

Wall-mounted gas condensing boiler for heating and DHW production

PLAY 24 - 28 - 32



### Gentlemen,

thanking you for the preference given to us in choosing and purchasing our boilers, we invite you to carefully read these instructions concerning the correct installation, use and maintenance of the aforementioned appliances.



#### We inform the user that:

- 1. according to the provisions of Law no.46 of 5 March 1990:
- the boilers must be installed by an authorized installation company which is required to strictly comply with the regulations in force;
- the installation company is required by law to issue the declaration of compliance with the regulations in force for the installation carried out;
- anyone who entrusts the installation to an unauthorized installation company is liable to an administrative penalty;
- maintenance of the boilers can only be carried out by qualified personnel, in possession of the requisites established by current legislation;
- 2. according to the provisions of Presidential Decree no.74 of 16 April 2013:
- the compilation of the system booklet, after detecting the combustion parameters, must be carried out by the installing company.

Carefully read the warranty conditions and the advantages offered by the manufacturer and reported on the inspection certificate attached to the boiler.

The compilation of the inspection certificate by an Authorized Service Center allows you to enjoy the advantages offered by the manufacturer as specified in the inspection certificate itself.

The completion of the inspection certificate by an Authorized Service Center is FREE.

Pursuant to art. 26 of the Legislative Decree 14 March 2014, n. 49 "Implementation of Directive 2012/19 / EU on waste electrical and electronic equipment (WEEE)" the crossed-out bin symbol shown on the appliance and on the packaging indicates that the gas boiler, at the time of its disposal, must be collected and disposed of separately from other waste (see paragraph END OF LIFE DISPOSAL).



## General notes for the installer, maintenance technician and user

Questo libretto di istruzioni, che costituisce parte integrante ed essenziale del prodotto, dovrà essere consegnato dall'installatore all'utilizzatore che deve conservarlo con cura per ogni ulteriore consultazione.

Questo libretto di istruzioni deve accompagnare l'apparecchio nel caso venga venduto o trasferito.



This instruction booklet, which is an integral and essential part of the product, must be delivered by the installer to the user who must keep it carefully for any further consultation.

This instruction booklet must accompany the appliance in case it is sold or transferred.

Installation must be done in compliance with current regulations and according to the manufacturer's instructions contained in this booklet: incorrect installation can cause damage to people, animals and / or things, damage for which the manufacturer is not responsible.

Damage caused by installation or use errors or due to non-compliance with the manufacturer's instructions exclude any contractual and extra-contractual liability of the manufacturer.

Before installing the appliance, check that its technical data correspond to what is required for its correct use in the system.

Also check that the appliance is intact and that it has not been damaged during transport and handling operations: do not install appliances that are clearly damaged and / or defective.

Do not obstruct the air intake grilles.

For all appliances with options or kits (including electrical ones) only original accessories must be used.

At the time of installation, do not dispose of the packaging in the environment: all materials are recyclable and therefore must be conveyed to the appropriate separate collection areas.

Do not leave the packaging within the reach of children as they can, by their nature, be a source of danger.

In case of breakdown and / or faulty operation of the appliance, deactivate it and refrain from attempts to repair or direct intervention: contact only qualified personnel.

Any repairs to the product must be carried out with the use of original spare parts.

Failure to comply with the above may compromise the safety of the appliance and expose people, animals and / or things to danger.



Provide periodic maintenance of the appliance according to the schedule specified in the appropriate section of this booklet.

Proper maintenance of the appliance allows it to work in the best conditions, respecting the environment and in full safety for people, animals and / or things.

Incorrect maintenance both in terms of methods and times can be a source of danger for people, animals and / or things.

The manufacturer advises its customers to contact the network of its authorized Service Centers for maintenance and repair operations, which are trained to perform the above operations in the best possible way. If the appliance is not used for a long time, disconnect it from the mains and close the gas tap.

Attenzione: In questo caso la funzione elettronica antigelo dell'apparecchio non funziona.

Nei casi in cui esiste pericolo di gelo provvedere all'aggiunta di antigelo nell'impianto di riscaldamento: lo svuotamento dell'impianto è sconsigliato in quanto può danneggiare l'impianto nel suo complesso; utilizzare allo scopo specifici prodotti antigelo adatti ad impianti di riscaldamento multi metallo.



For appliances powered by gaseous fuel, if you smell gas in the room, proceed as follows:

- do not operate electrical switches and do not start electrical appliances;
- do not light flames and do not smoke;
- close the central gas cock;
- throw open doors and windows;
- contact a Service Center, a qualified installer or the gas service. It is absolutely forbidden to search for gas leaks by means of a flame.



This appliance was built to be installed in the destination countries specified on the packaging plate and on the technical data plate in the boiler: installation in countries other than those specified can be a source of danger for people, animals and / or things.

The manufacturer declines any contractual and extra-contractual liability for non-compliance with all of the above.

## **Quick operating instructions**

The following instructions allow rapid ignition and adjustment of the boiler, for immediate use.



These instructions assume that the boiler has been installed by an authorized installer, the first ignition has been carried out and the boiler has been set up for correct operation.

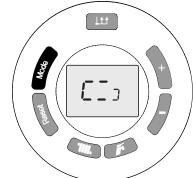
If accessories have been installed on the boiler, these instructions are not sufficient for its correct operation. In this case, refer to the complete instructions for the boiler and the instructions for the accessories installed.

For a complete description of the operation of the boiler and for instructions on safety in its use, refer to the complete instructions in this booklet.

- 1. Open the gas shut-off cock upstream from the boiler.
- 2. Turn the switch on the electrical system upstream from the boiler to the ON position: the boiler display (fig. 1) lights up
- 3. If you want to exclude the heating function, keep the key pressed for the cycle time " until the display shows the image in the figure.

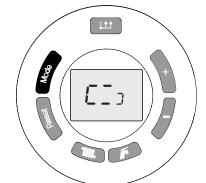
When the button is released "only the domestic hot water function will be enabled (the system delivery temperature is displayed).





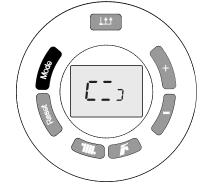
- **4.** If you want to activate the Stand-by function, keep the key pressed for the cycle time "as far as when the display shows the image in the figure.
  - When the " key is released, the boiler will go into stand-by.





- 5. If you want to activate both the heating function and the domestic hot water function hold down the " button for the cycle time until the display shows the image in the figure.
  - When the " e " key is released, both the hot water function will be enabled and the heating function (is displayed the system delivery temperature).





- 6. To adjust the temperature of the domestic hot water, press the " button (D in fig. 1) then, adjust the temperature using the buttons o (E or F in fig. 1).
- 7. To adjust the heating temperature, press the " button (C in fig. 1) then, adjust the temperature using the buttons o o (E or F in fig. 1).
- 8. Set the desired room temperature value on the room thermostat inside the house (if present).

At this point the boiler is ready for operation.

If the boiler goes into lockout, it can be unlocked by pressing the " button (B in fig. 1). If the boiler does not resume normal operation after three attempts, contact an Authorized Service Center.

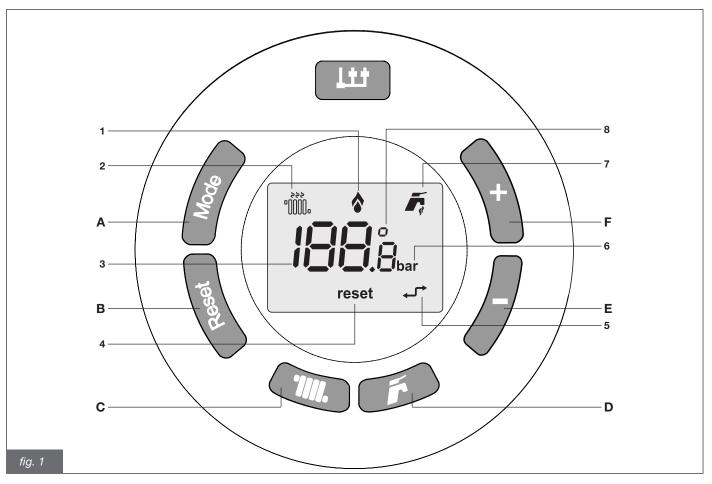
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# 1. Istruzioni per l'utente

# 1.1. Control panel



- A. Operating status selection key (Winter / Summer / Off).
- **B**. Alarms reset key and return to the initial page in the parameter selection.
- **C.** Heating hot water adjustment button.
- D. Domestic hot water adjustment key.
- **E.** Key for decreasing temperature values and parameters.
- **F.** Key to increase temperature values and parameters.

To access the interface, you need to press a button. Activating the interface, it enables access to all keys and the backlight of the display. After 30 seconds from the last touch, the interface disables all keys and the display turns off.

If a key is held down for more than 30 seconds, a fault is displayed without preventing the system from operating. The error is reset once normal conditions are restored.

	SYMBOL	FIXED	FLASHING
1	<b>^</b>	Indication of flame present.	
2	°0000°	Symbol indicating heating. Symbol lit means function enabled; symbol off means disabled function.	Display of the set or requested heating flow temperature.
3	188.8	Display of temperatures, parameter values and anomalies.	
4	reset	Indication of the need for manual RESET of the error.	
5	<b>←</b>	OT connection present.	
6	bar	Indication of the unit of measurement of the system pressure.	
7	<b>5</b>	Symbol indicating instant health. Symbol lit means function enabled; symbol off means disabled function.	Display of the set or requested domestic hot water temperature.
8	Ĉ	Indication of degrees centigrade.	

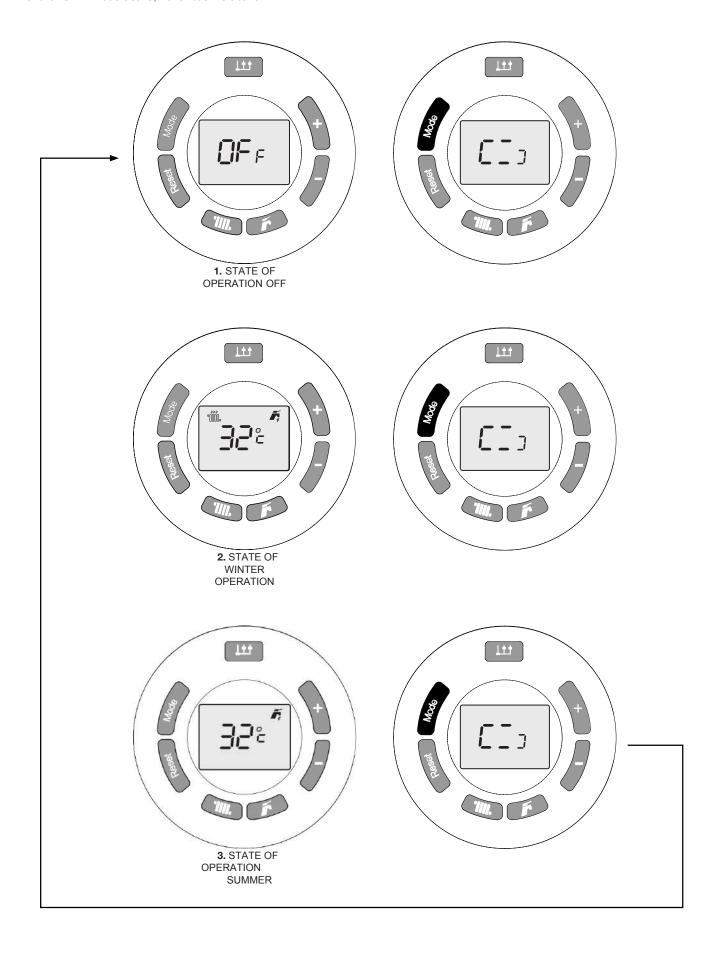
Table 1 - Symbols that can be viewed on the LCD display

# 1.2. Selecting the operating mode

With the "WINTER" mode active, both functions are active: preparation of domestic hot water and preparation of heating water.

With the "SUMMER" mode active, only the domestic hot water preparation function is enabled.

With the "OFF" mode active, no function is active.



### 1.3. Heating and DHW temperature adjustment

Pressing the sanitary button (D fig. 1) displays the temperature of the sanitary water.

By pressing the " " (E fig. 1) or " " (F fig. 1) buttons, the temperature of the sanitary water is changed.

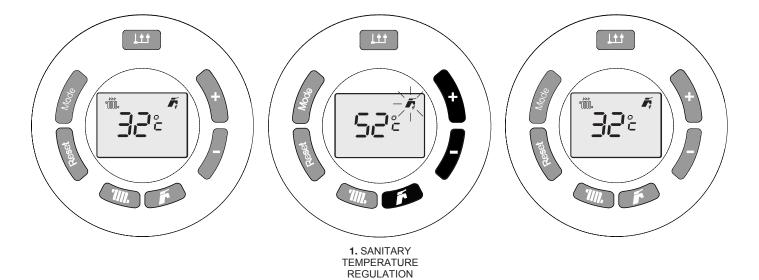
During the modification, the SANITARY icon (7 fig. 1) flashes. Once the desired temperature has been set, the icon continues to flash for about 5 seconds. After this time the value is stored and the display returns to its normal operation.

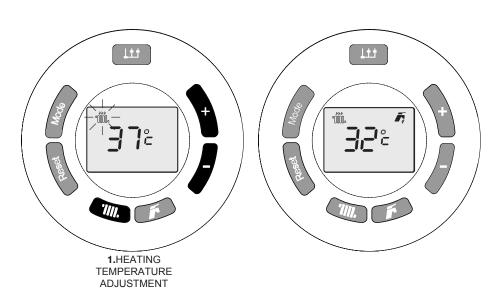
Pressing the sanitary button (C fig. 1) displays the temperature of the heating delivery water.

Pressing the buttons " (F fig. 1) or " (F fig. 1) changes the temperature of the heating delivery water.

During selection, the HEATING icon (2 fig. 1) flashes. Once the desired temperature has been set, the icon continues to flash for about 5 seconds. After this time the value is stored and the display returns to its normal operation.

All buttons at this stage are active.





### 1.4. Display Information Menu - Counters - Errors

3 menus are available:

- Information: version, temperature, pressure, power level, set point ...
- Errors: history of the last 10 errors
- Counters: number of burner operating hours, number of ignitions, number of faults.

By keeping the " + with the with the with the cycle time, you access the "INFO" menu. The display lights up and the writing "In" (1 sec), "n00" (1 sec) and the value of the relative parameter (5 sec) alternate on the screen.

