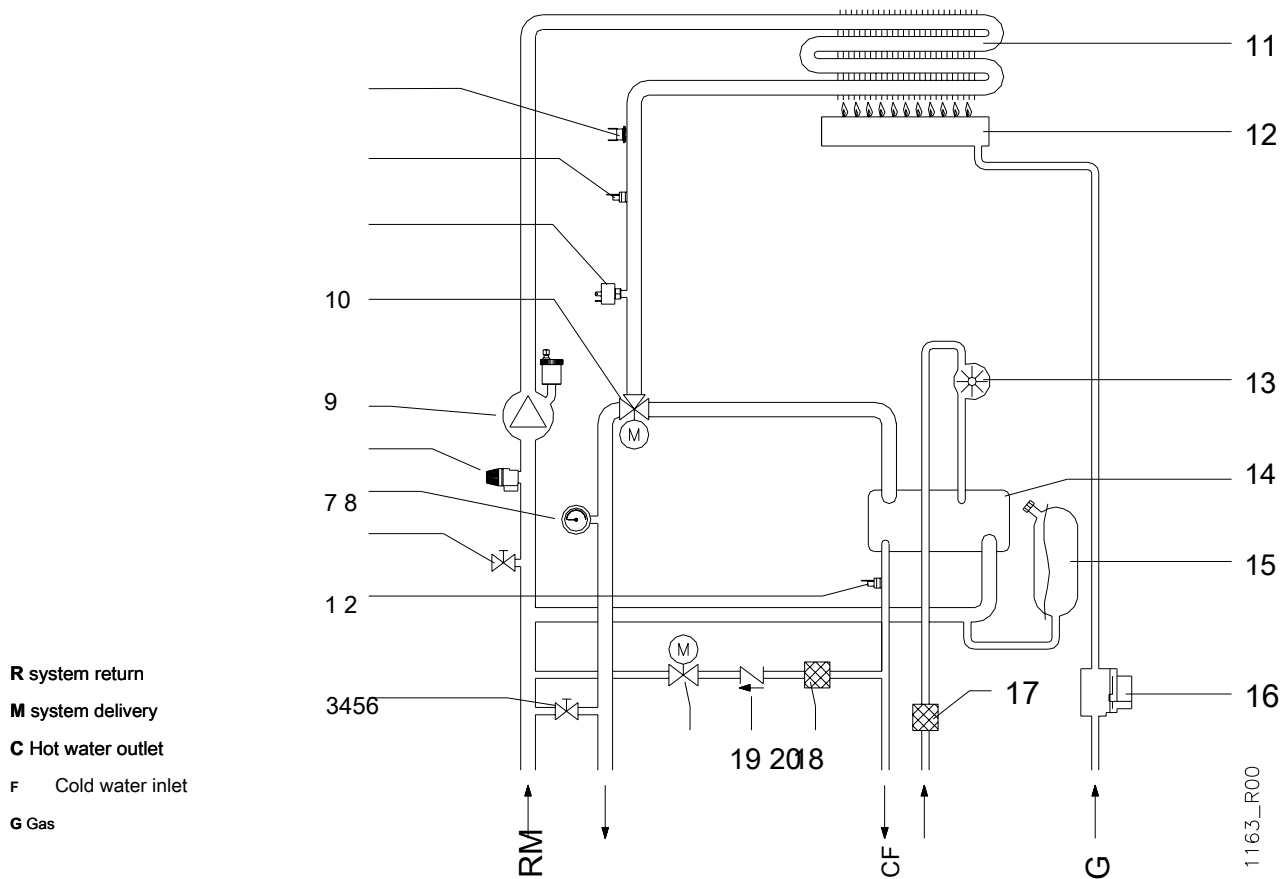
To install, remove the junction between the two conductors and optionally extend. To control multiple zones with the same type of system temperature, and only if it is not the present CC, TA connected in parallel to the auxiliary contacts of the zones.

(TA2) Input for telephone dialer (TP)

Input for safety thermostat floor systems

To install, remove the bridge.

Hydraulic diagram THESI



Warning: this scheme has character only FUNCTIONAL. For the realization of hydraulic connection either use fixing jig or design contained in the paragraph "Installation."

- 1 By-pass system
- 2 DHW temperature sensor
- 3 exhaust system tap
- 4 Pressure gauge
- 5 Safety valve heating circuit. 3 bar
- 6 circulator (with built-in automatic air vent valve)
- 7 motorized diverter valve
- 8 lack of water pressure switch
- 9 system delivery
- 10 Safety thermostat

- 11 Primary exchanger
- 12 Burner
- 13 flowmeter
- 14 DHW exchanger
- 15 Expansion tank
- 16 Gas valve
- 17 in inlet water filter
- 18 for loading solenoid valve
- 19 Non-return valve for loading solenoid valve
- 20 Solenoid loading facility

for the technician

THE INSTRUCTIONS FOR USE

Instructions for setting up the instrument



The placing in service or maintenance of the boiler must be performed by a qualified technician (eg the service centers authorized HERMANN).

