



Low temperature wall mounted boiler

BRAVA SLIM 30 BFR

INSTALLATION AND SERVICING INSTRUCTIONS



EN

Gas Safety Certified AS/NZS 4552
LN: SAI-400197

CAUTION

This product must be installed exclusively by professionally qualified personnel in accordance with the requirements of the standards AS/NZS 5601, AS/NZS 3500, AS/NZS 3000 (current version) of the local gas, electricity authorities and other relevant legislation.

SAFETY WARNINGS AND REGULATIONS



WARNINGS

- After having removed the packaging make sure that the product supplied is integral and complete in all its parts. If this is not the case, please contact the Dealer who sold the appliance.
- The appliance must be used as intended by **Sime** who is not responsible for any damage caused to persons, animals or things, improper installation, adjustment, maintenance and improper use of the appliance.
- In the event of water leaks, disconnect the appliance from the mains power supply, close the water mains and promptly inform professionally qualified personnel.
- Periodically check that the operating pressure of the water heating system when cold is **1-1.2 bar (100-120 kPa)**. If this is not the case, increase the pressure or contact professionally qualified personnel.
- If the appliance is not used for a long period of time, at least one of the following operations must be carried out:
 - *set the main system switch to "OFF";*
 - *close the gas and water valves for the water heating system.*
- In order to ensure optimal appliance operations **Sime** recommends that maintenance and checks are carried out **TWICE A YEAR**.



WARNINGS

- **It is recommended that all operators** read this manual carefully in order to use the appliance in a safe and rational manner.
- **This manual** is an integral part of the appliance. It must therefore be kept for future reference and must always accompany the appliance in the event the appliance is transferred or sold to another Owner or User or is installed on another system.
- **Installation and maintenance** of this appliance must be carried out by a qualified company or by a professionally qualified technician, or authorised person, in accordance with the instructions contained in the manual. The company or technician will, at the end of installation operations, issue a statement of compliance with national and local Technical Standards and Legislation in force
- This appliance is not suitable for pool or SPA heating

RESTRICTIONS



IT IS FORBIDDEN

- Do not allow appliance to be used by children or unassisted disabled persons.
- Do not use electrical devices or appliances such as switches, electrical appliances etc if you can smell fuel. If this should happen:
 - *open the doors and windows to air the room;*
 - *close the gas isolation device;*
 - *promptly call for professional assistance.*
- Do not touch the appliance with bare feet or with any wet part of the body.
- Do not carry out any technical intervention or cleaning operation before having disconnected the appliance from the mains power by setting the main switch to "OFF", and closing the gas supply.
- Do not modify the safety or adjustment devices without authorization and instructions from the manufacturer.
- Do not block the condensate drain (if present).
- Do not pull, detach or twist the electrical cables coming out of the appliance even if the appliance is disconnected from the mains power supply.
- Do not expose the boiler to atmospheric agents. These boilers can also be installed in partially covered areas, as per EN 15502, with a maximum ambient temperature of 60°C and a minimum ambient temperature of - 5°C. It is recommended that the boiler is installed below weathered roofs, on the balcony or in a protected niche, to protect it from exposure to weathering agents (rain, hail and snow). The boiler is equipped as standard with an antifreeze function.
- Do not block or reduce the size of the ventilation openings of the room where the appliance is installed, if present.
- Remove the mains power and gas supply from the appliance if the external temperature could fall below ZERO (risk of freezing).
- Do not leave containers with flammable substances in the room where the appliance is installed.
- Do not leave packaging material around since it could be dangerous. Therefore dispose of it as prescribed by legislation in force.
- Do not install the boiler in special environments that may limit its optimum operation (e.g. marine environment).

RANGE

| MODEL | CODE |
|------------------------------------|---------|
| Brava Slim 30 BFRi - (NATURAL GAS) | 8112540 |
| Brava Slim 30 BFRe - (NATURAL GAS) | 8112541 |

COMPLIANCE

Our company declares that **Brava Slim 30 BFR** boilers comply with the following Australian Standards

- AS/NZS 5601 Gas Installations
- AS/NZS 3500 Water services, Sanitary plumbing and drainage
- AS/NZS 3000 Electrical installations, Buildings, structures and premises



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Gas Safety
Certified

License Number: **SAI-400197**.

SYMBOLS



WARNING

To indicate actions which, if not carried out correctly, can result in injury of a general nature or may damage or cause the appliance to malfunction; these actions therefore require particular caution and adequate preparation.



ELECTRICAL HAZARD

To indicate actions which, if not carried out correctly, could lead to injury of an electrical nature; these actions therefore require particular caution and adequate preparation.



IT IS FORBIDDEN

To indicate actions which **MUST NOT BE** carried out.



CAUTION

To indicate particularly important and useful information.

TABLE OF CONTENTS

USER INSTRUCTIONS

| | |
|-------------------|---|
| TABLE OF CONTENTS | 5 |
|-------------------|---|

DESCRIPTION OF THE APPLIANCE

| | |
|-------------------|----|
| TABLE OF CONTENTS | 13 |
|-------------------|----|

INSTALLATION AND SERVICING INSTRUCTIONS

| | |
|-------------------|----|
| TABLE OF CONTENTS | 21 |
|-------------------|----|

USER INSTRUCTIONS

TABLE OF CONTENTS

| | | | | | |
|----------|---|----------|----------|---|-----------|
| 1 | USING THE BOILER BRAVA SLIM 30 BFR | 6 | 3 | MAINTENANCE | 9 |
| 1.1 | Control panel | 6 | 3.1 | Adjustments | 9 |
| 1.2 | Preliminary checks | 7 | 3.2 | External cleaning | 9 |
| 1.3 | Ignition | 7 | 3.2.1 | <i>Cleaning the cladding</i> | 9 |
| 1.4 | Adjusting the heating temperature | 7 | | | |
| 1.5 | Fault / malfunction codes | 8 | | | |
| 2 | SHUTDOWN | 8 | 4 | DISPOSAL | 9 |
| 2.1 | Temporary shutdown | 8 | 4.1 | Disposal of the equipment (European Directive 2002/96/CE) | 9 |
| 2.2 | Shutting down for long periods | 8 | 5 | HANDOVER INSTRUCTIONS | 10 |
| | | | 6 | SERVICE RECORDS | 10 |

1 USING THE BOILER BRAVA SLIM 30 BFR

1.1 Control panel

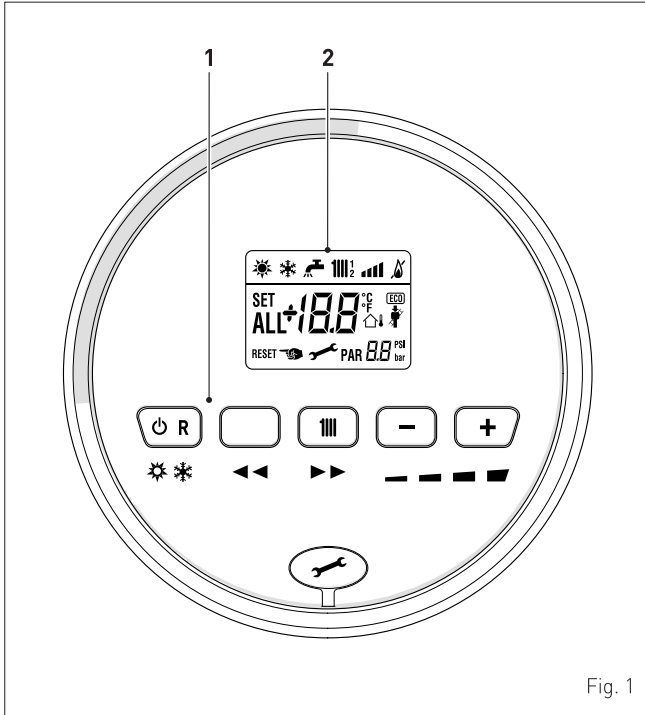


Fig. 1

1 FUNCTIONAL BUTTONS

⏻ R If pressed once or more than once for at least 1 second during normal operation, this button allows the user to change the boiler operating mode in a cyclical sequence (Stand-by – Summer – Winter). If the boiler is experiencing a fault which can be reset, it allows boiler operation to be unblocked. (Note: the "SUMMER" mode is not applicable to this boiler).

◀◀ In "parameter setting", the user can scroll through the parameter index (decreasing) by pressing this button.

|||| During normal operation, pressing this button displays the flow temperature set point which can be between 20 and 80°C. In "parameter setting", the user can scroll through the parameter index (increasing) by pressing this button.

- During normal operation, pressing this button allows the user to reduce the flow temperature set point. In "parameter setting/display", the user can modify the parameter setting or value (decreasing) by pressing this button.

+ During normal operation, pressing this button allows the user to increase the flow temperature set point. In "parameter setting/display", the user can modify the parameter setting or value (increasing) by pressing this button.

🔧 Programming connector cover plug.

NOTE: pressing any one of these buttons for more than 30 seconds generates a fault on the display without preventing boiler operation. The warning disappears when normal conditions are restored.

2 DISPLAY

☀️ "SUMMER". The symbol for "Summer" mode is displayed. If the symbols ☀️ and ❄️ are flashing, this indicates that the chimney sweep function is active.

❄️ "WINTER". This symbol appears when the boiler is operating in "Winter" mode. If no operating modes have been enabled both symbols ☀️ and ❄️ will be off.

🔧 "RESET REQUIRED". The message indicates that after having repaired the fault, normal boiler operation can be restored by pressing the button ⏻ R.

|||| "HEATING". This symbol lights up during heating operation or during the "chimney sweep function" It flashes during the selection of the heating set point.

🔥 "BLOCK" DUE TO NO FLAME.

🔥 "FLAME PRESENCE".

|||| "POWER LEVEL". This indicates the power level at which the boiler is operating.

PAR "PARAMETER". This indicates that the user may be in parameter setting/display, or "info" or "counter", or in "activated alarms" (history).

ALL "ALARM". This indicates that a fault has occurred. The number specifies the cause which generated the alarm.

🔧 "CHIMNEY SWEEP". This indicates that the "chimney sweep function" has been activated.

ECO "ECO", ALTERNATIVE ENERGY SOURCES. Where active, it indicates that there is a solar system available.

👉 CAUTION

- Access to the control panel of model **Brava Slim 30 BFR** is possible after loosening screw (1) and removing panel (2).
- On completion of the operations, refit the panel on the control panel and secure fully.

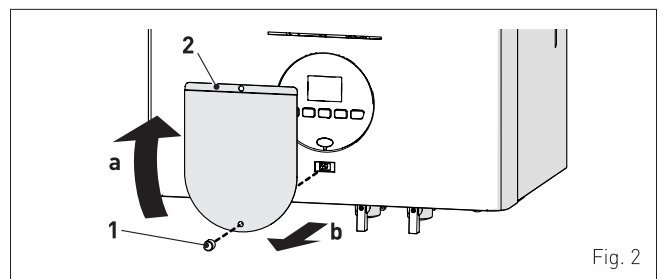


Fig. 2

1.2 Preliminary checks

Commissioning of the **Brava Slim 30 BFR** boiler must be carried out by professionally qualified technicians, after which the boiler can operate automatically. It may, however, be necessary for the user to start the appliance autonomously without involving a technician: for example, after a holiday.

First of all check that the gas isolation and water system valves are open.

1.3 Ignition

After having carried out the preliminary checks, perform the following to start the boiler:

- set the main system switch to "ON" in order for the display to show the pressure level in the system during refilling
- **make sure that the operating mode is set to "Stand-by"**; if this is not the case, press the button until "Stand-by" mode has been selected

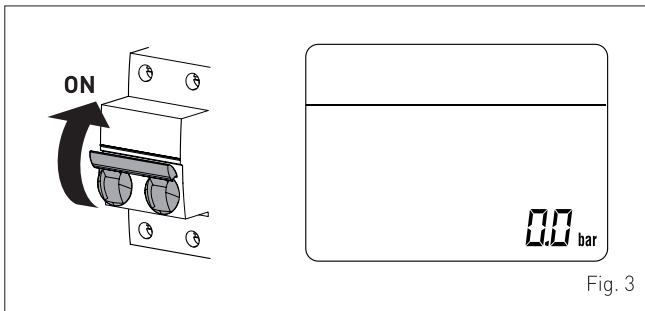


Fig. 3

- on the display (1), check that the heating system pressure when cold is **1-1.2 bar (100-120 kPa)**. Otherwise, open the filling valve, which is to be prearranged on the system return, and fill until a pressure of **1-1.2 bar (100-120 kPa)** is shown on the display (1)
- close the filling valve

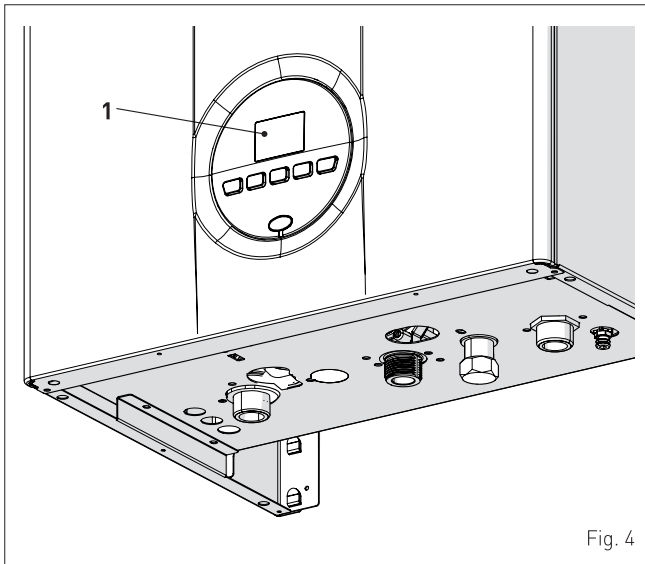
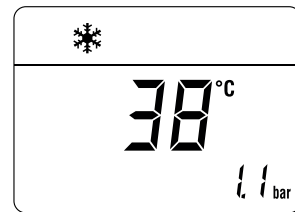


Fig. 4

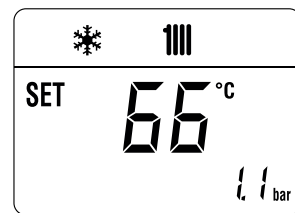
- select the "WINTER" operating mode by pressing the button twice. the value of the delivery sensor detected at that moment will appear on the display



- set the room thermostat to the required temperature, or if the system is equipped with a timed programmer or external temperature controller, check that this is ON and set accordingly.

1.4 Adjusting the heating temperature

If the heating temperature is to be increased or decreased, press the button followed by the buttons **+** or **-** until the desired temperature is reached. The temperature can be set to between 20 and 80°C.



1.5 Fault / malfunction codes

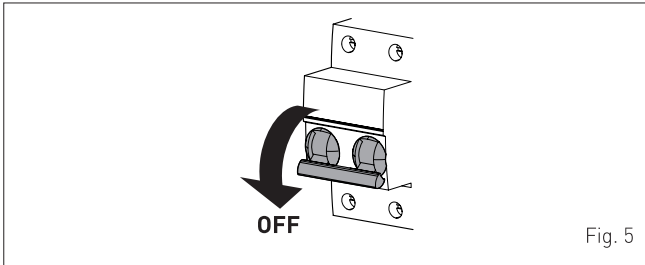
If a fault/malfunction is detected during boiler operation, the message "ALL" will appear on the display followed by the fault code (eg. "06" - no flame detected).

If the message **RESET** also appears, press and hold the button for more than 3 seconds and check that the normal operating conditions are restored.



If this operation is not successful, **ONLY ONE MORE ATTEMPT** can be made, therefore:

- close the gas isolation valve
- set the main system switch to "OFF"
- contact the Qualified Technical Personnel.



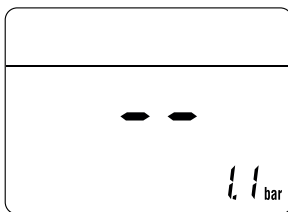
CAUTION

In case of failure, the fault code appears on the display. The list of all fault codes, with their descriptions, can be found in the section **Commissioning**.

2 SHUTDOWN

2.1 Temporary shutdown

If the user wishes to interrupt boiler operation, press and hold the button for at least one second, once if in "WINTER mode" or twice if in "SUMMER mode" . "- -" will appear on the display.



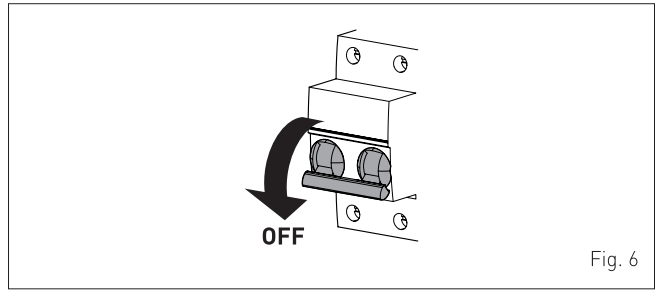
ELECTRICAL HAZARD

The boiler will still be powered.

If the user is away temporarily, for a weekend, short trip etc and if the outside temperature is at ZERO:

- press and hold the button once if in "WINTER mode" or twice if in "SUMMER mode" to put the boiler into stand-by

- set the main system switch to "OFF"
- close the gas valve.



CAUTION

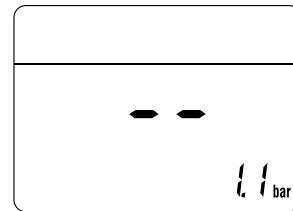
If the outside temperature might fall below ZERO, since the appliance is equipped with an "antifreeze function" and the "anti-freeze kit to -15°C":

- PUT THE BOILER INTO STAND-BY
- leave the main system switch set to "ON" (boiler is powered)
- leave the gas valve open.

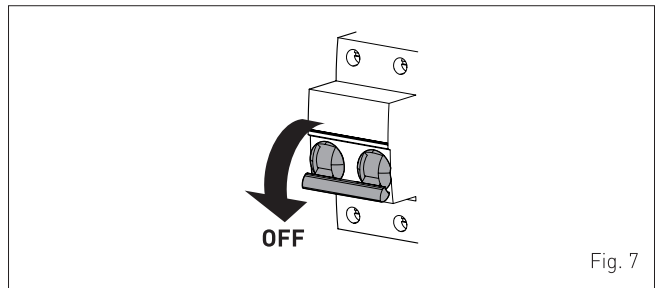
2.2 Shutting down for long periods

If the boiler is to be left unused for a long period, the following operations need to be carried out:

- press and hold the button for at least 1 second, once if in "WINTER mode" or twice if in "SUMMER mode" to put the boiler into stand-by "- -" will appear on the display



- set the main system switch to "OFF"



- close the gas valve
- close the heating system isolation valves
- drain the heating system if there is the risk of freezing.



CAUTION

Contact the Qualified Technical Personnel if the procedure described above cannot be easily carried out.

3 MAINTENANCE

3.1 Adjustments

For the appliance to operate correctly and efficiently it is recommended that the User calls upon the services of a Professionally Qualified Technician to carry out **BI-ANNUAL** maintenance.



CAUTION

Maintenance interventions must **ONLY** be carried out by professionally qualified personnel who will follow the indications authorised in the **INSTALLATION AND MAINTENANCE INSTRUCTIONS**.

3.2 External cleaning

3.2.1 Cleaning the cladding

When cleaning the cladding, use a cloth dampened with soap and water or alcohol for stubborn marks.



IT IS FORBIDDEN

to use abrasive products.

4 DISPOSAL

4.1 Disposal of the equipment (European Directive 2002/96/CE)

Once it reaches the end of its operating life, the equipment **MUST BE RECYCLED** in line with current legislation.

It can be handed over to recycling centres, if there are any, or to retailers that offer this service.


Recycling prevents potential damage to the environment and health. It allows to recover a number of recyclable materials, with considerable savings in terms of money and energy.



IT IS FORBIDDEN

dispose of the product with urban waste.

5 HANDOVER INSTRUCTIONS

| N° | Description |  When done |
|----|---|--|
| 1 | Fill in all the details on this Boiler manual. | |
| 2 | Instruct the owner /users on the correct operation of the heating system, including how to turn the systems on and off, adjust the time and temperature settings. | |
| 3 | Instruct how to turn the heating system off in summer and on for winter. | |
| 4 | Locate all major components, understand their functions and how to turn them on and off, their functions and how to check and turn them on or off. Simple fault resolution i.e. power on. | |
| 5 | Instruct how to check and remove air in the radiators. Provide a bleed key. | |
| 6 | Turn ON gas, bleed air out at the isolation valve unions. Reseal and check for gas leaks. Turn gas OFF. | |
| 7 | Underline the importance of these SERVICE RECORDS, keeping them safe & accessible. | |
| 8 | Recommend that the boiler should be serviced at/ before the start of winter next year and then every two years. | |

6 SERVICE RECORDS

| | | |
|----------------------|------|-----------------|
| Service – 1 – Year 1 | Date | |
| Service technician | Name | PIC Licence No. |
| Service Company | | |
| Contact phone number | | |
| Work Completed | | |
| Notes | | |

| | |
|----------------------|----------------------|
| Service – 2 – Year 3 | Date |
| Service technician | Name PIC Licence No. |
| Service Company | |
| Contact phone number | |
| Work Completed | |
| Notes | |
| Service – 3 – Year 5 | Date |
| Service technician | Name PIC Licence No. |
| Service Company | |
| Contact phone number | |
| Work Completed | |
| Notes | |
| Service – 4 – Year 7 | Date |
| Service technician | Name PIC Licence No. |
| Service Company | |
| Contact phone number | |
| Work Completed | |
| Notes | |

| | |
|-----------------------|----------------------|
| Service – 5 – Year 9 | Date |
| Service technician | Name PIC Licence No. |
| Service Company | |
| Contact phone number | |
| Work Completed | |
| Notes | |
| Service – 7 – Year 11 | Date |
| Service technician | Name PIC Licence No. |
| Service Company | |
| Contact phone number | |
| Work Completed | |
| Notes | |
| Service – 8 – Year 13 | Date |
| Service technician | Name PIC Licence No. |
| Service Company | |
| Contact phone number | |
| Work Completed | |
| Notes | |

DESCRIPTION OF THE APPLIANCE

TABLE OF CONTENTS

| | | | |
|----------|---------------------------------------|-----------|------------------------------|
| 7 | DESCRIPTION OF THE APPLIANCE | 14 | |
| | 7.1 Characteristics | 14 | 7.5 Technical features |
| | 7.2 Check and safety devices | 14 | 17 |
| | 7.3 Identification | 14 | 7.6 Main water circuit |
| | 7.4 Structure | 15 | 18 |
| | 7.4.1 Brava Slim 30 BFRi | 15 | 7.7 Sensors |
| | 7.4.2 Brava Slim 30 BFRe | 16 | 18 |
| | | | 7.8 Expansion vessel |
| | | | 18 |
| | | | 7.9 Circulation pump |
| | | | 18 |
| | | | 7.10 Control panel |
| | | | 19 |
| | | | 7.11 Wiring diagram |
| | | | 20 |

7 DESCRIPTION OF THE APPLIANCE

7.1 Characteristics

Brava Slim 30 BFR are last generation low temperature wall mounted boilers which **Sime** has produced for heating ONLY. The model **30 BFRi** is designed for installation in rooms, while model **30 BFRe** is designed specifically for outdoor installation, protected against atmospheric agents. The main elements choices made by **Sime** for the **Brava Slim 30 BFR** boilers are:

- the atmospheric burner combined with a copper heat exchanger for heating and a rapid heat exchanger for DHW
- the sealed combustion chamber, with respect to the room where the boiler is installed
- the command and control microprocessor electronic board provides efficient management of both heating and hot water production. It can also be connected to a remote control with an Open Therm protocol or to room thermostat and/or external sensor. If connected to an external sensor, the boiler temperature varies on the basis of the external temperature according to a selected optimal climatic curve providing significant energy and economic savings.

Other special features of the **Brava Slim 30 BFR** boilers are:

- the anti-freeze function which activates automatically if the temperature of the water inside the boiler falls below the threshold of the value set at parameter "PAR 10" and, if there is an external sensor, if the external temperature falls below the threshold of the value set at parameter "PAR 11"
- the anti-blocking function of the pump and diverter valve, this activates automatically every 24 hours if no request for heat has been made
- the chimney sweep function lasts 15 minutes and makes the job of the qualified technician easier when measuring the parameters and combustion efficiency
- screen display of the operating and self-diagnostic parameters with error code display when the fault occurs. This makes repair interventions easier and allows appliance operation to be restored correctly.

7.2 Check and safety devices

The **Brava Slim 30 BFR** boilers are equipped with the following check and safety devices:

- thermal safety thermostat 100°C
- 3 bar (300 kPa) relief valve
- heating water pressure transducer
- delivery sensor.

NOTE: the proper fan operation of this boiler is checked electronically from the control panel. Then the use of an air pressure switch is not required.



IT IS FORBIDDEN

to commission the appliance with safety devices which do not work or which have been tampered with.



WARNING

Safety device may only be replaced by professional qualified personnel using **Sime** original spare parts.

7.3 Identification

The **Brava Slim 30 BFR** boilers can be identified by means of:

- 1 Packaging label:** this is located on the outside of the packaging and provides a code, the serial number of the boiler and the bar code
- 2 Technical Data Plate:** this is located inside the front panel of the boiler and provides the technical specification, appliance performance and any other information required by law.

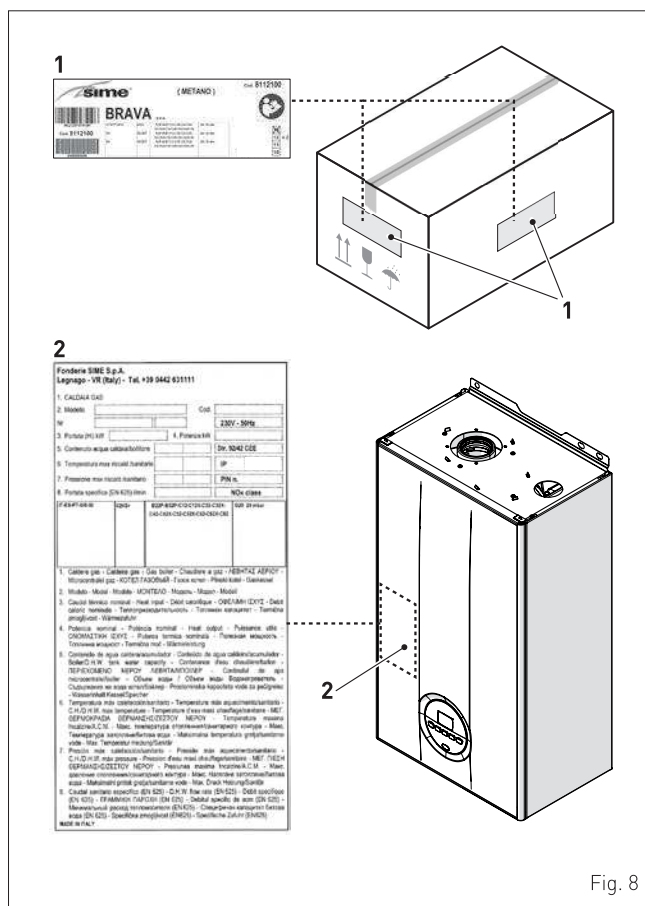


Fig. 8

KEY:

- 1 Packaging label
- 2 Technical Data Plate



CAUTION

Tampering with, removing or failing to display the identification plate or carrying out any other operation which does not allow safe identification of the product or which may hinder installation and maintenance operations.