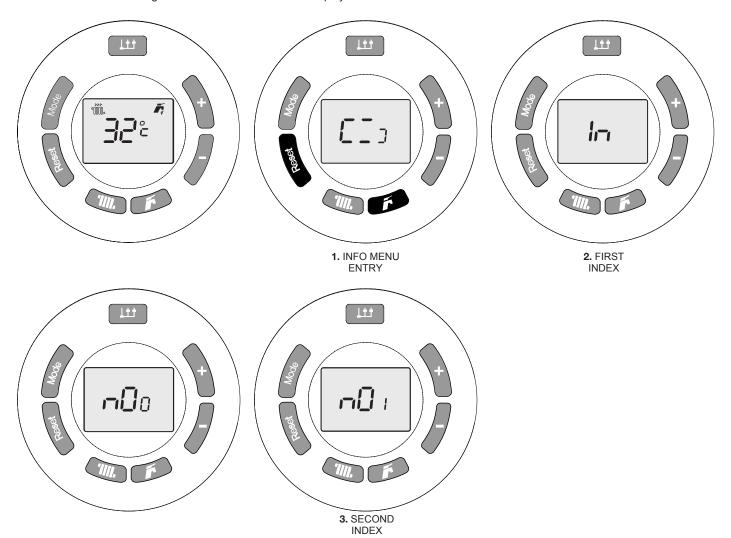
By briefly pressing the " 🛨 " button (F fig. 1), it is possible to scroll through the various indices.

When you reach the last available index for the Information menu, pressing the button will activate the Counters menu and then the Errors menu.

Briefly pressing the " " key (E fig. 1) has the opposite behavior.

By keeping the " + 🗗 " keys (B + D fig. 1) pressed for the cycle time, you exit the menu.

Table 2 shows the meaning of all the indexes that can be displayed.



N°	DESCRIPTION	DESC		STEP
	MISTAKE	S		
AL0	Last error code displayed	_	_	_
AL1	Previous error code display	_	_	-
AL2	Previous error code display	_	_	-
AL3	Previous error code display	-	_	-
AL4	Previous error code display	-	_	-
AL5	Previous error code display	-	_	-
AL6	Previous error code display	-	_	-
AL7	Previous error code display	-	_	-
AL8	Previous error code display	-	_	_
AL9	Previous error code display	-	_	-
	INFO			
In0	Software version display			
ln1	External probe temperature display	-3035	°C	1
ln2	Display of delivery probe temperature	-999	°C	1
ln3	Smoke probe temperature display	-999	°C	1
In4	Display of domestic hot water probe temperature	-999	°C	1
In5	Return probe temperature display	-999	°C	1
In6	Real SET heating temperature display	Par 13 INST Par 14 INST	°C	1
ln7	Power level display	0100	%	1
In8	Flowmeter value display	0 99	l/min	0,1
In9	Display of water pressure value	0 99	bar	0,1
In10	Fan speed	0255	Rpmx100	1
	COUNTERS			
Co0	Total operating hours display	0 99	h x 100	da 0,0 a 9,9 → lampeggio veloce 1 da 10 a 99
Co1	Display of burner operating hours	099	h x 100	da 0,0 a 9,9 → lampeggio veloce 1 da 10 a 99
Co2	Display of total burner ignitions	099	x 1000	da 0,0 a 9,9 → lampeggio veloce 1 da 10 a 99
Co3	Total faults display	099	x 1	1
Co4	Display of number of TSP menu activations	099	x 1	1
Co5	Display of OEM menu activations number	099	x 1	1
Co6			-	-

Table 2 - Indices that can be viewed in the Information - Counters - Errors Menus

# 1.5. Correspondence BOILER STATUS - LCD DISPLAY DISPLAY

# Normal operation

Boiler selector in OFF position	<b>DF</b> F
Boiler selector in SUMMER position No active function. The system flow temperature is displayed.	32°c
Boiler selector in WINTER position  No active function.  The system flow temperature is displayed.	
Boiler selector in SUMMER position Sanitary function active The DHW delivery temperature is displayed and the " " symbol flashes.	52°
Boiler selector in WINTER position Sanitary function active. The DHW delivery temperature is displayed and the " ** " symbol flashes.	
Boiler selector in WINTER position Heating function active. The flow temperature and the " flashes.	

Table 3 - BOILER STATUS - LCD display in normal operation

# Malfunction

Water pressure too low / Wrong parameter setting	E02
Water pressure too high	<b>E</b> 03
Guasto sonda NTC sanitario	EO4
Heating NTC probe failure	<b>E</b> 0s
Fumes NTC probe failure	E 14
Block due to smoke probe intervention	E 13
Fan control anomaly	E 15
Ignition failure	FIG
Intervention of the safety thermostat	FI
Parasitic flame	E G G
Lack of circulation	<b>EO</b> 9
Return NTC probe failure	E 16
System overtemperature (TCH> TSP81)	E20
Delta T CH/Ret > TSP82 (1)	E2:
Gas valve modulator disconnected	Eli
Boiler probe failure (if connected)	E la
Incorrect DHW control type or incorrect flow meter reading	E Is
Maximum number of RESETs reached	reset
Low power supply voltage	E37
Power frequency anomaly.	<b>E4</b> 0

Loss of flame for 6 consecutive times in request for heat	Figureset
Button anomalies	EHa
OT communication error	<b>E4</b> 3
SGV opening time without flame error	F
Richiesta calibrazione GAS	E52
Fume exhaust anomaly	E9 <sub>5</sub>
Heating NTC probe failure (ΔT error)	Freset
Failure of the SGV management circuit	EBB reset
SGV opening problem	EBO
Block due to combustion anomaly at start-up (2)	FE
Problem on the SGV circuit	F F 7
Loss of flame upon ignition for more than 6 consecutive times	Feset
Software Error. Card not configured	E B B
Generic block	E = 9

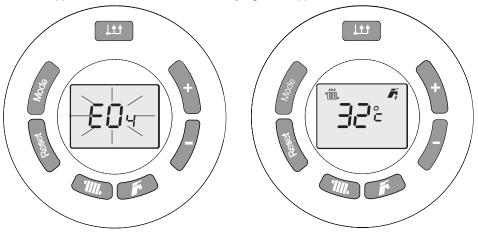
Table 4 - BOILER STATUS - LCD display in case of malfunction

<sup>(1)</sup> This control is activated after 120 seconds from the activation of the pump and only during the CH request (without domestic hot water). (2) Anomaly 81 may be caused by an obstruction of the smoke exhaust duct. In this case it is advisable to contact the service center before unblocking the boiler.

### 1.6. Anomalies that cannot be reset

The display indicates the anomaly by flashing the relative error code (Table 4). Some faults can be reset with the " button (B fig. 1), while others are self-resetting. See next paragraph ("Boiler release").

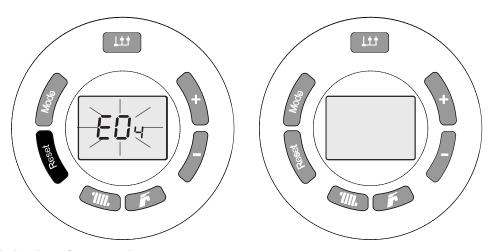
When the cause of the error disappears on the interface, the anomaly signal disappears.



#### 1.7. Boiler release

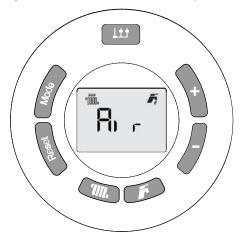
The display indicates the anomaly by flashing the relative error code (Table 4). Some anomalies can be reset with the " button (B fig.1), while others are self-resetting.

When the " button (B fig. 1) is pressed and the boiler conditions allow it, the error is released. The anomaly signal disappears on the interface and the display turns off.



# 1.8. Automatic elimination of system air

By pressing the " and " and " keys simultaneously for the cycle time, the water deaeration function is activated. In this mode, both the circulator and the diverter valve are activated periodically to facilitate the elimination of air bubbles from the system. To end this function, press the " and " " keys again for the cycle time or wait 12 minutes for the process to finish.



## 1.9. Child protection

It is possible to enable the automatic key lock function, to prevent accidental pressure. To enable it, simply set the TSP 24 to value 1. After 2 minutes from pressing the last key, they will be locked. To unlock, simply press the " button for the cycle time.

### 1.10. Operation of the boiler

#### 1.10.1. Power on



These instructions assume that the boiler has been installed by an authorized installer, the first ignition has been carried out and the boiler has been set up for correct operation.

- Open the gas shut-off valve;
- set the switch on the electrical system upstream of the boiler to the ON position. The display lights up indicating the type of gas, the power set and the function active at that moment (see Table 3 and Table 4):
- set the desired temperature value for the heating water (see paragraph 1.10.2);
- set the desired temperature value for domestic hot water (see paragraph 1.10.3);
- set the desired room temperature value on the room thermostat inside the house (if present).

### **ATTENTION**

After a long period of inactivity of the boiler, especially for boilers running on propane, it may be difficult to ignite. Therefore, before lighting the boiler, turn on another gas appliance (for example a stove). Despite this, the boiler could block once or twice. Then restore its operation by pressing the button " (B fig. 1).

### 1.10.2. HEATING function

To adjust the heating water temperature, hold down the " button (C fig. 1) for the cycle time and then press the " or lie or F fig. 1).

The heating temperature adjustment range depends on the selected operating range:

- standard range: from 20 ° C to 80 ° C;
- reduced range: from 20 ° C to 47 ° C.

The selection of the operating range must be made by the installer or by an Authorized Service Center (see paragraph 3.2.11).

While setting the temperature, the heating symbol flashes on the screen (2 fig. 1) and the value that is being set for the heating water temperature is indicated.

When the heating system requires heat, the heating symbol flashes on the display (2 fig. 1) and the instantaneous temperature of the heating delivery water is displayed. The burner on symbol (1 fig. 1) appears only when the burner is operating.

The waiting time between one ignition and the next of the boiler, which serves to avoid frequent switching on and off of the boiler during heating operation, is between 0 and 10 minutes (default 3), which can be modified with parameter P05.

## 1.10.3. SANITARY function

To adjust the temperature of the domestic hot water, hold down the " button (D fig. 1) for the cycle time and then press the " • " or " • " buttons (E or F fig. 1).

This function always takes precedence over the heating function.

The adjustment range of the domestic hot water temperature ranges from 10 ° C to 60 °C.

During the temperature setting, the heating symbol flashes on the screen (7 fig. 1) and the value that is being set for the domestic hot water temperature is indicated.

When there is a request for domestic hot water, the heating symbol flashes on the display (7 fig. 1) and the instant water temperature is displayed. The burner on symbol (1 fig. 1) appears only when the burner is operating.

#### 1.10.4. ANTIFREEZE function

The boiler is equipped with an antifreeze protection system active in the operating modes: OFF / SUMMER / WINTER /.



The antifreeze function protects only the boiler, not the entire heating system.

The heating system can also be effectively protected from freezing by using specific antifreeze products suitable for multi-metal systems. **Do not use antifreeze products for car engines and check the effectiveness of the product over time.** 

If it is not possible to ignite the burner due to lack of gas, the antifreeze functions are in any case activated by feeding the circulators.

### 1.10.4.1. Delivery antifreeze function The flow antifreeze

function has two phases:

If the heating water temperature sensor measures a water temperature <TSP 38 + 2 °C, the boiler starts the circulators and stays on until the heating water temperature reaches a temperature> TSP 38 + 5 °C.

In the event that the boiler goes into lockout, the circulation of the pump is guaranteed.

If the heating water temperature sensor measures a water temperature <TSP 38, the boiler starts with the burner at minimum power. When a temperature> 42 ° C is reached, the burner switches off and the post-circulation of the circulators continues for 150 seconds.

In the event that the boiler goes into lockout, the circulation of the pump is guaranteed.

### 1.10.4.2. Plate sanitary antifreeze function

The antifreeze function also protects the sanitary circuit. When the sanitary water temperature sensor measures a water temperature of 5 °C, the boiler switches on and stays on at the minimum heat output value until the sanitary water temperature reaches a temperature of 7 °C (the diverter valve is placed in the sanitary position). During the antifreeze phase in DHW, the temperature detected by the flow probe is continuously checked and if this reaches the value of 42 °C, the burner is switched off. The burner is re-ignited if the request for operation in the anti-freeze phase is still present and the flow temperature drops below 5 °C. In the event that the boiler goes into lockout, the circulation of the pump is guaranteed.

### 1.10.5. Pump anti-blocking function and diverter valve

In the event that the boiler remains inactive and connected to the mains, every 24 hours the circulation pump and the diverter valve are activated for a short period (30 seconds), in order to prevent them from locking up.

#### 1.10.6. Operation with external probe (optional)

The boiler can be connected to a probe that measures the external temperature (optional not mandatory, supplied by the manufacturer). Once the outside temperature is known, the boiler automatically adjusts the temperature of the heating water, increasing it when the outside temperature decreases and decreasing it when the outside temperature increases, thus improving the environmental comfort and saving fuel. The maximum temperatures of the standard and reduced ranges are nevertheless respected. This boiler operation is called "sliding temperature operation". The variations in the temperature of the heating water occur according to a program written in the microprocessor of the boiler electronics.

With an external probe, the " button (C fig. 1) loses its function of setting the temperature of the heating water and instead allows you to change the fictitious room temperature, that is the theoretical temperature desired in the rooms to be heated. While setting the temperature, the fictitious room temperature value flashes on the display and the value being set is indicated.

For an optimal adjustment of the curves, a position close to 20 ° C is recommended. For a detailed explanation of the sliding temperature operation, refer to paragraph 3.2.14.



Use only original external probes, supplied by the manufacturer.

The use of non-original external probes, not supplied by the manufacturer, if they have different technical characteristics from those required by the management electronics, may affect the operation of the external probe itself and of the boiler.

## 1.10.7. Operation with Remote Control (optional)

If the user so wishes, it is possible to connect the boiler to a Remote Control (optional not mandatory, supplied by the manufacturer), which allows you to manage many boiler parameters, for example:

- selection of the boiler status;
- selection of the desired room temperature;
- selection of the water temperature of the heating system;
- selection of the domestic hot water temperature;
- programming the ignition times of the heating system and the activation times of any external boiler (optional);
- display of boiler diagnostics;
- boiler release:
- and other parameters.
- To connect the Remote Control, refer to paragraph 3.2.13 and the instruction booklet attached to the Remote Control.



Use only original Remote Controls, supplied by the manufacturer.

The use of non-original Remote Controls, not supplied by the manufacturer, may affect the operation of the Remote Control itself and of the boiler.

#### 1.11. Boiler lockout

When operating anomalies occur, the boiler automatically shuts down. Refer to Table 3 and Table 4 to recognize the boiler operating status. To recognize the possible causes of the malfunction, see also paragraph "7. Technical problems table "at the end of this booklet. Depending on the type of block found, proceed as described below.

#### 1.11.1. Burner lockout

In the event of burner lockout due to no flame, the E06 code flashes on the display. In this case, proceed as follows:

- check that the gas cock is open and that there is gas in the network, for example by lighting a stove;
- having checked the presence of fuel, unblock the burner by pressing the " button (B fig. 1): if the appliance does not restart and returns to lockout, on the third attempt contact an Authorized Service Center or qualified personnel for maintenance.

If the burner shuts down frequently, a sign of a recurring malfunction in operation, contact an Authorized Service Center or qualified personnel for maintenance.

## 1.11.2. Overtemperature lockout

In case of overheating of the supply water, the boiler is blocked and the code **E07** flashes. In this case, contact an Authorized Service Center or qualified personnel for maintenance.

### 1.11.3. Block due to lack of draft (smoke block)

In the event of a malfunction of the air intake and / or flue gas exhaust systems, the boiler is blocked, the display shows the flashing code **E13** 0 **E96** (intervention of the fumes probe).In this case, contact an Authorized Service Center or qualified personnel for maintenance.