The transformation from a gas to a family (natural gas or liquid) to a gas of another family, (which can also be made with the boiler installed), it must be carried out exclusively by professionally qualified personnel. The technician will check:

- a) that the plate data correspond to those of the power supply networks (electricity, water, gas);
- b) that the calibration of the burner is compatible with the boiler power;
- c) the correct functionality of the duct evacuation of the fumes;
- d) that the combustion air feed and the products evacuation correctly as determined by the current standards National and Local;
- e) they have guaranteed the conditions for the aeration, in the case in which the boiler is located inside furniture.



You should not act on the components sealed or tamper with the seals. Only recognized technicians and technical service authorized by the manufacturer can remove the seals on the structural parts sealed.

Prescriptions



Models E - CAUTION: The device is provided with a safety thermostat for chimney draft, which intervenes in the case in which there may be a return to the environment of the combustion products. This device must never be put out. The products of combustion if they fall into the environment may cause chronic or acute intoxications with danger of death. Should it be replaced on the technical thermostat is obliged to use only the original parts and to check for proper operation. In case of repeated interventions of the device, do first check that the air supply systems, environment ventilation and exhaust fumes are efficient and made secondary do the rules in force (see. Examples in par. "Chimney connections").



Models SE - CAUTION: The device is provided with a safety flue pressure. This device must never be put out. Should it be replaced die-state is required to use only original parts. In case of repeated interventions of the device, first verify that the exhaust system / suction is efficient and made according to the rules in force (see. Examples in par. "Connections" fireplace and "Flue systems").

INSTALLATION AND MAINTENANCE

All installation, maintenance and transformation of gases MUST BE CARRIED OUT BY QUALIFIED pursuant to Law n. 46 of 5 March 1990 and in accordance with UNI 7129 and 7131 and updates.

The boiler MAINTENANCE operations must be performed according to the manufacturer's specifications and compliance with applicable regulations and CEI and must be performed in accordance with current legislation. To maintain the energy performance of the boiler, it is advisable to activate the electronic counter (supplied to the boiler of the series) that will signal the User when maintenance will be required, without prejudice to the maximum limit on the periodicity established by the legislation.

The "E" models natural draft should be serviced annually.

BOOKLET OR CENTRAL PLANT

All plants, even those installed before August 1st, 1994, must be adjusted with an appliance booklet (for power up to 35 kW) or a central plant booklet for powers above 35 kW. All ordinary and extraordinary maintenance operations, in addition to combustion checks, together with the name of the person responsible for the maintenance, must be written on the booklet.

CHECKING THE BURNING

The combustion test consists in a control of the efficiency of the heat generator; for this verification shall be responsible for a person who has the requisites required by law 46/90. The heat generators that as a result of the verification appropriate at yield values lower than the minimum required by law, and are not attributable to these minimum values with appropriate maintenance, must be replaced.

OPERATION AND MAINTENANCE OF HEATING SYSTEMS

The initial responsibility for the operation and maintenance of the thermal installation is an individual system user (occupant of the property, whether or not the property owner himself) or condominium administrator in the case of centralized systems; both the user and the administrator can transfer responsibility for servicing and eventually of a "third" person who is in possession of the requirements of the law 46/90. If the individual user or the administrator decide to assume personally this responsibility above, will give away an enabled enterprise of generator maintenance and testing of combustion.

Warnings



If you smell gas:

- a) **do not operate electric switches, the telephone or any other object that may cause sparks;**
- b) **immediately open doors and windows to create a current of air to purify the room;**
- c) **close the gas taps;**
- d) **call a qualified electrician. Do not obstruct the ventilation openings of a gas appliance is installed in order to avoid dangerous situations such as the formation of toxic and explosive mixtures. If you plan a long period of absence of the user and / or inactivity of the boiler, see the section entitled "Boiler inactivity" for the necessary precautions about the electrical power, gas and frost protection.**




Access to the control panel

To access the commands necessary for the operation of the boiler is sufficient to press the door in the part closest to the display, as shown in the figure.



Instructions for ignition, operation and shutdown

Switching

- Turn on the main power supply switch for the boiler prepared in the installation phase: appear on the display symbols and numbers, or the written "OFF";
- open the gas tap; if the display is present the inscription "OFF" press the button  : appear on the display symbols and numbers and the boiler is ready for the Winter or Summer mode.

Switching off (standby)

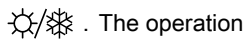
- Press  : On the display appears "OFF".



If the boiler were to remain unused for a long time is also shut off the gas valve and turn off the main switch installed in the installation phase.

Mode "SUMMER"

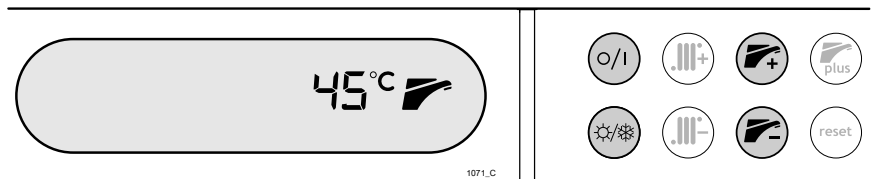
To switch the boiler in SUMMER operation press the button





The operation SUMMER is observing recognizes the display, where only the symbol



and close to it the temperature set for the domestic hot water (in ° C).