7.4 Structure

7.4.1 Brava Slim 30 BFRi

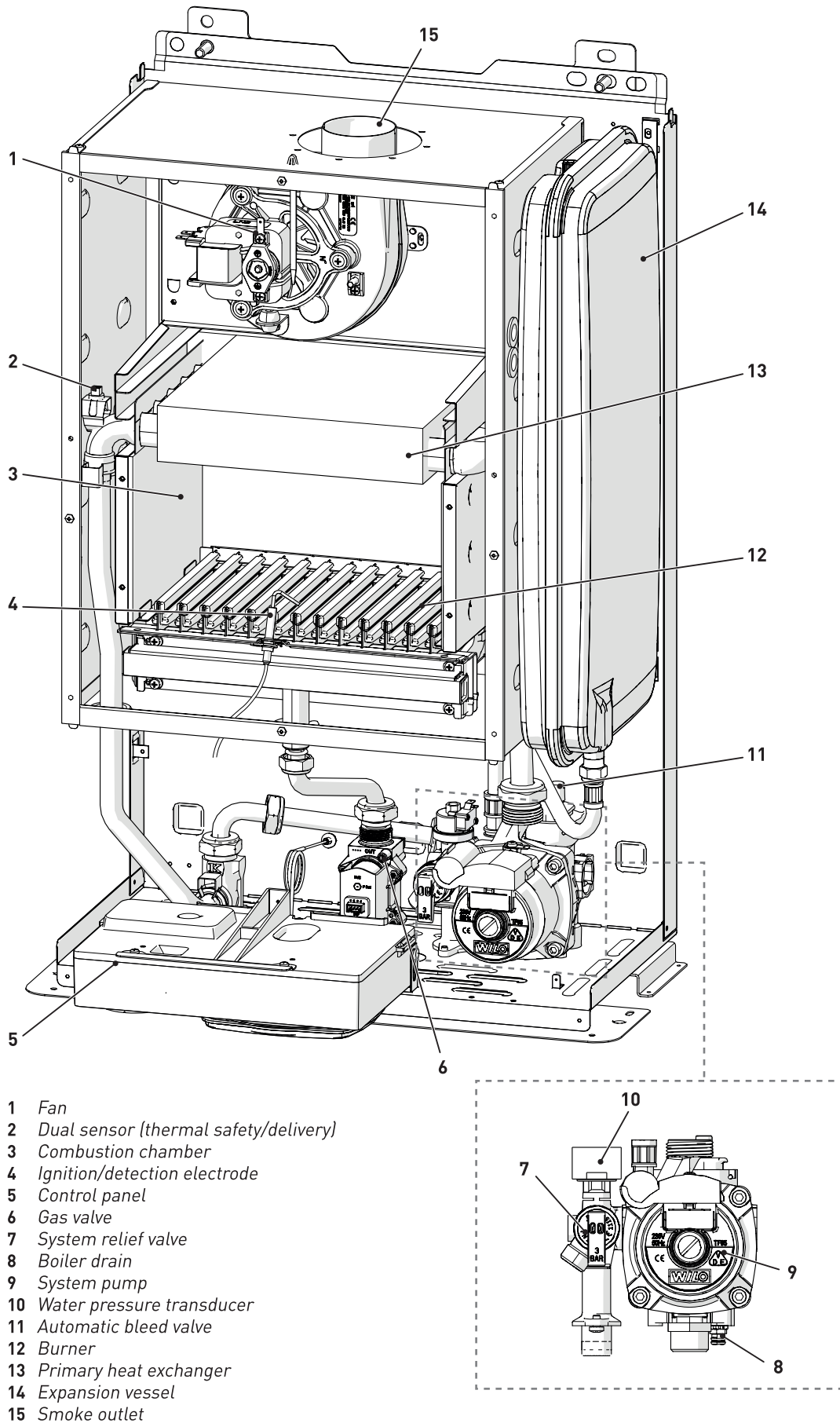
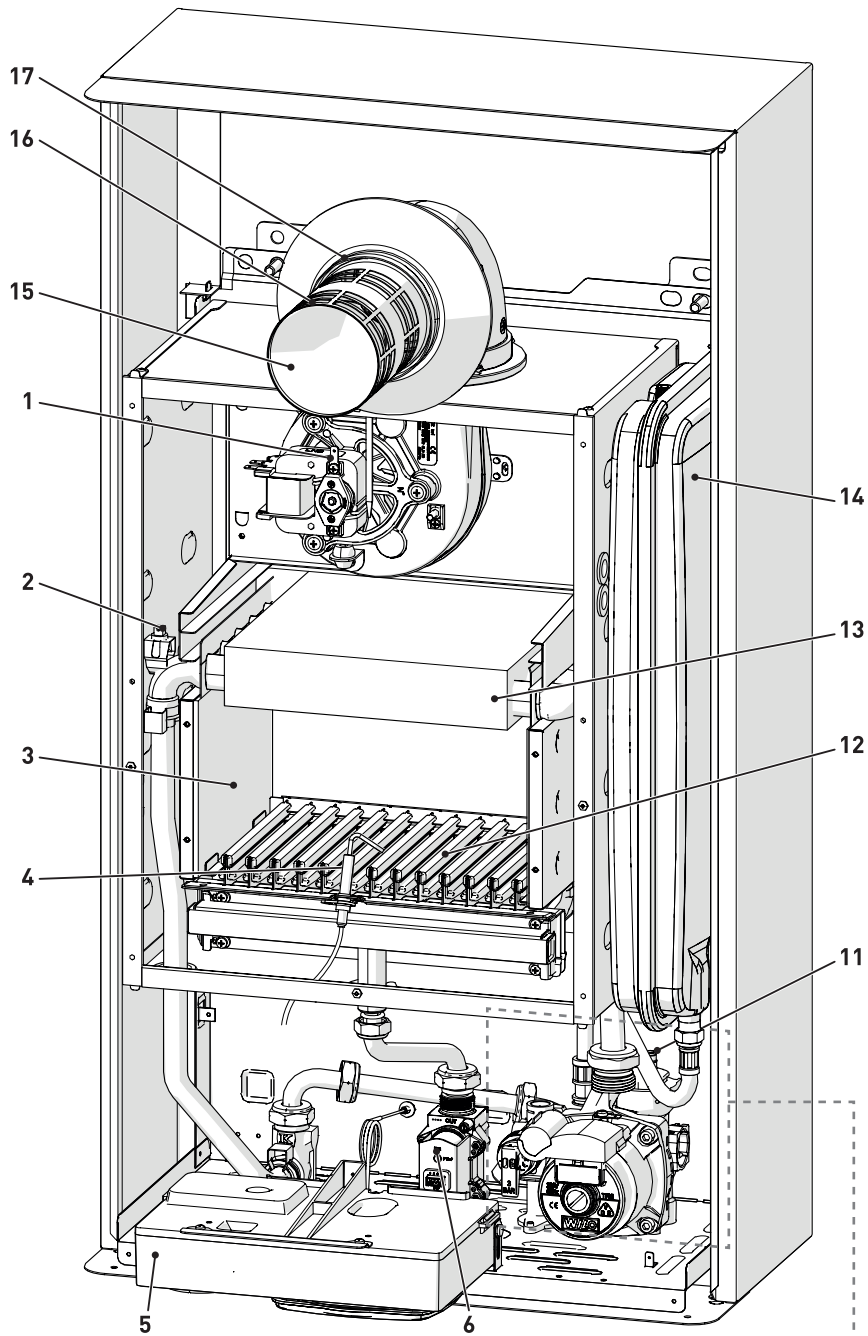


Fig. 9

7.4.2 Brava Slim 30 BFRé



- 1 Fan
- 2 Dual sensor (thermal safety/delivery)
- 3 Combustion chamber
- 4 Ignition/detection electrode
- 5 Control panel
- 6 Gas valve
- 7 System relief valve
- 8 Boiler drain
- 9 System pump
- 10 Water pressure transducer
- 11 Automatic bleed valve
- 12 Burner
- 13 Primary heat exchanger
- 14 Expansion vessel
- 15 Coaxial duct
- 16 Smoke outlet
- 17 Air inlet

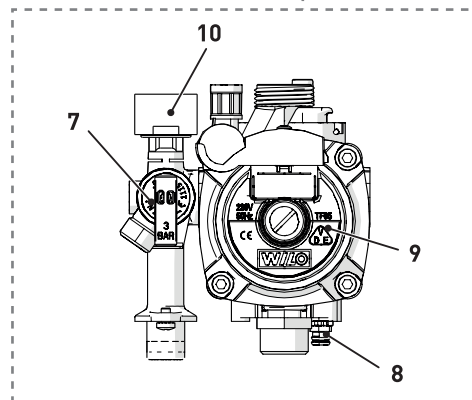


Fig. 10

7.5 Technical features

| DESCRIPTION | Brava Slim BFR | |
|--|-----------------------------|------------------------|
| | 30 BFRi - 30 BFRe | |
| CERTIFICATIONS | | |
| Country of intended installation | AUS | |
| Fuel | NATURAL GAS / UNIVERSAL LPG | |
| SAI GLOBAL number | SAI-400197 | |
| Class NO _x | 5 (< 70 mg/kWh) | |
| HEATING PERFORMANCE | | |
| HEAT INPUT | | |
| Nominal | MJ/h | 120 |
| Minimum | MJ/h | 60.0 |
| HEAT OUTPUT | | |
| Nominal (80-60°C) | kW | 28.1 |
| Minimum (80-60°C) | kW | 13.1 |
| EFFICIENCY | | |
| Max useful efficiency (80-60°C) | % | 93.7 |
| Min useful efficiency (80-60°C) | % | 87.3 |
| ELECTRICAL SPECIFICATIONS | | |
| Power supply voltage | V | 230 |
| Frequency | Hz | 50 |
| Absorbed electrical power | W | 113 |
| Electrical protection degree | IP | X5D |
| COMBUSTION DATA | | |
| Smoke temperature at Max/Min flow (80-60°C) | °C | 150/100 |
| Smoke flow Max/Min | g/s | 19/19 |
| CO ₂ at Max/Min flow rate (NATURAL GAS) | % | 7.1/2.3 |
| CO ₂ at Max/Min flow rate (UNIVERSAL LPG) | % | 7.8/2.7 |
| NOZZLES - GAS | | |
| Number of nozzles | No. | 13 |
| Nozzle diameter (NATURAL GAS-UNIVERSAL LPG) | mm | 1.5/0.86 |
| Gas consumption at Max/Min flow rate (NATURAL GAS) | m ³ /h | 3.17/1.59 |
| Gas consumption at Max/Min flow rate (UNIVERSAL LPG) | m ³ /h | 1.25/0.63 |
| Gas supply pressure (NATURAL GAS/UNIVERSAL LPG) | mbar kPa | 11.3/27.5 1.13/2.75 |
| TEMPERATURE - PRESSURE | | |
| Max operating temperature | °C | 85 |
| Heating adjustment range | °C | 20÷80 |
| Max operating pressure | bar kPa | 3.0 300 |
| Water content in boiler | l | 3.65 |

Higher Heat Output (Hs)

NATURAL GAS Hs. 37.78 MJ/m³ (15°C, 1013 mbar/101.3 kPa) - UNIVERSAL LPG Hs. 95.65 MJ/m³ (15°C, 1013 mbar/101.3 kPa)

7.6 Main water circuit

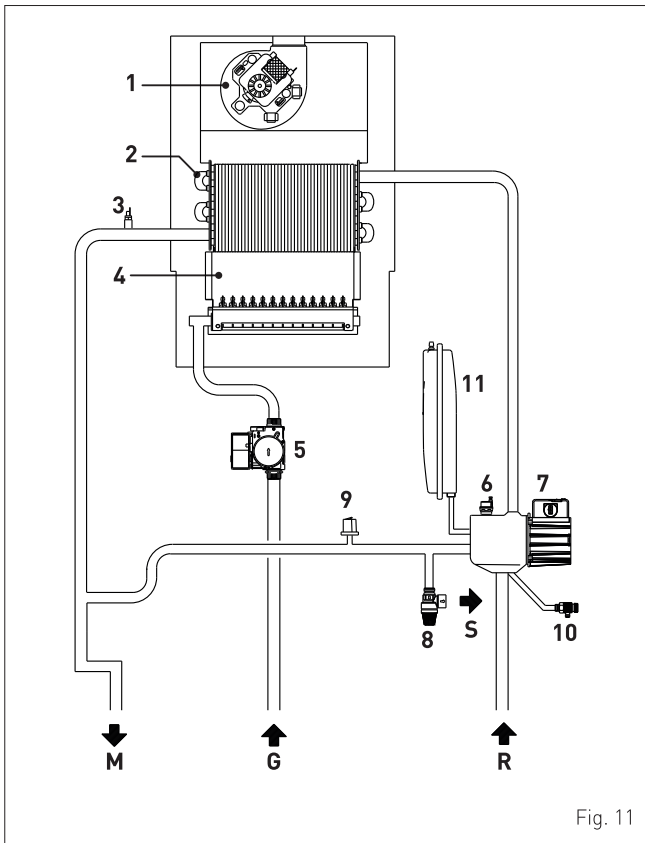


Fig. 11

KEY:

- M System delivery
- R System return
- G Gas supply
- S Safety valve outlet

- 1 Fan
- 2 Heat exchanger (mono-thermal)
- 3 Dual sensor (thermal safety/delivery)
- 4 Combustion chamber
- 5 Gas valve
- 6 Automatic bleed valve
- 7 Pump
- 8 System relief valve
- 9 Water pressure transducer
- 10 Boiler drain
- 11 System expansion vessel

7.7 Sensors

- The sensors installed have the following characteristics:
- Dual sensor (thermal safety/output) NTC R25°C; 10kΩ @25°-85°C: 3435
 - domestic hot water sensor NTC R25°C; 10kΩ @25°-85°C: 3435
 - external sensor NTC R25°C; 10kΩ @25°-85°C: 3435

Correspondence of Temperature Detected/Resistance

- Examples of reading:
- TR=75°C → R=1925Ω
 - TR=80°C → R=1669Ω.

| TR | 0°C | 1°C | 2°C | 3°C | 4°C | 5°C | 6°C | 7°C | 8°C | 9°C |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°C | 27279 | 26135 | 25044 | 24004 | 23014 | 22069 | 21168 | 20309 | 19489 | 18706 |
| 10°C | 17959 | 17245 | 16563 | 15912 | 15289 | 14694 | 14126 | 13582 | 13062 | 12565 |
| 20°C | 12090 | 11634 | 11199 | 10781 | 10382 | 9999 | 9633 | 9281 | 8945 | 8622 |
| 30°C | 8313 | 8016 | 7731 | 7458 | 7196 | 6944 | 6702 | 6470 | 6247 | 6033 |
| 40°C | 5828 | 5630 | 5440 | 5258 | 5082 | 4913 | 4751 | 4595 | 4444 | 4300 |
| 50°C | 4161 | 4026 | 3897 | 3773 | 3653 | 3538 | 3426 | 3319 | 3216 | 3116 |
| 60°C | 3021 | 2928 | 2839 | 2753 | 2669 | 2589 | 2512 | 2437 | 2365 | 2296 |
| 70°C | 2229 | 2164 | 2101 | 2040 | 1982 | 1925 | 1870 | 1817 | 1766 | 1717 |
| 80°C | 1669 | 1622 | 1577 | 1534 | 1491 | 1451 | 1411 | 1373 | 1336 | 1300 |
| 90°C | 1266 | 1232 | 1199 | 1168 | 1137 | 1108 | 1079 | 1051 | 1024 | 998 |
| 100°C | 973 | | | | | | | | | |

Resistance R (Ω)

7.8 Expansion vessel

The expansion vessel installed on the boilers has the following characteristics:

| Description | U/M | Brava Slim BFR |
|----------------------------|-----|----------------|
| | | 30 BFRi |
| Total capacity | l | 9.0 |
| Prefilling pressure | kPa | 100 |
| | bar | 1.0 |
| Useful capacity | l | 5.0 |
| Maximum system content (*) | l | 124 |

(*) Conditions of:

- Average maximum temperature of the system 85°C
- Start temperature at system filling 10°C.



CAUTION

- For systems with water content exceeding the maximum system content (as indicated in the table) an additional expansion vessel must be prearranged.
- The difference in height between the relief valve and the highest point of the system cannot exceed 6 metres. If the difference is greater than 6 metres, increase the prefilling pressure of the expansion vessel and the system when cold by 0.1 bar (10 kPa) for each meter increase.

7.9 Circulation pump

The flow-head performance curve available for the heating system is shown in the graph below.

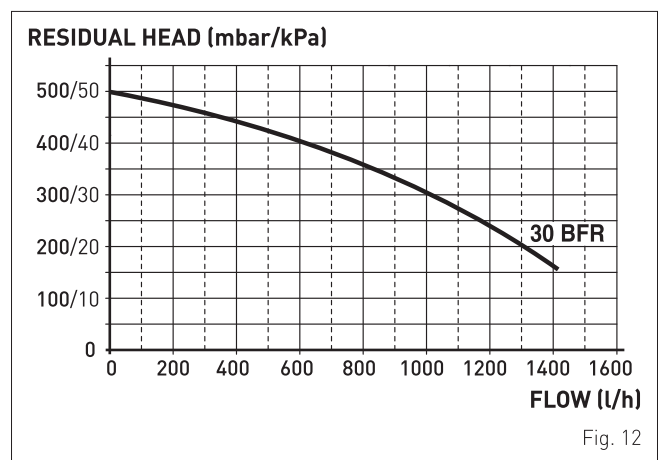


Fig. 12



CAUTION

- The appliance is equipped with a by-pass which ensures water circulation in the boiler when the thermostatic valves or manual valves are used in the system.

7.10 Control panel

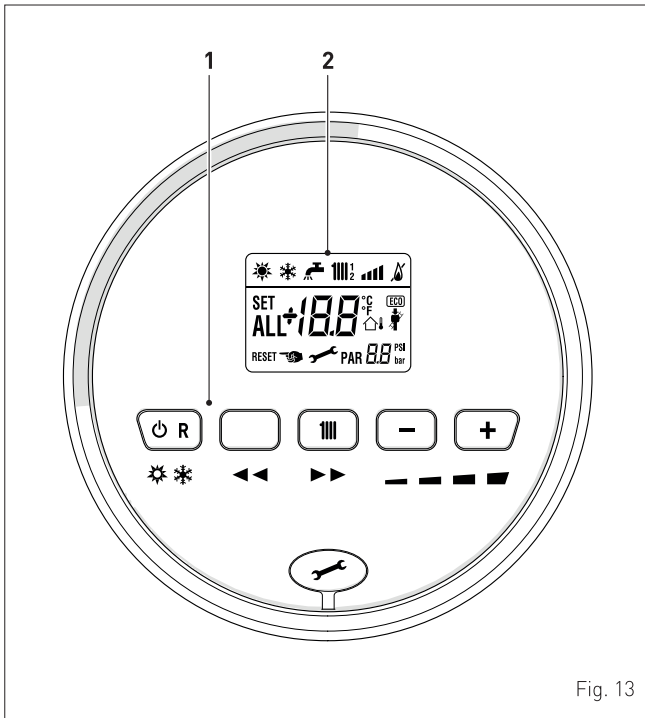


Fig. 13

1 FUNCTIONAL BUTTONS

⏻ R If pressed once or more than once for at least 1 second during normal operation, this button allows the user to change the boiler operating mode in a cyclical sequence (Stand-by – Summer – Winter). If the boiler is experiencing a fault which can be reset, it allows boiler operation to be unblocked. [Note: the "SUMMER" mode is not applicable to this boiler].

◀◀ In "parameter setting", the user can scroll through the parameter index (decreasing) by pressing this button.

||| During normal operation, pressing this button displays the flow temperature set point which can be between 20 and 80°C. In "parameter setting", the user can scroll through the parameter index (increasing) by pressing this button.

- During normal operation, pressing this button allows the user to reduce the flow temperature set point. In "parameter setting/display", the user can modify the parameter setting or value (decreasing) by pressing this button.

+ During normal operation, pressing this button allows the user to increase the flow temperature set point. In "parameter setting/display", the user can modify the parameter setting or value (increasing) by pressing this button.

🔧 Programming connector cover plug.

NOTE: pressing any one of these buttons for more than 30 seconds generates a fault on the display without preventing boiler operation. The warning disappears when normal conditions are restored.

2 DISPLAY

☀ "SUMMER". The symbol for "Summer" mode is displayed. If the symbols ☀ and ❄ are flashing, this indicates that the chimney sweep function is active.

❄ "WINTER". This symbol appears when the boiler is operating in "Winter" mode. If no operating modes have been enabled both symbols ☀ and ❄ will be off.

👉 "RESET REQUIRED". The message indicates that after having repaired the fault, normal boiler operation can be restored by pressing the button ⏻ R.

||| "HEATING". This symbol lights up during heating operation or during the "chimney sweep function". It flashes during the selection of the heating set point.

🔥 "BLOCK" DUE TO NO FLAME.

💧 "FLAME PRESENCE".

|||| "POWER LEVEL". This indicates the power level at which the boiler is operating.

PAR "PARAMETER". This indicates that the user may be in parameter setting/display, or "info" or "counter", or in "activated alarms" (history).

ALL "ALARM". This indicates that a fault has occurred. The number specifies the cause which generated the alarm.

👤 "CHIMNEY SWEEP". This indicates that the "chimney sweep function" has been activated.

🏠 "EXTERNAL SENSOR". This indicates that the external sensor has been installed and that the boiler is working on a sliding temperature.

||| bar "HEATING SYSTEM PRESSURE". Display of heating system pressure.

ECO "ECO", ALTERNATIVE ENERGY SOURCES. Where active, it indicates that there is a solar system available.

👉 CAUTION

– Access to the control panel of model **Brava Slim 30 BFR** is possible after loosening screw (1) and removing panel (2).

– On completion of the operations, refit the panel on the control panel and secure fully.

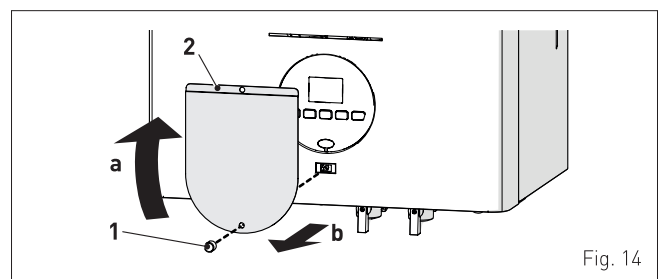


Fig. 14

7.11 Wiring diagram

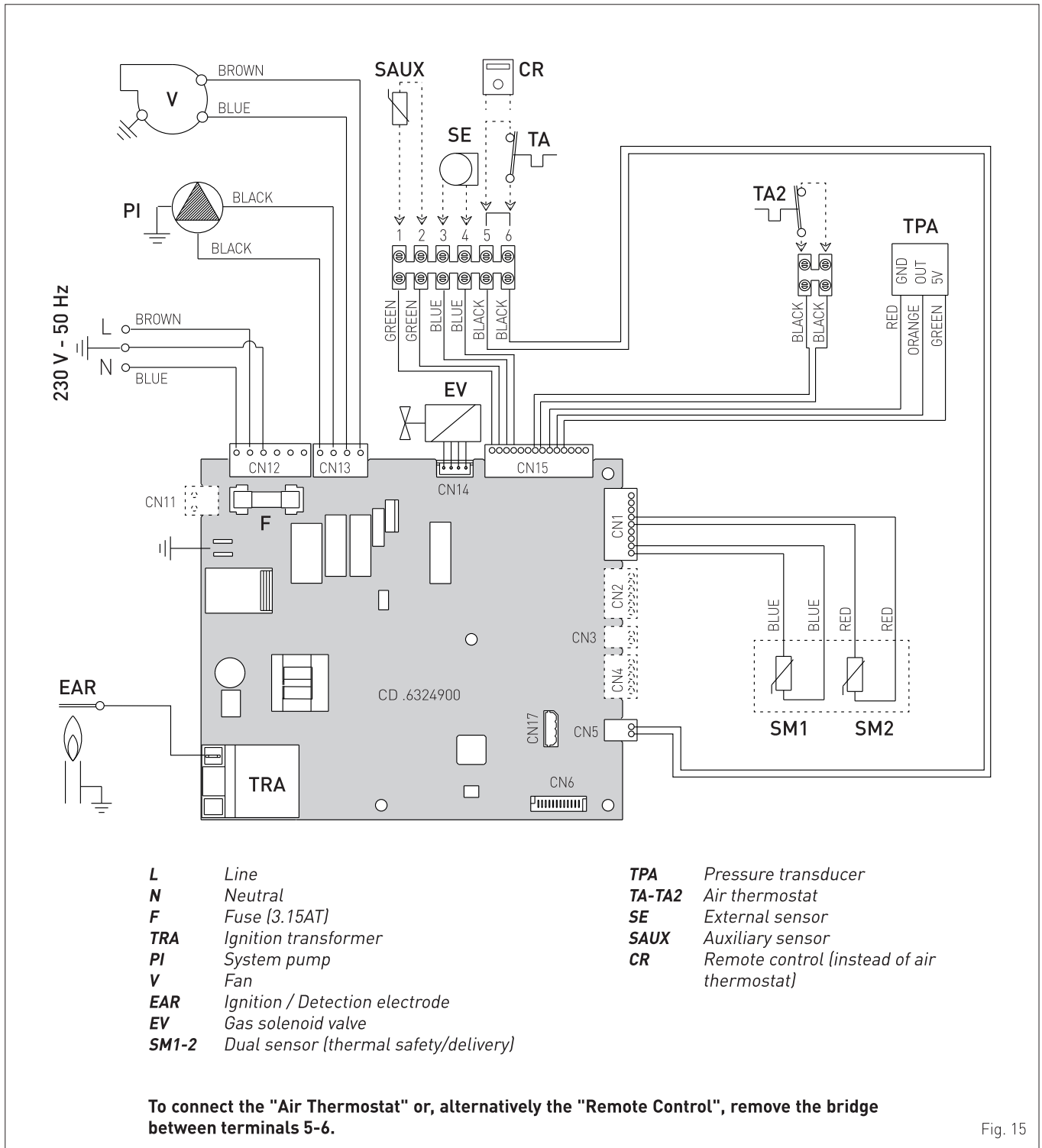


Fig. 15



CAUTION

Users must:

- Use an omnipolar cut-off switch, disconnect switch in compliance with AS/NZS Standards
- Respect the connections L (Live) - N (Neutral)
- Ensure that the special power cable is only replaced with a cable ordered as a spare part and connected by professionally qualified personnel
- Connect the earth wire to an effective earthing system. The manufacturer is not responsible for any damage caused by failure to earth the appliance or failure to observe the information provided in the wiring diagrams.



IT IS FORBIDDEN

To use water pipes for earthing the appliance.