### 1.11.4. Block due to insufficient water pressure in the system

If the **E02** blocking error due to insufficient system pressure flashes, fill the system by acting on the filling tap in fig. 2 (for SV models the tap is located on the cold water inlet pipe).

Error **E02** is displayed when the system pressure falls below the value of 0.5 bar and resets automatically when the system pressure exceeds the threshold of 1.1 bar.

The pressure value with the boiler cold must be  $1 \div 1.3$  bar.

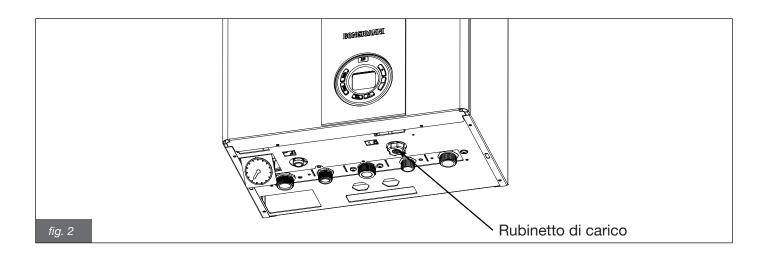
To restore the water pressure value, proceed as follows:

- pull the knob down to remove it;
- turn the filler tap knob (fig. 2) anticlockwise to allow the water to enter the boiler;
- keep the tap open until a pressure value of 1 ÷ 1.3 bar is reached on the control panel;
- close the tap by turning the knob clockwise;
- push the knob upwards to make it retract.

If the boiler locks up again, contact an Authorized Service Center or qualified personnel for maintenance.



At the end of the operation, close the filling tap well. If the tap is not closed properly, due to an increase in pressure above 2.6 bar, the presence of error E03 on the display and subsequently the opening of the safety valve of the heating system and the leakage of hot water could occur. -here.



### 1.11.5. Alarm due to temperature probe malfunction

In the event of a burner lockout due to a malfunction of the temperature probes, the following codes appear on the display:

- E05 for the heating probe.

In this case the boiler does not work.

- E04 for the DHW probe (Play models only).

In this case the DHW function is performed with modulation on the central heating probe.

- E12 for the boiler probe (Play SV models only).
- E16 for the return probe.

In this case the boiler continues to operate.

In all four cases, contact an Authorized Service Center or qualified personnel for maintenance.1.11.6.

#### Block due to fan malfunction

The operation of the fan is constantly monitored and in the event of its malfunction the burner is switched off and the display shows the flashing code **E15**.

- This state is maintained until the fan returns to normal operating parameters.

If the boiler does not restart and remains in this condition, contact a qualified Service Center or Authorized for maintenance.

#### 1.11.7. Alarm due to malfunction of the connection to the Remote Control (optional)

The boiler recognizes the presence of the Remote Control (optional not mandatory).

If the Remote Control is connected and subsequently the boiler does not receive information from the Remote Control, the boiler attempts to re-establish communication for a period of 60 seconds, after which the code E43 appears on the Remote Control display.

The boiler will continue to operate according to the settings made on the control panel, ignoring the settings made on the Re-motion Control

In this case, contact an Authorized Service Center or qualified personnel for maintenance.

#### 1.12. Maintenance

Provide periodic maintenance of the boiler according to the schedule specified in the appropriate section of this booklet.

Proper maintenance of the boiler allows it to work in the best conditions, respecting the environment and in complete safety for people, animals and things.

Maintenance of the boiler must be carried out by qualified personnel.

The manufacturer advises its customers to contact the network of its Authorized Service Centers for maintenance and repair operations, which are trained to perform the above operations in the best possible way.

#### 1.13. Notes for the user

The user has free access only to the parts of the boiler whose operation does not require the use of tools and / or tools: he is therefore not authorized to disassemble the boiler panel and to intervene inside it.

No one, including qualified personnel, is authorized to make modifications to the boiler.

The manufacturer declines all responsibility for damage to people, animals and things that may originate from tampering or incorrect interventions on the boiler.

If the boiler remains inactive for a long time and is electrically disconnected, it may be necessary to unblock the pump.

This operation, which involves disassembling the casing and accessing the inside of the boiler, must be carried out by qualified personnel.

Blocking of the pump can be avoided if the system water is treated with specific filming products suitable for multi-metal systems.

## 2. Technical characteristics and dimensions

#### 2.1. Technical features

This boiler works with a built-in total premix gas burner and is supplied in the version:

Play: sealed chamber condensing boiler with forced draft for the production of hot water for heating and production instantaneous hot water;

The following potentials are available:

- Play 24 with a heat input of 24 kW (heating) and 28 kW (sanitary)
- Play 28 with a heat input of 28 kW (heating) and 31 kW (sanitary)
- Play 32 with a thermal capacity of 32 kW (heating) and 34.5 kW (sanitary)

All models are equipped with electronic ignition and ionisation flame control.

Installation in a country other than that specified can be a source of danger for people, animals and things.

The boilers meet all the regulations in force in the country of destination which is indicated on the technical data plate.

The main technical characteristics of the boilers are listed below.

#### **Construction features**

- Control panel with IPX4D degree of protection of the electrical system.
- Electronic safety card and integrated modulation.
- Electronic ignition with built-in igniter and detection
- Total premix burner in stainless steel.
- High performance monothermic heat exchanger, in stainless steel
- and aluminum.
- Electronic modulating gas valve with double shutter with constant
- air / gas ratio.
- Modulating combustion fan with electronic control correct operation.
- built-in erator.
- High efficiency modulating heating circulator
- Heating circuit pressure sensor.
- Heating water and sanitary water temperature probe.
- Flue gas probe on the exhaust
- Integrated automatic by-pass.
- 9 liter expansion vessel.
- Manual system loading and unloading taps.
- Stainless steel plate heat exchanger (Play version only).
- Motorized diverter valve.
- Domestic hot water precedence flow meter.

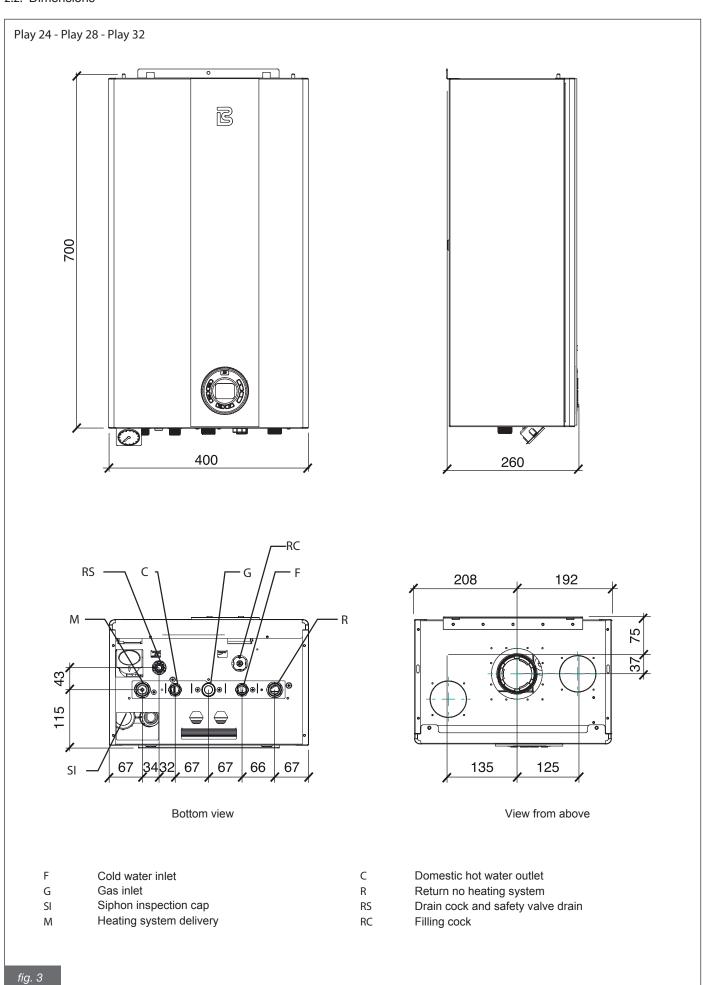
#### **User interface**

- Interface with built-in LCD for viewing and controlling the boiler operating status: OFF, UNLOCK, WINTER and SUMMER.
- Heating water temperature regulator: 20-80 °C (standard range) or 20-47 °C (reduced range).
- Adjustment of the domestic water temperature: 10-60 °C.

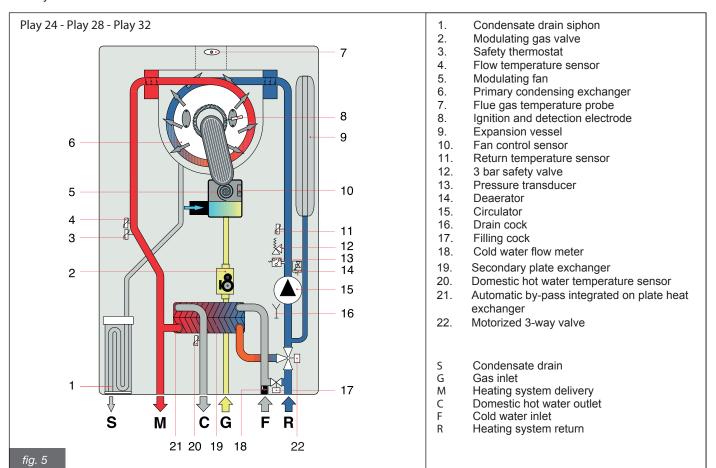
#### **Functional characteristics**

- Electronic flame modulation in heating mode with up ramp timing.
- Electronic modulation of the flame in sanitary function.
- Health care function precedence.
- Delivery antifreeze function: ON at P38 + 2 ° C; OFF at P38 + 5 ° C.
- DHW antifreeze function: ON at 5 ° C; OFF at 7 ° C.
- Storage tank antifreeze function ON at 5 ° C; OFF at 7 ° C.
- Timed chimney sweep function: 30 minutes.
- Parameter for adjusting the maximum heat input in heating and domestic hot water.
- Ignition heat output adjustment parameter.
- Heating range preselection: standard or reduced.
- Ignition flame programming function.
- Heating post-circulation function: 120 seconds (adjustable).
- Sanitary post-circulation function: 30 seconds.
- Post-circulation function for heating temperature> 90 °C: stop when T <88 °C.
- Post-ventilation function after operation: 30 seconds.
- Post-ventilation function for heating temperature> 99 °C: stop when T <93 °C.</li>
- Circulator anti-block function and diverter valve: 30 seconds of operation after 24 hours of non-operation.
- Predisposition for connection to a room thermostat.
- Predisposition for operation with external probe (optional supplied by the manufacturer).
- Predisposition for operation with OpenTherm Remote Control (optional supplied by the manufacturer).
- Predisposition for zone operation.
- Anti water hammer function: adjustable from 0 to 3 seconds via parameter P26.

## 2.2. Dimensions



## 2.3. Hydraulic scheme



## 2.4. Operating data

The burner pressures shown on the following page must be checked after 3 minutes of boiler operation.

Play 24 Function	Thermal range heating [kW]		heating heating		Thermal power heating (50-30°C) [kW]		Supply pressure [mbar]	Diameter diaphragm [mm]	Value CO <sub>2</sub> of the fumes [%]			
	min	max	min	max	min	max					min	max
Natural gas G20	2,8	24,0	2,5	23,0	2,9	24,9	20	5,6	9,3	9,8		
LPG gas	2,8	24,0	2,5	23,0	2,9	24,9	30/37	5,6	10,4	10,7		

Table 6 - Play 24 calibration data

Production of domestic hot water with  $\Delta T$  of 45 °C = 8.6 | / min Production of domestic hot water with  $\Delta T$  of 40 °C = 9.6 | / min Production of domestic hot water with  $\Delta T$  of 35 °C = 11 | / min

Production of domestic hot water with  $\Delta T$  of 30 °C = 12 I / min Production of domestic hot water with  $\Delta T$  of 25 °C = 15 I / min

Play 28	Thermal range heating [kW]		heating (80-60°C)		Thermal power heating (50-30°C) [kW]		Supply pressure [mbar]	Diameter diaphragm [mm]	Value CO <sub>2</sub> of the fumes [%]	
	min	max	min	max	min	max			min	max
Natural gas G20	3,1	28,0	2,9	26,9	3,2	29,2	20	6,0	9,0	9,0
LPG gas	3,1	28,0	2,9	26,9	3,2	29,2	30/37	6,0	10,5	10,5

Table 8 - Play 28 calibration data

Production of domestic hot water with  $\Delta T$  of 45  $^{\circ}C$  = 8.9 l / min Production of domestic hot water with  $\Delta T$  of 40  $^{\circ}C$  = 10.0 l / min Production of domestic hot water with  $\Delta T$  of 35  $^{\circ}C$  = 11.4 l / min

Production of domestic hot water with  $\Delta T$  of 30  $^{\circ}C$  = 13.3 I / min Production of domestic hot water with  $\Delta T$  of 25  $^{\circ}C$  = 16.0 I / min

Play 32	Thermal range heating [kW]		heating heating (80-60°C)		Thermal power heating (50-30°C) [kW]		Supply pressure [mbar]	Diameter diaphragm [mm]	Value CO <sub>2</sub> of the fumes [%]	
	min	max	min	max	min	max			min	max
Natural gas G20	3,4	32,0	3,3	30,8	3,5	33,5	20	6,3	8,4	10,6
LPG gas	3,4	32,0	3,3	30,8	3,5	33,5	30/37	6,3	10,5	10,6

Table 10 - Play 32 calibration data

Production of domestic hot water with  $\Delta T$  of 45  $^{\circ}C$  = 10.5 l / min Production of domestic hot water with  $\Delta T$  of 40  $^{\circ}C$  = 11.9 l / min Production of domestic hot water with  $\Delta T$  of 35  $^{\circ}C$  = 13.6 l / min

Production of domestic hot water with  $\Delta T$  of 30 °C = 14 l / min Production of domestic hot water with  $\Delta T$  of 25 °C = 19

### 2.5. General features\*

MODEL Play		24	28	32
Appliance category	-	II2H3P	II2H3P	II2H3P
Minimum heating circuit pressure	bar	0,5	0,5	0,5
Maximum pressure of the heating circuit	bar	3	3	3
Minimum pressure of the sanitary circuit	bar	0,5	0,5	0,5
Maximum pressure of the sanitary circuit	bar	6	6	6
Specific flow rate of sanitary water ∆T 30K)	l/min	12	13,3	14
Power supply - Voltage / Frequency	V - Hz	230 - 50	230 - 50	230 - 50
Power supply fuse	A	3,15	3,15	3,15
Maximum absorbed power	W	87	87	102
Degree of electrical protection	IP	X4D	X4D	X4D
Net weight	kg	29,9	31,4	33,0
Net weight	kg	29,4	30,8	32,4
Methane gas consumption at the maximum flow rate in heating. (*)	m³/h	2,54	2,90	3,37
LPG consumption at the maximum flow rate in heating. (*)	m³/h	0,75	0,83	0,97
Fan speed G20 heating max / min. (x100)	rpm	48 / 9	55 / 9	52 / 11
Max DHW G20 fan speed (x100)	rpm	62,5	65,25	62,5
LPG heating fan rpm max / min. (x100)	rpm	54 / 9	49 / 9	53 / 9
Number of DHW LPG fan revolutions max (x100)	rpm	64,5	57	59,5
Fan speed G20 ignition (x100)	rpm	35	35	35
Ignition LPG fan rpm (x100)	rpm	32	32	32
Max operating temperature in heating	°C	85	85	85
Max operating temperature in domestic hot water	°C	60	60	60
Total expansion vessel capacity	I	9	9	9