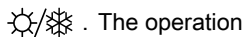


The burner will turn on automatically whenever required hot water.

You can adjust the domestic hot water temperature by means of the buttons  or  : the temperature flashes for a few seconds.

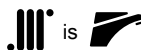
Mode "WINTER"



To switch the boiler in WINTER operation press the button





WINTER IS LOOKING recognizes

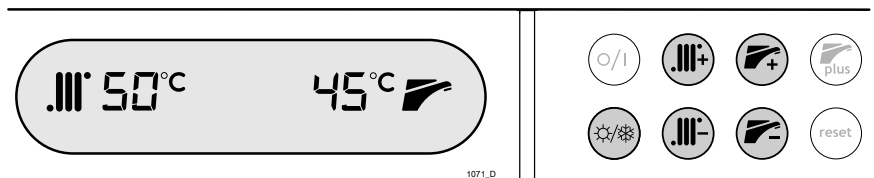
do the display, where they appear both symbols




 is , and next to them the current temperature of the heating system and the set hot water temperature (in ° C). The burner will turn on automatically whenever there is

a need.

You can adjust the domestic hot water temperature by means of the buttons  or  : the temperature flashes for a few seconds.



It is also possible to adjust the heating system temperature using buttons and

 : The set temperature flashes for a few seconds, and then returns to the display of the current temperature (measured) in a fixed manner. In general, if the weather is cold it increases the temperature, if the weather is mild decrease pressure.

Note: if there is a facility to radiators, controlled by a room thermostat or a chronometer

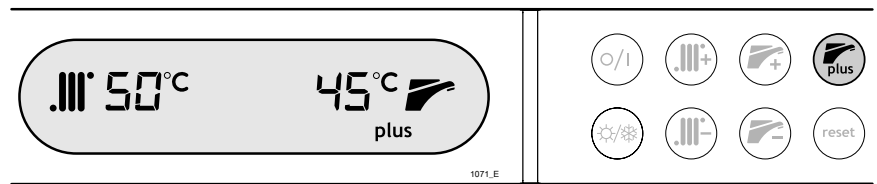
commercial type thermostat, we recommend to adjust the heating system temperature in the medium-high values (eg. 65 ÷ 70 ° C).

If you did install the outside temperature sensor (optional), the heating system temperature is automatically controlled by boiler depending on the outside temperature. In this case, by means of the buttons

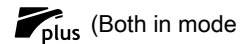
 is  It sets another value, called "coefficient of dispersion sion ". Refer to the documentation supplied with the external probe kit.

PLUS Function

Inserting PLUS function EURA produces hot water in a shorter time, with a comfort comparable to that of boilers with accumulation.



To insert (or off) the PLUS function, simply press the button



Summer and Winter). When the function is activated, the word "plus" appears on the right of the display.

Room temperature regulation

Here we would like to remind you that the premises must be adjusted by means of a room thermostat with two temperature levels. This is required by the DPR 26 Agosto 1993 n ° 412 and subsequent amendments.

For the use of the adjuster that you did install, consult the instructions for use.

Filling the system

It is not necessary to monitor the pressure of the heating, because the boiler automatically provides to restore proper pressure by taking new water from the water supply. Only in case of anomaly during the automatic filling operation, the boiler will lock out and display an appropriate alarm code on the display. In this case, refer to the section

"Boiler blocking and alarm codes".

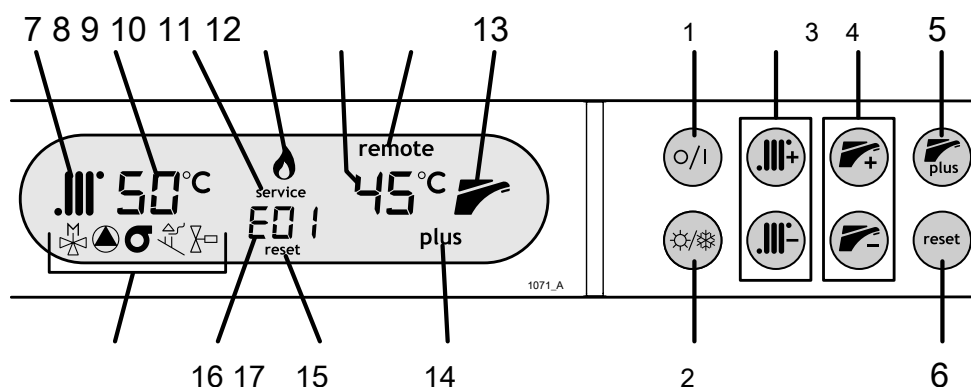
frost protection

The boiler THESI It possesses an antifreeze system that keeps the water temperature in the heating circuit and the sanitary exchanger, above 5 ° C to prevent freezing. This system, which provides the ignition of the burner, it works even when the boiler is in *stand-by*

(Word "OFF" on the display), but requires the presence of gas and electricity. In case the gas was not available or the boiler enters into the block, the burner can not ignite. The antifreeze function will then be carried out by the pump, by simply circulate the water in the circuits.