INSTALLATION AND SERVICING INSTRUCTIONS

TABLE OF CONTENTS

| | | | | | |
|---------------|---|-----------|-----------|---|-----------|
| 8 | INSTALLATION | 22 | 10 | MAINTENANCE | 42 |
| 8.1 | Receiving the product | 22 | 10.1 | Adjustments | 42 |
| 8.2 | Dimensions and weight | 22 | 10.2 | External cleaning | 42 |
| 8.3 | Handling | 22 | 10.2.1 | Cleaning the cladding | 42 |
| 8.4 | Installation room | 22 | 10.3 | Cleaning the inside of the appliance | 42 |
| 8.5 | New installation or installation of a replacement appliance | 23 | 10.3.1 | Cleaning the heat exchanger | 42 |
| 8.6 | Cleaning the system | 23 | 10.3.2 | Cleaning the burner | 43 |
| 8.7 | Water system treatment | 23 | 10.3.3 | Checking the ignition/detection electrode | 43 |
| 8.8 | Boiler installation | 23 | 10.3.4 | Final operations | 43 |
| 8.9 | Plumbing connections | 24 | 10.4 | Checks | 43 |
| 8.10 | Gas supply | 24 | 10.4.1 | Checking the smoke duct | 43 |
| 8.11 | Connecting the flue | 25 | 10.4.2 | Checking the expansion vessel pressure | 43 |
| 8.11.1 | Flue Terminal Positions | 25 | 10.5 | Unscheduled maintenance | 43 |
| 8.11.2 | Installation of coaxial flues 60/100mm – 80/125mm | 26 | 10.6 | Possible faults and solutions | 44 |
| 8.11.3 | Brava Slim 30 BFRi | 26 | 11 | COMMISSIONING BOILER CHECKLIST | 45 |
| 8.11.4 | Coaxial duct (Ø 60/100mm and Ø 80/125mm) | 27 | 12 | EXPLODED VIEWS | 46 |
| 8.11.5 | Brava Slim 30 BFRe | 28 | 13 | REMOVING COMPONENTS | 51 |
| 8.12 | Electrical connections | 28 | 13.1 | Remove panels | 51 |
| 8.12.1 | External sensor | 29 | 13.1.1 | Front panel | 51 |
| 8.12.2 | Chrono-thermostat or Air Thermostat | 30 | 13.1.2 | Side panels | 51 |
| 8.12.3 | EXAMPLE of use of the command/control device on some types of heating systems | 30 | 13.1.3 | Sealed chamber panel | 51 |
| 8.13 | Refilling or emptying | 30 | 13.1.4 | Combustion chamber panel | 52 |
| 8.13.1 | REFILL operations | 30 | 13.2 | Rotate control panel | 52 |
| 8.13.2 | EMPTYING operations | 31 | 13.3 | Dual sensor (thermal safety/discharge) | 52 |
| 9 | COMMISSIONING | 32 | 13.4 | Remove electronic board | 53 |
| 9.1 | Preliminary operations | 32 | 13.5 | Remove/replace fan | 53 |
| 9.2 | Before commissioning | 32 | 13.6 | Remove/replace ignition electrode and nozzles | 54 |
| 9.3 | Parameter setting and display | 33 | 13.7 | Remove/replace gas valve | 54 |
| 9.4 | List of parameters | 33 | 13.8 | Remove/replace the expansion vessel | 55 |
| 9.5 | Fault / malfunction codes | 34 | 13.9 | Remove/replace system pump | 55 |
| 9.6 | Display of operating data and counters | 35 | | | |
| 9.7 | Checks after commissioning | 36 | | | |
| 9.7.1 | Chimney sweeper function | 36 | | | |
| 9.7.2 | Adjusting gas pressure at the nozzles | 37 | | | |
| 9.8 | Gas conversion | 38 | | | |
| 9.8.1 | Preliminary operations | 38 | | | |
| 9.9 | Automatic calibration procedure | 39 | | | |

8 INSTALLATION



CAUTION

The appliance must be installed by the Sime Technical Service only, or by a qualified professional.

8.1 Receiving the product

Brava Slim 30 BFR appliances are delivered in a single unit protected by cardboard packaging. Open the cardboard packaging, with appropriate tool and pull out the boiler.

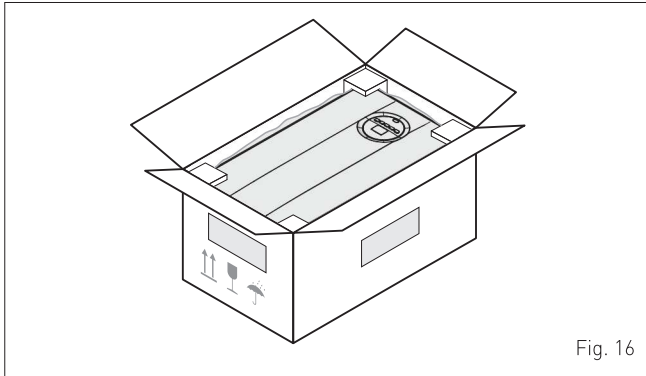


Fig. 16

The plastic bag found inside the packaging contains the following:

- Installation, use and maintenance manual
- Paper template for boiler installation
- Certificate of warranty
- Hydrostatic test certificate
- System booklet
- Bag with expansion plugs



IT IS FORBIDDEN

Do not leave packaging material around or near children since it could be dangerous. Dispose of it as prescribed by legislation in force.

8.2 Dimensions and weight

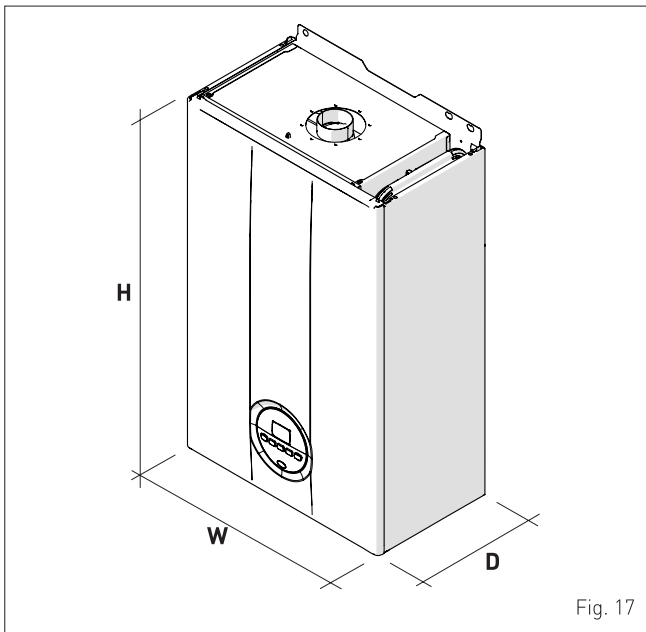


Fig. 17

| Description | Brava Slim BFR | |
|-------------|----------------|----------|
| | 30 BFRi | 30 BFRre |
| W (mm) | 400 | 450 |
| D (mm) | 250 | 256 |
| H (mm) | 700 | 917 |
| Weight (kg) | 29 | 30.5 |

8.3 Handling

Once the packaging has been removed, the appliance is to be handled manually, tilting it slightly, lifting it and applying pressure in the points indicated in the figure.

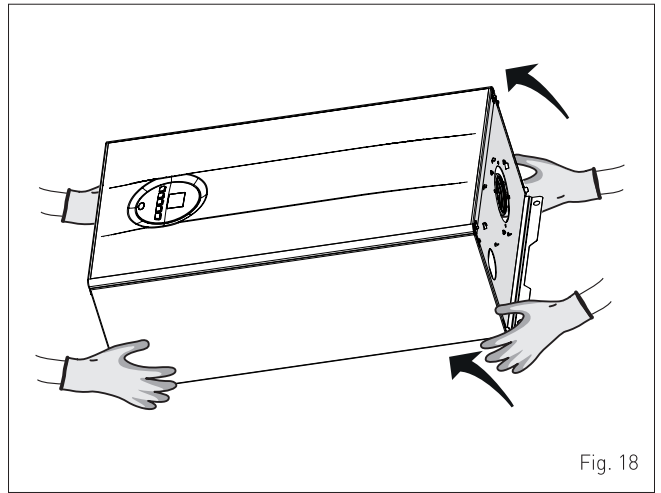


Fig. 18



IT IS FORBIDDEN

To grip the appliance casing. Hold the "solid" parts of the appliance such as the base and structural frame.



WARNING

Use suitable tools and accident protection when removing the packaging and when handling the appliance. Observe the maximum weight that can be lifted per person.

8.4 Installation room

The room where the appliance is to be installed must comply with the Technical Regulations and Legislation in force. It must be equipped with suitably sized ventilation openings when the installation is a "TYPE B" installation.

The minimum temperature of the installation room must NOT be lower than **-5 °C**.



CAUTION

Remember to consider the space needed in order to access the safety/adjustment devices and to carry out maintenance interventions (see Fig. 19).

APPROXIMATE MINIMUM DISTANCES

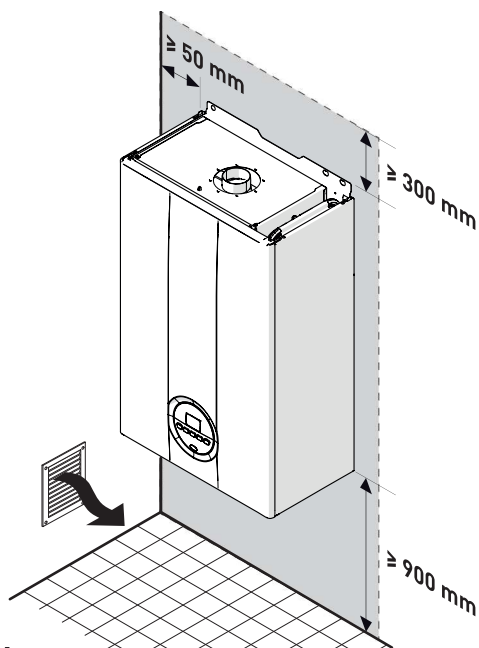


Fig. 19



CAUTION

These minimum clearances must be maintained also in consideration of outdoor installations in confined spaces (e.g. alcoves).

8.5 New installation or installation of a replacement appliance

When **Brava Slim 30 BFR** boilers are installed on old systems or systems requiring updating, it is recommended the installer checks with appliance supplier for advice:

- the connecting flue pipe is suitable for the combustion temperature of the appliance, calculated and manufactured in compliance with Standards, current editions, that it is as straight as possible, air tight, isolated, with no obstructions or restriction and that it has appropriate condensate collection and evacuation systems
- the electrical system has been manufactured in compliance with specific Standards and by professionally qualified personnel
- the fuel delivery line and the tank (LPG) comply fully with specific Standards
- the expansion vessel ensures total absorption of the fluid dilation in the system
- the pump flow-head performance is sufficient for the system characteristics
- the system is clean, free of any sludge, deposits, de aerated and air tight. For system cleaning, please refer to the relevant paragraph.



CAUTION

Gas pipe sizing, flue installation and appliance ventilation must comply with AS/NZS 5601.



IT IS FORBIDDEN

Do not install the boiler in special environments that may limit its optimum operation (e.g. marine environment).

8.6 Cleaning the system

Before installing the appliance on a newly constructed system or replacing a heat generator on an existing system, it is important that the system is thoroughly cleaned to remove sludge, slag, dirt, residue etc.

Before removing an old heat generator from an existing system, it is recommended that the user:

- puts a descaling additive into the water system
- allows the system to work with the generator active for a few days
- drains the dirty water from the system and flushes the system with clean water once or more than once.

If the old generator has already been removed or is not available, replace it with a pump to circulate water in the system and then proceed as described above.

Once cleaning operations have been carried out and before installing the new appliance, it is recommended that a fluid is added to the water system to protect it from corrosion and deposits.



CAUTION

For further information on the type of additive and usage, please contact the appliance manufacturer.

8.7 Water system treatment

When filling and restoring the system it is good practice to use water with:

- aspect: clear if possible
- pH: 6÷8
- hardness: < 25°f.

If the water characteristics are different from those indicated, it is recommended that a safety filter is used on the water delivery pipe to retain impurities, and a chemical treatment system to protect against possible deposits and corrosion which could affect boiler operation.

If the systems are only low temperature systems, it is recommended that a product is used to prevent the development of bacteria.

In any case, please refer to and comply with Legislation and specific Technical Standards in force.

8.8 Boiler installation

Brava Slim 30 BFR boilers leave the factory with a paper template for installation onto a solid wall.

For installation:

- remove the front panel (only on model **Brava Slim 30 BFR**e)
- place the steel sheet template (2) (if supplied) on the wall (1)
- make the holes and insert the expansion plugs (3)
- hook the boiler onto the plugs.

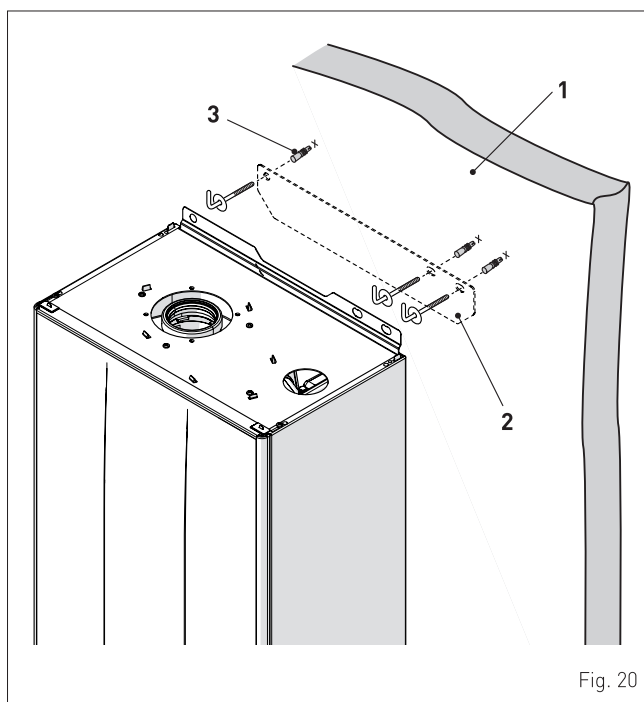


Fig. 20



CAUTION

- The wall on which the appliance is to be hung must be of adequate strength and capable of holding the weight of the appliance and associated components and pipework.



CAUTION

- The height of the boiler is to be such that disassembly and maintenance interventions are facilitated.

8.9 Plumbing connections

The plumbing connections have the following characteristics and dimensions.

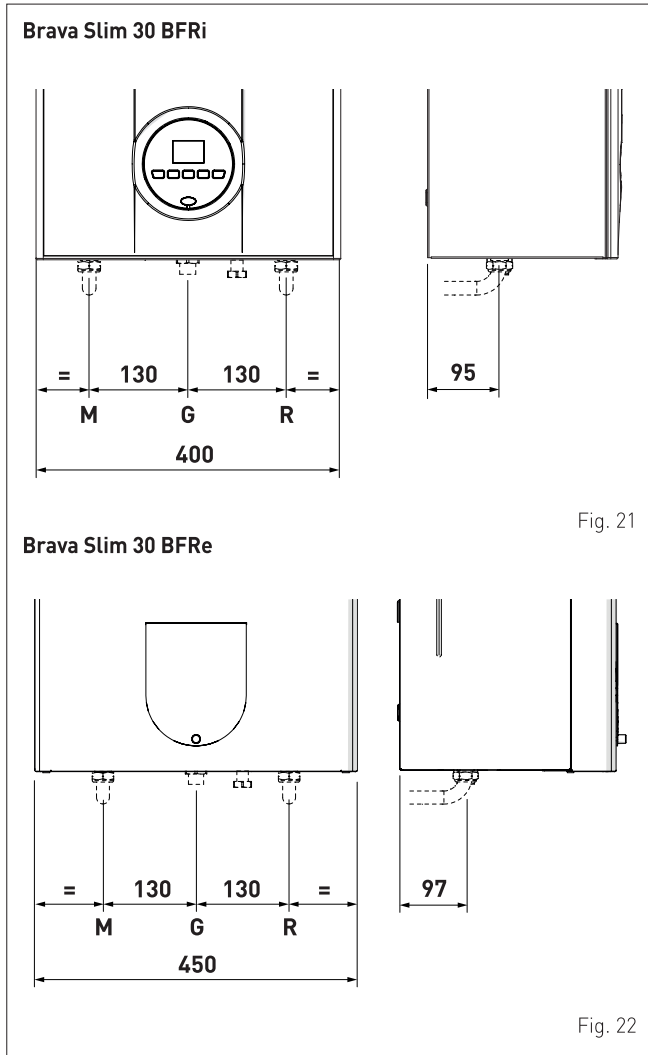


Fig. 21

Fig. 22

| Description | Brava Slim BFR | |
|---------------------|----------------|---------|
| | 30 BFRi | 30 BFRe |
| M - System delivery | Ø 3/4" G | |
| R - System return | Ø 3/4" G | |
| G - Gas supply (*) | Ø 3/4" G | |

(*) Brass adaptor for gas connection supplied. G3/4" to R3/4".

8.10 Gas supply

Brava Slim 30 BFR boilers leave the factory prearranged for gas **NATURAL GAS** and can also work with **Universal LPG** without the need for any type of mechanical conversion. Select parameter "03" (see "Parameter setting and display") and set the type of gas to be used.

If changing the type of gas to be used, carry out the entire appliance "**COMMISSIONING**" phase.

Boiler connection to the gas mains must be carried out in full compliance with installation Standards in force.

Before connecting the boiler to the gas mains, the user must ensure that:

- the type of gas is correct for the appliance
- the pipes are clean
- the gas supply pipe is the same dimension as or greater than that of the boiler fitting (G3/4") and with a load loss less than or equal to that contemplated between the gas mains and the boiler.



WARNING

Once installation has been completed, check that the joints are air tight as indicated in the installation Standards.



CAUTION

It is recommended that the gas line has a suitable filter.

8.11 Connecting the flue

8.11.1 Flue Terminal Positions

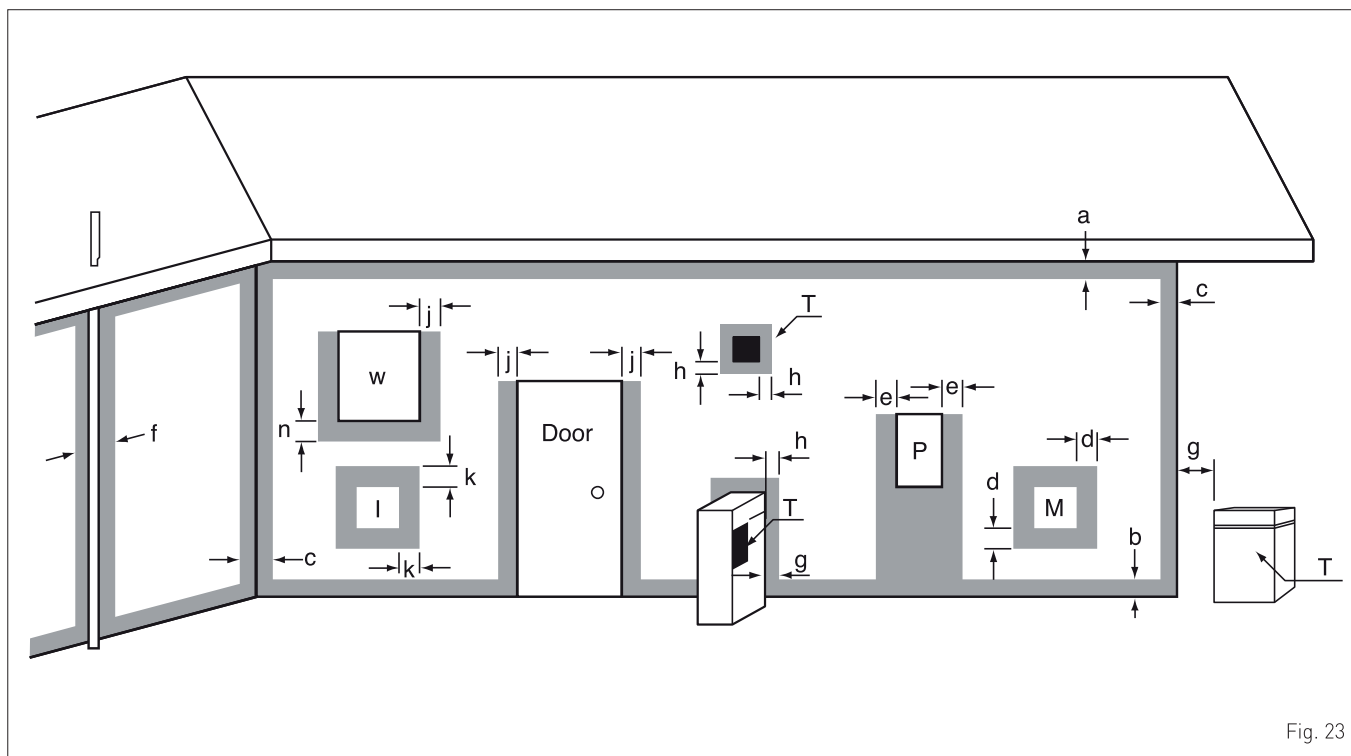


Fig. 23

| DESCRIPTION | Brava Slim 30 BFR | |
|---|---------------------|------|
| | Min. Clearance (mm) | |
| Flue terminal | T | |
| Mechanical air inlet | I | |
| Gas meter | M | |
| Electricity meter or fuse box | P | |
| Shaded area indicates prohibited area | | |
| Below eaves, balconies and other projections (Appliances over 50MJ/h) | a | 300 |
| From the ground, above a balcony or other surface | b | 300 |
| From a return wall or external corner | c | 300 |
| From a gas meter | d | 1000 |
| From an electricity meter or fusebox/breaker panel | e | 500 |
| From a drain pipe or soil pipe | f | 75 |
| Horizontally from any building structure or obstruction facing a flue terminal | g | 500 |
| From any other flue terminal, cowl or combustion air intake | h | 300 |
| Horizontally from any opening window, door, non-mechanical air inlet or other opening into a building with the exception of sub-floor ventilation | j | 300 |
| From a mechanical air inlet including a spa blower. | k | 1000 |
| Vertically below an opening window, non-mechanical air inlet or any other opening into a building with the exception of sub-floor ventilation | n | 500 |



CAUTION

- Use as a guide only. See AS/NZS5601 for flue design details.
- Refer to AS/NZS5601, current version, or local gas fitting rules for specific locations.



CAUTION

- The location of the flue terminal must comply with the clearances shown on this page. If you are unsure about clearances not indicated here, in general refer to AS/NZS 5601, or your local authority.



CAUTION

- All measurements are the minimum clearances required.
- Terminals must be positioned so to avoid combustion products entering the building.
- When the installer installs the flue through a wall, the wall must be adequately sealed and the hole must not affect the building structure or fire resistance.
- Install a fire proof back board if installing on combustible surfaces.
- The fixing method and the wall structure must be sufficient to hold the weight of the boiler.

8.11.2 Installation of coaxial flues 60/100mm – 80/125mm

Coaxial flue kits that are supplied separately. The diagrams below, illustrate some examples of fluing options allowed and the maximum lengths than can be achieved. It is essential that a flue gas analysis point is made available directly above the boiler.

8.11.3 Brava Slim 30 BFRi

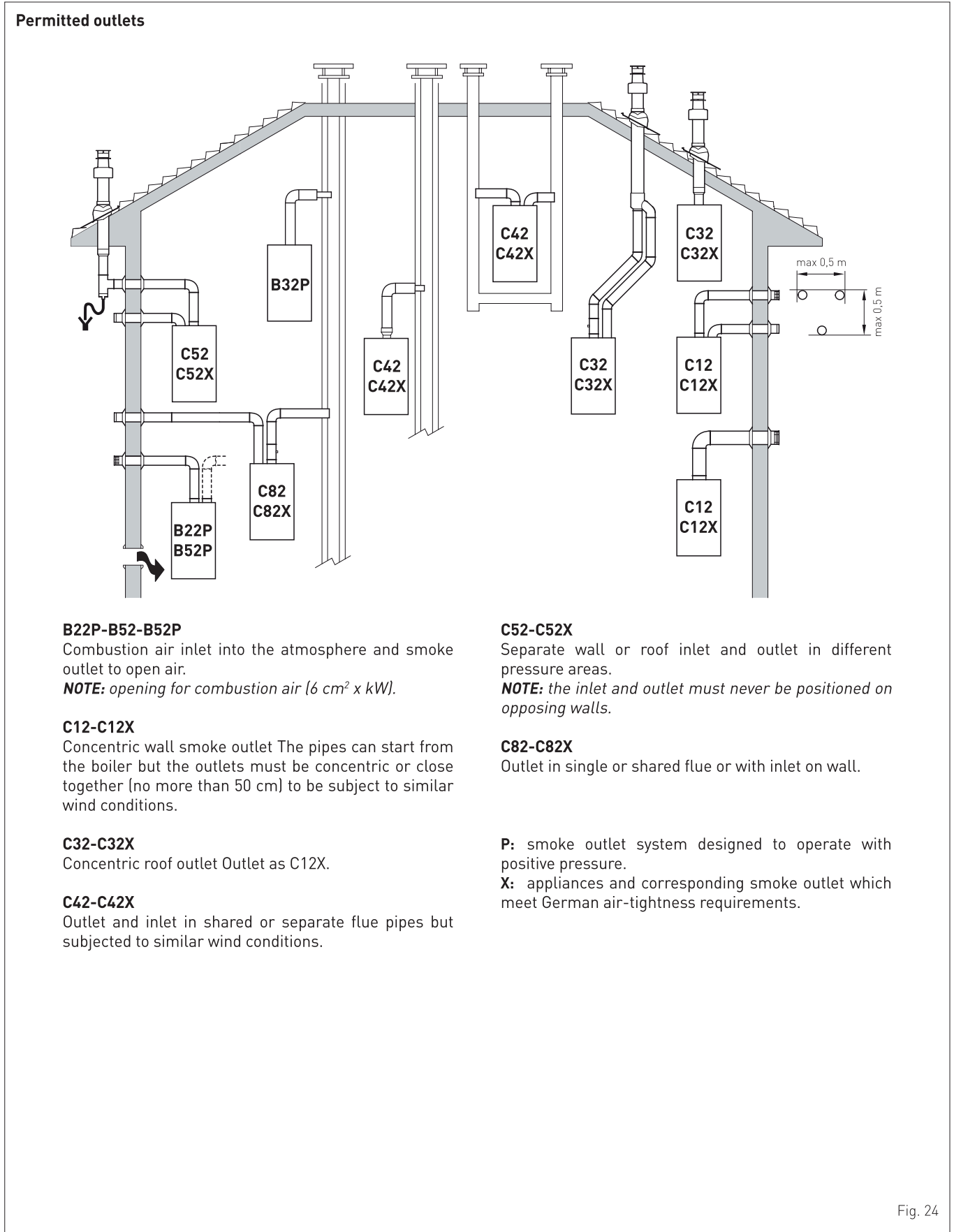


Fig. 24



WARNINGS

- The smoke flue and the connection to the flue pipe must be in compliance with the national and local Standards and Legislation in force.
- The use of rigid ducts which are resistant to temperature, condensate, mechanical stress and are air-tight is compulsory.
- Outlet ducts which are not isolated are a risk of danger.

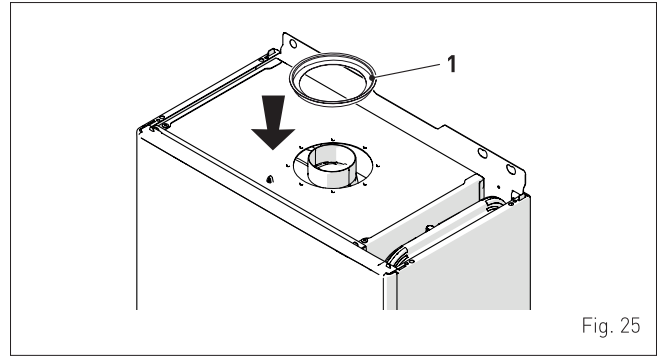


Fig. 25

8.11.4 Coaxial duct (Ø 60/100mm and Ø 80/125mm)

Coaxial accessories

Load loss - Equivalent lengths

| Description | Code | |
|---|-------------|-------------|
| | Ø 60/100 mm | Ø 80/125 mm |
| Coaxial duct kit | 8084813 | 8084830 |
| Extension W. 1000 mm | 8096103 | 8096130 |
| Extension W. 500 mm | 8096102 | - |
| Vertical extension W. 200 mm with smoke analysis take-off point | 8086908 | - |
| Adapter for Ø 80/125 mm | - | 8093120 |
| Additional 90° curve | 8095801 | 8095820 |
| Additional 45° curve | 8095900 | 8095920 |
| Roof outlet terminal W. 1284 mm | 8091200 | 8091200 |
| Vertical condensation recovery W. 200 mm | 8092803 | 8092803 |

| Model | Leq (linear metres) | |
|-----------|---------------------|-------------|
| | Ø 60/100 mm | Ø 80/125 mm |
| 90° curve | 1 | 1 |
| 45° curve | 0.5 | 0.8 |

Minimum-Maximum Lengths

| Model | Duct Length Ø 60/100 | | | | Duct Length Ø 80/125 | | | |
|--------------------|----------------------|------|----------------|------|----------------------|------|----------------|------|
| | W Horizontal (m) | | H Vertical (m) | | W Horizontal (m) | | H Vertical (m) | |
| | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. |
| Brava Slim 30 BFRi | - | 3.0 | 1.3 (*) | 5 | 3 | 6 | 4 | 7 |



CAUTION

(*) Vertical condensate recovery MUST be introduced for vertical ducts (Type C32) or vertical sections of the duct (Type C42) longer than 1.3m.