Table 12 - Play general data

# 2.6. ERP and Labeling data

n <b>bol</b>	Value 24	Unit	If yes, equipped with an additional heat	er: -	Value	
D n					Value	
D n					Value	
D n					Value	
D n					Value	
D n			Element	Symbol	Value	
D n			Element	Symbol	Value	11.24
	24	k\//			valuo	Unit
useful		1744	Efficienza energetica stagionale del riscaldamento d'ambiente	$\eta_{s}$	92	%
	heat output		Per le caldaie per il riscaldamento d'am efficienza utile	nbiente e le c	aldaie mist	э:
<b>O</b> 4	23	kW	Alla potenza termica nominale e a un regime ad alta temperatura (*)	$\eta_4$	86,4	%
<b>)</b> 1	6,5	kW	Al 30% della potenza termica nominale e a un regime a bassa temperatura (**)	$\eta_1$	96,4	%
			Altri elementi			
max	0,087	kW	Dispersione termica in stand-by	$P_{stby}$	0,069	kW
	0,054	kW	Consumo energetico del bruciatore di accensione	$P_{ign}$	0	kW
SB	0,004	kW	Consumo energetico annuo	$Q_{HE}$	42,2	GJ
			Emissione di ossidi di azoto	$NO_x$	23	mg/kWh
	XL		Energy efficiency of water heating	$\eta_{wh}$	90	%
elec	0,16	kWh	Daily fuel consumption	$\boldsymbol{Q}_{\text{fuel}}$	21,3	kWh
EC.	35,7	kWh	Annual fuel consumption	AFC	16,4	GJ
)	S <sub>B</sub>	XL 0,16 EC 35,7	XL  2	Annual fuel consumption  O,054	Annual fuel consumption  O,054 kW accensione  Consumo energetico annuo  Q <sub>HE</sub> Emissione di ossidi di azoto  NO <sub>x</sub> Energy efficiency of water heating  Q <sub>fuel</sub> Annual fuel consumption  AFC	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

Contact details: A2B Accorroni E.G. - Via d'Ancona, 37 - 60027 Osimo (AN)

<sup>(\*)</sup> High temperature mode: return temperature of 60 ° C at the entrance to the device and 80 ° C of use temperature at the exit of the device. (\*\*) Low temperature: return temperature (at the boiler inlet) for condensing boilers 30 ° C, for low temperature appliances of 37 ° C and for other appliances of 50 ° C.

Seasonal energy efficiency class of space heating	Α
Energy efficiency class of water heating	Α
Table 17 - ERP and Labeling data - Play 24	

Models: Play 28							
Condensing boiler: yes							
Low temperature boiler (**): yes							
Type B <sub>1</sub> boiler: no							
Space heating cogeneration appliance	: no			If yes, equipped with an additional heat	er: -		
Apparecchio di riscaldamento misto: s	sì						
Element	Symbol	Value	Unit	Element	Symbol	Value	Unit
Nominal heat output	P <sub>n</sub>	28	kW	Seasonal space heating energy efficiency	$\eta_{\rm s}$	92	%
For space heating boilers and mixed boilers: useful heat output				For space heating boilers and mixed boilers: useful efficiency			
At rated heat output and high temperature regime (*)	$P_{\!\scriptscriptstyle{4}}$	27	kW	At rated heat output and high temperature regime (*)	$\eta_4$	86.4	%
At 30% of rated heat output and low temperature regime (**)	$P_1$	8.1	kW	At 30% of rated heat output and low temperature regime (**)	$\eta_1$	96.1	%
Auxiliary electricity consumption				Other elements			
At full load	$el_{\max}$	0.087	kW	Stand-by heat loss	$P_{stby}$	0.070	kW
Part load	el <sub>min</sub>	0.042	kW	Energy consumption of the ignition burn	ner P <sub>ign</sub>	0	kW
In stand-by mode	$P_{\mathtt{SB}}$	0.004	kW	Annual energy consumption	$Q_{_{HE}}$	55	GJ
			İ	Emission of nitrogen oxides	NO <sub>x</sub>	42	mg/kWh
For mixed heaters:		•				•	•
Load profile declared	XL			Energy efficiency of water heating	$\eta_{wh}$	90	%
Daily consumption of electricity	Q <sub>elec</sub>	0.1	kWh	Daily fuel consumption	$\boldsymbol{Q}_{\text{fuel}}$	21.7	kWh
Annual consumption of electricity	AEC	22	kWh	Annual fuel consumption	AFC	17,2	GJ
Contact details: A2B Accorroni E.G \	/ia d'Ancona,	37 - 60027	Osimo (AN	N)			

<sup>(\*\*)</sup> Low temperature: return temperature (at the boiler inlet) for condensing boilers 30  $^{\circ}$ C, for low temperature appliances of 37  $^{\circ}$ C and for other appliances of 50  $^{\circ}$ C.

Seasonal energy efficiency class of space heating	Α
Energy efficiency class of water heating	Α
Table 18 - ERP and Labeling data - Play 28	

<sup>(\*)</sup> High temperature mode: return temperature of 60  $^{\circ}$  C at the entrance to the device and 80  $^{\circ}$ C of use temperature at the exit of the device.

Condensing boiler: yes							
Low temperature boiler (**): yes							
Type B <sub>1</sub> boiler: no							
Space heating cogeneration appliance:	: no			If yes, equipped with an additional hea	ter: -		
Apparecchio di riscaldamento misto: s	ì						
Element	Symbol	Value	Unit	Element	Symbol	Value	Unit
Nominal heat output	P <sub>n</sub>	32	kW	Seasonal space heating energy efficiency	$\eta_{\rm s}$	92	%
For space heating boilers and mixed bouseful heat output	oilers:			For space heating boilers and mixed b useful efficiency	oilers:		
At rated heat output and high temperature regime (*)	$P_4$	31	kW	At rated heat output and high temperature regime (*)	$\eta_4$	86,7	%
At 30% of rated heat output and low temperature regime (**)	P <sub>1</sub>	9,3	kW	At 30% of rated heat output and low temperature regime (**)	$\eta_1$	96,4	%
Auxiliary electricity consumption				Other elements			'
At full load	$el_{max}$	0,102	kW	Stand-by heat loss	$P_{stby}$	0,071	kW
Part load	$el_{_{\min}}$	0,062	kW	Energy consumption of the ignition burner	$P_{ign}$	0	kW
In stand-by mode	$P_{SB}$	0,005	kW	Annual energy consumption	$Q_{HE}$	62,7	GJ
				Emission of nitrogen oxides	NO <sub>x</sub>	55	mg/kWh
For mixed heaters:							
Load profile declared	XL			Load profile declared	$\eta_{wh}$	90	%
Daily consumption of electricity	Q <sub>elec</sub>	0,16	kWh	Daily fuel consumption	$\boldsymbol{Q}_{\text{fuel}}$	21,3	kWh
Annual consumption of electricity	AEC	34,6	kWh	Annual fuel consumption	AFC	16,4	GJ
Contact details: A2B Accorroni E.G V	/ia d'Ancona,	37 - 60027	Osimo (AN	)			

Models: Play 32

(\*) High temperature mode: return temperature of 60 °C at the entrance to the device and 80 °C of use temperature at the exit of the device.

(\*\*) Low temperature: return temperature (at the boiler inlet) for condensing boilers 30  $^{\circ}$ C, for low temperature appliances of 37  $^{\circ}$ C and for other appliances of 50  $^{\circ}$ C.

Seasonal energy efficiency class of space heating	Α
Energy efficiency class of water heating	Α
Table 19 - ERP and Labeling data - Play 32	

### 3. Instructions for the installer

### 3.1. Installation rules

This boiler is of category II2H3B / P and must be installed according to the following laws and standards in force which are understood to be fully transcribed here:

- Law n° 46 of 05/03/90
- Law n° 186 of 01/03/68
- Legislative Decree No. 192 of 08/19/2005
- Legislative Decree n° 311 of 29/12/2006
- DPR n° 551 of 21/12/1999
- Presidential Decree No. 412 of 08/26/1993
- UNI 7129 standard
- UNI 7131 standard
- UNI 11071 standard
- CEI 64/8 standard

#### **ATTENTION**

If several boilers are installed in the same residential unit or in the same room, for a total heat output exceeding 35 kW, the systems must be designed and built in compliance with:

- Ministerial Decree 12/04/96 regarding fire prevention;
- DM 01/12/75 and collection R connected with regard to safety.

#### 3.2. Installation



For both installation and maintenance and possible replacement of components, use only original accessories and spare parts supplied by the manufacturer.

If original accessories and spare parts are not used, correct operation of the boiler is not guaranteed.

### 3.2.1. Packing

The boiler is supplied packed in a sturdy cardboard box.

After unpacking the boiler, make sure it is perfectly intact.

The packaging materials are recyclable: therefore convey them to the appropriate collection areas.

Do not leave packaging that can, by their nature, be a source of danger at the mercy of children.

The manufacturer declines all responsibility for damage to people, animals and property resulting from non-compliance with the above.

The packaging contains:

- wall fixing bracket (already mounted on the boiler);
- bag containing:
- a) this manual for installation, use and maintenance of the boiler;
- b) the inspection certificate;
- c) the template for fixing the boiler to the wall (fig. 7).

### 3.2.2. Choice of the place of installation of the boiler

When determining the place to install the boiler, take the following into account:

- the indications contained in paragraph "3.2.6. Air intake / flue gas exhaust system "and its subparagraphs;
- check that the masonry structure is suitable, avoiding fixing on inconsistent partitions;
- avoid mounting the boiler on top of an appliance which, during use, may in some way compromise its proper functioning (kitchens that give rise to the formation of greasy vapors, washing machines, shower rooms or bathtubs, etc. .).

## 3.2.3. Positioning of the boiler

Each device is equipped with a special paper template contained in the packaging (fig. 7).

This template allows the preparation of the connection pipes to the heating system, to the domestic water, to the gas network and to the air intake / flue gas pipes at the time of making the plumbing system and before installing the boiler.

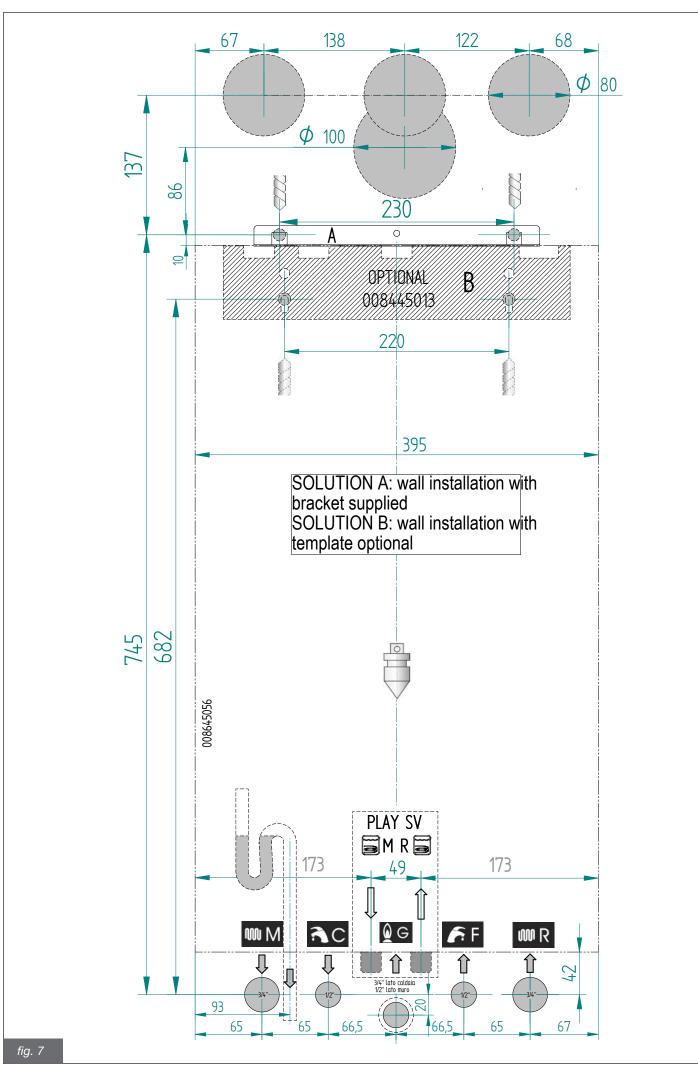
This template, consisting of a sturdy sheet of paper, must be fixed to the wall chosen for the installation of the boiler with the help of a bubble and shows all the information necessary to drill the holes for fixing the boiler to the wall which is done by means of two screws. with expansion plugs.

The lower part of the template allows you to mark the exact point where the fittings for connecting the gas supply pipe, the cold water supply pipe, the hot water outlet, the delivery and the heating return.

The upper part allows you to mark the points where the air intake / flue gas exhaust pipes must be positioned.



Since the temperature of the walls on which the boiler is installed and the external temperature of the coaxial intake and exhaust ducts are lower than 60 ° C, it is not necessary to respect minimum distances from flammable walls. For boilers with split intake and exhaust ducts, in the case of flammable walls and crossings, interpose insulation between the wall and the flue gas exhaust pipe.



### 3.2.4. Assembling the boiler



Before connecting the boiler to the pipes of the heating and sanitary system, it is necessary to carry out a thorough cleaning of the system itself.

- Before putting a NEW system into service, clean it in order to eliminate metal processing and welding residues, oils and greases that may be present and which, reaching the boiler, could damage it or alter its operation.
- Before putting into service a system that has been MODERNIZED (adding radiators, replacing the boiler, etc.), clean it in order to remove any sludge and foreign particles.

For this purpose, use appropriate non-acid products available on the market.

Do not use solvents which could damage the components.

In addition, in each heating system (new or modernized) add to the water, in due concentration, appropriate corrosion inhibitor products for multi-metal systems that form a protective film on the internal metal surfaces.

The manufacturer declines all responsibility for damage caused to people, animals or things deriving from the non-observance of the above.



For all types of systems, an inspectable filter (of the Y type) with a Ø 0.4 mm mesh opening must be fitted at the boiler inlet, on the return line.

