High efficiency wall-mounted gas-fired boilers
Installer's and User's Instructions

CE

0051

PCT

МП02
Dear Customer,

We are sure your new boiler will comply with all your requirements. Purchasing one of our products satisfies your expectations: good functioning, simplicity and ease of use. Do not dispose of this booklet without reading it: you can find here some very useful information, which will help you to run your boiler correctly and efficiently.

Do not leave any parts of the packaging (plastic bags, polystyrene, etc.) within children’s reach as they are a potential source of danger.

Our boilers bear the CE mark in compliance with the basic requirements as laid down in the following Directives:
- Gas Directive 90/396/CEE
- Performance Directive 92/42/CEE
- Low Voltage Directive 2006/95/EC

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BAXI S.p.A., a leading European manufacturer of central heating and hot water appliances for domestic use (wall-hung gas boilers, floor-standing boilers and electric water heaters) has obtained CSQ certification of conformity to UNI EN ISO 9001 standards. This certificate guarantees that the Quality System applied at BAXI S.p.A. in Bassano del Grappa, Italy, where this boiler was produced, meets all the requirements of UNI EN ISO 9001 standards and covers all the organisational stages and operating personnel involved in the production and distribution process.
To correctly light the boiler proceed as follows:

- Provide power supply to the boiler.
- open the gas cock;
- press the button, to set the gas boiler mode as described in section 3.2.

**Note:** if summertime mode is setting, the boiler will light only during a D.H.W. demand.

- To adjust the CH and D.H.W. temperature, press the +/- respective buttons as described in section 3.3.
3.1 SYMBOL MEANING

There are 4 power levels displayed during boiler operation, relevant to the gas boiler modulation, as shown in fig. 2:

![Figure 2](image)

3.2 DESCRIPTION OF BUTTON (Summer - Winter - Heating only - Off)

Press this button to set the following boiler operation modes:

- SUMMER
- WINTER
- HEATING ONLY
- OFF

In SUMMER mode the symbol 🌞 is shown on the display. The boiler only meets DHW demands; heating mode is not enabled (frost protection function is active).

In WINTER mode the symbols 🌠 is shown on the display. The boiler meets DHW and heating mode demands (frost protection function is active).

In HEATING ONLY mode the symbol 🌠 is shown on the display. The boiler only meets heating mode demands (frost protection function is active).

If OFF is selected, neither of the two symbols (🌞) is displayed. In this mode only the frost protection function is enabled and any other demands in DHW or heating mode are not met.

3.3 DESCRIPTION OF BUTTON (AUTOMATIC-MANUAL-OFF)

By pressing this button it is possible to set one of the following Heating modes: AUTO-MANUAL-OFF as describe below.

AUTO (Displayed symbol 🌞)

The Heat request depends on the type of the “Time Programs” set (COMFORT room temperature “🌡” or REDUCED room temperature “🌡”). See section 3.6 to set the programming heating mode.

MANUAL (Displayed symbol 🌠)

This function disables the “Time Programming” in Heating mode. Press the +/- 🌠 button to set the room temperature value.

OFF (Displayed symbol 🟢)

This function disables the Heating mode and the display shows the 🟢 symbol (the frost protection is enabled).
3.4 ROOM AND DOMESTIC HOT WATER (D.H.W.) TEMPERATURE ADJUSTMENT

The room (▲▲▲) and D.H.W. () temperature adjustment are carried out by pressing the relative +/- buttons (figure 1). When the burner is lighted the display shows the symbol (▲) as described in section 3.1.

CENTRAL HEATING (CH)
During a CH mode, the display shows a CH (▲▲▲) symbol and the room temperature value (°C).
During a temperature regulation, the display shows “AMB”.

DOMESTIC HOT WATER (D.H.W.)
During a D.H.W. request, the display shows a D.H.W. () symbol and the room temperature value (°C).
During a temperature regulation, the display shows “HW SP”.

NOTE: if an external water tank is connected to the gas boiler, during a domestic hot water request, the display shows a () symbol and the room temperature value (°C).