Diaphragms for coaxial ducts

Boilers leave the factory equipped with a diaphragm (1) with the following characteristics:

- **Brava Slim 30 BFRi**: diaphragm Ø 81 mm.

When the outlets are **Type C12** or **C42** the diaphragm is to be removed or kept following the indications below:

| Model | Diaphragm | for duct L |
|--------------------|------------------------|------------|
| Brava Slim 30 BFRi | YES (leave mounted) | < 1 m |
| | NO (remove it) | > 1 m |

When the outlet is **Type C32** (vertically straight without any curves), the presence of the diaphragm modifies the maximum length of the duct as shown below:

| Model | Diaphragm | Max L (m) |
|--------------------|-----------|-----------|
| Brava Slim 30 BFRi | YES | 2.5 |
| | NO | 5 |

8.11.5 Brava Slim 30 BFRé

The boiler **Brava Slim 30 BFRé** is supplied already complete with coaxial ducts for smoke outlet and combustion air inlet.

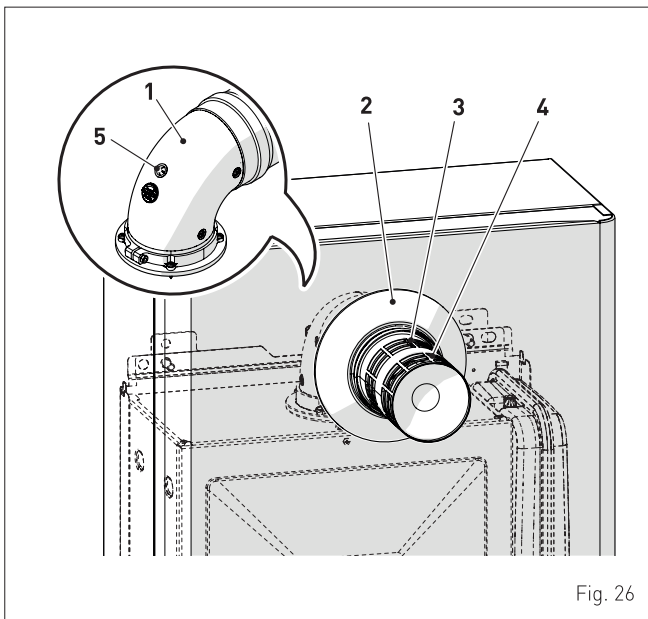


Fig. 26

KEY:

- 1 90° coaxial bend
- 2 Coaxial duct (supplied, but not fitted)
- 3 Air inlet
- 4 Smoke outlet
- 5 Take-off point for smoke analysis

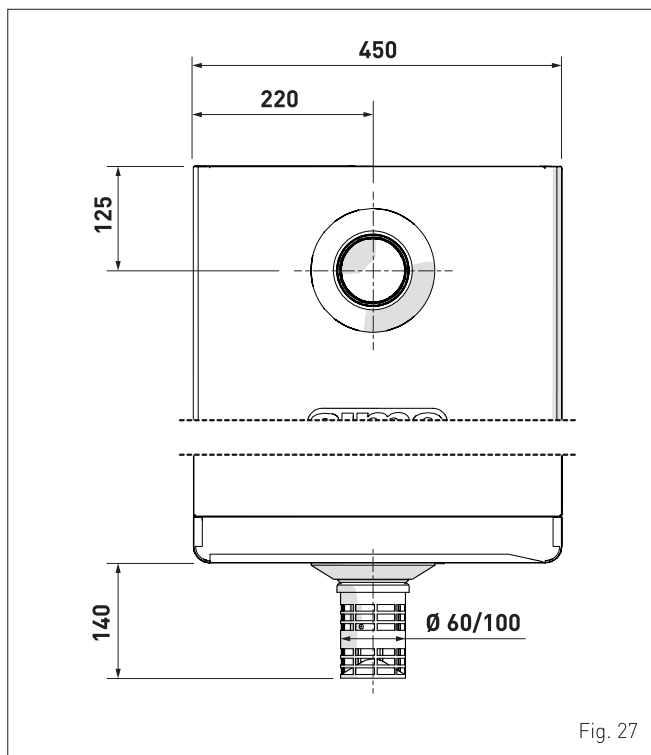


Fig. 27

8.12 Electrical connections

The boiler is equipped with a ready wired power cable which is to be connected to a 230V-50 Hz network.

If this cable needs to be replaced, an original spare must be requested from **Sime**.

Therefore only the connections of the original components as shown in the table are needed. These are to be ordered separately from the boiler.

| DESCRIPTION | CODE |
|--|---------|
| External sensor kit ($\beta=3435$, NTC 10KOhm at 25°C) | 8094101 |
| Remote control HOME (open therm) | 8092280 |
| Remote control HOME PLUS (open therm) | 8092281 |



CAUTION

The maintenance interventions described must **ONLY** be carried out the professionally qualified personnel.



WARNING

Before carrying out any interventions described:

- set the main system switch to "OFF"
- close the gas valve
- make sure that no hot parts inside the appliance are touched.

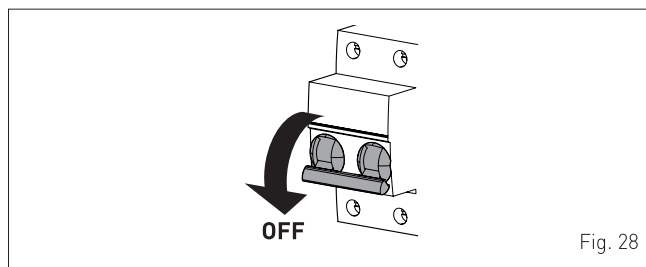


Fig. 28

To facilitate introduction of the connection wires of the optional components into the boiler:

- disassemble the smoke outlet duct of the **Brava Slim 30 BFRé**
- remove the screws (1), pull the front panel (2) forwards and release it from the top by lifting it

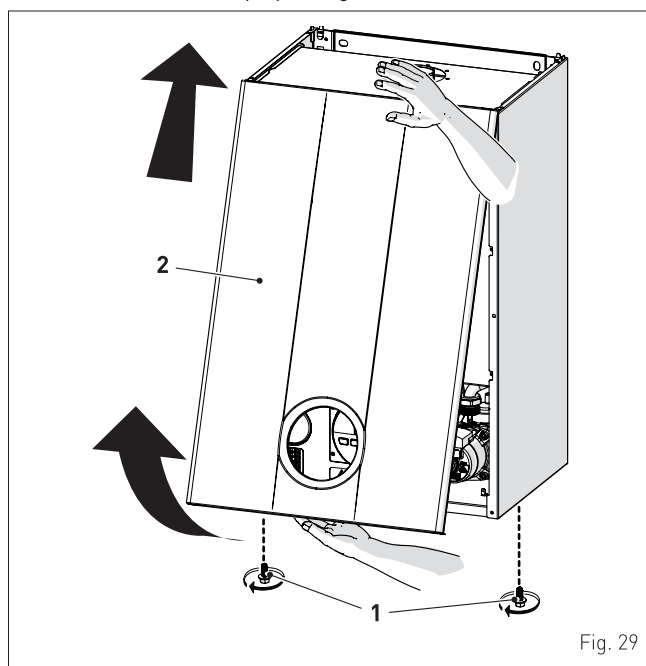


Fig. 29

- remove the screws (3) securing the control panel (4)
- move the panel (4) upwards (a) but keeping it in the side guides (5) to the end of travel
- bring it forwards and down (b) until it is horizontal

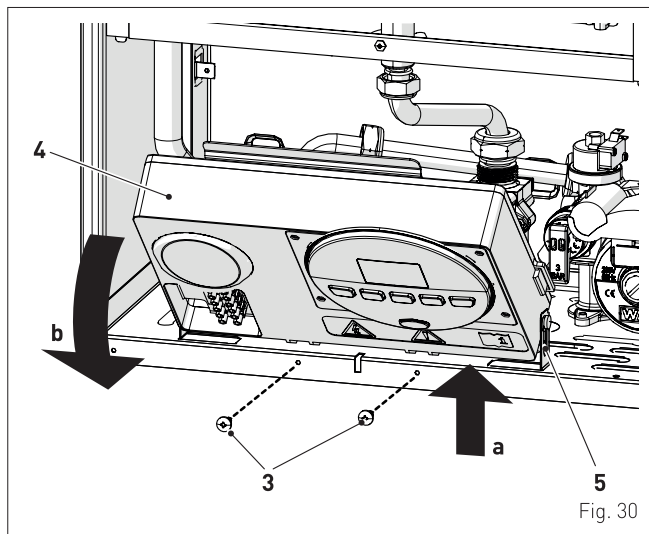


Fig. 30

- insert the connection wires into the cable gland (6) and the opening (7) on the control panel

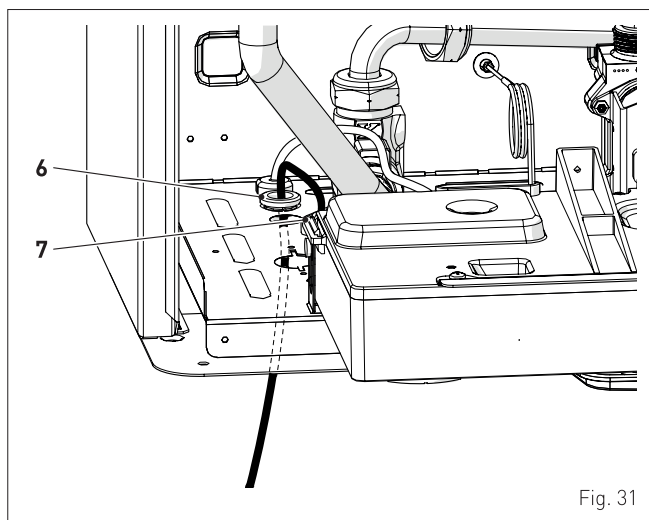


Fig. 31

- bring the control panel (4) to the original position and secure it with the screws (3) which were removed previously
- connect the component wires to the terminal board (8) following the indications provided on the data plate (9).

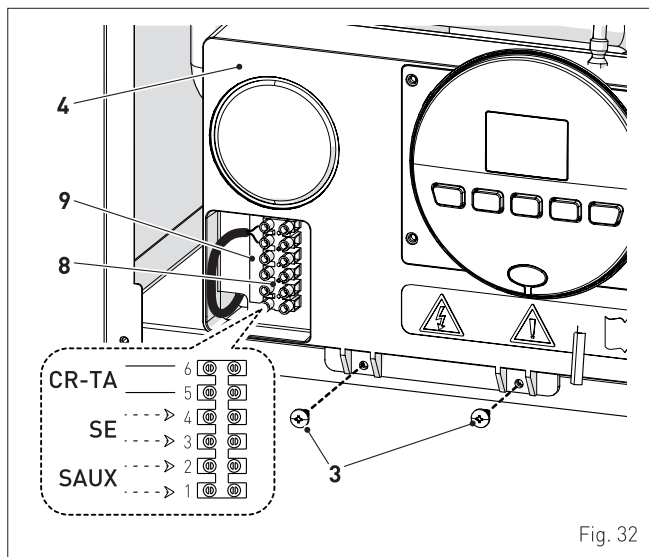


Fig. 32



CAUTION

It is compulsory:

- to use an omnipolar cut-off switch, disconnect switch in compliance with AS/NZS Standards
- if the power cable is to be replaced, that ONLY a special cable is used with a factory produced re-wired connector, ordered as a spare part and connected by a professionally qualified person
- to connect the earth wire to an effective earthing system (*)
- that before any intervention on the boiler, the mains power is disconnected by setting the main system switch to "OFF".

(*) The manufacturer is not responsible for any damage caused by failure to earth the appliance or failure to observe the information provided in the wiring diagrams.



IT IS FORBIDDEN

To use water pipes for earthing the appliance.

8.12.1 External sensor

The boiler is prearranged for connection to an external air temperature sensor and can operate with a sliding temperature. This means that the delivery temperature sent to the boiler can vary on the basis of the external temperature depending on the climatic curve selected from those shown in the diagram (Fig. 33).

When fitting the sensor on the outside of the building, follow the instructions provided on the packaging of the product itself.

Climatic curve

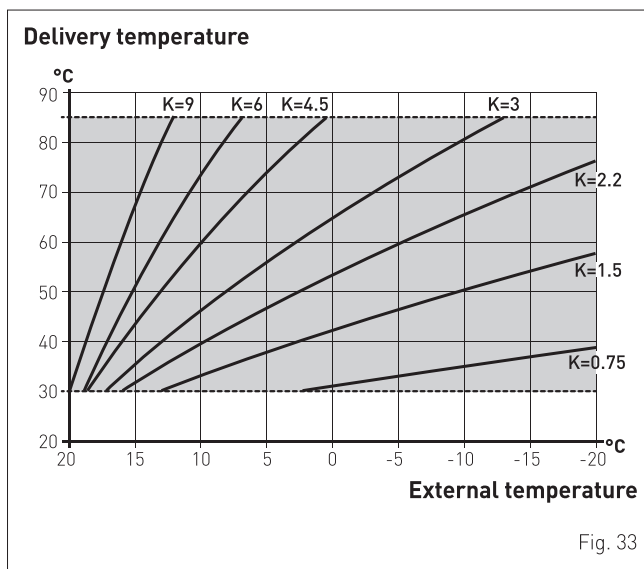


Fig. 33



CAUTION

If there is an external sensor, in order to select the optimal climatic curve for the system and therefore the delivery temperature based on the external temperature:

- press the button for 1 second
- press buttons + or - until the required curve K has been selected (within the range K=0.0 - K=9.0).

8.12.2 Chrono-thermostat or Air Thermostat

The electrical connection of the chrono-thermostat or air thermostat has already been described. When fitting the component in the room where the readings are to be taken, follow the instructions provided with the device.

8.12.3 EXAMPLE of use of the command/control device on some types of heating systems

KEY

- M System delivery
- R System return
- CR Remote control
- SE External sensor
- TA Air thermostat for boiler activation
- TZ1÷TZ3 Air thermostat for the zone
- VZ1-VZ3 Zone valves
- RL1-RL3 Zone relays
- P1-P3 Zone pump
- SP Hydraulic separator

ONE DIRECT ZONE system, external sensor and air thermostat.

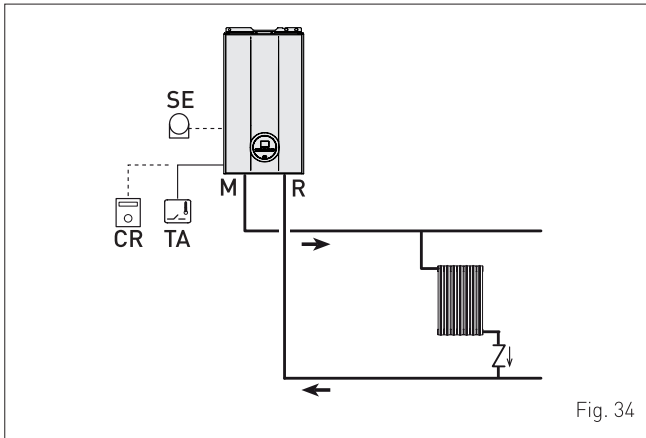


Fig. 34

MULTI ZONE system - with zone valve, air thermostat and external sensor.

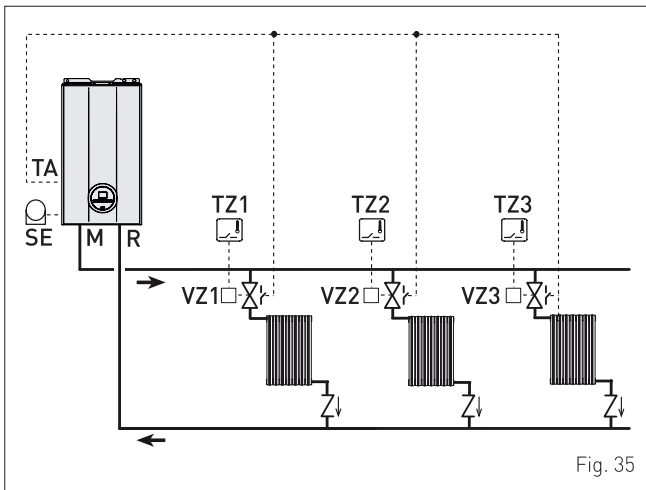


Fig. 35



CAUTION

Set the parameter "tS 17 = DELAY SYSTEM PUMP ACTIVATION" to allow the opening of zone valve Vz.

MULTI ZONE system - with pump, air thermostat and external sensor.

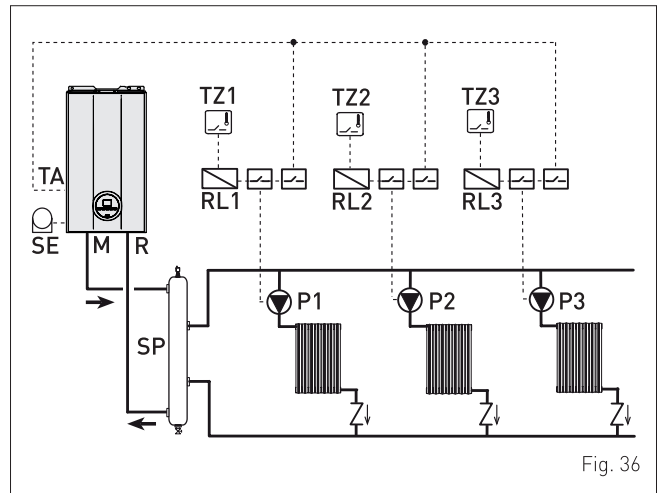


Fig. 36

8.13 Refilling or emptying

Before carrying out the operations described below, make sure that the main system switch is set to "ON" in order for the display to show the pressure level in the system during refilling. **Make sure that the operating mode is set to "Stand-by"**; if this is not the case, press the button for at least 1 second until this mode has been selected.

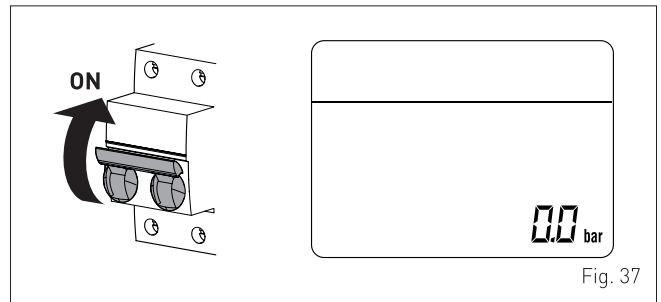


Fig. 37

8.13.1 REFILL operations

Remove the front panel:

- disassemble the smoke outlet duct of the **Brava Slim 30 BFR**e
- remove the two screws (1), pull the front panel (2) forwards and release it from the top by lifting it.

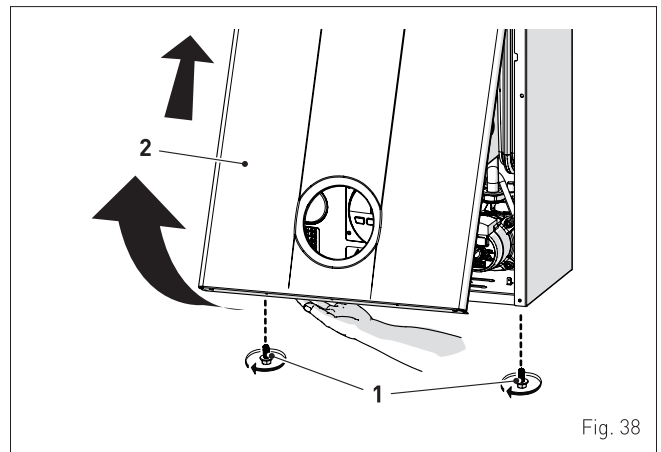


Fig. 38

Heating circuit:

- open the isolation and air bleeding valves in the highest points of the system
- loosen the automatic bleed valve (3)
- open the isolation valves of the heating circuit (if present)
- Open the filling valve, which should be on the system return
- Fill until the water overflows from the air bleeding valves and shut off the valves again
- Continue filling until the pressure reaches **1-1.2 bar** (100-120 kPa) as shown on the display
- close the filling valve
- check that there is no air in the system by bleeding all the radiators and the circuit on the high points of the system
- remove the front plug (6) of the pump and use a screwdriver to check that the impeller is not blocked
- replace the plug (6)

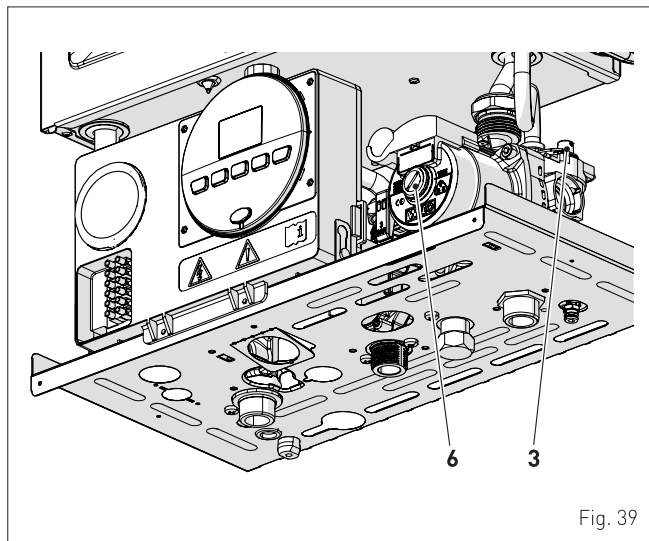


Fig. 39

NOTE: to completely remove all air from the system, it is recommended that this operation is repeated a number of times.

- check the pressure on the display and if necessary top up until the correct pressure reading appears
- close the automatic bleed valve (3).

Refit the front panel of the boiler hooking it on at the top, pushing it forwards and securing it with the screw (1) which was removed previously.

Fit the smoke outlet duct of the **Brava Slim 30 BFR**.

8.13.2 EMPTYING operations

Boiler:

- loosen the automatic bleed valve (3)
- close the heating circuit isolation valves
- check that the filling valve is closed
- connect a rubber hose to the boiler drain valve (7) and open it
- when it has fully emptied, close the drain valve (7)
- close the automatic bleed valve (3).

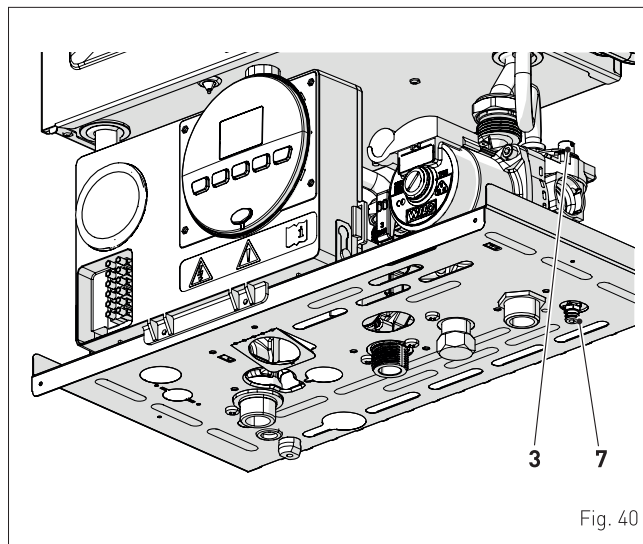


Fig. 40

9 COMMISSIONING

9.1 Preliminary operations

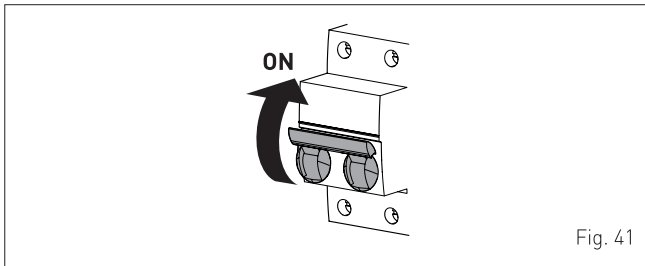
Before commissioning the appliance, check that:

- the type of gas is correct for the appliance
- the gas isolation valves for the heating system and the water system are open
- the pump impeller rotates freely.

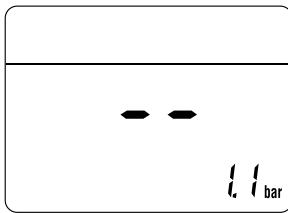
9.2 Before commissioning

After having carried out the preliminary operations, perform the following to start the boiler:

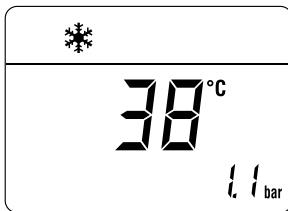
- set the main system switch to "ON"



- the type of gas for which the boiler has been calibrated, "nG" (methane) or "LG" (UNIVERSAL LPG) will appear followed by the power. After this the correct representation of the symbols will be checked and finally "--" will appear on the display

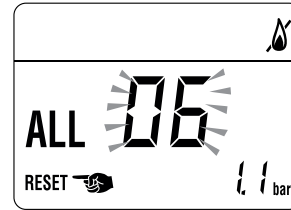


- check that the system pressure as shown on the pressure gauge when the system is cold, is between **1 and 1.2 bar (100 and 120 kPa)**
- press the button **OR** twice to select "WINTER mode" ❄️. the value of the delivery sensor detected at that moment will appear on the display



- adjust the air thermostat and check that the boiler starts and operates correctly
- the boiler will remain in operation while any heat request is active

- if there is a fault, the message "ALL" will appear on the display, the fault code (eg. "06" - no flame detected) and the message **RESET**



CAUTION

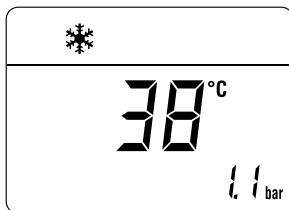
To restore the start conditions press and hold the button **OR** for more than 3 seconds. This operation can be carried out no more than 6 times.

- adjust the air thermostat and check that the boiler starts and operates correctly
- to check that the pressure in the network and the nozzles are correct, the procedure described in section must be carried out "**Chimney sweeper function**".

9.3 Parameter setting and display

To go into the parameter menu:

- from the selected mode (eg. WINTER)



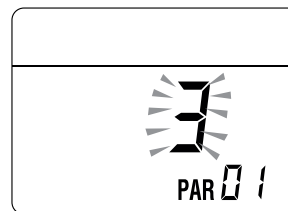
- press the buttons ◀◀ and |||| (for approximately 5 seconds) at the same time until "PAR 01" (parameter number) and the value set (0-4) appears on the display



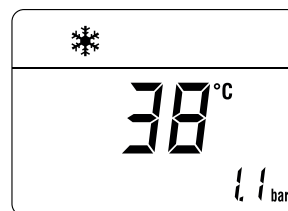
- press the button |||| to scroll up the list of parameters and then ◀◀ to scroll down the list

NOTE: holding the buttons ◀◀ or |||| increases the speed of the scrolling movement.

- once the required parameter has been reached, press the buttons + or - to modify the value within the permitted range. The modifications are stored automatically.



When all the parameter modifications have been made, exit the parameter menu by pressing and holding down the buttons ◀◀ and |||| at the same time until the initial screen is displayed.



NOTE: In case of power failure all settings are stored.