### 3.2.4.1. Direct wall installation with bracket supplied (bracket A)

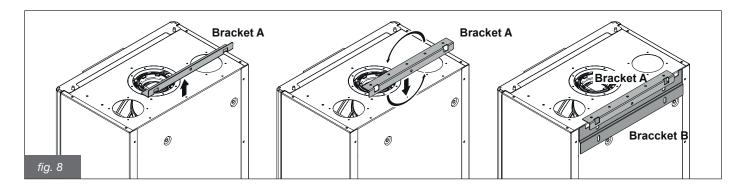
To install the boiler proceed as follows:

- fix the template (fig. 7) to the wall;
- make the holes in the wall for the fixing plugs chosen for the boiler support bracket (bracket A in fig. 7);
- make holes in the wall, if necessary, for the passage of the air intake / flue gas exhaust pipes;
- fix the hook anchors to the wall;
- position the fittings for connecting the gas supply pipe (G), the cold water supply pipe (F), the hot water outlet (C only model Play), the secondary flow to the boiler (only Play SV model), the secondary return from the boiler (Play SV model only), the heating delivery (M) and the heating return (R) at the same points on the template (lower part);
- prepare a connection for the condensate drain and a drain for the 3 bar safety valve;
- hang the boiler on the hooks of the dowels;
- connect the boiler to the supply pipes (refer to paragraph 3.2.9);
- connect the boiler to the condensate drain system (refer to paragraph 3.2.9);
- connect the boiler to the 3 bar safety valve drainage system;
- connect the boiler to the air intake / flue gas exhaust system (refer to paragraph 3.2.6 and related sub-paragraphs);
- connect the power supply, the room thermostat (if provided) and any other accessories (see the following paragraphs).

### 3.2.4.2. Wall installation with optional metal bracket (bracket B)

To install the boiler proceed as follows:

- fix the template (fig. 7) to the wall;
- make the holes in the wall for the fixing plugs chosen for the boiler support bracket (bracket B (008445013) in fig. 7);
- make holes in the wall, if necessary, for the passage of the air intake / flue gas exhaust pipes;
- fix bracket B to the wall with the plugs;
- disassemble and reassemble the standard bracket (A) on the boiler in reverse;
- position the fittings for connecting the gas supply pipe (G), the cold water supply pipe (F), the hot water outlet (C only model Play), the secondary flow to the boiler (only Play SV model), the secondary return from the boiler (Play SV model only), the heating delivery (M) and the heating return (R) at the same points on the template (lower part);
- prepare a connection for the condensate drain and a drain for the 3 bar safety valve;
- hang the boiler on the bracket B previously fixed to the wall;
- connect the boiler to the supply pipes (refer to paragraph 3.2.9);
- connect the boiler to the condensate drain system (refer to paragraph 3.2.9);
- connect the boiler to the 3 bar safety valve drainage system;
- connect the boiler to the air intake / flue gas exhaust system (refer to paragraph 3.2.6 and related sub-paragraphs);
- connect the power supply, the room thermostat (if provided) and any other accessories (see the following paragraphs).



### 3.2.5. Ventilation of the premises

The boiler has a sealed combustion chamber with respect to the environment in which it is installed, therefore it does not require any particular recommendation regarding the ventilation openings relating to the combustion air, as well as with regard to the room inside. of which it will have to be installed.



The boiler must be installed in a suitable room in compliance with the UNI 7129 and UNI 7131 standards which are understood to be fully transcribed here.

### 3.2.6. Air intake / flue gas exhaust system

As regards the discharge of fumes into the atmosphere and the air intake / fumes exhaust systems, comply with the laws and regulations in force, which are understood to be fully transcribed here.



Safety devices are installed on the boiler to control the evacuation of combustion products.

In the event of a malfunction of the air intake / flue gas exhaust system, the devices put the boiler in safety and the code E14 flashes on the LCD display.

Tampering and / or exclusion of these safety devices is strictly prohibited.

In the event of repeated shutdowns of the boiler, it is necessary to have the air intake / flue gas exhaust ducts checked, which could be blocked or inadequate for the disposal of fumes into the atmosphere.



For the air intake / flue gas exhaust, the original ducts and systems for condensing boilers provided by the manufacturer must be used, resistant to the attack of condensate acids.

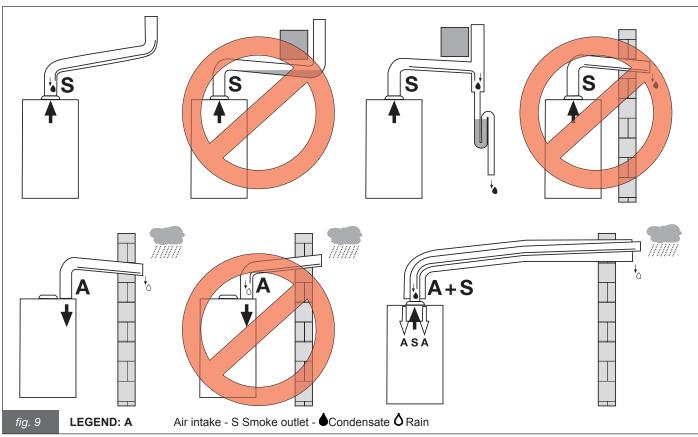


The exhaust pipes must be installed with a slope towards the boiler such as to guarantee the reflux of the condensate towards the combustion chamber which is built to collect and discharge the condensate. If this is not possible, it is necessary to install systems capable of collecting and conveying the condensate to the condensate drainage system in the condensate stagnation points.

It is necessary to avoid condensation stagnation points in the combustion products evacuation system, with the exception of the liquid head of any siphon connected to the combustion products evacuation system.

The manufacturer declines all responsibility for damage caused as a result of errors in installation, use, transformation of the appliance or failure to comply with the instructions provided by the manufacturer or the installation standards in force regarding the material in question.

## **Examples of installation**

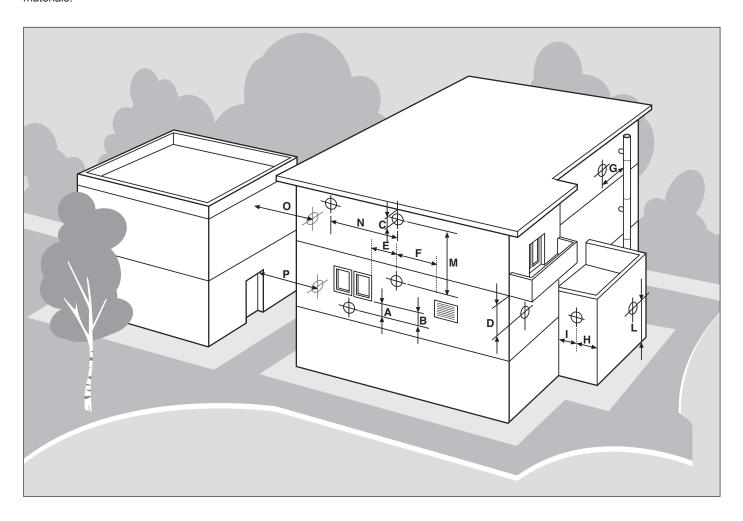


To position the boiler exhaust terminals on the wall, in the cases prescribed by Presidential Decree no. 551 of 29/12/99, observe the distances indicated in the table and figure below.

POSITIONING OF THE TERMINALS FOR "FORCED DRAFT" APPLIANCES (extracted from the UNI 7129 standard)					
POSITION OF THE TERMINAL	Minimum distances in mm	Appliances with heat output over 16 kW and up to 35 kW			
Under window	A	600			
Under ventilation opening	В	600			
Under the eaves	С	300			
Under balcony (1)	D	300			
From an adjacent window	E	400			
From an adjacent ventilation opening	F	600			
From vertical or horizontal pipes or drains (2)	G	300			
From a corner of the building	Н	300			
From a recess in the building	I	300			
From the ground or other walking surface	L	2200			
Between two terminals vertically	М	1500			
Between two terminals horizontally	N	1000			
Between two terminals horizontally	0	2000			
Same, but with openings or terminals within a radius of 3 meters from the smoke outlet	Р	3000			

#### Note:

- (1) The terminals under a practicable balcony must be placed in such a position that the total path of the fumes, from their exit point from the terminal to their outlet from the external perimeter of the balcony, including the height of any protective balustrade, does not is less than 2000 mm.
- (2) When placing the terminals, distances of no less than 500 mm must be adopted from materials sensitive to the action of combustion products (for example, plastic gutters and downspouts, timber overhangs, etc.) unless adequate shielding measures against these materials.



### 3.2.6.1. Configuration of the air intake/flue gas exhaust ducts

### Type B23

Boiler designed to be connected to a flue or to a combustion product discharge device outside the room in which it is installed. The air intake takes place in the installation room and the combustion products discharge takes place outside the room itself. The boiler must not be equipped with an anti-wind draft device, while it must be equipped with a fan upstream of the combustion chamber/heat exchanger.

#### Type C13

Boiler designed to be connected to horizontal exhaust and intake terminals directed outside by coaxial type ducts or by split type ducts. The distance between the air inlet duct and the smoke outlet duct must be at least 250 mm and both terminals must in any case be positioned within a square with a side of 500 mm. The boiler must be equipped with a fan upstream of the combustion chamber/heat exchanger.

### Type C33

Boiler designed to be connected to vertical exhaust and intake terminals directed outside by coaxial type ducts or by split type ducts. The distance between the air inlet duct and the smoke outlet duct must be at least 250 mm and both terminals must in any case be positioned within a square with a side of 500 mm. The boiler must be equipped with a fan upstream of the combustion chamber/heat exchanger.

### Type C43

Boiler designed to be connected to a collective flue system comprising two ducts, one for the intake of combustion air and the other for the evacuation of combustion products, coaxial or via split ducts. The flue must comply with current regulations. The boiler must be equipped with a fan upstream of the combustion chamber/heat exchanger.

#### Type C53

Boiler with separate combustion air intake ducts and combustion products evacuation. These ducts can discharge into different pressure zones. The positioning of the two terminals on opposite walls is not permitted. The boiler must be equipped with a fan upstream of the combustion chamber/heat exchanger.

### Type C63

Boiler with combustion air intake ducts and combustion products evacuation ducts that can be made using separately marketed and certified pipes. The system created must not have a pressure drop, with the boiler at nominal power, greater than the residual head of the fan.

### Type C83

Boiler designed to be connected to a combustion air intake terminal and to an individual or collective flue for flue gas discharge. The flue must comply with current regulations.

The boiler must be equipped with a fan upstream of the combustion chamber/heat exchanger.



These values refer to air intake/fume exhaust ducts made using original rigid and smooth pipes, supplied by the manufacturer.

#### Type C13

### Play 24

The minimum permitted length of horizontal coaxial pipes is 1 meter excluding the first bend. The maximum permitted length of 100/60 mm horizontal coaxial pipes is 10 meters including the first bend. For each added straight pipe of length equal to 1 metre, the maximum permissible length must be decreased by 1 metre. For each 90° bend added, the maximum length allowed must be decreased by 1.5 metres. For each 45° bend added, the maximum length allowed must be decreased by 1 metre. The wall terminal decreases the maximum permissible length by 1.5 metres. The air intake part must have a downward slope of 1% in the outlet direction, to prevent rainwater from entering.

### Play 28

The minimum permitted length of horizontal coaxial pipes is 1 meter excluding the first bend. The maximum permitted length of 100/60 mm horizontal coaxial pipes is 7 meters including the first bend. For each added straight pipe of length equal to 1 metre, the maximum permissible length must be decreased by 1 metre. For each 90° bend added, the maximum length allowed must be decreased by 1.5 metres. For each 45° bend added, the maximum length allowed must be decreased by 1 metre. The wall terminal decreases the maximum permissible length by 1.5 metres. The air intake part must have a downward slope of 1% in the outlet direction, to prevent rainwater from entering.

#### Play 32

The minimum permitted length of horizontal coaxial pipes is 1 meter excluding the first bend.

The maximum permitted length of 100/60 mm horizontal coaxial pipes is 6 meters including the first bend.

For each added straight pipe of length equal to 1 metre, the maximum permissible length must be decreased by 1 metre. For each 90° bend added, the maximum length allowed must be decreased by 1.5 metres.

For each  $45^{\circ}$  bend added, the maximum length allowed must be decreased by 1 metre.

The wall terminal decreases the maximum permissible length by 1.5 metres.

The air intake part must have a downward slope of 1% in the outlet direction, to prevent rainwater from entering.

#### Type C33

#### Play 24

The minimum permissible length of vertical coaxial pipes is 1 meter. The maximum permitted length of the 100/60 mm vertical coaxial pipes is 10 metres. For each added straight pipe of length equal to 1 metre, the maximum permissible length must be decreased by 1 metre. For each 90° bend added, the maximum length allowed must be decreased by 1.5 metres. For each 45° bend added, the maximum length allowed must be decreased by 1 metre. The roof drain decreases the maximum permissible length by 1.5 metres.

#### Play 28

The minimum permissible length of vertical coaxial pipes is 1 meter. The maximum permitted length of the 100/60 mm vertical coaxial pipes is 7 metres. For each added straight pipe of length equal to 1 metre, the maximum permissible length must be decreased by 1 metre. For each 90° bend added, the maximum length allowed must be decreased by 1.5 metres. For each 45° bend added, the maximum length allowed must be decreased by 1 metre. The roof drain decreases the maximum permissible length by 1.5 metres.

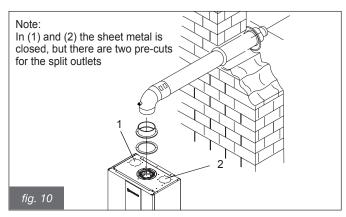
#### Play 32

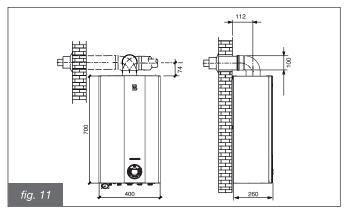
The minimum permissible length of vertical coaxial pipes is 1 meter. The maximum permitted length of the 100/60 mm vertical coaxial pipes is 6 metres.

For each added straight pipe of length equal to 1 metre, the maximum permissible length must be decreased by 1 metre. For each 90° bend added, the maximum length allowed must be decreased by 1.5 metres.

For each 45° bend added, the maximum length allowed must be decreased by 1 metre.

The roof drain decreases the maximum permissible length by 1.5 metres.





### 3.2.6.3. Air intake/flue gas exhaust with separate 80 mm diameter ducts



These values refer to air intake/fume exhaust ducts made using original rigid and smooth pipes, supplied by the manufacturer.

Types of installation C43 - C53 - C83

#### Play 24

The minimum length of the air intake pipe must be 1 metre. The minimum length of the flue gas pipe must be 1 metre. The maximum permitted length of the flue gas intake/exhaust pipes (by adding the length on the intake and on the exhaust) is 100 meters.

#### Play 28

The minimum length of the air intake pipe must be 1 metre. The minimum length of the flue gas pipe must be 1 metre. The maximum permitted length of the flue gas intake/exhaust pipes (by adding the length on the intake and on the exhaust) is 44 metres.

### Play 32

La lunghezza minima della tubazione di aspirazione aria deve essere di 1 metro.

La lunghezza minima della tubazione di scarico fumi deve essere di 1 metro.

La lunghezza massima consentita delle tubazioni di aspirazione/scarico fumi (sommando la lunghezza in aspirazione e in scarico) è di 60 metri.

#### Note:

For each added straight pipe with a length of 1 meter, the maximum length allowed must be decreased by 1 metre.