Please note that frost protection is provided as a security measure. It is not a system to preserve the boiler and its facilities during long periods of inactivity with harsh climates. In these cases, it is appropriate to proceed as indicated in the paragraph "Boiler inactivity".

Controls and indicators in detail



1 button ON / STAND-BY

- Pressing allows the operation of the boiler (status Lit - appear on the display symbols and numbers).
- Pressing once more boiler ignores the heat requests (Stand-by state - on the display appears "OFF"), leaving active only the antifreeze function and for the technical functions.

2 button SUMMER / WINTER

- Pressing allows switching between summer mode to winter mode and vice versa. For details, see "Switching, operation and shutdown."

3 Buttons HEATING TEMPERATURE adjustment

- Touching these decreases or increases by 1 ° C each time the set temperature of the heating system. These buttons work only in winter mode. If you notice that the ambient air reaches too slowly desired temperature, increase the adjustment. If the ambient air is heated excessively, decrease the adjustment.

4 Buttons HOT WATER TEMPERATURE adjustment

- Touching these decreases or increases by 1 ° C each time the set temperature of domestic hot water: adjust it according to your needs.

5 button PLUS function

- Press to toggle the "plus" function. For details, see 'Switching, operation and shutdown. "

6 button **reset**

- Before pressing the button, see the section "Boiler blocking and alarm codes' to understand what happened and what to do to prevent future problems.
- Pressing will restart the boiler after a user-resettable block has occurred, signaled by the appearance of the written **reset** and a code to the center of the display (16 and 17 figure).



Please note that the boiler blocks that are signaled by the appearance of the written code and a center of the display (9 and Figure 17), requiring repairs and NOT are eliminated by pressing the button

reset .

7 Symbol HEATING on the display

- It signals that the boiler is in winter mode.
- While flashing, the boiler is heating the premises.

8 indication HEATING SYSTEM TEMPERATURE displayed

- When it is FIXED MEASURED indicates the temperature of the water in the heating (discharge).
- When adjusting the temperature (or dispersion coefficient *) with the buttons  is  FLASHES number and indicates the temperature (or dispersion coefficient *) SET for the heating system.

** if the probe is present on the outside temperature (optional).*

9 Indication **service** the display



- It signals that the boiler is locked and to restore operation is necessary service call.

10 FLAME PRESENCE symbol on the display

- Report that the flame is lit in the burner.

11 Indication DOMESTIC SYSTEM TEMPERATURE displayed

- It indicates the SET domestic hot water temperature. Flashes for a few seconds when adjusting the temperature with the buttons

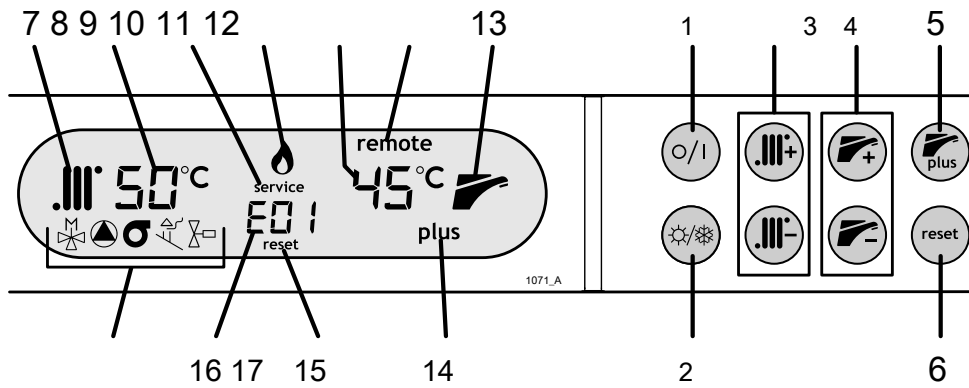
 is  .

12 Indication **remote** the display

- Report that the remote control panel is installed. Under these conditions, not all functions are available on the boiler control panel, because they are managed by the remote control itself. For details, see the instructions of the remote control panel.

13 Symbol HOT WATER on the display

- It signals that the boiler is ready to provide hot water, and appears in summer and winter mode.
- While flashing is proceeding with an application of warm water.



14 Indication **plus** the display

- Report that you have activated the "PLUS" feature to enhance the pickup comfort hot water.

15 Indication **reset** the display

- It signals that the boiler is blocked.
- To restore operation, please refer to 'Boiler blocking and alarm codes' to understand what happened and what to do to remedy the problem and prevent a repeat of the block.

16 CODE ALARM indication on the display

- This code identifies the type of issue that caused the boiler block.
- Please refer to 'Boiler blocking and alarm codes' to understand what happened and what to do to remedy the problem and prevent a repeat of the block.

17 Symbols of failure

- In combination with some alarms, you may appear one of these symbols, which would facilitate the search for the failure by the technician.