9.4 List of parameters

| Type | No. | Description | Range | U/M | Step | Default |
|-------------------------------------|-----|---|-------------|-----------------|------|---------|
| CONFIGURATION | | | | | | |
| PAR | 01 | Index showing boiler power in kW 0 = 24; 1 = 30; 5 = AUS | 0, 1 or 5 | - | 1 | 5 |
| PAR | 02 | Hydraulic configuration 0 = rapid 1 = storage tank with thermostat or heating only 2 = hot water tank with sensor 3 = bithermic 4=instant with solar power input | 0..4 | - | 1 | 1 |
| PAR | 03 | Gas Type Configuration 0 = NATURAL GAS; 1 = UNIVERSAL LPG | 0..1 | - | 1 | 0 or 1 |
| PAR | 04 | Combustion configuration 0 = sealed chamber with combustion control 1 = open chamber with smoke thermostat 2 = Low NOx | 0..2 | - | 1 | 0 |
| PAR | 08 | External sensor value correction | -5..+5 | °C | 1 | 0 |
| DOMESTIC HOT WATER - HEATING | | | | | | |
| PAR | 10 | Boiler Antifreeze Threshold | 0..+10 | °C | 1 | 3 |
| PAR | 11 | External Sensor Antifreeze Threshold -- = Disabled | -9..+5 | °C | 1 | -2 |
| PAR | 12 | Heating Curve Incline | 0..80 | - | 1 | 20 |
| PAR | 13 | Minimum Heating Temperature Adjustment | 20.. PAR 14 | °C | 1 | 20 |
| PAR | 14 | Maximum Heating Temperature Adjustment | PAR 13..80 | °C | 1 | 80 |
| PAR | 15 | Maximum power heating | 0..100 | % | 1 | 100 |
| PAR | 16 | Heating Post-Circulation Time | 0..99 | seconds x 10 | 1 | 3 |
| PAR | 17 | Heating Pump Activation Delay | 0..60 | seconds x 10 | 1 | 0 |
| PAR | 18 | Re-ignition Delay | 0..60 | Min | 1 | 3 |
| PAR | 19 | - | - | - | - | - |
| PAR | 20 | - | - | - | - | - |
| PAR | 21 | Minimum heating power | 0..100 | % | 1 | 0 |
| PAR | 22 | Domestic hot water preheating enabling 0 = OFF; 1 = ON | 0..1 | - | 1 | 0 |
| PAR | 23 | External relay 1 function 0 = not used; 1 = remote alarm NO; 2 = remote alarm NC; 3 = zone valve; 4 = automatic filling; 5 = external request; 6 = recirculation pump; 7 = zone valve with OT; 8 = relaunch pump | 0..8 | - | - | 0 |

| Type | No. | Description | Range | U/M | Step | Default |
|--------------|-----|---|---|-----|------|---------|
| PAR | 24 | External relay 2 function 0 = not used; 1 = remote alarm NO; 2 = remote alarm NC; 3 = zone valve; 4 = automatic filling; 5 = external request; 6 = recirculation pump; 7 = zone valve with OT; 8 = relaunch pump | 0..8 | - | - | 0 |
| PAR | 25 | Auxiliary TA function 0 = according to TA 1 = TA Antifreeze 2 = domestic hot water disabled | 0..2 | - | 1 | 0 |
| PAR | 26 | Zone Valve / Pump Relaunch Delay | 0..99 | Min | 1 | 1 |
| PAR | 28 | - | - | - | - | - |
| PAR | 29 | - | - | - | - | - |
| PAR | 30 | - | - | - | - | - |
| PAR | 35 | Digital / analogue Pressure switch 0 = water pressure switch 1 = water pressure transducer 2 = water pressure transducer (only pressure displayed) | 0..2 | - | 1 | 1 |
| PAR | 40 | Modulating Pump Speed | -- = No modulation AU = Automatic 30 .. 100 | % | 10 | AU |
| PAR | 41 | ΔT Modulating pump delivery/Return | 10..40 | °C | 1 | 20 |
| PAR | 47 | System pump forcing (only in winter mode) 0 = Disabled 1 = Enabled | 0..1 | - | 1 | 0 |
| RESET | | | | | | |
| PAR | 48 | INST Parameter set to default | 0..1 | - | - | 0 |

In the event of a fault/malfunction the message "ALL" will appear on the display with the alarm number eg. "ALL 04" (Domestic Hot Water Sensor Fault).



Before repairing the fault:

- disconnect the appliance from the mains power by setting the main switch to "OFF"

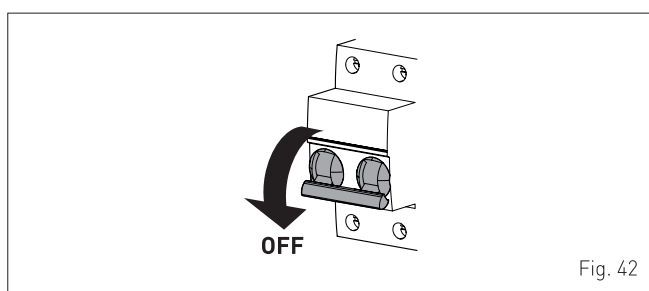


Fig. 42

- as a precautionary measure, close the gas isolation valve.

Repair the fault and start-up the boiler again.

NOTE: after having repaired the fault, when the alarm number appears on the display together with the message **RESET** (see figure), press the button **OR** for approximately 3 seconds to start the appliance up again.

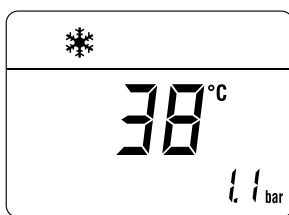
9.5 Fault / malfunction codes

| Type | No. | Description |
|------|-----|---|
| ALL | 02 | Low water pressure in system |
| ALL | 03 | High water pressure in system |
| ALL | 05 | Delivery sensor fault |
| ALL | 06 | No flame detection |
| ALL | 07 | Dual sensor intervention |
| ALL | 08 | Fault in the flame detection circuit |
| ALL | 09 | No water circulating in the system |
| ALL | 10 | Auxiliary sensor fault |
| ALL | 11 | Gas valve modulator disconnected |
| ALL | 12 | Incorrect configuration of the open /sealed chamber |
| ALL | 17 | Fault regarding maximum deviation between the 2 NTC heating sensors |
| ALL | 28 | Maximum number of consecutive releases |
| ALL | 37 | Fault due to low network voltage |
| ALL | 40 | Incorrect network frequency detected |
| ALL | 41 | Flame loss more than 6 consecutive times |
| ALL | 42 | Button fault |
| ALL | 43 | Open Therm communication fault |
| ALL | 44 | Anomaly inside electronic board |
| ALL | 62 | The self-calibrating procedure must be carried out |
| ALL | 72 | Incorrect positioning of the delivery sensor |
| ALL | 74 | Fault in the 2nd element of the delivery sensor |
| ALL | 80 | Anomaly in gas valve control line |
| ALL | 81 | Block due combustion during start-up |
| ALL | 83 | Irregular combustion (temporary error) |
| ALL | 88 | Anomaly inside electronic board |
| ALL | 96 | Block due to clogging in smoke outlet |

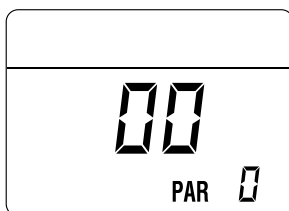
9.6 Display of operating data and counters

Once the boiler is operating a qualified technician can view the operating data and the counters as follows:

- from the operating screen in the "WINTER" mode ❄️

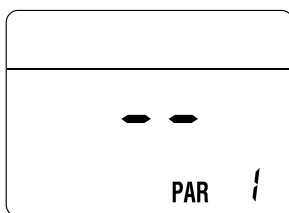


- go into "DISPLAY" by pressing the buttons ◀◀ and - at the same time for more than 3 seconds until the following screen appears

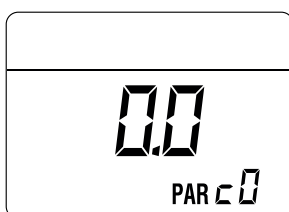


From this point, the technician has 2 options:

- scroll through the list of "information (PAR)" and "counters (PARc)" by pressing the button ||||. Scrolling will be in sequence



- display the "activated alarms" (no more than 10) by pressing the button ◀◀



- Once in this section, proceed with button |||| or ◀◀.

When all the values have been displayed, exit the menu by pressing and holding down the button ⏻ for approximately 5 seconds until the initial screen is displayed.

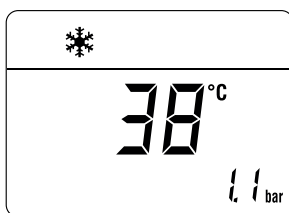


TABLE OF INFORMATION DISPLAYED

| Type | No. | Description | Range | U/M | Step |
|------|-----|---|---------------------|-----|------|
| PAR | 00 | SW version | | | |
| PAR | 01 | External sensor | - 9 .. 99 | °C | 1 |
| PAR | 02 | Delivery sensor 1 temperature | - 9 .. 99 | °C | 1 |
| PAR | 03 | Delivery sensor 2 temperature | - 9 .. 99 | °C | 1 |
| PAR | 04 | | | | |
| PAR | 05 | | | | |
| PAR | 06 | Actual heating SET temperature | Par. 13 ... Par. 14 | °C | 1 |
| PAR | 08 | | | | |
| PAR | 09 | Water pressure transducer reading (if resent) | 0...99 | bar | 0.1 |

TABLE OF COUNTER DISPLAYED

| Type | No. | Description | Range | U/M | Step |
|------|-----|--|----------|----------|--|
| PAR | c0 | total no. of boiler operating hours | 0 .. 99 | h x 1000 | 0.1; from 0.0 to 9.9; 1; from 10 to 99 |
| PAR | c1 | total no. of burner operating hours | 0 .. 99 | h x 1000 | 0.1; from 0.0 to 9.9; 1; from 10 to 99 |
| PAR | c2 | total no. of burner ignitions | 0 .. 99 | h x 1000 | 0.1; from 0.0 to 9.9; 1; from 10 to 99 |
| PAR | c3 | total no. faults | 0 .. 99 | x 1 | 1 |
| PAR | c4 | total no. of times installer parameters "ALL" accessed | 0 .. 99 | x 1 | 1 |
| PAR | c5 | total no. of times OEM parameters accessed | 0 .. 99 | x 1 | 1 |
| PAR | c6 | time until next maintenance intervention | 1 .. 199 | months | 1 |

TABLE OF ACTIVATED ALARMS/FAULTS

| Type | No. | Description |
|------|-----|---------------------------------------|
| PAR | A0 | Last activated alarm/fault |
| PAR | A1 | Last but one activated alarm/fault |
| PAR | A2 | Third from last activated alarm/fault |
| PAR | A3 | Previous activated alarm/fault |
| PAR | A4 | Previous activated alarm/fault |
| PAR | A5 | Previous activated alarm/fault |
| PAR | A6 | Previous activated alarm/fault |
| PAR | A7 | Previous activated alarm/fault |
| PAR | A8 | Previous activated alarm/fault |
| PAR | A9 | Previous activated alarm/fault |

9.7 Checks after commissioning

9.7.1 Chimney sweeper function

The chimney sweeper function is used by the qualified maintenance technician to check the mains gas pressure, detect the combustion parameters and to measure the combustion efficiency required by legislation in force.

This function lasts 15 minutes and is activated by proceeding as follows:

- disassemble the smoke outlet duct of the **Brava Slim 30 BFR**, if not already removed
- if the panel (2) has not already been removed, remove the two screws (1), pull the front panel (2) forwards and release it from the top by lifting it

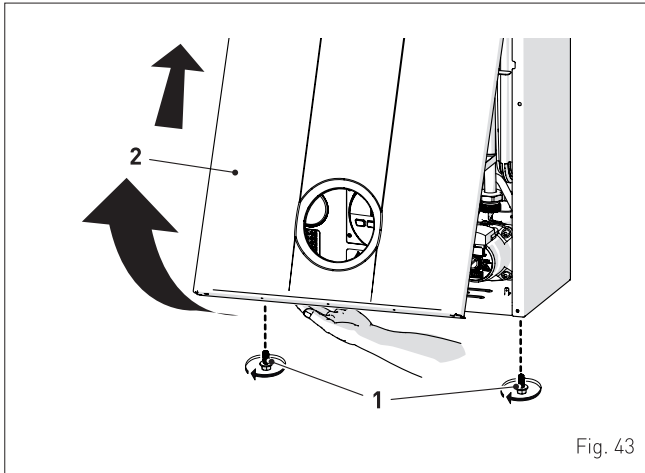


Fig. 43

- remove the screws (3) securing the control panel (4)
- move the panel (4) upwards (a) but keeping it in the side guides (5) to the end of travel
- bring it forwards and down (b) until it is horizontal

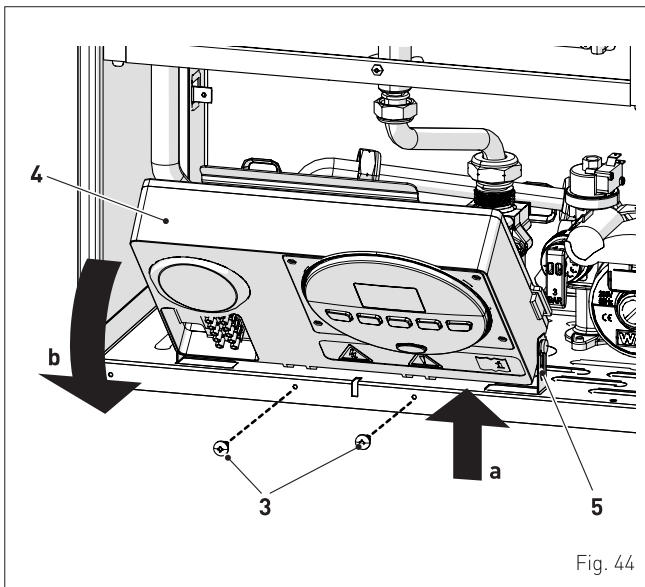


Fig. 44

- close the gas valve
- loosen the screw of the "mains pressure" point (6) and connect a pressure gauge

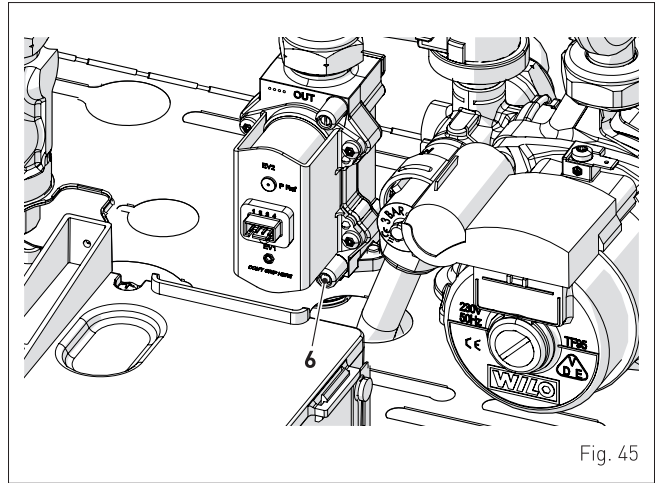


Fig. 45

- open the gas valve
- power the boiler by setting the main switch to "ON"

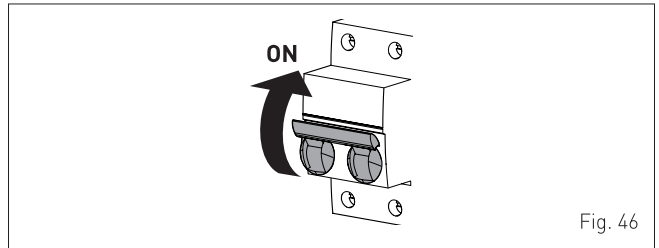
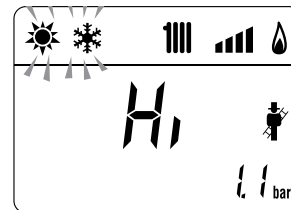
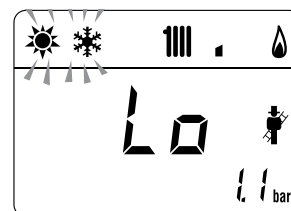


Fig. 46

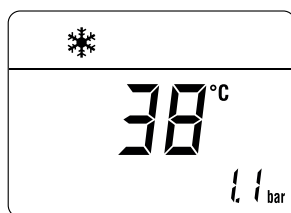
- press the button **ON** for at least 1 second until "SUMMER" mode has been selected
- press and hold down the buttons **-** and **+** at the same time for approximately 10 seconds until the message "Hi" appears on the display together with the flashing symbols and



- press the button **+** to make the boiler operate at maximum power "Hi" and check that the gas pressure values on the pressure gauges correspond to those indicated in the table below
- press the button **-** to make the boiler operate at minimum power "Lo" and check that the gas pressure values on the pressure gauges correspond to those indicated in the table below. The message "Lo" will appear on the display together with the flashing symbols and



- press the button **+** once again to make the boiler operate at maximum power. If the gas pressure values are correct it is possible to determine the combustion data and take a reading of the combustion efficiency as provided for by legislation in force
- press the button **OR** to exit the "Chimney sweeper Procedure". The boiler water delivery temperature will appear on the display



- disconnect the pressure gauge, carefully close the pressure point (6), put the control panel back to the original position and refit the front panel (2).

Gas supply pressure

| Type of gas | NATURAL GAS | UNIVERSAL LPG |
|---------------------|-------------|---------------|
| Pressure (mbar/kPa) | 11.3/1.13 | 27.5/2.75 |

Installation with SPLIT PIPE SYSTEM smoke outlet

| Model | Heat Output | Pressure at nozzles (mbar/kPa) | |
|--------------------|-------------|--------------------------------|----------------------------|
| | | NATURAL GAS | UNIVERSAL LPG |
| Brava Slim 30 BFRi | Max | 5.3 - 5.6 0.53 - 0.56 | 20.2 - 20.6 2.02 - 2.06 |
| | min | 0.8 - 1.1 0.08 - 0.11 | 4.3 - 4.6 0.43 - 0.46 |

Installation with CONCENTRIC smoke outlet

| Model | Heat Output | Pressure at nozzles (mbar/kPa) | |
|--------------------|-------------|--------------------------------|----------------------------|
| | | NATURAL GAS | UNIVERSAL LPG |
| Brava Slim 30 BFRi | Max | 5.8 - 6.2 0.58 - 0.62 | 20.5 - 21.0 2.05 - 2.10 |
| | min | 1.3 - 1.6 0.13 - 0.16 | 4.5 - 5.0 0.45 - 0.50 |
| Brava Slim 30 BFRe | Max | 5.8 - 6.2 0.58 - 0.62 | 20.5 - 21.0 2.05 - 2.10 |
| | min | 1.3 - 1.6 0.13 - 0.16 | 4.5 - 5.0 0.45 - 0.50 |

If the gas pressure values are different from the values indicated in the table, adjust the gas nozzle pressure as described in the section below.

9.7.2 Adjusting gas pressure at the nozzles



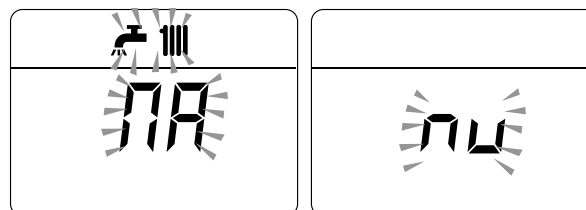
CAUTION

Considering that:

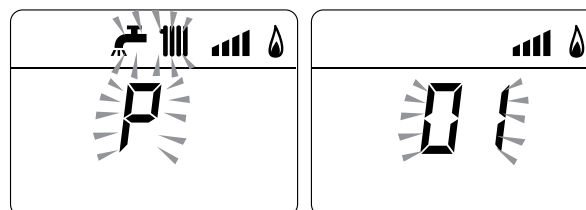
- the front panel (2) has already been removed and the point (6) is connected to the pressure gauge
- the main system switch must be set to "ON"
- the gas supply must be open
- the heat requests must be active ("Winter" mode ❄️ with TA closed)
- **the adjustments described below must be carried out in sequence.**

Adjusting maximum gas pressure:

- press button **▶▶** and set the HEATING SET to maximum using the button **+**
- set the room thermostats to the maximum temperature
- press and hold down the buttons **+** and **OR** at the same time for approximately 6 seconds until the message "MA" appears on the display alternating with "nu"



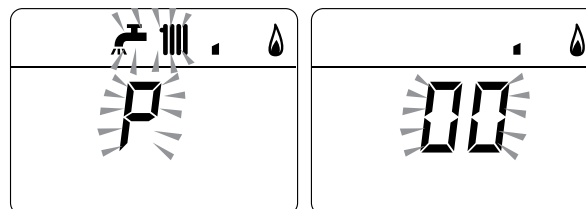
- **open one or more than one hot water tap**
- the boiler will start up and the message "P01" will appear on the display (Adjusting maximum gas pressure)



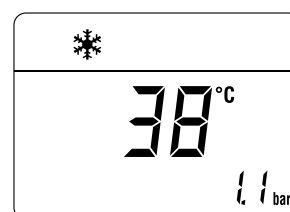
- press the buttons **+** or **-** until the pressure value indicated in the table appears on the pressure gauge
- once the value indicated in the table has been reached, press the button **OR** for approximately 2 seconds to confirm the value which will then flash once.

Adjusting minimum gas pressure:

- press the button **◀◀** twice, the message "P00" will appear on the display



- press the buttons **+** or **-** until the pressure value indicated in the table appears on the pressure gauge
- once the value indicated in the table has been reached, press the button **OR** for approximately 2 seconds to confirm the value which will then flash once.
- press and hold down the buttons **+** and **OR** at the same time for approximately 6 seconds until the water delivery temperature appears on the display and the boiler shuts down/starts up
- close the valves which were opened previously.



9.8 Gas conversion

Brava Slim 30 BFR models can be converted from operation with NATURAL GAS to operation with UNIVERSAL LPG by installing the "Nozzle kit for G30/G31", code 5144716 to be ordered separately from the boiler.



CAUTION

The maintenance interventions described must ONLY be carried out by the professionally qualified personnel.



WARNING

Before carrying out any interventions described:

- set the main system switch to "OFF"
- close the gas valve
- make sure that no hot parts inside the appliance are touched.

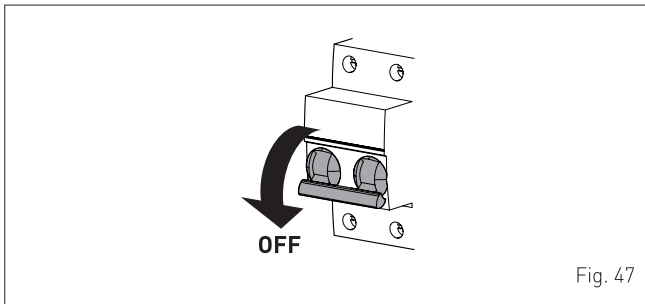


Fig. 47

9.8.1 Preliminary operations

To carry out the conversion:

- disassemble the smoke outlet duct of the **Brava Slim 30 BFR**
- remove the screws (1), pull the front panel (2) forwards and release it from the top by lifting it

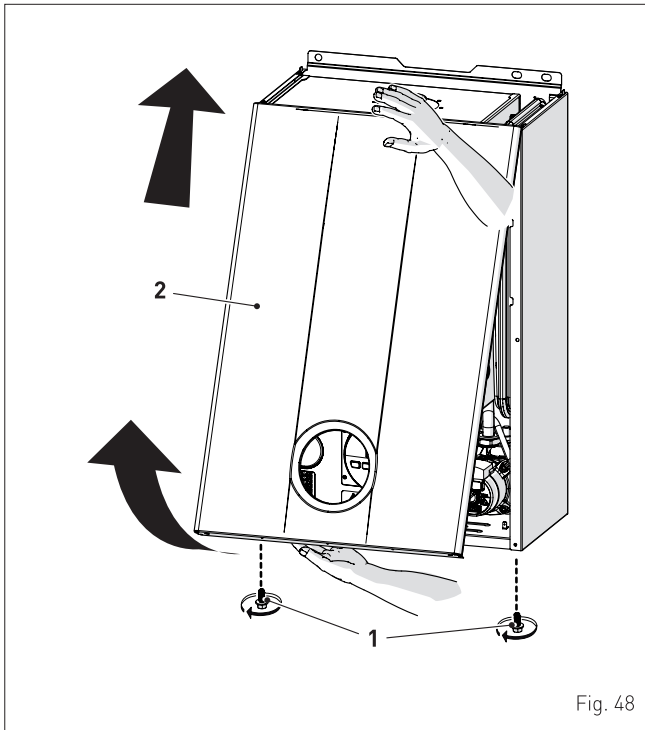


Fig. 48

- remove the four screws (3) and remove the front panel (4) from the sealed chamber

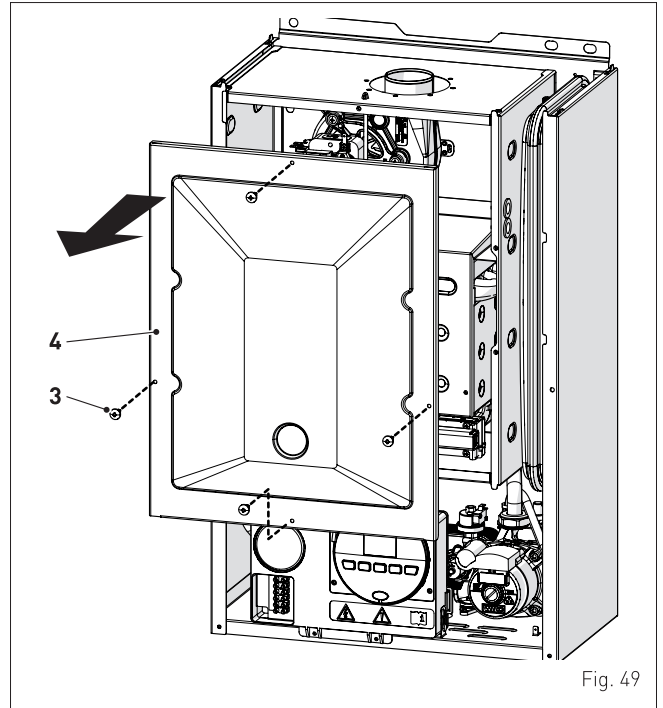


Fig. 49

- remove the four screws (3) and remove the front panel (4) from the combustion chamber (6) working carefully so as not to damage the gasket or the panel insulation

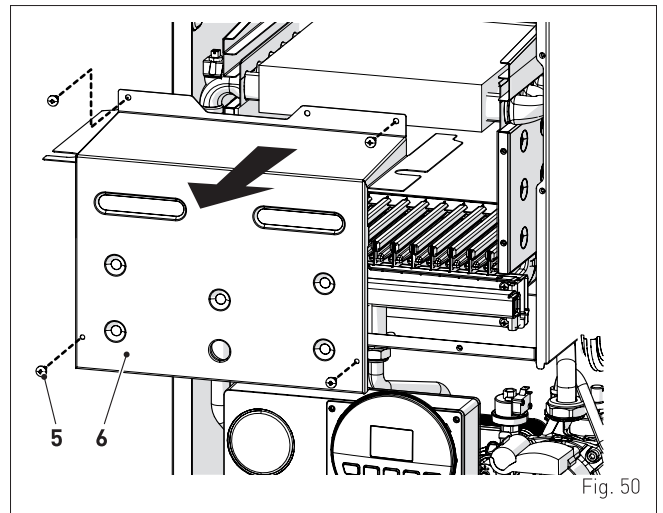


Fig. 50

- remove the screw (7) and extract the electrode (8)
- remove the swivel joint (9) and the counter-nut (10)
- remove the screws (11)
- remove the gas manifold (12), replace the nozzles fitted in the factory with the nozzles supplied with the accessory kit and position the gaskets

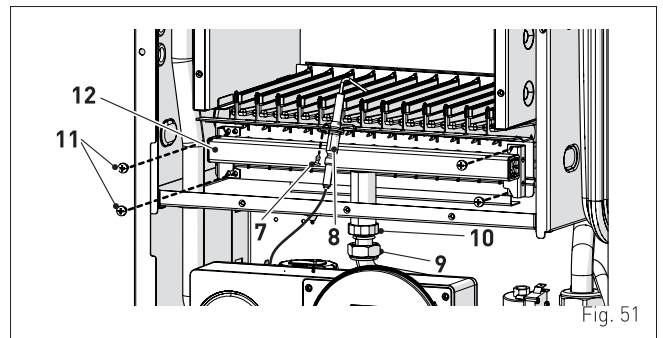


Fig. 51

- refit the gas manifold (12) securing it with the screws (11)

- tighten the counter-nut (10) and the swivel joint (9) and position the gasket
- refit the electrode (8) putting its end **IN THE MIDDLE** of the burner element (*)
- check that the gasket and the insulation of the front panel (6) of the combustion chamber and the gasket (13) of the front panel (4) of the sealed chamber are all integral. If they are not, replace them
- refit the panels (6) and (4) securing them with fastening screws



CAUTION (*)

The position of the electrode is essential for the correct detection of current ionization.