For each 90° bend added, the maximum length allowed must be decreased by 1 metre.

For each 45° bend added, the maximum length allowed must be decreased by 0.5 metres.

The roof terminal decreases the maximum permissible length by 3 metres

The wall terminal decreases the maximum permitted length by 3 metres

# Types of installation B23

The minimum length of the air intake pipe must be 1 metre.

The maximum permitted length of the pipes is 100 meters for the Play 24 models,

of 43 meters for Play 28 models and 60 meters for Play 32 models.

## 3.2.6.4. Air intake/flue gas exhaust with separate 60 mm diameter ducts

## Types of installation C43 - C53 - C83

Play 24 - Play 28 - Play 32

The minimum length of the air intake pipe must be 1 metre.

The minimum length of the flue gas pipe must be 1 metre.

The maximum permitted length of the flue gas intake/exhaust pipes is 16 meters for all PLAY models (by adding the intake and exhaust lengths).

For each added straight pipe with a length of 1 meter, the maximum length allowed must be decreased by 1 metre.

For each 90° bend added, the maximum length allowed must be decreased by 1 metre.

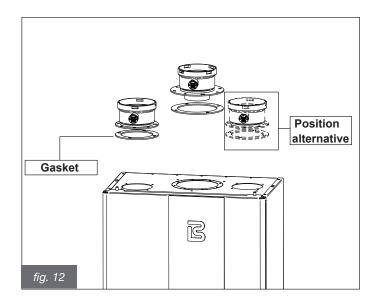
For each 45° bend added, the maximum length allowed must be decreased by 0.5 metres.

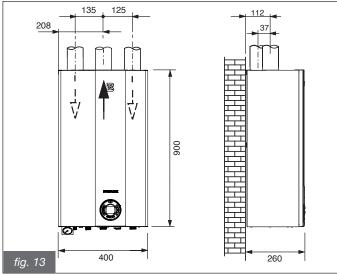
The wall terminal decreases the maximum length allowed by 2 metres.

# 3.2.6.5. Type C63 air intake/flue gas exhaust

The residual head at the flue gas inlet is:

- 250 Pa per la Play 24;
- 200 Pa per Play 28;
- 100 Pa per Play 32.





### 3.2.7. Chimney sweep function

The boiler has a chimney sweep function which must be used to measure the combustion efficiency on site and to enter the subsequent combustion regulation phase.

To activate the chimney sweep function, keep the " + + + keys (A + B fig. 1) pressed for the cycle time.

If the keys are released before the end of the cycle time, the boiler continues to operate normally.

If there is a DHW request, the chimney sweep function is performed on the DHW, otherwise in heating.

Having entered the chimney sweep function, the letters "Lo" appear on the display, alternating with the temperature value of the heating water (e.g. 45), indicating that the "chimney sweep function" has been activated at minimum power. The display shows the symbol " ? (1, fig. 1), if the burner is on. The boiler performs the ignition sequence and then switches to operation at minimum power ("Lo").

Press and hold the " 🕕 " key (F fig. 1) for 3 seconds to switch to the "chimney sweep function" at maximum power ("Hi").

By holding down the "  $\blacksquare$  " key (E fig. 1) for 3 seconds, you return to the "chimney sweep function" at minimum power ("Lo").

To exit the chimney sweep function, press and hold the " 🔤 " key (B fig. 1) for 3 seconds and you will return to normal operation.

The duration of the chimney sweep function is 15 minutes.

### 3.2.8. Connection to the gas network

The gas supply pipe must have a section equal to or greater than that used in the boiler.

The section of the pipe depends on its length, the type of route and the gas flow rate. It must therefore be sized.

Comply with the installation regulations in force, which are understood to be fully transcribed here.



It should be remembered that before putting an internal gas distribution system into service, and therefore before connecting it to the meter, its tightness must be checked.

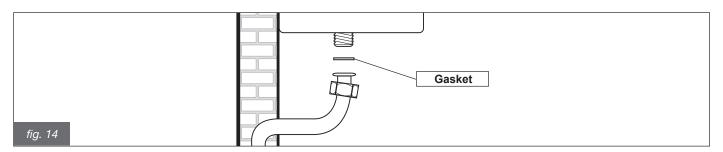
If some part of the system is not visible, the leak test must precede the covering of the pipe. The leak test must NOT be carried out with combustible gas: use air or nitrogen for this purpose.

In the presence of gas in the pipes, remember that it is forbidden to search for leaks by means of flames, for this purpose use the specific products available on the market.



It is COMPULSORY, to connect the gas connection of the boiler to the supply pipe, to insert a gasket of suitable sizes and materials (fig. 14).

The attachment is NOT suitable for use with hemp, Teflon tape and the like.



## 3.2.9. Hydraulic connections

Before installation, it is recommended to clean the system in order to eliminate any impurities that could come from the components and which could damage the circulator and the exchanger.

#### **HFATING**

The central heating flow and return must be connected to the boiler to the respective 3/4" M and R fittings (fig. 7).

When sizing the heating circuit pipes, it is necessary to take into account the pressure drops induced by the radiators, by any thermostatic valves, by the radiator stop valves and by the configuration of the system.



It is advisable to convey the discharge of the safety valve installed in the boiler to the sewer. In the absence of this precaution, any intervention of the safety valve can cause flooding of the room in which the boiler is installed.

The manufacturer is absolutely not responsible for damages caused by failure to observe this technical precaution.

#### **SANITARY**

The cold water inlet and the domestic hot water outlet must be connected to the boiler to the respective 1/2" **C** and **F** fittings (fig. 7). The hardness of the feed water conditions the frequency of cleaning and/or replacement of the secondary plate heat exchanger.



Depending on the hardness of the supply water, the advisability of installing suitable equipment for dosing domestic use of food-grade products that can be used for the treatment of drinking water compliant with current regulations must be evaluated.

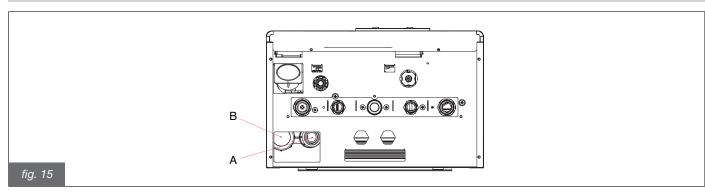
With feed water with hardness higher than 20°F it is always advisable to treat the water. The water coming from common softeners may, due to the pH values that characterize it, not be compatible with some components of the heating system.

## **CONDENSATE DRAIN**

For the evacuation of the condensate, comply with the laws and regulations in force which are understood to be fully transcribed here. Unless particular prohibitions exist, the condensate produced during the combustion phase must be conveyed (by means of the condensate drain) to a drain system which makes it flow to the domestic wastewater drain network which, due to its basic nature, contrasts the acidity of the flue gas condensate. To avoid a return of bad odors from the domestic wastewater network, it is advisable to add an odor trap between the condensate drainage system and the domestic wastewater network. The condensate drainage system and the domestic wastewater drainage network must be constructed with suitable materials, resistant to attack by condensation water. The condensate drain system must be connected to the special connection (A) set up in the boiler (see fig. 15). It is absolutely forbidden to connect the condensate drain system to the siphon inspection point (B).



The manufacturer declines all responsibility for damage caused to people, animals or things deriving from non-observance of the above.



### 3.2.10. Connection to the electricity grid

The boiler must be connected to the 230V-50Hz power supply.

When connecting, respect the polarity by correctly connecting phase and neutral.

During the installation, comply with the regulations in force, which are understood to be fully transcribed here.

An easily accessible bipolar switch must be installed upstream of the boiler, which allows you to cut off the electricity supply and carry out all maintenance operations in safety.

The boiler power supply line must be protected by a differential magneto-thermal switch with adequate breaking capacity. The power supply network must have a secure earth connection. It is necessary to verify this fundamental safety requirement; if in doubt, request an accurate check of the electrical system by professionally qualified personnel.



The manufacturer is absolutely not responsible for any damage caused by failure to earth the system: the pipes of the gas, water and heating systems are not suitable as earth connections.

## 3.2.11. Selection of the operating range in heating

The heating water temperature adjustment range depends on the selected operating range:

- standard range: from 20°C to 80°C;
- reduced range: from 20°C to 47°C.

Using parameter P04 it is possible to select the climatic curve (only for operation with external probe). Parameter P21 modifies the operating range in heating. The range can be selected even in the absence of the external probe.

The standard range is active with P21 = 0, while the reduced range with P21 = 1.

The waiting time between one ignition and the next of the boiler, which serves to avoid frequent ignition and shutdown of the boiler during heating operation, is equal to 3 minutes for both ranges, which can be modified with parameter P05.

The selection of the operating range must be carried out by the installer or by an Authorized Assistance Centre.

#### 3.2.12. Connection to room thermostat (optional)

The boiler can be connected to a room thermostat (optional, not compulsory).

The room thermostat contacts must carry a load of 5 mA at 24 VDC.

The ambient thermostat cables must be connected to terminals 1 and 2 of the terminal board (fig. 21 and fig. 22).

I cavi del termostato ambiente non devono essere inquainati insieme ai cavi dell'alimentazione elettrica.

## 3.2.13. Installation and operation with Open Therm Remote Control (optional)

The boiler can be connected to an Open Therm Remote Control (optional, not compulsory, supplied by the manufacturer).

The installation of the Remote Control must be entrusted exclusively to qualified personnel.



Only use original remote controls supplied by the manufacturer.

If non-original remote controls not supplied by the manufacturer are used, correct operation of the remote control itself and of the boiler is not guaranteed.

The Remote Control cables must be connected to terminals A and B of the terminal board (fig. 21 and fig.

22). To install the remote control, follow the instructions attached to the remote control itself.

Here are some precautions for installing the Remote Control:

- the Remote Control cables must not be sheathed together with the power supply cables: if this is not possible, any disturbances due to other electric cables could cause malfunctions of the Remote Control itself;
- - place the Remote Control on an internal wall of the house, at a height of about 1.5 m from the floor, in a position suitable for correctly detecting the room temperature, avoiding installation in niches, behind doors or curtains, near sources of heat, exposed to direct sunlight, drafts or splashes of water.

The Remote Control connection is protected against false polarity, this means that connections can be swapped.



## The Remote Control must not be connected to the 230 V ~ 50 Hz power supply.

For the complete programming of the Remote Control, refer to the instruction booklet contained in the Remote Control kit itself. Communication between the board and the Remote Control takes place with the boiler in each operating mode: OFF/SUMMER/WINTER; the boiler display reflects the settings made from the remote, as regards the operating mode.

Through the Remote Control it is possible to read and set a series of parameters, called TSP, reserved for qualified personnel (Table 24 and Table 25).

Setting parameters TSP02 and TSP15 sets the default data table and reloads all original data.

If the value of a single parameter is found to be incorrect, its value is restored from the default data table. If the value you try to set is outside the limits allowed by the parameter, the new value is rejected and the existing one is kept.

Parameter	Settable value limits	Default 16 kW methane	Default 16 kW LPG	Default 24 kW methane	Default 24 kW LPG	Default 28 kW methane	Default 28 kW LPG	Default 32 kW methane	Default 32 kW LPG
P2 - TSP02 Gas type	0 - 1	0	1	0	1	0	1	0	1
P4 - TSP04 Heating curves	0 ÷ 90	30	30	30	30	30	30	30	30
P8 - TSP08 Upper limit of maximum heating power	P10 ÷ 100%	57	48	75	83	83	83	82	89
P9 - TSP09 DHW maximum power upper limit	P10 ÷ 100%	72	65	100	100	100	100	100	100
P15 - TSP15 Machine type and default data table	0 ÷ 3	3	3	0	0	1	1	2	2
P31 - TSP31 Fan speed at burner ignition power and propagation (P31x25 [rpm])	80 ÷ 160	140	128	140	128	140	128	140	128
P32 - TSP32 Fan speed at maximum burner power (DHW) (P32x25 + 2000 [rpm])	Da TSP33÷ 255	170	178	170	178	181	148	170	158
P33 - TSP33 Fan speed at minimum burner power (DHW and heating) (P33x25 [rpm])	30 ÷ 60	36	36	36	36	36	36	44	36

Table 24 - Limits that can be set for the TSP parameters and default values according to the type of boiler (TSP15)

## 3.2.14. Installation of the external probe (optional) and sliding temperature operation

The boiler can be connected to a probe for measuring the outside temperature (optional, not mandatory, supplied by the manufacturer) for sliding temperature operation.



Use only original external probes supplied by the manufacturer.

If non-original external probes not supplied by the manufacturer are used, correct operation of the external probe and the boiler is not guaranteed.

The probe for measuring the external temperature must be connected with a double-insulated cable with a minimum section of 0.35 mm<sup>2</sup>. The external probe must be connected to terminals **E1** and **E2** of the boiler terminal board (fig. 21 and fig. 22).

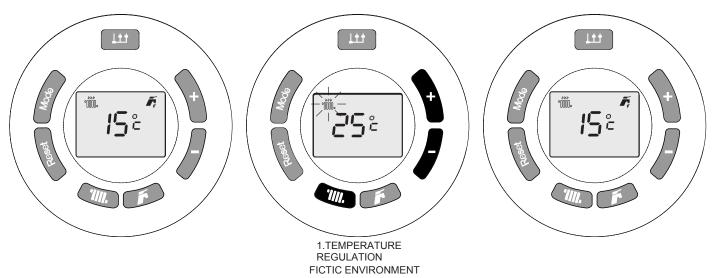
The cables of the probe for measuring the external temperature must NOT be sheathed together with the power supply cables.

The external probe must be installed on a wall facing NORTH - NORTH EAST, in a position protected from atmospheric agents. Do not install the external probe in window openings, near ventilation vents or near heat sources.

The external temperature probe automatically modifies the heating flow temperature according to:

- external temperature measured;
- selected thermoregulation curve;
- fictitious room temperature set.

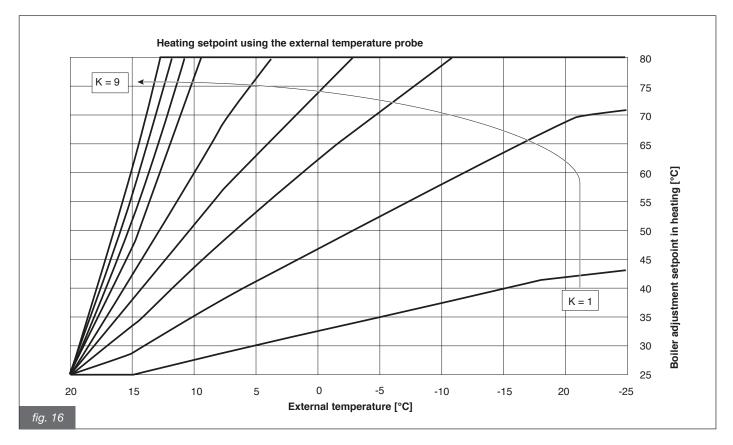
The fictitious room temperature is displayed by pressing the " The fictitious room temperature is displayed by pressing the " The fig. 1) and subsequently modified by pressing the " The fig. 1) which, with the external temperature probe installed, loses the function heating water temperature setting (see paragraph 1.10.6) and the set value can be read on the boiler display. Furthermore, the value of the external temperature detected by the external probe can also be displayed via the Info menu under the item "In1".