Boiler blocking and alarm codes

When the [16] indicator on the display shows a flashing code is in progress an anomaly, a fault or malfunction which in most cases causes a shutdown of the boiler operation. Generally also an indication appears on the display

reset or **service** .

This section lists possible alarm codes that the boiler can see, with its reports and transactions that you (the user) can do to restore operation. These transactions are indicated with "Remedy: ...".



If the boiler still does not work even though you have followed the suggestions, or if the block is repeated, call the Service Center.

Alarms marked with the word "service" on display SHOULD be resolved by a qualified technician. The technical descriptions of the causes and remedies for alarms "service" are reserved to the technical documentation.

E01 No flame

Display message: **reset** Alarm type: **User resettable**

Cause 1: The flame of the burner is not turned on or it is off unexpectedly.

Remedy: Press the button **reset** to relight the boiler.

If the problem persists, check that the gas taps of the boiler and of the counter are open and that there is no gas in the distribution network or in the tanks (the supply may have been interrupted for work). If the stove are supplied from the same gas line, try to light one.

Cause 2: The power supply is not correct.

Remedy: Press the button **reset** to relight the boiler.

If the problem persists, have you checked by a qualified technician that links phase, neutral and earth are correct and efficient, and in particular that the Live and Neutral are not reversed. Otherwise the boiler might not detect the presence of the flame even if this turns on.

The problem could also be caused by an incorrect distribution of electricity from the company electricity supplier (unbalanced Neutral).

E02 of the safety thermostat

Display message: **reset** Alarm type: **User resettable**

Cause: The boiler is overheated and the safety thermostat.

Remedy: Wait 20-30 minutes for the boiler to cool down, then press the pulsant you **reset** . If the blockage persists, call the Service Center.

E03 Intervention of the safety device which controls the evacuation of fumes

Display message: **reset** Alarm type: **User resettable**

Cause: Smoking is not properly evacuated (even momentarily).

Note: In exceptional cases can be caused by a strong gust of wind.

Remedy: Press the button **reset** to relight the boiler. If the block is repeated:

- Do check the efficiency of the flue.

In the "E" models natural draft:

- Check that the air intake that communicates with the outside, required by law, is not obstructed by pieces of furniture against the wall or other objects. The air intake must be the size prescribed by law and must be cleaned inside: some types have an anti-insects net which could have been dirtied by dust or cobwebs. Contact a qualified technician if necessary.
- If the room in which the boiler is installed are present fireplaces, wood stoves / coal or the like, fans for air extraction, such as wall fans, or hoods for cookers equipped with exhaust pipe towards the 'exterior, have it checked by a technician that the air outlet is suitably INCREASED as required by current regulations and laws, since otherwise such devices interfere with the evacuation of the boiler fumes.

On "SE" models with sealed chamber and forced draft:

- Do check that the intake ducts and exhaust, the respective terminals and the device that controls the correct outflow of flue gases (smoke pressure) are clean and in good condition. During installation prescriptions, the slopes and the measures contained in paragraphs "connections" and "chimney Flue systems must be respected."

E05 Probe temperature faulty discharge

Display message: **service** Alarm type: **reserved for the Technical**

Remedy: Call Customer Service.

E06 probe faulty DHW temperature

Display message: **service** Alarm type: **reserved for the Technical**

Remedy: Call Customer Service.

E09 periodic maintenance request

Display message: **service** Alarm type: **reserved for the Technical**

Cause: The burner has worked this for a number of hours (actual) to advise the maintenance of the boiler. This notice is optional and can be enabled and disabled by the technician.



Remedy: Contact a qualified service technician of your trust to do perform periodic maintenance. Meanwhile, this alarm will not prevent the boiler to operate.

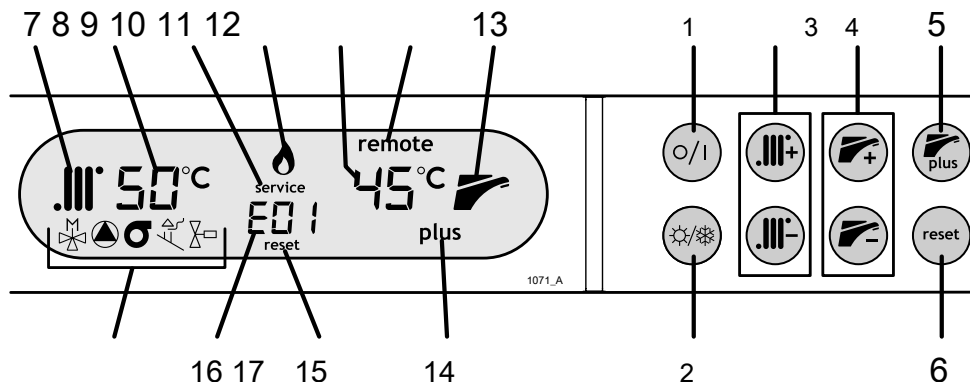
You can have temporarily disappear from the display alarm for a few days, by pressing the button **reset**. After you log in this operation three times, the alarm will remain visualizato permanently.