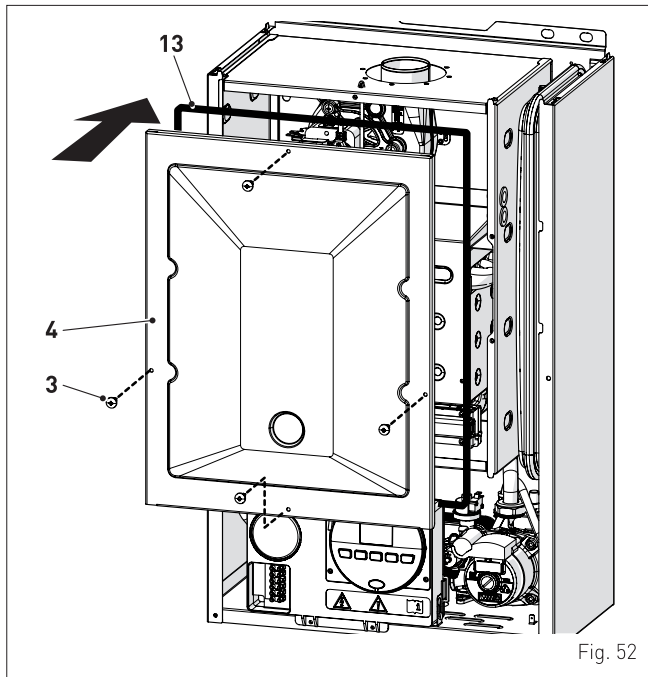


Fig. 52

- apply the label indicating the new gas configuration on the technical plate (14) on the inside of the front panel
- carry out the **"Automatic calibration procedure"** and then refit the front panel (2) securing it with the two screws (1).

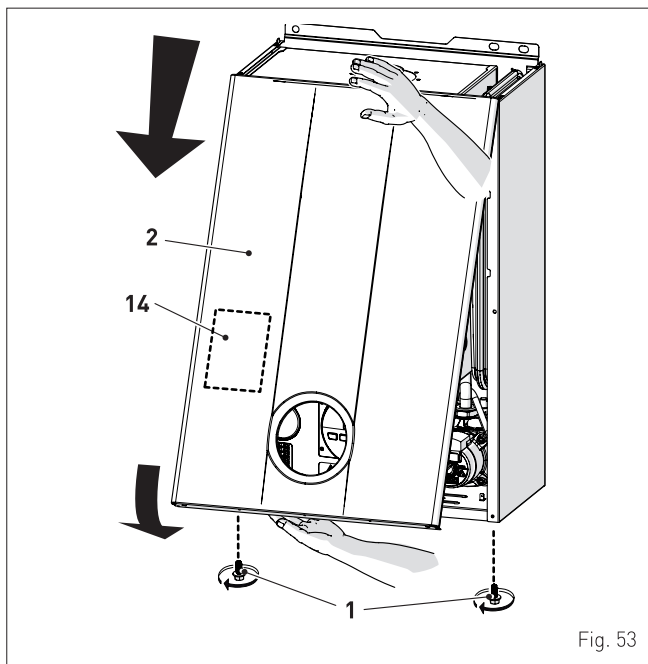


Fig. 53

9.9 Automatic calibration procedure



CAUTION

This procedure and the procedures relating to "Gas conversion", "Adjusting max gas" and "Adjusting min gas", **MUST BE CARRIED OUT** after:

- replacing the nozzles for the gas conversion
 - changing the gas valve following a fault
 - changing the electronic board following a fault.
- Considering that:
- the front panel has been removed, the control panel has been brought forward and down and that the points (6) and (7) of the gas valve have been connected to the pressure gauges
 - the main system switch must be set to "ON"
 - the gas supply must be open
 - no heat requests must be active ("Winter" mode ❄ with TA open)
 - **the adjustments described below must be carried out in sequence.**

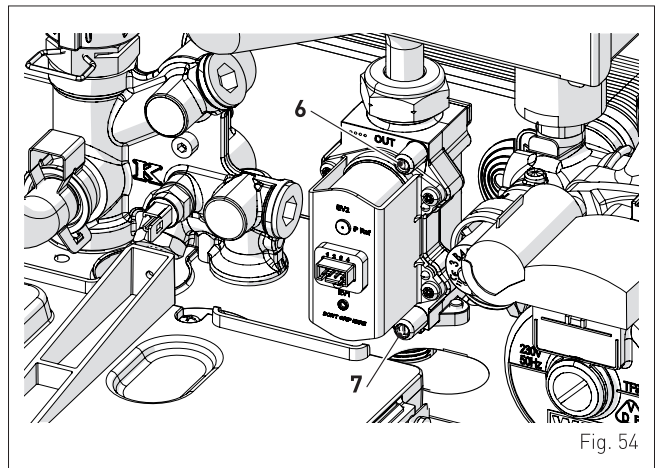
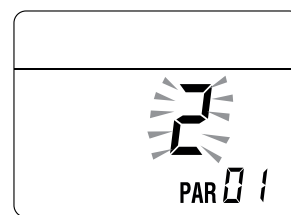


Fig. 54

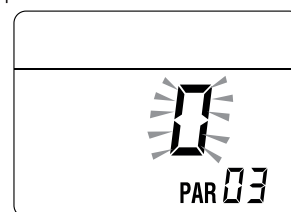
Procedure valid for GAS CONVERSION

- go into the parameter section by pressing the buttons ◀◀ and |||| (for approximately 5 seconds) at the same time until "PAR 01" (parameter number) and the value set (0-4) flashes on the display

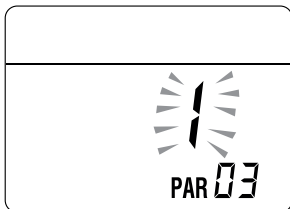


NOTE: holding the buttons ◀◀ or |||| increases the speed of the scrolling movement. Pressing the button ◀◀ allows the user to scroll through the previous parameters.

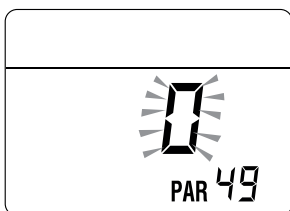
- keep the button |||| pressed and scroll through the parameters until reaching parameter "03"



- press the button **+** and select "1" (UNIVERSAL LPG)



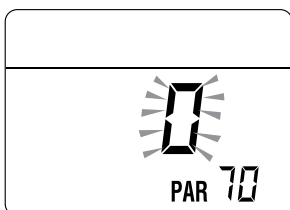
- go into the parameter section (if not already there) by pressing the buttons **◀◀** and **||||** (for approximately 5 seconds) at the same time until "PAR 01" (parameter number) and the value set (0-4) flashes on the display
- keep the button **||||** pressed and scroll through the parameters until reaching parameter "PAR 49"



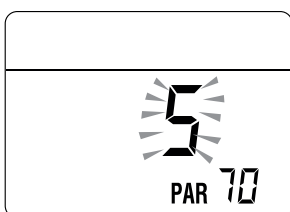
- press and hold the button **+** to set the value at "49"



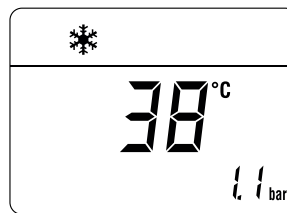
- the modified value will be stored automatically
- keep the button **||||** pressed and scroll through the parameters until reaching parameter "PAR 70"



- press the button **+** to set the value at "5"
- the modified value will be stored automatically



- exit the parameter section by pressing and holding down the buttons **◀◀** and **||||** at the same time (approximately 5 seconds) until the delivery temperature is displayed.

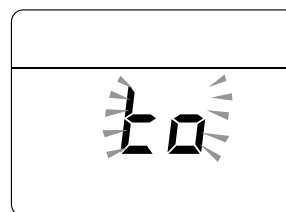
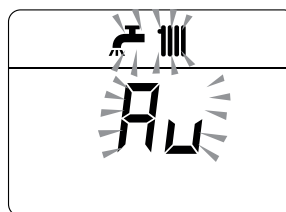


IMPORTANT

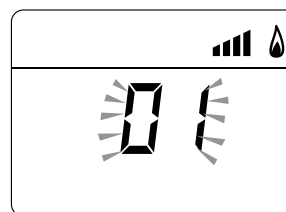
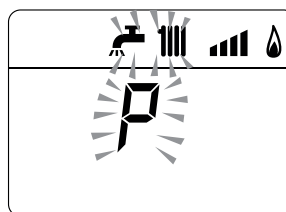
To complete this task the user **MUST** carry out the following procedure.

Adjusting maximum gas pressure:

- press the button **OR** until "WINTER" mode has been selected
- press button **◀◀** and set the DOMESTIC HOT WATER SET to maximum using the button **+**
- press and hold down the buttons **+** and **OR** at the same time for approximately 6 seconds until the message "Au" appears on the display alternating with "to"



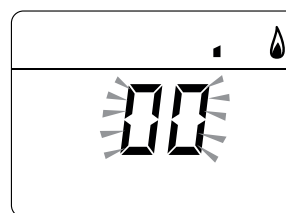
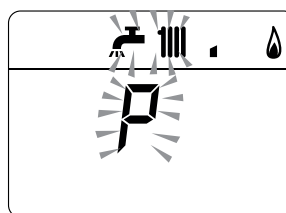
- the boiler will start up and the message "P01" will appear on the display (Adjusting maximum gas pressure)



- press the buttons **+** or **-** until the pressure value indicated in the table appears on the pressure gauge
- once the value indicated in the table has been reached, press the button **OR** for approximately 2 seconds to confirm the value which will then flash once.

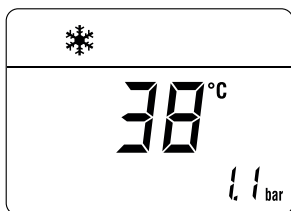
Adjusting minimum gas pressure:

- press the button **◀◀** twice, the message "P00" will appear on the display



- press the buttons **+** or **-** until the pressure value indicated in the table appears on the pressure gauge
- once the value indicated in the table has been reached, press the button **OR** for approximately 2 seconds to confirm the value which will then flash once

- press and hold down the buttons **+** and **⏻** at the same time for approximately 6 seconds until the water delivery temperature appears on the display and the boiler shuts down



- close the valves which were opened previously
- disconnect the pressure gauges, carefully close the pressure points (6) and (7), put the control panel back to the original position and refit the front panel.

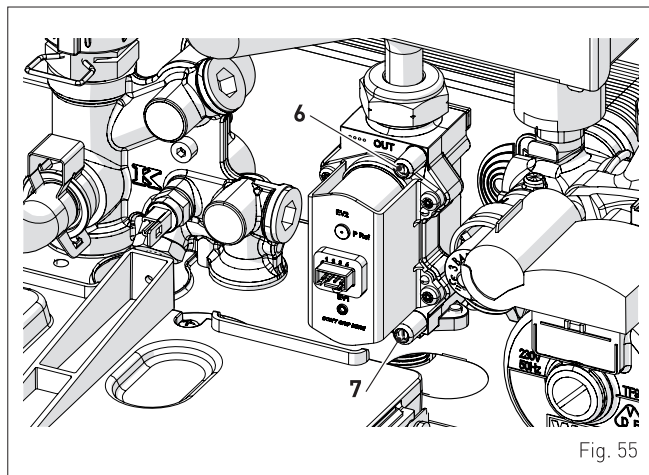


Fig. 55

Gas supply pressure

| Type of gas | NATURAL GAS | UNIVERSAL LPG |
|---------------------|-------------|---------------|
| Pressure (mbar/kPa) | 11.3/1.13 | 27.5/2.75 |

Installation with SPLIT PIPE SYSTEM smoke outlet

| Model | Heat Output | Pressure at nozzles (mbar/kPa) | |
|--------------------|-------------|--------------------------------|----------------------------|
| | | NATURAL GAS | UNIVERSAL LPG |
| Brava Slim 30 BFRi | Max | 5.3 - 5.6 0.53 - 0.56 | 20.2 - 20.6 2.02 - 2.06 |
| | min | 0.8 - 1.1 0.08 - 0.11 | 4.3 - 4.6 0.43 - 0.46 |

Installation with CONCENTRIC smoke outlet

| Model | Heat Output | Pressure at nozzles (mbar/kPa) | |
|--------------------|-------------|--------------------------------|----------------------------|
| | | NATURAL GAS | UNIVERSAL LPG |
| Brava Slim 30 BFRi | Max | 5.8 - 6.2 0.58 - 0.62 | 20.5 - 21.0 2.05 - 2.10 |
| | min | 1.3 - 1.6 0.13 - 0.16 | 4.5 - 5.0 0.45 - 0.50 |
| Brava Slim 30 BFRe | Max | 5.8 - 6.2 0.58 - 0.62 | 20.5 - 21.0 2.05 - 2.10 |
| | min | 1.3 - 1.6 0.13 - 0.16 | 4.5 - 5.0 0.45 - 0.50 |

10 MAINTENANCE

10.1 Adjustments

For the appliance to operate correctly and efficiently it is recommended that the User calls upon the services of a Professionally Qualified Technician to carry out **BI-ANNUAL** maintenance.



CAUTION

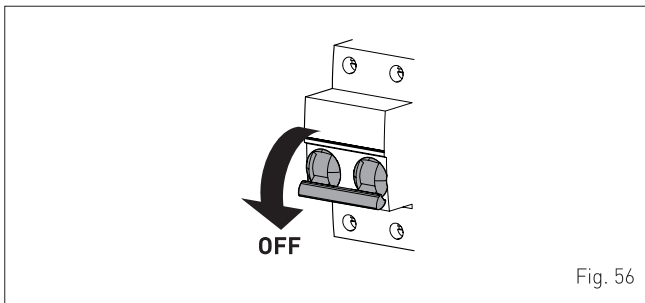
The maintenance interventions described must **ONLY** be carried out the professionally qualified personnel.



WARNING

Before carrying out any interventions described:

- set the main system switch to "OFF"
- close the gas valve
- make sure that no hot parts inside the appliance are touched.



10.2 External cleaning

10.2.1 Cleaning the cladding

When cleaning the cladding, use a cloth dampened with soap and water or alcohol for stubborn marks.



IT IS FORBIDDEN

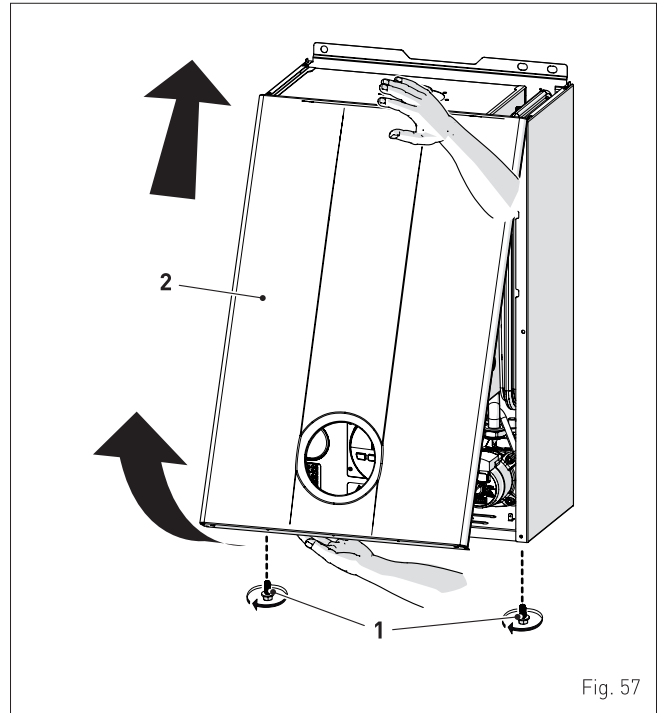
to use abrasive products.

10.3 Cleaning the inside of the appliance

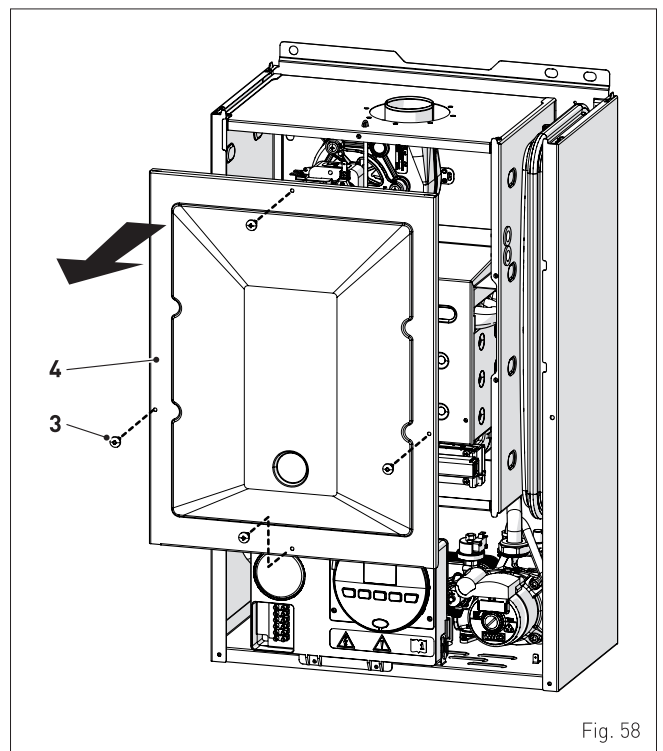
10.3.1 Cleaning the heat exchanger

To clean the heat exchanger:

- disassemble the smoke outlet duct of the **Brava Slim 30 BFR**e
- remove the screws (1), pull the front panel (2) forwards and release it from the top by lifting it



- remove the four screws (3) and remove the front panel (4) from the sealed chamber



- remove the four screws (3) and remove the front panel (4) from the combustion chamber (6) working carefully so as not to damage the gasket or the panel insulation

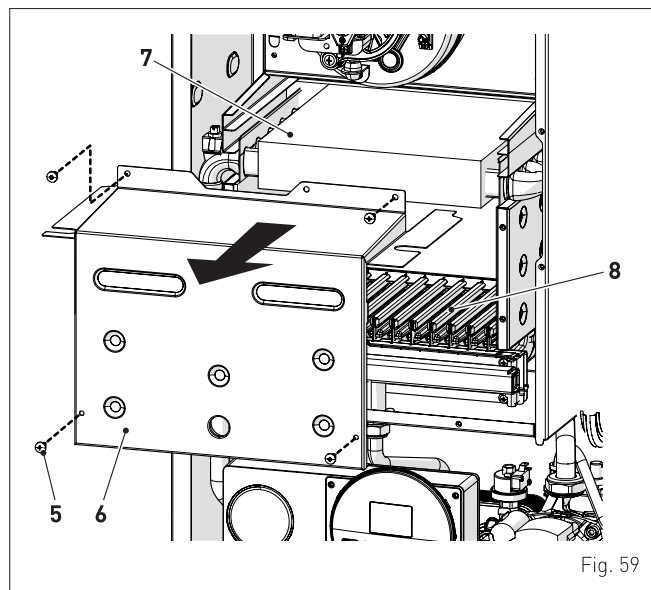


Fig. 59

- if there is any dirt on the heat exchanger (7) fins, protect the burner elements (8) covering them with a sheet of newspaper or a cloth and brush the heat exchanger (7) clean. For more details refer to the drawings in the spare parts catalogue.

10.3.2 Cleaning the burner

The burner does not require any particular maintenance simply dust it with a soft brush

10.3.3 Checking the ignition/detection electrode

Check the state of the ignition/detection electrode and replace if necessary. Check the measurements as per the drawing whether the ignition/detection electrode is replaced or not.

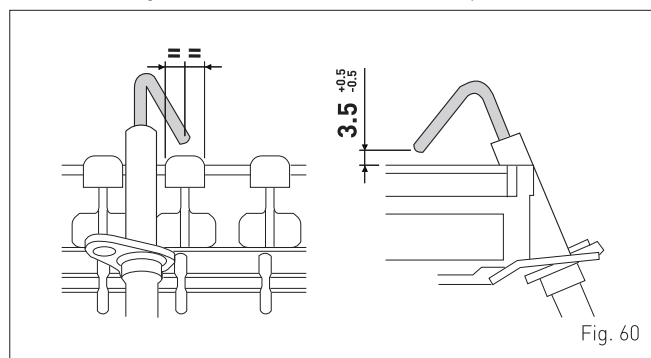


Fig. 60



CAUTION
The position of the electrode is essential for the correct detection of current ionization.

10.3.4 Final operations

After having cleaned the heat exchanger and the burner:

- remove any carbon residue using a vacuum cleaner
- check that the gasket and the insulation of the front panel (6) of the combustion chamber and the gasket (13) of the front panel (4) of the sealed chamber are all integral. If they are not, replace them
- refit the panels (6) and (4) securing them with fastening screws.

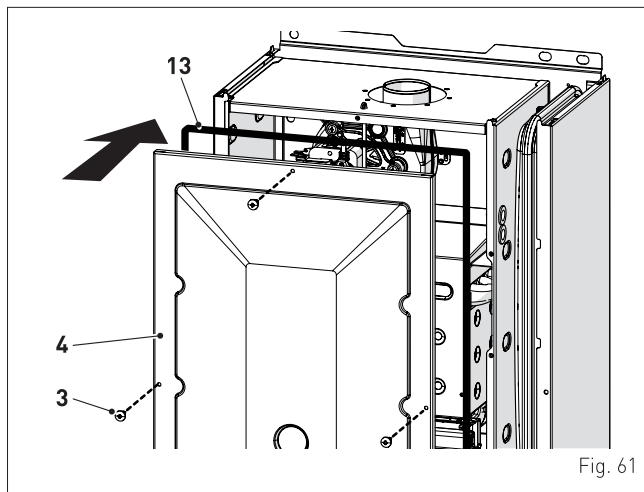


Fig. 61

10.4 Checks

10.4.1 Checking the smoke duct

It is recommended that the user checks that the combustion air inlet duct and smoke outlet duct are integral and airtight.

10.4.2 Checking the expansion vessel pressure

It is recommended that the expansion vessel on the water side is drained and that the prefilling pressure is not less than **1 bar (100 kPa)**. If this is not the case, pressurize it to the correct value [see section **Expansion vessel**].

Once the checks described above have been completed:

- refill the boiler as described in section **"REFILL operations"**
- start the boiler up and carry out a smoke analysis and/or measure the combustion efficiency.
- refit the front panel securing it with the two screws which were removed previously

10.5 Unscheduled maintenance

If replacing the **electronic board**, the user **MUST** set the parameters as indicated in the table.

| Type | No. | Description | Setting for Brava Slim 30 BFR | |
|------|-----|---|-------------------------------|---------|
| | | | 30 BFRi | 30 BFRe |
| PAR | 01 | Index showing boiler power in kW 0 = 24; 1 = 30; 5 = AUS | 5 | |
| PAR | 02 | Hydraulic configuration 0 = rapid 1 = storage tank with thermostat or heating only 2 = hot water tank with sensor 3 = bithermic 4=instant with solar power input | 1 | |
| PAR | 03 | Gas Type Configuration 0 = NATURAL GAS; 1 = UNIVERSAL LPG | 0 or 1 | |
| PAR | 04 | Combustion configuration 0 = sealed chamber with combustion control 1 = open chamber with smoke thermostat 2 = Low NOx | 0 | |

To enter "**Parameter setting and display**" refer to the indications provided in the specific section.

Once the parameters in the table have been set, you must carry out the "**Automatic calibration procedure**".

If the **gas valve** and/or the **ignition/detection electrode** and/or the **fan** are replaced, the user must still carry out the entire phase of "**Automatic calibration procedure**" described in the specific section.