3.4.1. Remote control installed on the boiler front panel

If the remote control is installed on the boiler front panel, the +/- buttons regulate the Central Heating flow temperature. The display shows the room temperature.

3.5 PROGRAMMING (PROGR)

SETTING THE DATE-TIME

Press the IP button: the display shows (briefly) the message PROGR and the time starts flashing.

Note: If no button is pressed the function ends automatically after approx. 1 minute.

• Use the buttons +/- to set the hour;
• Press the OK button;
• Use the buttons +/- to set the minutes;
• Press the OK button;
• Use the buttons +/- to set the day of the week “Day” (1…7 corresponding to Monday…Sunday);

Press the IP button to exit DATE-TIME setting.

3.6 PROGRAMMING HEATING MODE OPERATION TIMES

To enable the function, press the button (the display shows the symbol)

Time period programming allows the setting of boiler automatic operation in heating mode in fixed time slots and on fixed days of the week.

Boiler operation settings can be made for single days or groups of consecutive days.

3.6.1. Single days

Four time bands (4 boiler activation and deactivation periods in heating mode even with different times from day to day) are available for every day selected, as shown in the following table:
To set a single time band, proceed as follows:

1) Press the IP button and then the button Σ;  
2) choose a day of the week (1...7) by repeatedly pressing the buttons +/-;  
3) press the OK button;  
4) the display shows the message on 1 and the 4 digits of the time flashing, as shown in the figure below;  
5) use the buttons +/- to set the boiler lighting time;  
6) press the OK button;  
7) the display shows the message of 1 and the 4 digits of the time flashing;  
8) use the buttons +/- to set the boiler switching off time;  
9) press the OK button;  
10) repeat the same operations (from point 4) to set the remaining three time bands;  
11) press the IP button to exit the function.

3.6.2. Groups of days

This function enables the programming of 4 common boiler activation and deactivation time slots for several days or the entire week (see the summary table below).

To set a single time band, proceed as follows:

1) Press the IP button and then the button Σ;  
2) Select a GROUP of days by repeatedly pressing the buttons +/-;  
3) press the OK button  
4) repeat the operations described in points 4-10 of paragraph 3.6.1.
Summary table of available groups of days

<table>
<thead>
<tr>
<th>Group</th>
<th>DAY</th>
<th>Mode</th>
<th>FACTORY SETTINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group “MO-FR”</td>
<td>1 2 3 4 5</td>
<td>from Monday to Friday</td>
<td>As per table in paragraph 3.6.1.</td>
</tr>
<tr>
<td>Group “SA-SU”</td>
<td>6 7</td>
<td>Saturday and Sunday</td>
<td>07:00 – 23:00</td>
</tr>
<tr>
<td>Group “MO-SA”</td>
<td>1 2 3 4 5 6</td>
<td>from Monday to Saturday</td>
<td>As per table in paragraph 3.6.1.</td>
</tr>
<tr>
<td>Group “MO-SU”</td>
<td>1 2 3 4 5 6 7</td>
<td>every day of the week</td>
<td>As per table in paragraph 3.6.1.</td>
</tr>
</tbody>
</table>

3.7 PROGRAMMING DHW MODE OPERATION TIMES

(only for boilers connected to an external heater)

This function enables the programming of four boiler DHW mode operation time slots in the span of a week (the programmed time slots are the same for every day of the week).

To set the programming of DHW mode operation times, proceed as follows:

1) Press the IP button and then the button to enter the programming (heating and DHW modes);
2) Select the DHW programme “HW PR” by repeatedly pressing the buttons +/-;
3) Press the OK button;
4) Set the time slots in which you can enable DHW mode operation by repeating the operations described in points 4-10 of paragraph 3.6.1 (factory setting 06:00 - 23:00).

IMPORTANT: the installer has to set “HW PR” parameter = 2, as described in section 19.1.
4. SPECIAL FUNCTIONS

4.1 ECONOMY - COMFORT FUNCTION

This function enables the user to set two different room temperature setpoints:
Economy / Comfort.
For more simplicity it's better to set the COMFORT value temperature higher than the ECONOMY value temperature.