E11 device fault which controls the evacuation of fumes ("SE" models)

Display message: **service** Alarm type: **reserved for the Technical**

Cause: The device detects the flow of air / flue gas even when the burner is off.

Remedy: Turn off the boiler by means of the button  and remove tension by means of the inter-breaker of the boiler feed water provided during the installation phase. Switch boiler and turn it on using the button . If the boiler does not reboot, or if the alarm code reappears, call the Service Center.



18 Water load current heating system

Display message: **none**

Alarm type: **automatic reset**

Cause: The heating system pressure dropped (probably because of a loss) and the boiler is loading water from the mains in order to restore the correct pressure.

Remedy: Wait for the end of the loading and the subsequent disappearance of the code.

If the pressure is not restored within a predetermined time (a few minutes) or if the recovery occurs 3 times within the last 24 hours, the boiler will go into type block

service (Alarm E19 or E21) because the problem is relevant and the technical intervention is indispensable.

However, if you notice that periodically performs the boiler loading, it is advisable to appoint a technician to find the implant loss. Also, if you did fill the system with antifreeze liquid, do not forget that the automatic filling with water will dilute the concentration.

E19 Filling not completed in the time available

Display message:

service

Alarm type: **reserved for the Technical**

Cause: The boiler has attempted Automatic filling, but after a few minutes

the correct pressure has been reached (in normal conditions must be much less). The aqueduct pressure might be absent or insufficient or the stopcock at input cold water of the boiler has been inadvertently closed. If the problem is inside the boiler (*for the Technician: loading solenoid valve blocked / defective and / or clogging of the filters or of the non-return upstream of the loading solenoid valve*). There may be a significant loss in the heating system.

Remedy: Try to open a hot water tap (fed from the boiler) for veri-

Ficare quickly that there is aqueduct pressure and that the supply tap is open:

- If water comes out normally call the Customer Service number because the problem is in the boiler or there is a significant loss in the heating system;
- otherwise reset / do restore the water supply to the boiler and restart the boiler by turning off the power switch of the boiler and on again after a few seconds. If the blockage persists, call the Service Center.

E21 Low pressure in water (already carried out 3 automatic uploads)

Display message:

service

Alarm type: **reserved for the Technical**

CAUTION: It is likely that this trip operates during the period immediate subsequent installation of the boiler, due to the leakage of the residual air from the system.

Cause: The boiler has detected a system pressure too low. But in the 24 hours

preceding the boiler has already performed well 3 automatic uploads. It is probably a leak in your heating system.

Remedy: Put the boiler in stand-by using the button

O/I and turn it off completely

mind through the power switch of the same. After 20 ÷ 30 seconds ridate voltage boiler on using the button

O/I. It might appear

code 18: wait for it to disappear (within 4 minutes). If the boiler does not restart, or if the code E21 reappears, NOT retry the restoration a second time and call the Service Center.

E22 data storing

Display message: **service** Alarm type: **reserved for the Technical**

Remedy: Call Customer Service.

E24 Intervention of underfloor heating safety thermostat

Display message: **reset** Alarm type: **User resettable**

(Only if a floor system equipped with a safety thermostat is installed)

Cause: The temperature to be sent to the floor may be too high. A Im-tears to well-crafted floor is equipped with one or more safety thermostats that control the temperature of the water circulating in the coils immersed in the floor itself. A too high temperature, besides being annoying for the occupants, it could cause serious damage to the plant, to floors or their cladding elements. The boiler is equipped with a special inlet for such a thermostat which, if it detects the alarm, locks the boiler.

Note: When this alarm, the boiler stops operation in heating but it will continue to produce hot water.

Remedy: You should wait for a time sufficient to bring the floors to a tem-
ture and normal to do reset the safety thermostat, press the button
reset (There may be a delay of up to 30 seconds before the reconnection). If this alarm condition persists, please check by the Technical the flow temperatures for the various high and low temperature areas, either on the boiler that the possible control unit for low temperature systems. If the block is repeated despite the above checks, contact the Service Assistance of the boiler, the control unit and / or who has realized the plant floor.

E31 Remote control * not

Display message: **service** Alarm type: **reserved for the Technical**



** understood as the original remote control panel Hermann "Timer" (optional) and other non-chrono thermostats.*

Remedy: Call Customer Service.

Under these conditions, the boiler operates only in Health Service. If you need heating and was not immediately available a remote control in return, ask

the Technical to make temporarily operate the heating manually by means of the boiler control panel (excluding the operation of the remote control).

Note for the Technician: a jumper across the CT input (room thermostat) of the boiler; set the functioning namento the boiler in Winter mode by adjusting the temperature of the heating so ma- nual from the control panel of the boiler. Illustrate the User how to adjust the heating from the control panel by means of the buttons

 is  (Flow temperature).

E32 Configuration Error

Display message: **service** Alarm type: **reserved for the Technical**

Remedy: Call Customer Service.

E33 Configuration Error

Display message: **service** Alarm type: **reserved for the Technical**

Remedy: Call Customer Service.