10.6 Possible faults and solutions


LIST OF MALFUNCTION/FAULT ALARMS

| Type | No. | Fault | Solution |
|------|-----|---|---|
| ALL | 02 | Low water pressure in system | - Restore pressure - Check for any leaks in the system |
| ALL | 03 | High water pressure in system | - Empty the system via the drain valve on the hydraulic assembly and bring the pressure to approximately 1.2 bar (120 kPa) |
| ALL | 04 | | - |
| ALL | 05 | Delivery sensor fault | - Check connections - Replace the sensor |
| ALL | 06 | No flame detection | - Check the integrity of the electrode and check that it is not grounded - Check gas availability and pressure - Check the integrity of the gas valve and the card |
| ALL | 07 | Intervention of the second element of the delivery sensor | - Check the delivery sensor connections - Deaerate the system - Check the bleed valve - Replace the delivery sensor - Check that the pump impeller is not blocked |
| ALL | 08 | Fault in the flame detection circuit | - Check the integrity of the electrode and check that it is not grounded - Check gas availability and pressure - Check the integrity of the gas valve and the card |
| ALL | 09 | No water circulating in the system | - Check the rotation of the pump rotor - Check the electrical connections - Replace the pump |
| ALL | 10 | Auxiliary sensor fault | - Check PAR 02 "hydraulic configuration" - Check the electrical connection |
| ALL | 11 | Gas valve modulator disconnected | - Check the electrical connection |
| ALL | 12 | Incorrect configuration of the open /sealed chamber | - Set the parameter tS 0.4 (Combustion configuration) to 0 |
| ALL | 17 | Fault regarding maximum deviation between the 2 NTC heating sensors | - Replace the dual sensor |

| | | | |
|-----|----|--|--|
| ALL | 28 | Maximum number of consecutive resets reached | - Disconnect and reconnect the power - If the alarm persists, contact the Technical Assistance Centre |
| ALL | 37 | Fault due to low network voltage. | - Check with tester - Contact network provider (ENEL) |
| ALL | 40 | Incorrect network frequency detected | - Contact network provider (ENEL) |
| ALL | 41 | Flame loss more than 6 consecutive times | - Check the detection electrode - Check the gas supply (open valve) - Check mains gas pressure |
| ALL | 42 | Button fault | - Check that buttons are working |
| ALL | 43 | Open Therm communication fault | - Check the electrical connection of the remote control |
| ALL | 44 | Anomaly inside electronic board | - Replace the board |
| ALL | 62 | The self-calibrating procedure must be carried out | - Carry out the self-calibrating procedure (see the specific section) |
| ALL | 72 | Incorrect positioning of the delivery sensor | - Check that the delivery sensor is attached to the delivery pipe |
| ALL | 74 | Fault in the 2nd element of the delivery sensor | - Replace the sensor |
| ALL | 80 | Anomaly in gas valve control line | - Check/replace the connection cable to the gas valve |
| ALL | 81 | Block due to combustion during start-up | - Check for blockage in chimney - Bleed the air from the gas circuit |
| ALL | 83 | Irregular combustion (temporary error) | - Check for blockage in chimney |
| ALL | 88 | Anomaly inside electronic board | - Replace the board |
| ALL | 96 | Block due to clogging in smoke outlet | - Check for blockage in chimney |
| - | - | Frequent relief valve intervention | - Check circuit pressure - Check expansion vessel |
| - | - | Limited production of domestic hot water | - Check the diverter valve - Check that plate heat exchanger is clean - Check domestic hot water circuit valve |

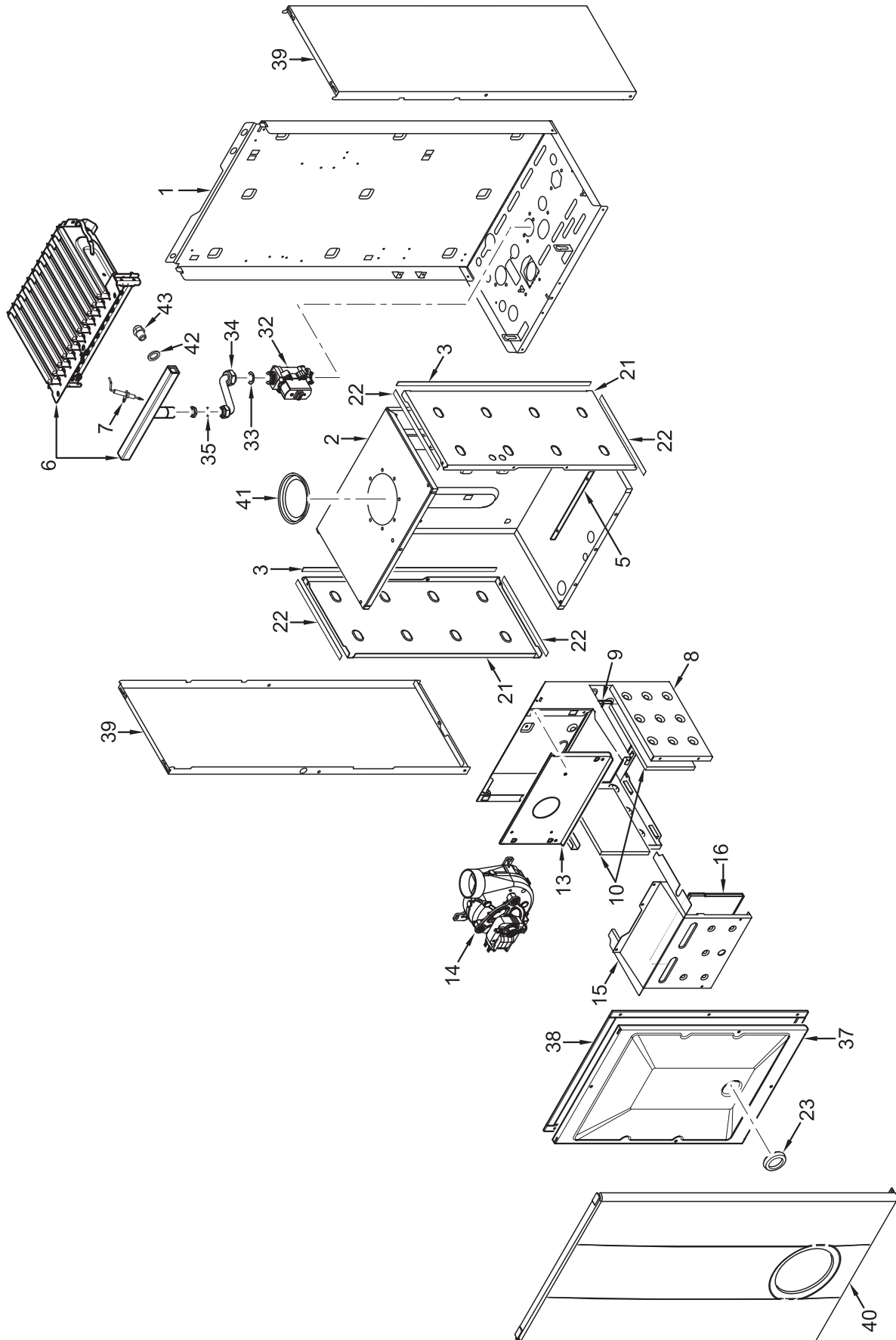
11 COMMISSIONING BOILER CHECKLIST

A suggested method of commissioning the boiler; the actual method can vary according to the boiler make, type and installation. The boiler must always be installed and commissioned by an approved gas technician. The installer certifies that this Boiler has been installed to the manufacturer's instructions, has been filled, commissioned and is ready for use.

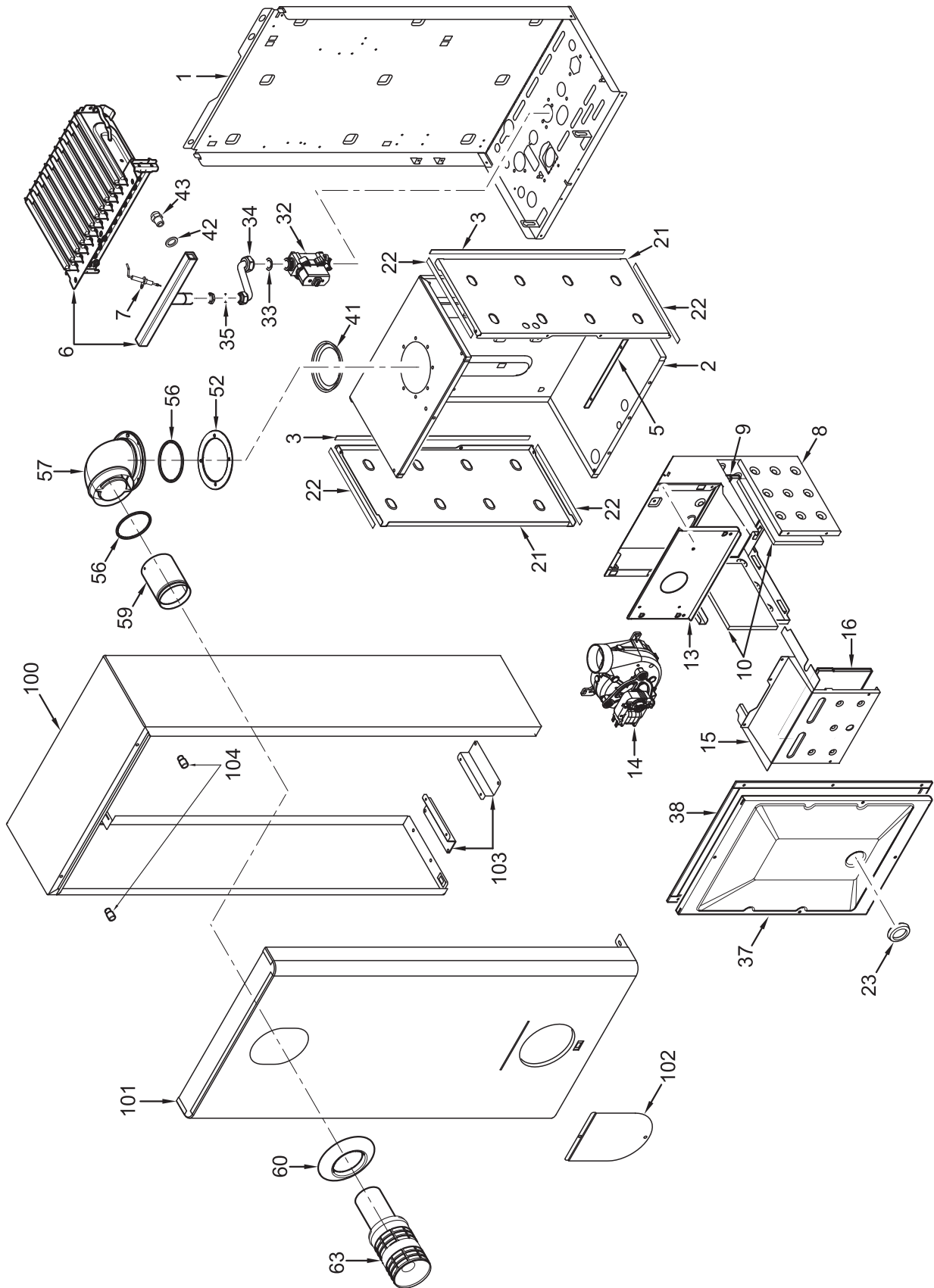
| N° | Description |  When done |
|----|--|--|
| 1 | Read carefully the instruction manuals supplied with this boiler. | |
| 2 | BEFORE INSTALLING THIS BOILER FLUSH OUT THE PIPES UNTIL CLEAN WATER IS ACHIEVED. | |
| 3 | Turn off all services to this boiler - water, gas and power. Install the boiler as shown in the instructions following and connect all services. | |
| 4 | Turn on water to fill system, check for leaks regularly and bleed air from all points. Bleed the air from all the pumps in the system, and rotate the impeller shaft. | |
| 5 | Check that all radiators valves are open, remove the thermostatic valve heads, fully open all lockshield valves. | |
| 6 | Turn ON gas, bleed air out at the isolation valve union. Reseal and check for gas leaks. Turn gas OFF. | |
| 7 | Turn electricity on at the power point. At the boiler front panel set the temperature setting to the lowest setting, switch boiler to ON position. The "Power on" Indicator should light. Turn the boiler off at the front panel. | |
| 8 | Turn the room thermostat to the manual ON position set the temperature to a high level so that it does not switch off during the commissioning phase. The thermostat will unusually click and show an indicator in the window. | |
| 9 | Switch the boiler ON at the boiler front panel control. | |
| 10 | Boiler should start fan, pump and ignite gas. If it fails first few times this may be just residual air in the gas line. A noisy water pump indicates there is air in the water pipes. | |
| 11 | Boiler lights and heats the water. Check gas flame is the correct colour and for gas and water leaks as the system heats up. | |
| 12 | Check that heat is going to all radiators through the manual or thermostatic first and return via the lockshield valve. If not STOP fix NOW and any leaks. | |
| 13 | Allow the boiler to heat up to the set temperature and switch off. Re-adjust the boiler temperature to a mid temperature point. CAUTION, If this is connected to a floor heating system. The boiler should re light and increase the water temperature to the new setting. | |
| 14 | Check that all radiators are hot all the way up. If the radiator is cold at the top, then there is usually air in the radiator Bleed the radiator. Balance the system so that all radiators are hot as according to the radiator installation manual. Adjust the boiler water temperature. | |
| 15 | Set the room thermostat to the correct times and temperatures according to the manufacture's instructions. | |
| 16 | On completion of the commissioning phase, complete the information sheet at the front of this manual. Hand over the installation to the owner and demonstrate how the system works plus basic fault resolution and safety procedures. Make sure that this important document is kept in a safe accessible place. | |

12 EXPLODED VIEWS

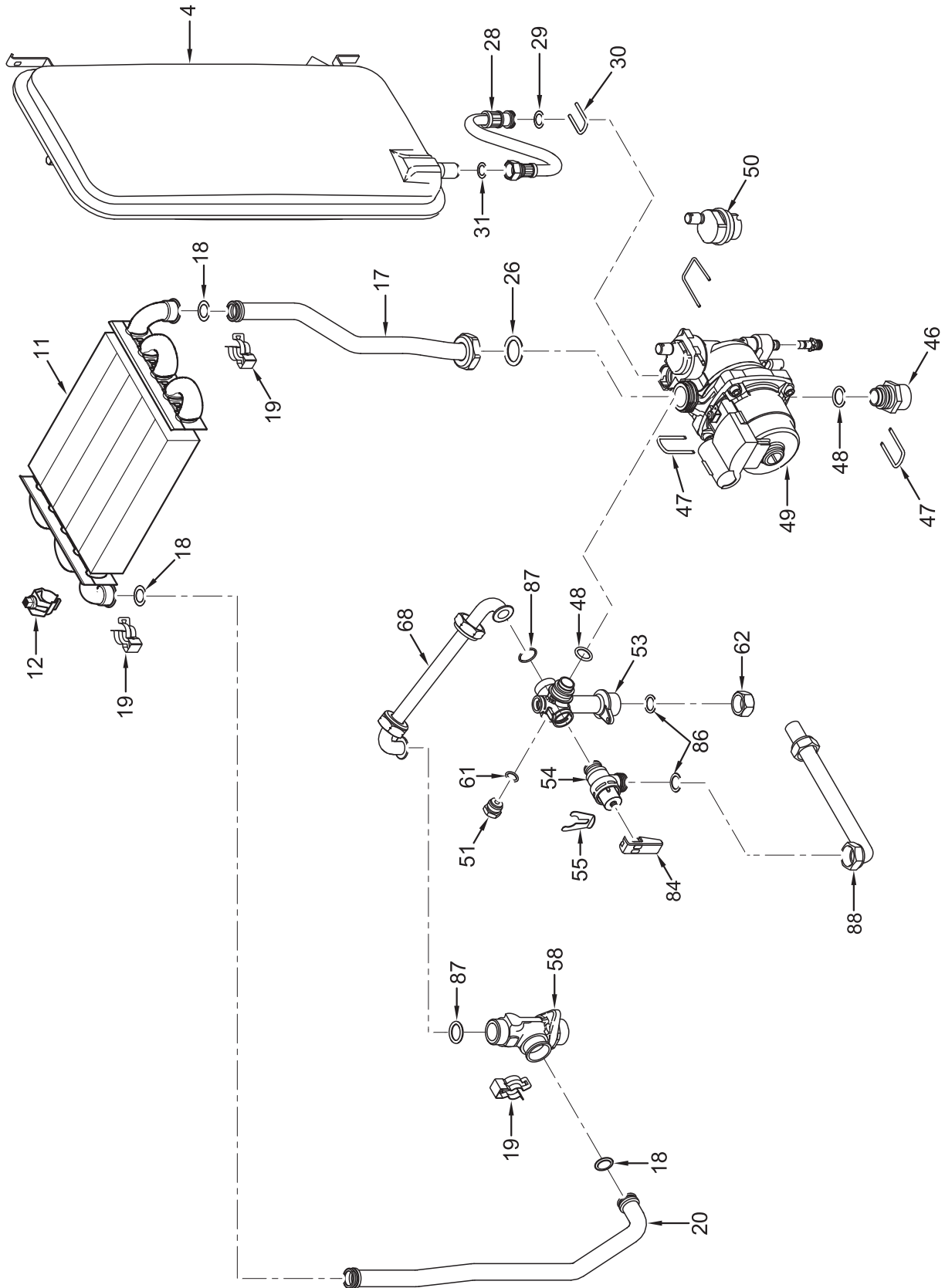
Brava Slim 30 BFRi



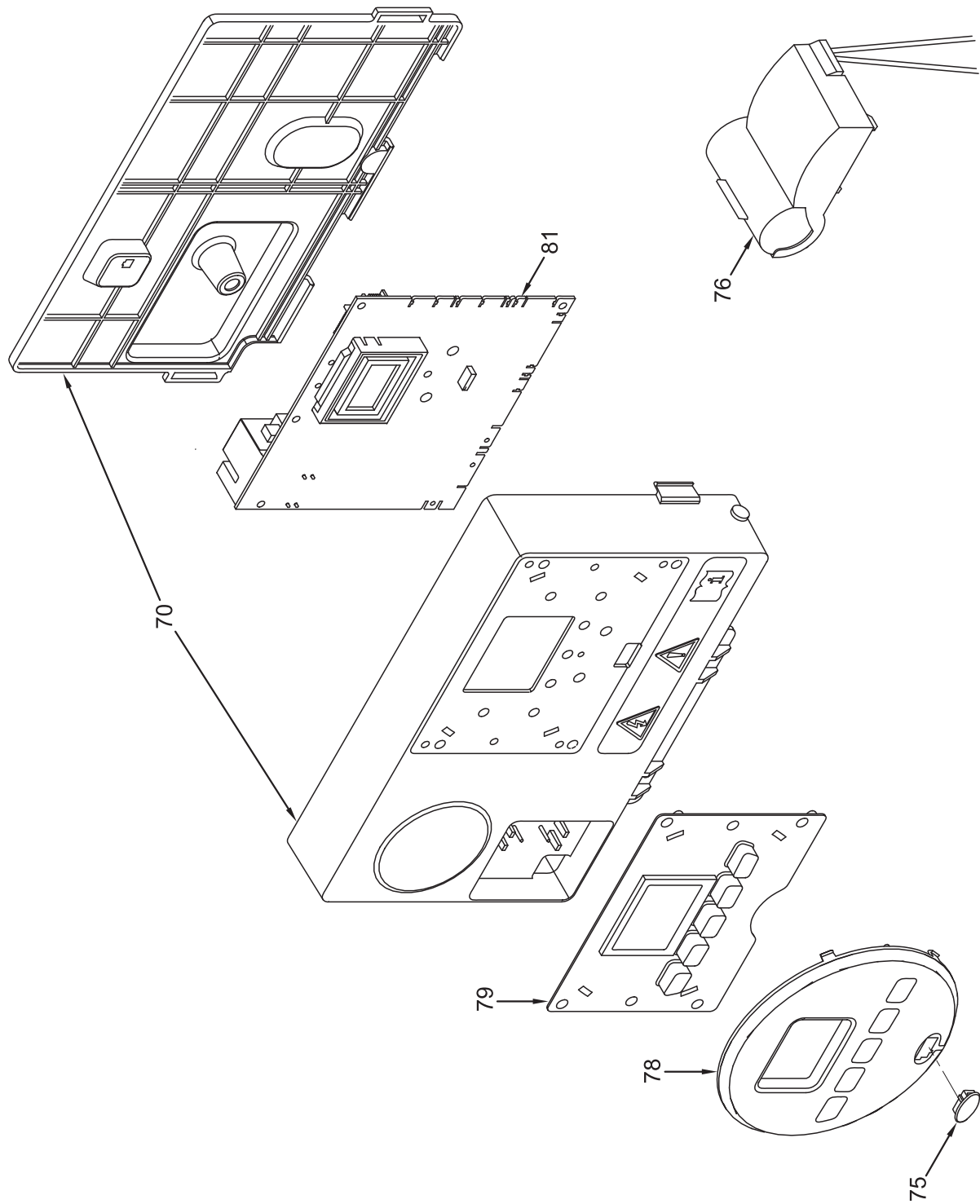
Brava Slim 30 BFRé



Brava Slim 30 BFRi - Brava Slim 30 BFRe



Brava Slim 30 BFRi - Brava Slim 30 BFRe



| Pos. | Code | Description | BRAVA SLIM BFR | |
|------|---------|--------------------------------------|----------------|------|
| | | | 30 i | 30 e |
| 1 | 6264561 | Boiler fixing bracket | x | x |
| 2 | 6317611 | Sealed chamber rear panel | x | x |
| 3 | 6229838 | Gasket for sealed chamber | x | x |
| 4 | 5183729 | Rectang. expans.vessel 9 l. 3/8" M | x | x |
| 5 | 6257532 | Air deflector | x | x |
| 6 | 5198265 | Main burner assembly | x | x |
| 7 | 6235935 | Ignition-ionisation electrode | x | x |
| 8 | 6318530 | Smoke chamber assembly | x | x |
| 9 | 6318741 | Combustion chamber rear insulation | x | x |
| 10 | 6318710 | Combustion chamber side insulation | x | x |
| 11 | 6174265 | Gas/Water heat exchanger | x | x |
| 12 | 6231362 | NTC sensor | x | x |
| 13 | 6318610 | Smoke chamber front panel | x | x |
| 14 | 6225643 | Fan | x | x |
| 15 | 6317910 | Combustion chamber front panel | x | x |
| 16 | 6318731 | Combustion chamber side insulation | x | x |
| 17 | 6264868 | C.H. return pipe | x | x |
| 18 | 6226412 | O-ring 3068 | x | x |
| 19 | 6226601 | Spring for heat exchanger connection | x | x |
| 20 | 6227465 | Flowing pipe to C.H. system | x | x |
| 21 | 6288210 | Sealed chamber side panel | x | x |
| 22 | 6229837 | Gasket for sealed chamber | x | x |
| 23 | 6001210 | Peephole | x | x |
| 26 | 2030267 | Piracriten gasket Ø 30x17x2 | x | x |
| 28 | 6017405 | Flexible pipe M.F. 3/8" L=300 | x | x |
| 29 | 6226476 | ORing diam.15x2 | x | x |
| 30 | 6226643 | Pipe fixing spring | x | x |
| 31 | 2030226 | Gasket Ø 10.2x14.8x2 | x | x |
| 32 | 6243838 | Gas valve | x | x |
| 33 | 2030249 | Gasket Ø 24x17x3 | x | x |
| 34 | 6195216 | Gas inlet pipe | x | x |
| 35 | 2030255 | Gasket Ø 12.5x18.5x3 | x | x |
| 37 | 6317711 | Sealed chamber front panel | x | x |
| 38 | 5192208 | Gasket for sealed chamber | x | x |
| 39 | 6304480 | casing left/right side panel | x | |
| 40 | 6325011 | Casing front panel | x | |
| 41 | 6028620 | Air diaphragm Ø 81 | x | x |
| 42 | 6022004 | Copper washer Ø 6 | x | x |
| 43 | 6154408 | Main burner nozzle ø 1.50 | x | x |
| 43 | 6154425 | Nozzle M6X0.75-D.0.86 LPG | x | x |
| 46 | 6120560 | Pump nipple 3/4" | x | x |
| 47 | 6226644 | Spring clip for rotating connection | x | x |
| 48 | 6226475 | ORing diam.18.64x3.53 | x | x |
| 49 | 6272348 | Modulating circulating pump | x | x |
| 50 | 6013182 | Automatic air vent | x | x |
| 51 | 6147401 | Plug 1/4" | x | x |
| 52 | 6028702 | Gasket Ø 95x125x2 | | x |
| 53 | 6265835 | C.H. return manifold | x | x |
| 54 | 6040225 | Pressure relief valve 1/2" 3 bar | x | x |
| 55 | 6226645 | Spring clip | x | x |
| 56 | 6226404 | Rubber gasket OR 308 Ø 60.3 | | x |
| 57 | 6226251 | Flanged elbow Ø 95 mm | | x |
| 58 | 6265895 | Flowing to C.H. system manifold | x | x |

| Pos. | Code | Description | BRAVA SLIM BFR | |
|------|---------|---------------------------------------|----------------|------|
| | | | 30 i | 30 e |
| 59 | 6230710 | Flue duct extension | | x |
| 60 | 6230400 | Rubber sealing ring Ø 100 mm | | x |
| 61 | 2030225 | Gasket Ø 5.5x11x2 | x | x |
| 62 | 6229500 | Plug 1/2" | x | x |
| 63 | 6230302 | Flue terminal | | x |
| 68 | 6277798 | Pipe connecting | x | x |
| 70 | 6304720 | Control panel | x | x |
| 75 | 6305140 | Rubber cap | x | x |
| 76 | 6245380 | Pump connector | x | x |
| 78 | 6304831 | Interface panel | x | x |
| 79 | 6305131 | Rubber button | x | x |
| 81 | 6324900 | Main P.C.B. | x | x |
| 84 | 6275911 | Pressure relief valve operation lever | x | x |
| 86 | 2030227 | Gasket Ø 12x18x2 | x | x |
| 87 | 2030228 | Gasket Ø 17x24x2 | x | x |
| 88 | 6157653 | Pressure relief valve drain pipe | x | x |
| 100 | 6255818 | Boiler casing | | x |
| 101 | 6255885 | Casing door | | x |
| 102 | 6255913 | Flap door | | x |
| 103 | 6262910 | Boiler casing support | | x |
| 104 | 6133100 | Pin M5 ZnCr | | x |
| 700 | 6281534 | Gaskets kit | x | x |
| 701 | 6319695 | Murelle-Format-.....o-ring kit | x | x |
| 702 | 6319700 | Springs / clamps kit DIN | x | x |
| 703 | 5202340 | Complete control panel | x | x |
| 704 | 6323876 | 4 pole cable connector CN14 | x | x |
| 705 | 6323878 | 9 pole cable connector CN1 | x | x |
| 706 | 6323883 | 4 pole cable connector CN13 | x | x |
| 707 | 6325602 | 6 pole cable connector CN12 | x | x |
| 708 | 6325641 | 14 pole cable connector | x | x |
| 709 | 5144726 | Conversion kit to LPG | | x |
| 710 | 5144726 | Conversion kit to LPG | x | |

13 REMOVING COMPONENTS



CAUTION

The maintenance interventions described must ONLY be carried out by the professionally qualified personnel.



WARNING

Before carrying out any interventions described:

- set the main system switch to "OFF"
- close the gas valve
- make sure that no hot parts inside the appliance are touched.

13.1 Remove panels

13.1.1 Front panel

To access the internal parts of the boiler:

- disassemble the smoke outlet duct of the **Brava Slim 30 BFR**
- remove the screws (1), pull the front panel (2) forwards and release it from the top by lifting it

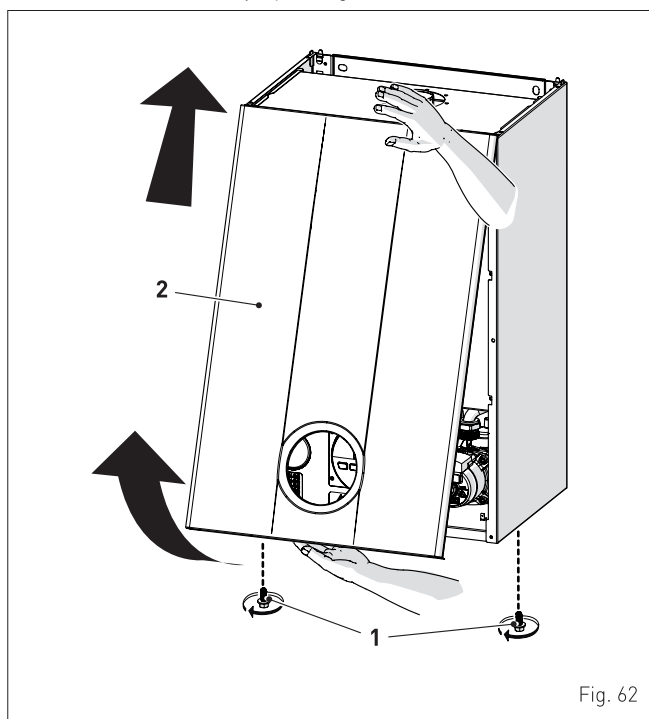


Fig. 62

13.1.2 Side panels

- Unscrew the screws (3)
- pull the side panel (4) outwards to release it from the top

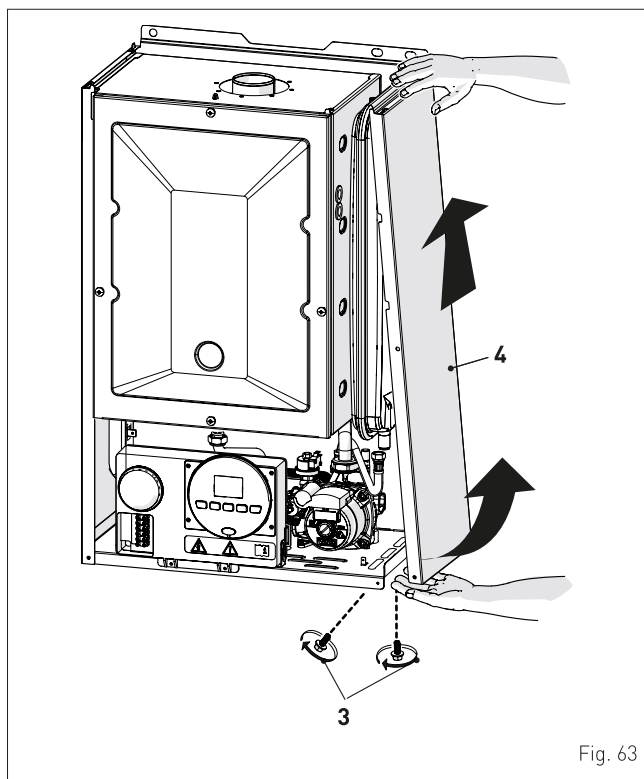


Fig. 63

- proceed in the same way for the other panel.