In fig. 16 shows the curves for a fictitious ambient temperature value of 20 °C.

By changing the value of parameter P04, it is possible to select one of the curves shown in fig. 16. By modifying the fictitious temperature as previously described, the selected curve moves up or down by the same amount.

With a fictitious ambient temperature equal to 20°C, for example, by choosing the curve corresponding to value 30, if the external temperature is equal to -5°C, the delivery temperature will be equal to 70 °C.



By setting a fictitious ambient temperature of  $23^{\circ}$ C, again with an external temperature of  $-5^{\circ}$ C, the delivery temperature will be  $70^{\circ}$ C +  $(23^{\circ}$ C -  $20^{\circ}$ C) =  $73^{\circ}$ C.

By setting a fictitious ambient temperature of  $18^{\circ}$ C, again with an external temperature of  $-5^{\circ}$ C, the delivery temperature will be  $70^{\circ}$ C +  $(18^{\circ}$ C -  $20^{\circ}$ C) =  $68^{\circ}$ C.

# 3.2.15. TSP parameters that can be set from the interface and from Remote Control

Parameter	Settable values	Default values	Note
P01 Boiler type selection	0 ÷ 8	0: PLAY 1: PLAY SV	0 = instantaneous 1 = with boiler thermostat 2 = with cylinder temperature probe 3 = heating only
P02 Gas type selection	0 - 1	0	1. 0 = natural gas 1 = GPL
P03 DHW control type selection	0 - 1	1	0 = flow switch 1 = flowmeter
P04 Regulation coefficient with external probe	0 ÷ 90	30	
P05 Anti Fast Cycles time	0 ÷ 10 min	3	
P06		1	DO NOT MODIFY
P07 Ignition Heating ramp [value 1=10s]	0 ÷ 80	12	
P08 Maximum heating power selection (PREMIX)	P10100	75%	
P09 DHW maximum power selection	P10100	100%	
P10 Minimum power selection	0P09	0%	
P11 Minimum setpoint value selection heating	20P12	25°C	
P12 Selection of the maximum value of the se heating	tpoint P1180	80°C	
P13 DHW setpoint maximum value selection	35 ÷ 67	60°C	
P14 Calibration type selection	0 ÷ 20	0	0 = manu 5 = auto
P15 Boiler power selection	0 ÷ 4	0	0 = 24 kW 1 = 28 kW 2 = 32 kW 3 = 16 kW 4 = non usato
P16			Not used
P17			Not used
P18			Not used
P19 Thermostat (0) / Smoke probe (1)	0 - 1	1	DO NOT MODIFY
P20 DHW setpoint minimum value selection	35 ÷ 50	35	
P21 Selection of low temperature zones	0 - 1	0	0 = high temperature 1 = low temperature
P22			Not used
P23 Pump activation time selection (min): cold zone	0 ÷ 10	0	
P24 Child protection	0 ÷ 1	0	1 = active protection
P25			Not used
P26 Water hammer delay selection (sec)	0 ÷ 3	0	
P27 Preheating OFF temperature selection (°0	C) 30 ÷ 75	45	
P30			Not used
P31 Fan switch-on speed selection) (P31 x 25) rpm	80 ÷ 160	140	
P32 Maximum fan speed selection (P32 x 25) + 2000) rpm	P33255	170	
P33 Minimum fan speed selection (P33 x 25)	30 ÷ 60	36	
P36			Not used
P37 Probe AUX configuration	3 ÷ 3	3	DO NOT MODIFY
P38 Antifreeze temperature selection	0+10	5	
P39 Heating post-circulation time selection	0 ÷ 99 sec x 10	120	
P40 Switch-on delay time selection heating	0 ÷ 60 sec x 5	0	
P41 DHW modulation selection with flowmeter	r 0 ÷ 1	1	0 = not active 1 = active
Select enable / disable DHW pre-heating function	0 ÷ 1	0	0 = disabled 1 = enabled
P43 Selection of DHW activation delay time with solar configuration	0 ÷ 30 sec	0	
P44 Pressure sensor type selection	0 - 1	1	0 = pressure switch 1 = transducer
P45 Anti-legionella function selection (boiler or	nly) 54, 55 ÷ 80	54	54 = disabled 55 ÷ 80 = delivery temperature set

Parameter	Settable values	Default values	Note
P46 Modulating pump speed selection	0 - 1	1	0 = not modulated 1 = automatic 60% ÷ 100%
P47 ΔT selection for pump modulation (°C)	10 ÷ 40	20	
P48 Pump operation selection	0 - 1	0	0 = intermittent 1 = continuous
P49 Enable OEM	0 ÷ 99	0	49 = allows reading / writing of the following parameters
P50			Not used
P51			Not used
P52 Automatic water filling selection	0 - 1	0	0 = not present 1 = present DO NOT CHANGE THIS VALUE
P53			Not used
P54 Minimum DHW flow selection for required activation	10 ÷ 40 (lx10)/min	15 (1,5l/min)	
P55 DHW post-ventilation time selection	1 ÷ 30 sec x 10	3	
P56 DHW post-circulation time selection	0 ÷ 100 sec	30	
P57 Fan speed increase selection	0 ÷ 10%	0	DO NOT MODIFY
P58			Not used
P59			Not used
<b>P60</b> Additional offset to the switch-off temperature after burner ignition	0 ÷ 20	0	DO NOT MODIFY
P61 Smoke outlet temperature alarm selection	20 ÷ 150	105	
P62			Not used
P63			Not used
P64			Not used
P65 Anti-legionella duration selection	5 ÷ 30 min	15 min	Only for boiler with thermostat
P66			Not used
P67			Not used
P68			DO NOT MODIFY - Not used
P69			DO NOT MODIFY - Not used
P80 Heating ΔT selection for circulation block detection	0 ÷ 20	5	0 = disabled
P81 Maximum heating temperature	0 ÷ 150	90	0 = disabled
P82 Selection of maximum acceptable delivery/return ΔT	0 ÷ 50	30	0 = disabled - <b>DO NOT MODIFY</b>
P83 Select months left for maintenance	0 ÷ 255	0	0 = disabled
P98 Reset TSP to factory values	0 - 1	0	
P99 OEM reset to factory values	0 - 1	0	

Table 25 - General table of TSP parameters

#### 3.3. Riempimento dell'impianto

Once all the system connections have been made, the heating circuit can be filled. This operation must be carried out with caution, respecting the following phases:

- open the radiator vent valves and make sure that the automatic valve in the boiler works;
- gradually open the filler cock (fig. 2) making sure that any automatic air vent valves installed on the system work properly;
- close the radiator vent valves as soon as water comes out;
- using the boiler pressure gauge, check that the pressure reaches a value of 1÷1.3 bar;
- close the filling cock and then vent the air again through the radiator vent valves;
- after turning on the boiler and bringing the system up to temperature, stop the pump and repeat the air venting operations;
- let the system cool down and bring the water pressure back to 1÷1.3 bar.

#### **WARNING**

The UNI CTI 8065/89 standard "Water treatment in heating systems for civil use" determines and defines the chemical and chemical-physical characteristics that the water used in heating systems for civil use must have, in particular: "... at in order to optimize their performance and safety, to preserve them over time, to ensure lasting regularity of operation also to the auxiliary equipment and to minimize energy consumption, thus integrating current laws and regulations:...".

Compliance with this rule is a legal obligation (Law 5/3/90 n.46, Presidential Decree 28/8/93 n.412). Therefore provide for this by using specific products suitable for multimetal systems (see paragraph 3.2.4).

#### **ATTENTION**

The pressure sensor does not give electrical consent for burner start-up when the pressure is less than 0.5 bar. The water pressure in the heating system must not be lower than 1 bar; failing that, act on the filling cock with which the boiler is equipped (fig. 2).

The operation must be carried out with the system cold. The digital pressure gauge allows reading the pressure in the heating circuit.

### 3.4. Starting the boiler

## 3.4.1. Preliminary checks

Before starting up the boiler, it is advisable to check that:

- the smoke evacuation duct and the end part are installed in accordance with the instructions: when the boiler is on, no leakage of combustion products from any gasket is tolerated;
- la boiler power supply voltage is 230 V ~ 50 Hz;
- the system is correctly filled with water (pressure gauge 1÷1.3 bar);
- any shut-off cocks on the system pipes are open;
- the mains gas corresponds to the boiler calibration gas: otherwise, convert the boiler to use the available gas (see section "3.7. Adaptation to use of other gases and burner adjustment"): this operation must be carried out by qualified technical personnel;
- the fuel supply cock is open;
- there are no fuel gas leaks;
- the main electric switch upstream of the boiler is on;
- the 3 bar safety valve is not blocked;
- there are no water leaks;
- the condensate drain siphon, fitted in the boiler, drains the condensate correctly and is not blocked.

## 3.4.2. Turning on and off

To switch the boiler on and off, follow the "User Instructions".

#### 3.5. Head available

The speed of the circulator is managed automatically by the electronics, based on the settings made in the boiler parameters. It is possible to choose between two operating modes of the circulator:

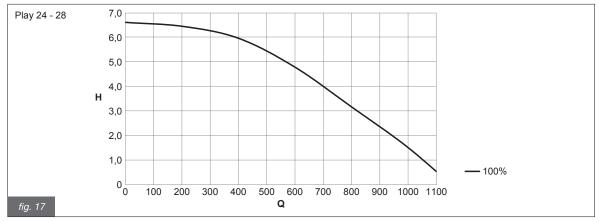
1 "Constant  $\Delta$ T" operation in the operating mode a the circulator speed changes  $\Delta$ T constant the circulator speed changes to keep the  $\Delta$ T between the system delivery and return fixed at a value set in the boiler parameters.

## 2 Fixed speed operation

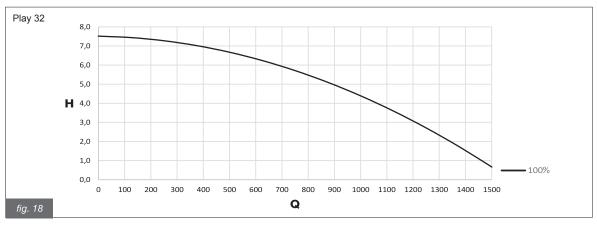
In the fixed speed operating mode, the speed of the circulator remains constant at the maximum value



The circulator is set to constant  $\Delta T$  mode during production. For correct boiler operation, it is recommended not to change the factory setting. If it is necessary to change the settings, contact a Service Centre Authorized.



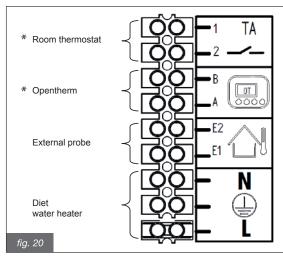
- Q = Flow rate (I/h)
- H = Pavailable head (m.w.c.)



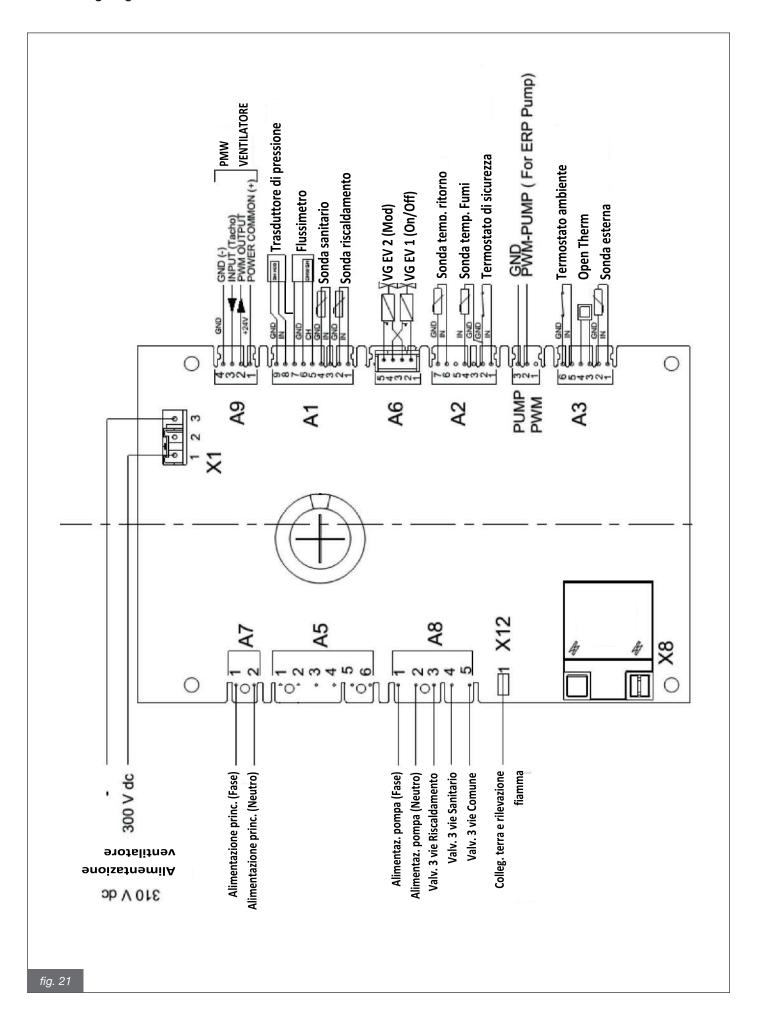
- Q = Flow rate (I/h)
- H = Pavailable head (m.w.c.)

## 3.6. Electrical connections and wiring diagram

## 3.6.2. Models Play 24 - Play 28 - Play 32



\* ATTENTION: in hybrid systems with SMART GEST system, connect the terminals to the electrical panel supplied with the hybrid kits. For more information, refer to the specific SMART GEST manual



## 3.7. Adaptation to the use of other gases and burner adjustment



The boilers are manufactured for the type of gas specifically requested when ordering, which is shown on the packing plate and on the boiler technical data plate.

Any subsequent transformations must be carried out strictly by qualified personnel, who will use the accessories suitably prepared by the manufacturer and will carry out the modification operations and adjustments necessary for a good set-up.

## 3.7.1. Transformations from CNG to LPG

Modify parameter P02 from 0 to 1.

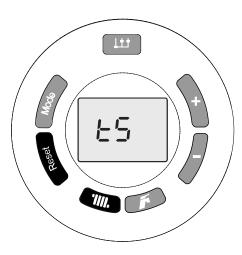
Affix the label indicating LPG regulation on the boiler. Check and, if necessary, modify the parameters P08, P09, P31, P32 and P33 in compliance with what is indicated in Table 24

#### **PARAMETER ACCESS**

Simultaneously pressing, for the cycle time, the keys " and " (B + C fig. 1) you enter the parameter programming mode.

The message "tS" appears on the display for 1 sec, then the TSP P number for 1 sec and then the value for 3 sec.

The first modifiable parameter corresponds to P01.



Press the " • " or " • " keys (F or E fig. 1) to select the desired parameter.

The previously set value appears on the display.

Pressing the " or " or " weys (F or E fig. 1) changes the value of the selected parameter.