E35 Abnormal flame detection

Display message: **reset** Alarm type: **User resettable**

Cause: The boiler is equipped with a device that verifies the presence of the flame on burns, regularly. If the flame is detected when it should be off, replaced by the boiler block.

Remedy: Press the button **reset** to relight the boiler. If the block is repeated, chiama-you Assistance Service because it is likely a fault.

Note: If there is a demand for heat (heating or domestic hot water) the boiler ten-terà automatically on again every five minutes.

E36 Generic Safety Intervention

Display message: **reset** Alarm type: **User resettable**

Cause: This alert is provided for connection of one or more possible devices security contained in optional external kit (if provided and present).

Remedy: Press the button **reset** . If the blockage persists, call the Service Center.

Note for the TECHNICIAN: Breaking the Link "SIC1" (see Wiring Diagram, section "Adjusting instructions and maintenance").

E38 outside temperature sensor (optional) Faulty

Display message: **service** Alarm type: **reserved for the Technical**

Cause: The boiler is equipped with the external temperature sensor (optional) which was recognized and running, but now is faulty. The boiler operates both in heating and domestic hot water, as if the probe had never been installed, therefore, the adjustment of the heating system temperature will be in a direct way as described in "*Instructions for ignition, operation and shutdown.*" The error appears to inform you that the installed accessory is no longer effective (consider that the boiler, a superficial analysis, it seems to work properly).

Remedy: Call Customer Service.

E39 suspect frostbite

Display message: **service** Alarm type: **reserved for the Technical**

Cause: as a result of a lack of electricity, the boiler has detected temperatures Heating of the probes and Sanitary equal to or lower than 0 ° C at the time when the power supply has been restored. The display shows this alarm code E39, while the boiler inhibits the ignition of the burner and activates the circulator, by circulating water in the hydraulic circuits. This phase lasts 15 minutes.

If in the meantime the temperatures detected by the probes increase more than + 1 ° C, the boiler has to normal operation.

Otherwise, the alarm becomes permanent and is suspect from the freezing of water occurred in one or more points of the hydraulic circuit of the boiler and / or the implant (with possible damage to the frozen parts).

Remedy: If the alarm persists, call the Service Center.

E42 System Error

Display message: **service** Alarm type: **reserved for the Technical**

Remedy: Call Customer Service.

Boiler inactivity

The effects of the periods of inactivity can be relevant in particular situations such as in flats used only for some months of the year, especially in cold places. When there is the possibility of freezing the user will have to **secure the boiler by disconnecting all power supplies, or if leave it in stand-by and use the antifreeze function, carefully considering the pros and cons of making safe and stand-by / freeze mode.** In general, for long periods of inactivity, it is preferable to the safety.

Securing

- Turn off the main switch on the power supply line of the boiler;
- Close the gas tap;



If there is no possibility that the temperature falls below 0 ° C, do perform the following operations from your technician:

- fill the system with antifreeze solution (except in the case that it already), or let it drain completely. Note that if it had been necessary to restore the pressure (due to leaks) in a heating system already filled with antifreeze, the concentration of the same could be decreased and it could not guarantee more frost protection.
- do completely empty the cold water and hot domestic water system, including the sanitary circuit and the sanitary exchanger of the boiler.

NOTE: The boiler is equipped with a system which protects the main components from the exceptional cases STEERING caggio, due to the inactivity in the presence of water and limestone. The antilock system may not work during the implementation of safety, due to the lack of electricity.



Before restarting the boiler, have it checked by a technician that the pump is not blocked due to inactivity (for the technician: unscrew the cap at the center of the cap to gain access to the rotor shaft, and to rotate the latter by means of a screwdriver or another suitable tool).

Stand-by and antifreeze / anti-lock function

Leaving the boiler in stand-by for the period of inactivity, it will be protected from freezing by means of multiple functions predisposed control electronics, which provide to heat stakeholders when temperatures fall below predetermined minimum values in the factory . The antifreeze heating is obtained by means of the ignition of the burner and the circulator. Moreover, the boiler in stand-by activates periodically the main internal components to prevent the exceptional cases of Lock out due to inactivity in presence of water and limestone. This occurs even when the boiler is in lock. In order for these systems are active:

- the boiler must receive electricity and gas supplies;
- the heating system water pressure must be correct (1 ÷ 1.5 bar in a cold state, minimum 0.5 bar) must be present or the feeding of cold water to the boiler to allow the auto recovery.

If, due to an interruption of the gas, or if the boiler enters into the block for this or for other reasons, the burner can not ignite. In this case the antifreeze function is performed by activating only the circulator.



CAUTION: the antifreeze protections can not intervene in the absence of power supply. If you plan such an event, it is advisable to insert in the heating system a good brand antifreeze, following the directions given by those who produce it.

It is recommended to inquire directly by an installer on the type of antifreeze product placed in the heating system at installation time.

The boiler, the return of power, it will check the temperatures measured by its sensors and in case of suspicion freezing, verified by a particular automatic control cycle, it will be reported to the E39 alarm. For details, see the description in paragraph "Boiler blocking and alarm codes".