13.1.3 Sealed chamber panel

- remove the four screws (3) and remove the front panel (4) from the sealed chamber

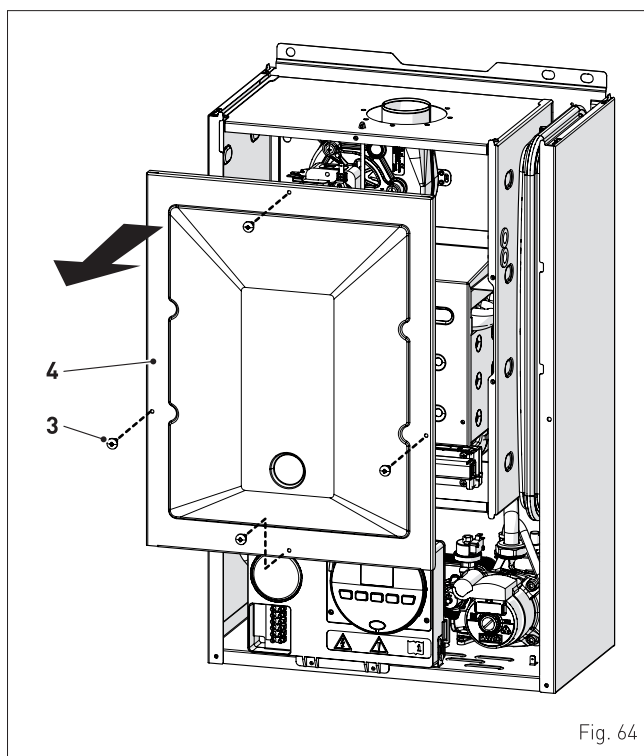
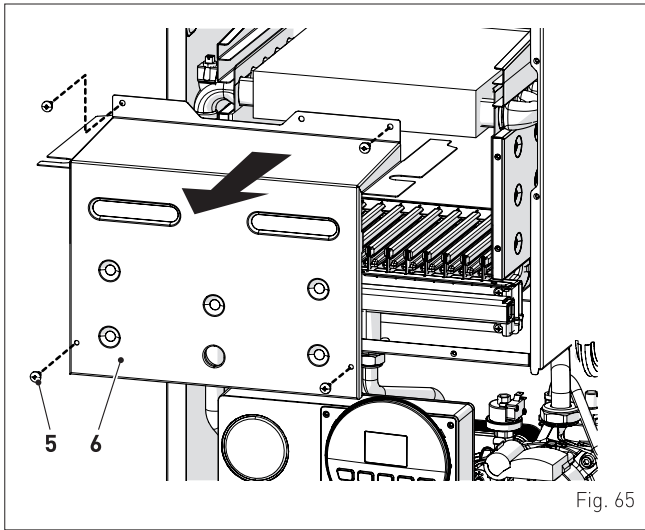


Fig. 64

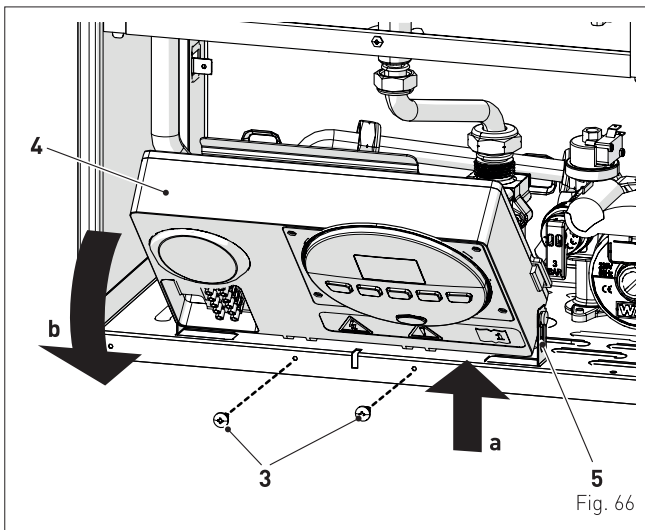
13.1.4 Combustion chamber panel

- remove the four screws (3) and remove the front panel (4) from the combustion chamber (6) working carefully so as not to damage the gasket or the panel insulation



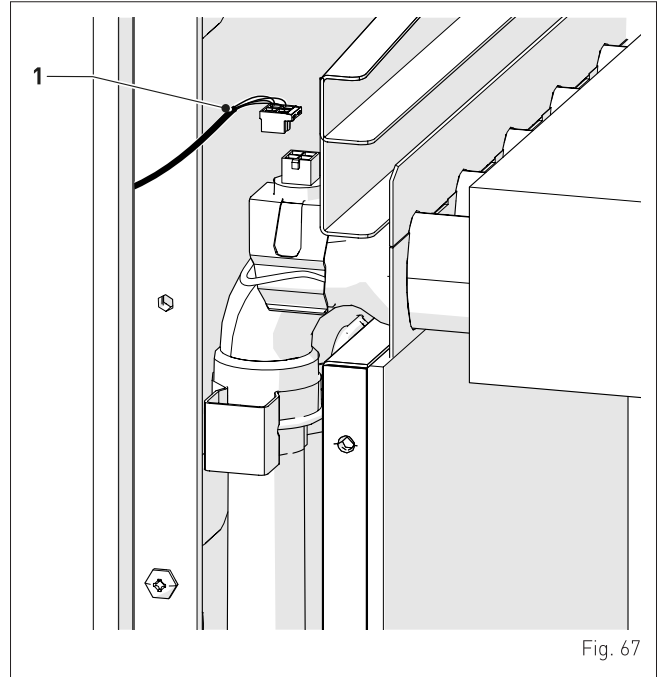
13.2 Rotate control panel

- Remove front panel (see "Remove panels" on page 51)
- remove the screws (3) securing the control panel (4)
- move the panel (4) upwards (a) but keeping it in the side guides (5) to the end of travel
- bring it forwards and down (b) until it is horizontal

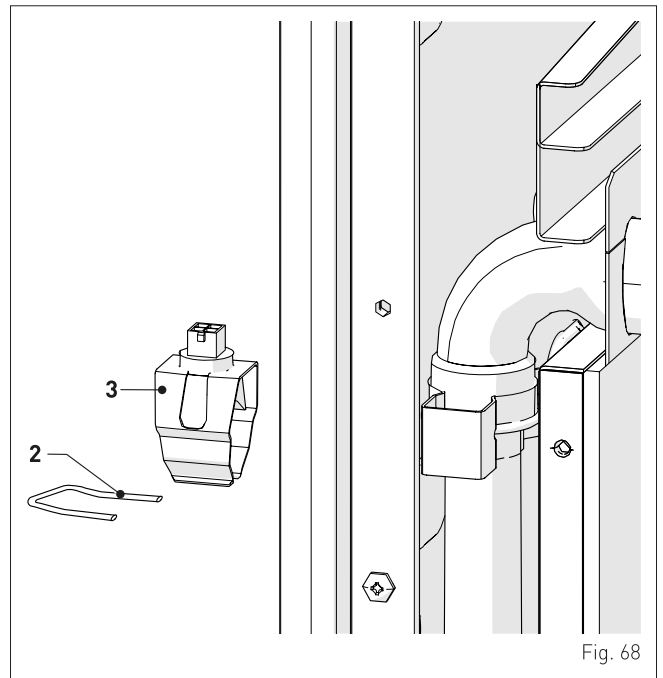


13.3 Dual sensor (thermal safety/discharge)

- Remove front panel (see "Remove panels" on page 51)
- disconnect the connector (1)



- remove the rear locking clip (2)
- disconnect the sensor (3) from the pipe



13.4 Remove electronic board

- Remove front panel (see "Remove panels" on page 51)
- move the control panel (A) into a horizontal position (see "Rotate control panel" on page 52)
- unscrew the screw (1)
- press the catches (2) to remove the cover

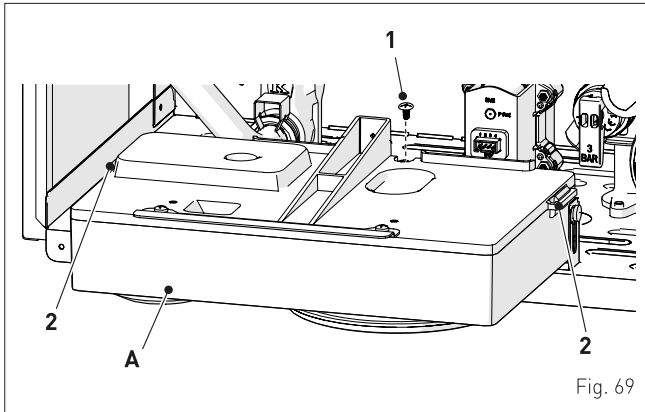


Fig. 69

- open the cover (3)

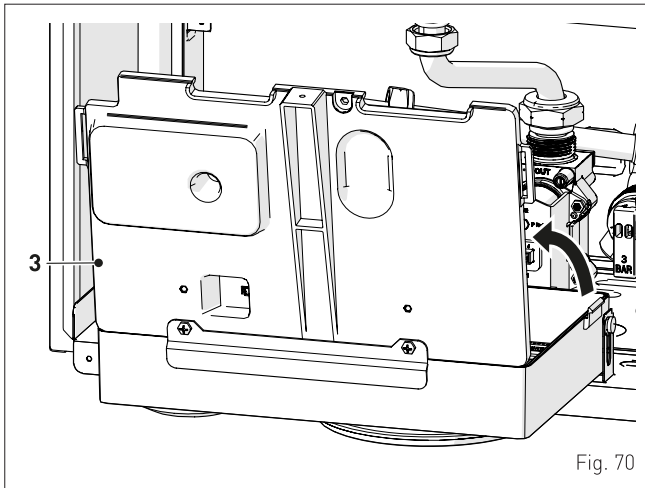


Fig. 70

- unscrew the fixing screw (4) on the electronic board
- remove the electronic board (5) by sliding upwards
- disconnect all the connectors (6)

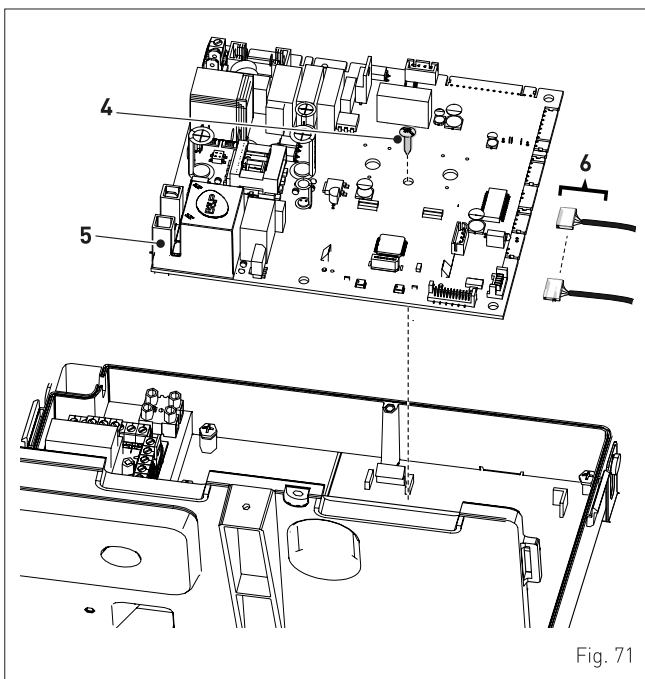


Fig. 71

13.5 Remove/replace fan

- Remove front panel (see "Remove panels" on page 51)
- Remove the front panel of the sealed chamber (see "Sealed chamber panel" on page 51)
- Remove the front panel of the combustion chamber (see "Combustion chamber panel" on page 52)
- disconnect the fan connectors (7)
- unscrew the three screws (8)

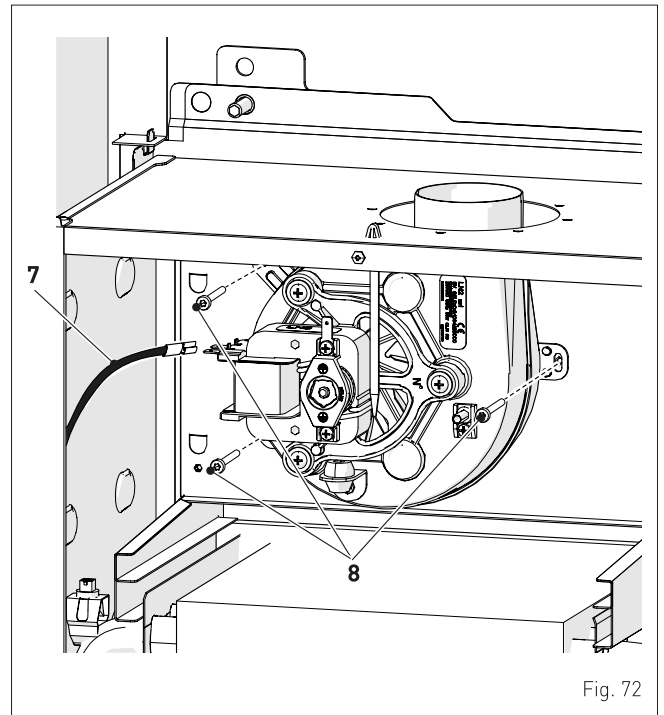


Fig. 72

- extract the fan from underneath

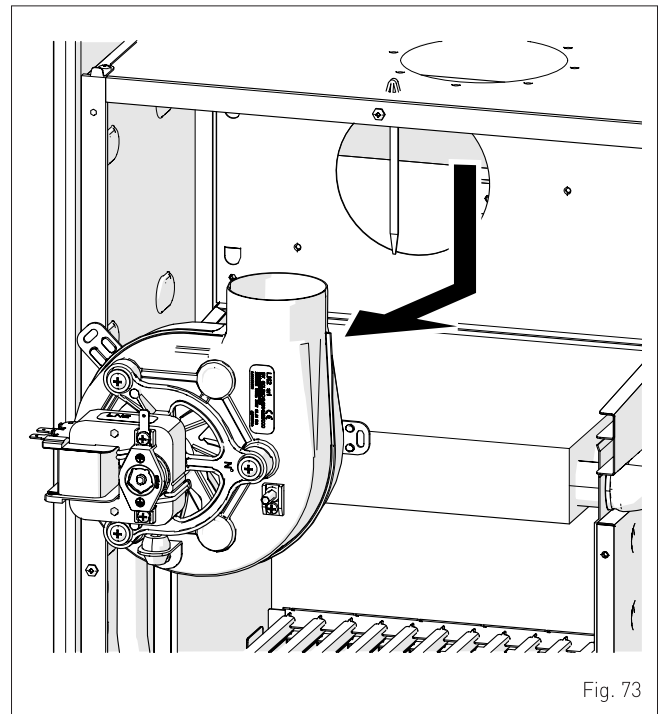


Fig. 73

13.6 Remove/replace ignition electrode and nozzles

- Remove front panel (see "Remove panels" on page 51)
- Remove the front panel of the sealed chamber (see "Sealed chamber panel" on page 51)
- Remove the front panel of the combustion chamber (see "Combustion chamber panel" on page 52)
- remove the swivel joint (9) and the counter-nut (10)
- remove the screws (11)
- remove the gas collector (12) and replace the factory nozzles

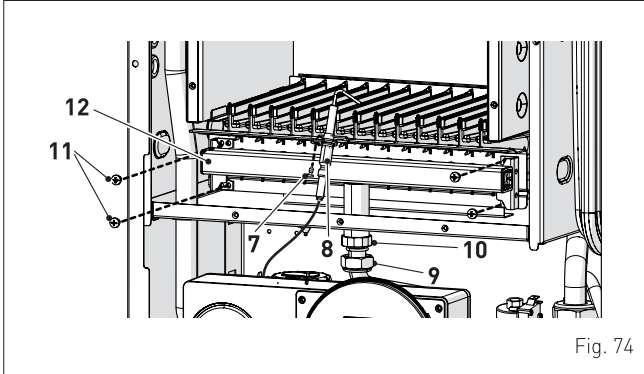


Fig. 74

- unscrew the screw (7)
- remove the ignition electrode (8)

13.7 Remove/replace gas valve

- Close the gas valve
- remove the front panel (see "Remove panels" on page 51)
- move the control panel (A) into a horizontal position (see "Rotate control panel" on page 52)
- disconnect the electrical connector (2)

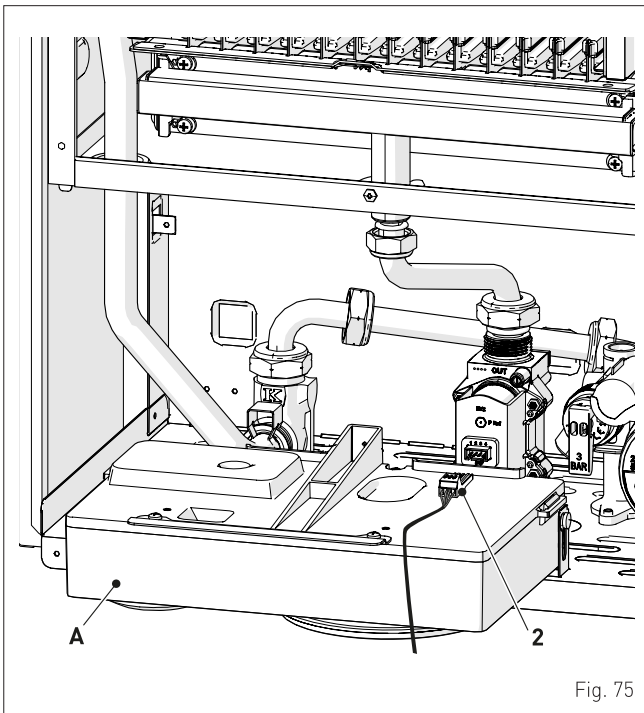


Fig. 75

- unscrew the swivel joints (3) and the screws (4)

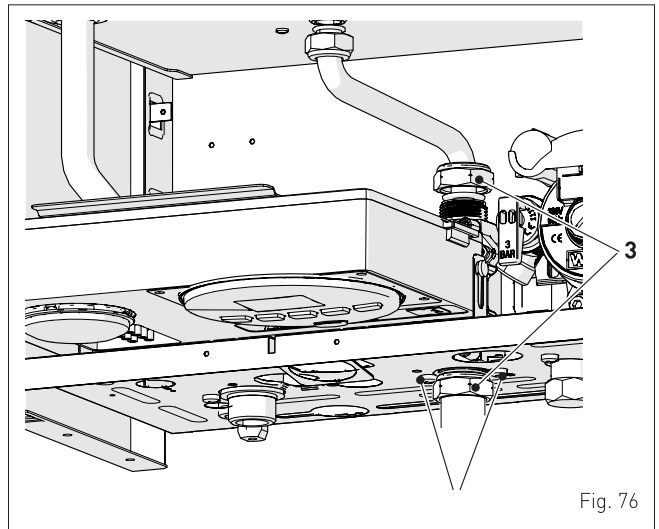


Fig. 76

- extract the gas valve (5)

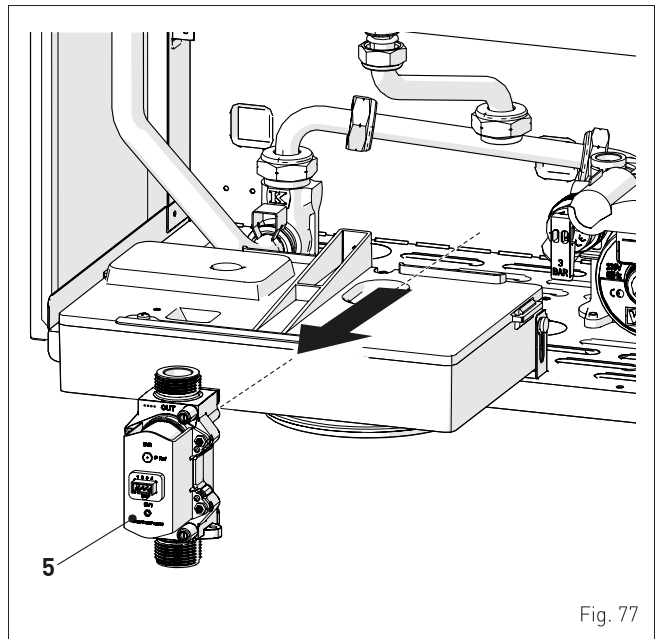


Fig. 77

13.8 Remove/replace the expansion vessel



CAUTION

When disassembling, some residual water may leak.

- Shut-off the valves to the system and empty the boiler
- remove the front panel (see "Remove panels" on page 51)
- disconnect the pipe (1)
- unscrew the fixing screw (2) on the rear panel

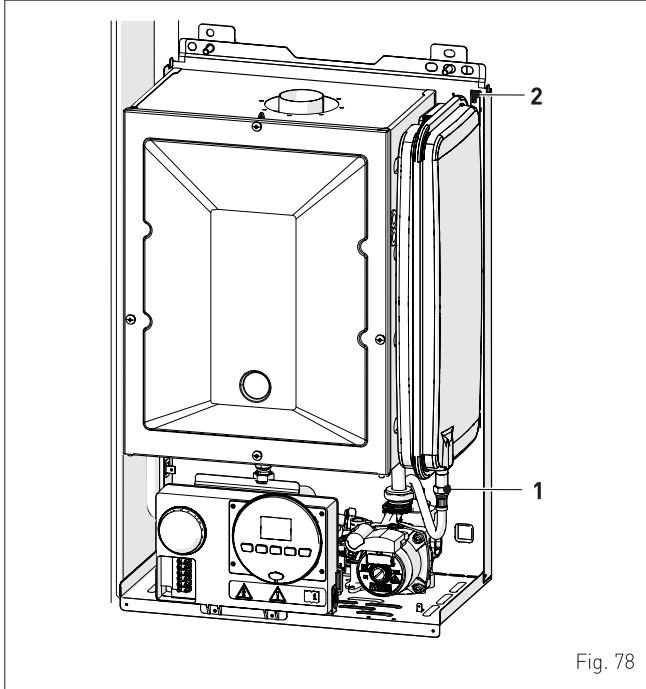


Fig. 78

- release the top section (4)
- pivoting around the hook (5), turn and extract the expansion vessel (3)

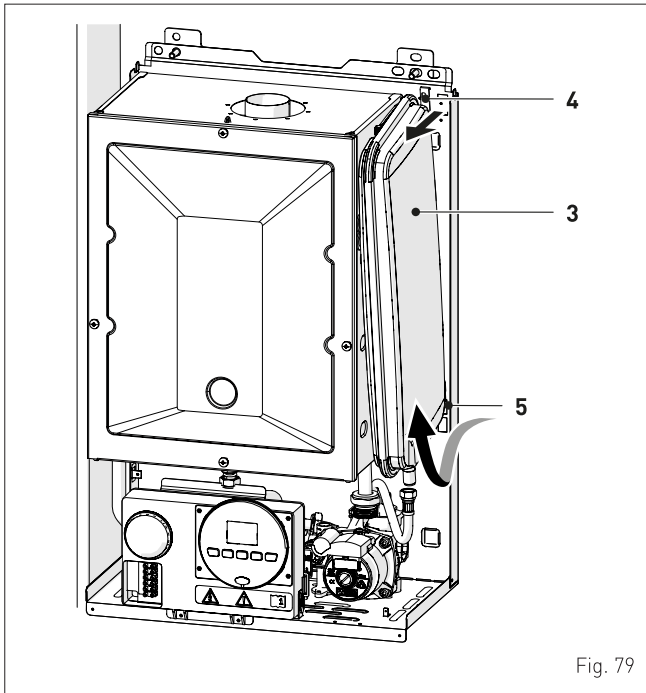


Fig. 79

13.9 Remove/replace system pump

- Shut-off the valves to the system and empty the boiler
- remove the front panel (see "Remove panels" on page 51)
- lift the connector (1) using a screwdriver (2)

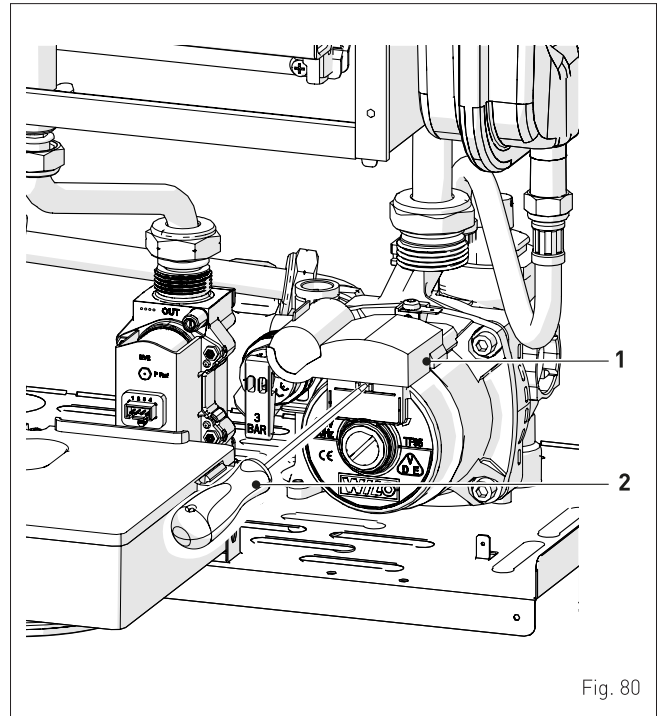


Fig. 80

- unscrew the swivel joints (3) and (4)
- disconnect the pipes (5) and (6)
- unscrew the screw (7)
- unscrew the nut (8) that secures the pump

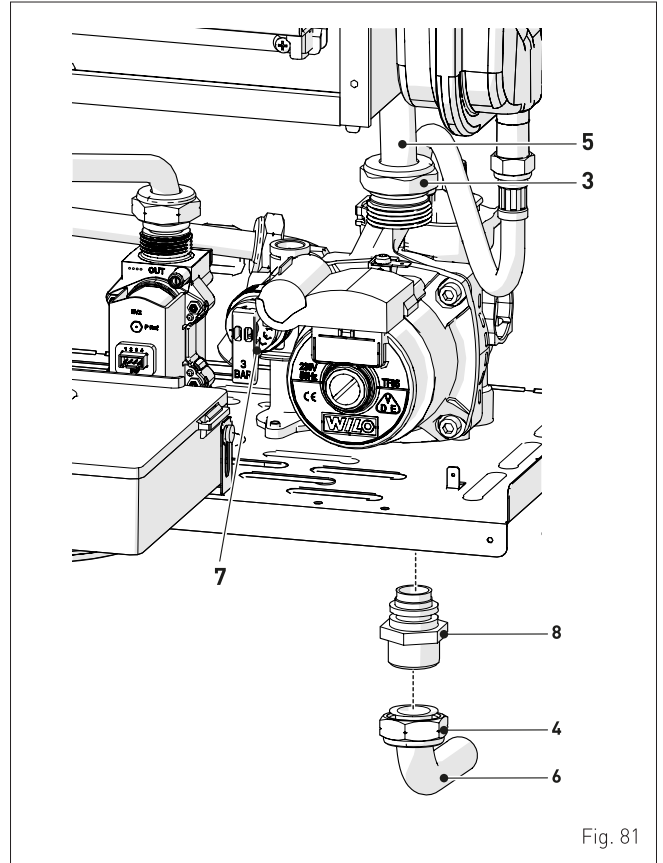


Fig. 81



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