By pressing the " and " m" keys (B + C fig. 1) simultaneously for the cycle time, you exit the parameter programming mode. Proceed with the combustion regulation (CO2) as indicated in paragraph 3.7.3.

#### 3.7.2. Transformations from LPG to CNG

Modify parameter P02 from 1 to 0.

Affix the label indicating the methane setting on the boiler. Check and, if necessary, modify the parameters P08, P09, P31, P32 and P33 in compliance with what is indicated in Table 24

#### **PARAMETER ACCESS**

Simultaneously pressing, for the cycle time, the keys " and " (B + C fig. 1) you enter the parameter programming mode.

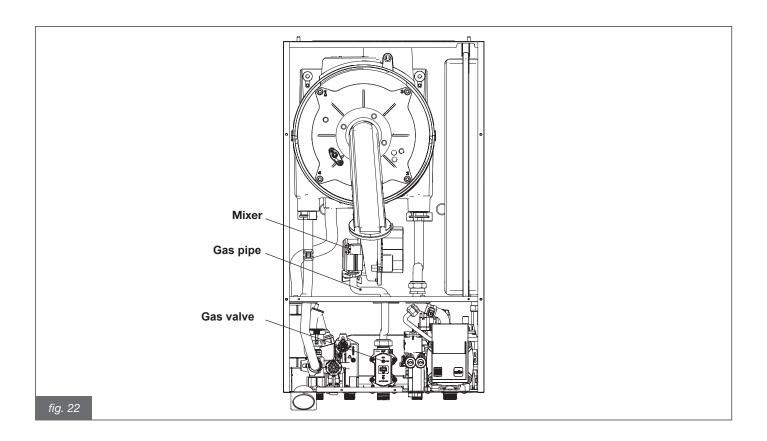
The message "tS" appears on the display for 1 sec, then the TSP P number for 1 sec and then the value for 3 sec.

The first modifiable parameter corresponds to P01.

Pressing the " or " are week (F or E fig. 1) selects the desired parameter.

The previously set value appears on the display.

Proceed with the combustion regulation (CO2) as indicated in paragraph 3.7.3.



## 3.7.3. Check and adjust the gas valve

#### **PREMISE**

The boiler, by means of the "BEST" function, automatically adapts combustion according to the installation conditions, therefore the following procedure must be carried out following the chimney sweep function if the gas calibration values do not correspond to those on the rating plate or if the electronic board, the electrode, the fan or the gas valve have been replaced.

The boiler must be ready for operation, purged of air and with the heating function enabled. The procedure can start in two different ways depending on the value of parameter "P14":

**AUTO** ("P14" = 5): the boiler performs 10 ignition attempts at gradually increasing power;

MANU ("P14" = 0): the boiler makes 5 ignition attempts at the ignition power indicated in parameter "P31".

Once burner ignition has been successfully obtained, the boiler autonomously carries out a cycle at minimum power "P0", ignition "P1" and maximum power "P2" to obtain good flame stability, then in CO2 edit mode to allow manual calibration.

The mode type setting (AUTO or MANU) is entered in the activation code for parameter "P14" in the TSP Parameters menu as described in paragraph "3.2.15. TSP parameters that can be set from the interface and from the Remote Command" on page 48.

The AUTO mode is the recommended one and which allows the greatest freedom to modify the CO<sub>2</sub>

## **OPERATIONS TO BE CARRIED OUT**

Enter the chimney sweep function (see paragraph 3.2.7) and check that the CO2 value falls within the limits of Table 26 both at maximum (Hi) and at minimum (Lo) power (if the system temperature should rise excessively, it is possible open the DHW taps to dissipate the heat; it is not possible to start the procedure with the DHW open).

If not, proceed as described below.

Press the " and " and " keys (A + B fig. 1) simultaneously for the cycle time. Release then immediately press (within 2 seconds) the button " (C fig. 1).

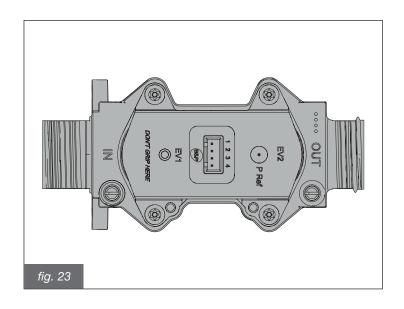
The board confirms the activation of the function and shows "Au-to" or "Ma-nu" on the display according to the defined setting mode.

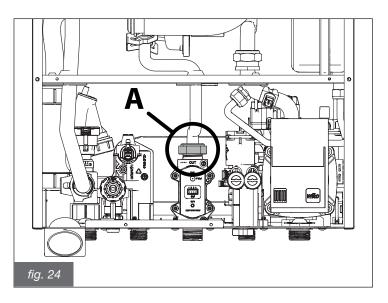
The board will internally generate a request to operate in "calibration" mode and start the power up sequence. If the "Au-to" function is active, the "radiator" symbol will also flash.

Once ignition has been completed, the boiler will carry out a parameter memorization cycle at maximum power, then at ignition power and finally at minimum power. During this phase, the LCD display cyclically shows the cycle time and the delivery temperature. At this point the probe of the fume analyzer can be inserted into the exhaust duct.

## **AUTO ADJUST**

The message "P0" appears on the display and the board is ready to adjust the O2 value at minimum power. With this condition:





VALUES OF CO2 IN THE FUMES				
Fuel	Valore di CO <sub>2</sub> min/max (%)	Intervallo accettabile (%)		
16 kW Methane	9,3 / 9,7	±0,1 %		
16 kW LPG	10,4 / 10,6	±0,1 %		
24 kW Methane	9,3 / 9,8	±0,1 %		
24 kW LPG	10,4 / 10,7	±0,1 %		
28 kW Methane	9,0 / 9,0	±0,1 %		
28 kW LPG	10,5 / 10,5	±0,1 %		
32 kW Methane	8,4 / 10,6	±0,1 %		
32 kW LPG	10,5 / 10,6	±0,1 %		

Table 26 - CO2 values

DIAPHRAGM DIAMETER			
Methane / LPG (mm)			
16 kW	5,6		
24 kW	5,6		
28 kW	6,0		
32 kW	6,3		

Table 27 - Diaphragm diameters

Premere, per il tempo ciclo, il tasto " 🗖 " ( <b>D</b> fig. 1) per attivare il menu O <sub>2</sub> .
Premendo i tasti "
Press the " 🗖 " key to confirm and the " 🛨 " key to move on to setting the maximum "P2". Adjust the value as per the table Confirm with the " 🗗 " key.
Press the " em" key (without waiting for the cycle time) to end the procedure and memorize the settings made.
ADJUSTMENT MANU  The message "P0" appears on the display and the board is ready to adjust the CO2 value at minimum power.  With this condition:  "D" (D fig. 1) is used to switch between the Power / CO2 menu (for the cycle time).  "D" or "D" (F or E fig. 1) are used to increase / decrease the CO2 value or change the system power (if the flame symbol flashes). For the cycle time, press the "D" key (D fig. 1) to activate the CO2 menu.

🖶 " or " 🖃 " (F or E fig. 1) are used to increase / decrease the O2 value or change the system power (if the flame symbol flashes).

By pressing the " our " " weys (F or E fig. 1) it will be possible to modify the current value of RFlame set and correct the CO<sub>2</sub>.

Press the key " " (for the cycle time) to confirm the setting at "PO" and " " " (for the cycle time) to pass to the second level to be adjusted "P1". Proceed with the CO<sub>2</sub> calibration by following the steps taken to adjust the idle.

Press the " " key to confirm and the " " " key to move on to setting the maximum "P2". Adjust the value as per the table Confirm.

Press the " wey to confirm and the " wey to move on to setting the maximum "P2". Adjust the value as per the table Confirm with the " wey.

Press the " em " key (without waiting for the cycle time) to end the procedure and memorize the settings made.

It is possible to exit the adjustment function at any time by pressing the " exit (A fig. 1) for the cycle time.

## 4. Boiler testing

Each boiler is accompanied by a certificate of inspection.

' (D fig. 1) is used to switch between the Power / O2 menu (for cycle time).

Compiling the inspection certificate by an Authorized Assistance Center allows you to enjoy the advantages offered by the insurance formula provided by the manufacturer as specified in the inspection certificate itself.

Filling out the inspection certificate is FREE.

#### 4.1. Preliminary checks

Before testing the boiler, it is advisable to check that:

- the smoke evacuation duct and the terminal part are installed in accordance with the instructions: when the boiler is on, no leakage of combustion products from any gasket is tolerated;
- the boiler power supply voltage is 230 V 50 Hz;
- the system is correctly filled with water (pressure gauge 1÷1.3 bar);
- any shut-off cocks on the system pipes are open;
- the mains gas corresponds to the boiler calibration gas: otherwise, convert the boiler to use the available gas (see section 3.7): this operation must be carried out by qualified technical personnel;
- the fuel supply cock is open;
- there are no fuel gas leaks;
- the main electric switch upstream of the boiler is on;
- the 3 bar safety valve is not blocked;
- there are no water leaks;
- the condensate drain siphon, fitted in the boiler, drains the condensate correctly and is not blocked.



If the boiler is not installed in compliance with the laws and regulations in force, notify the person in charge of the system and do not test the boiler.

## 4.2. Turning on and off

Follow the "User Instructions" to switch the boiler on and off.

#### 5. Maintenance

Maintenance (and repair) operations must be carried out by qualified personnel.

For maintenance and repair operations, the manufacturer advises its customers to contact the network of its Authorized Assistance Centers which are trained to perform the aforementioned operations in the best possible way.

Proper maintenance of the boiler allows it to work in the best conditions, respecting the environment and in complete safety for people, animals and things.

### 5.1. Maintenance program

Maintenance operations must be performed at least once a year.



Before carrying out any maintenance operation which involves replacing components and/or cleaning the inside of the boiler, disconnect the appliance from the mains power supply.

The maintenance operations include control and cleaning operations as specified below:

#### **Control operations:**

- general check of the integrity of the boiler;
- check the tightness of the gas circuit of the boiler and of the gas supply network to the boiler;
- boiler supply pressure control;
- boiler ignition control;
- control of the combustion parameters of the boiler by analysis of the fumes;
- check the integrity, good state of conservation and tightness of the flue gas pipes;
- check the operation of the combustion fan;
- check the integrity of the safety devices of the boiler in general;
- check that there are no water leaks and that there are no oxidations in the boiler fittings;
- checking the efficiency of the system safety valve;
- expansion vessel charge control;
- control of the correct evacuation of the condensate by the condensate drain siphon fitted in the boiler.

#### Cleaning operations:

- general internal cleaning of the boiler;
- cleaning of the gas nozzles;
- cleaning of the air intake and fume evacuation circuit;
- cleaning of the heat exchanger;
- cleaning the siphon and the condensate drain pipes.

If you are intervening on the boiler for the first time, check:

- the declaration of conformity of the system;
- the installation booklet;
- the suitability of the room for installation;
- the smoke evacuation channels, their diameters and lengths;
- the correct installation of the boiler according to the instructions contained in this booklet.

If the appliance is unable to function correctly and in the absence of danger to people, animals and things, notify the system manager and fill in a declaration to that effect.

## 5.2. Combustion analysis

The control of the combustion parameters of the boiler for the evaluation of the efficiency and of the polluting emissions must be carried out according to the laws and regulations in force.

## 6. Decommissioning, disassembly and disposal



If you decide to definitively deactivate the boiler, have the deactivation, disassembly and disposal operations carried out exclusively by qualified personnel.

The user is not authorized to carry out these operations himself.

The decommissioning, disassembly and disposal operations must be carried out with the boiler cold, after having disconnected it from the gas and electricity mains.

This appliance contains potentially recyclable materials which can be reused. The components are easily separable and in this way can be sorted and subjected to recycling or disposal.

- Electrical and electronic components that are no longer usable must be collected separately and recycled in an environmentally
- compatible manner.
- Do not dispose of the product or accessories with household waste. Make sure that the product and all accessories are disposed of in a professional manner.
- Always observe all the regulations in force.

#### **ATTENTION**

Gas boilers are electrical and electronic devices (EEE) and when they are decommissioned they become electrical and electronic waste (WEEE): as such they must be disposed of in compliance with current legislation.

Gas boilers are classified as domestic appliances and must be disposed of together with washing machines, dishwashers and dryers (WEEE R2 waste).

The dismantling of gas boilers and their disposal through channels not specifically provided for by law is prohibited by law.

The user has the right to be able to confer the decommissioned gas boiler, intact in its construction, in the ecological island of the municipality in which he is a resident.

The installer and the user have the right to be able to deliver the decommissioned gas boiler, intact in its construction, on a one-to-one basis, to the point of sale where they purchase the new gas boiler.

## 7. Table of technical problems

STATUS OF THE BOILER	INCONVENIENCE
E 02	The water pressure in the heating system is too low
E 03	System pressure too close to the maximum limit.
E 04	DHW probe fault
E 05	Delivery probe failure
E 14	Smoke probe failure
E 13	Smoke probe intervention
E 15	Fan failure (feedback / power)
E 06 + reset	No ignition
E 07 + reset	The safety thermostat has tripped
E 08 + reset	Flame error
E 09	No water circulation in the system
E 16	Return probe failure
E 20	System overtemperature
E 21	Delta T CH/Ret > TSP82 (1)
E 11	Gas valve modulator is disconnected
E 12	Storage tank probe fault
E 19	DHW flowmeter error
E 28 + reset	Exhausted attempts to unlock from the boiler interface
E 37	Supply voltage too low
E 40	Incorrect network frequency
E 41 + reset	Flame loss for more than 6 consecutive times
E 42	Keys fault
E 43	OT communication error
E 44 + reset	SGV opening time without flame error
E 62	Combustion calibration request
E 96	Smoke outlet obstruction
E 72 + reset	The $\Delta T$ between delivery and return does not fall within the limit conditions
E 88 + reset	SGV management circuit failure
E 80 + reset	SGV opening problem
E 81 + reset	Shutdown due to combustion problems on ignition (2)
E 87 + reset	SGV circuit problem
E 91 + reset	Flame loss for more than 6 consecutive times (with max ignition correction ON)
E 98 + reset	SW error / board error
E 99 + reset	Generic fault

Table 28 - Table of technical problems

- (1) This control is activated 120 seconds after the activation of the pump and only during the request for CH (without domestic hot water).
- (2) Fault 81 can be caused by an obstruction in the flue gas outlet. In this case it is advisable to contact the assistance center before unlocking the boiler.

NOTE:	

NOTE:	



**SUBJECT:** Declaration of conformity for condensing heat generators

The undersigned A2B ACCORRONI E.G., with headquarters in Osimo (AN), Via Ancona n.37

## DECLARE

under its sole responsibility, that the wall-mounted condensing boilers called PLAY (all versions and all powers) meet the provisions on tax deductions for energy redevelopment costs according to law 205/2017 (2018 budget law).

It also declares that they have an efficiency **eta s** greater than 90% which corresponds to the energy efficiency class  $\bf A$  required by EU delegated regulation N° 811/2013 and EU N° 813/2013.

Osimo, 20/12/2018

The legal representative

Actamira Lorenza