We recommend that you completely empty the cold water and hot domestic water system, including the sanitary circuit and the sanitary exchanger of the boiler. The antifreeze function does not protect the sanitary circuit external to the boiler.

Function "Frost Environments"

If the housing unit served by the boiler remains uninhabited in periods with cold climate, it is to consider the possibility of extending the antifreeze function to the whole heating system (and therefore to the environments) and not only to the boiler. Also for this function it is necessary that they are present the electricity and gas supplies, and that there is the proper system pressure.

- **if the timer control is installed** (Original optional kit) the ambient antifreeze function is automatically carried out by putting on stand-by the boiler by means of the appropriate button on the Timer. The boiler and environments will be maintained at a minimum temperature so as to avoid the freezing of the liquid contents;
- **if a thermostat or timer thermostat is installed** * equipped with the "antifreeze environments" function and want to use it, it is necessary to leave the boiler in **Winter mode** (NOT in stand-by or in Summer mode) to enable it to be powered on heating when the ambient temperature sensor requires it.






* *in the absence of such a function it is still possible to set the ambient temperature within a few degrees above zero, for example + 5 ° C (if it is a programmable thermostat, remember to choose the manual mode).*




The function "Antifreeze environments" does not guarantee protection of the external hot water circuit to the boiler, in particular of the areas not reached by the heating system, so we recommend to make the empty parts of the cold and hot sanitary water that may be in risk of frost.

Possible failure

NOT IGNITE

- verify that the boiler is turned on in Winter or Summer mode:
 - if the display is blank, it means that the boiler does not receive electric current;
 - If the display shows the word "OFF", the boiler is switched off. Press the button  for turn it on.
- verify that they are not visible on the words display  **reset** or **service**. If so the boiler is in block please refer to 'Boiler blocking and alarm codes';
- after turning on the boiler by means of the button  or after it has been restarted by the PUL-sante **reset** You must wait about 1 minute and a half. During this time, the boiler does not work.
- if the room thermostat is installed, check that it is regulated at a higher than ambient temperature in which it is located and that the boiler is in Winter mode (the display must appear both symbols  is .

SHORTAGE OF DOMESTIC HOT WATER PRODUCTION

- check on the display that the hot water temperature is not too low and if necessary increase it by pressing the button .
- do check gas valve regulation;
- to control the sanitary exchanger and eventually clean.



NB: In areas where the water is particularly "hard", it is recommended to install an anti-limescale device; this will avoid too frequent cleaning of the heat exchanger.



Refrain from intervening personally.

For any intervention on the electrical circuit, the hydraulic circuit or in the gas circuit there must be contacted to a professionally qualified staff. All boilers must be equipped with original accessories. The Hermann can not be held liable for any damage resulting from improper, incorrect or unreasonable use of non-original materials.

Precautions during Use



- Please periodically check the system pressure on the gauge: **the system is cold** it must always be within the limits prescribed by the manufacturer.



Do not touch hot parts of the boiler, as the doors, fume hood, the chimney pipe, etc. that during and after the operation (for a time) are overheated. Each contact with them can cause dangerous sunburn. It is then forbidden to near the boiler in operation, there are children or inexperienced people.

- Do not expose the wall mounted boiler to direct vapors from a cooking surface.
- Do not wet the boiler with sprays of water or other liquids.
- Do not place anything on top of the boiler.
- Prohibit the use of the boiler to children or unskilled people.
- If it decides the final shutdown of the boiler, to be carried out by qualified personnel-related operations, ensuring inter alia, that are switched off the electrical, water and fuel.
- **Only for models THESI "and" natural draft:** The installation of aspirators, fireplaces and the like in the same room in which is installed a natural draft boiler (and in adjacent rooms in case of indirect natural ventilation) must be realized by implementing the security measures provided by the national and / or local regulations (including the increase of the ventilation openings), and this also in case of modifications or additions.

INSTRUCTION MANUAL

Ensure that this instruction manual is ALWAYS with the boiler so that it can be consulted by the user and by the staff who will carry out the maintenance.

WARRANTY HERMANN CONVENTIONAL

The Hermann provides the consumer with a particular and exclusive conventional warranty, which is automatically activated by requesting initial activation to a Hermann Authorized Service Center. The conditions of the HERMANN CONVENTIONAL Guarantee do not affect nor invalidate the rights under the European Directive 1999/44 / EC implemented in Italian law by Legislative Decree 206/2005, of which the User is the Owner.

Notes

part for the user

*The Hermann Ltd. accepts no responsibility for any printing errors and / or transcript contained in this booklet.
In order to constantly improve its products, Hermann Ltd. reserves the right to vary the features and data shown in this booklet at any time and without notice, so this can not be considered as
a contract to third parties.*

caldaie a gas



Idee che scaldano la vita

HERMANN Srl Via Salvo d'Acquisto
29010 Pontenure (Piacenza) ITALY - Tel. 0523/510341 Fax 0523/510359
Technical Services - Tel. 0523/510647 Fax 0523/519028
E-MAIL: hermann@hermann.it

www.hermann.it