To set the required room temperature, press the button:

- the “ECONM” writing shows the operating in reduced room temperature mode;
- display shows symbol;
- the “COMFR” writing shows the operating in nominal room temperature mode;
- display shows symbol;

To temporary change the setting room temperature value, press +/- buttons or see section 4.3.

This function could operate in automatic or in manual mode:

AUTOMATIC OPERATION (displayed symbol)

The setting room temperature depends on the time slot (section 3.6). Inside the time slot the room temperature is the COMFORT value, outside the time slot the room temperature is the ECONOMY value.
To temporary change the room temperature value (from COMFORT to ECONOMY or vice versa) press the button. This changes have effect until the next time change over.

MANUAL OPERATION (displayed symbol)

Press button to set the gas boiler in manual operation mode.

To temporary change the room temperature value (from COMFORT to ECONOMY or vice versa) press the button. This change has effect until the next button pressure.

4.2 SHOWER FUNCTION

The shower function ensures better hot water comfort, e.g. during a shower.
This function enables domestic hot water to be drawn at a lower temperature than the nominal temperature value.
To set or modify the max. shower function temperature value, refer to section 4.3.

This function can be manually activated in the following way:

- Press one of the two buttons +/- and then the button to activate the function;
- the message briefly appears on the display, followed by the message HW SS;
- press the OK button while the flow temperature and the symbol flash on the display;
- the duration of the function is minutes (during this time the symbol flashes).

At the end of this time the domestic hot water temperature returns to the value of the previously set operating mode (the symbol is no longer intermittent on the display).

Note: To disable the function before the end of the 60 minutes, proceed as follows:

- press one of the two buttons +/- and then the button;
- press the OK button, the display shows the message “HW S”.
4.3 TEMPERATURE VALUES MODIFICATION BY PRESSING THE PROGR BUTTON

To modify the room temperature values, proceed as follows:

- press the IP button to enable the PROGR function;
- press the PROGR button to select the required function as described in the following table:

<table>
<thead>
<tr>
<th>Function</th>
<th>Display</th>
<th>Description of function</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMFR</td>
<td>The set temperature value flashes (factory setting = 20°C)</td>
<td>Boiler operation in heating mode at nominal temperature.</td>
</tr>
<tr>
<td>ECONM</td>
<td>The set temperature value flashes (factory setting = 18°C)</td>
<td>Boiler operation in heating mode at reduced temperature.</td>
</tr>
<tr>
<td>NOFRS</td>
<td>The set temperature value flashes (factory setting = 5°C)</td>
<td>Boiler operation in heating mode at room frost protection temperature.</td>
</tr>
<tr>
<td>SHOWR</td>
<td>The set temperature value flashes (factory setting = 40°C)</td>
<td>Boiler operation in DHW mode at DHW temperature set.</td>
</tr>
</tbody>
</table>

- Press the +/- button to modify the value of the selected function.
- Press the IP button to exit the function.

4.4 PROGRAMMABLE SWITCHING TIME FUNCTION (BUTTON 0)

4.4.1 HOLIDAY PROGRAM function

It is possible to temporarily shut off the timing program (section 3.6) for a certain period of time. During this period of time a minimum room temperature value is guaranteed (default value 5°C). To modify this temperature value see section 4.3 under the entry “NOFRS”.

To enable the function proceed as follows:

- press the button to set the function to “AUTO” (symbol 0);
- press the button, the display shows the writing MM 60 and the 0 symbols flashing.

In this example the function has a period of 60 minutes.

Press the +/- buttons to set the period of the timing program with 10 minutes step. The period of time is settable from a minimum of 10 minutes to a maximum of 45 days.

By pressing the + button after 90 minutes, the display shows “HH 02”:

in this case the period of time is carried out in hours from a minimum of 2 hours to a maximum of 47 hours, with 1 hour step.

By pressing the + button after 47 hours, the display shows “DD 02”:

in this case the period of time is carried out in days from a minimum of 2 days to a maximum of 45 days, with 1 day step.
WARNING: do not press any button after having enabled this function. By pressing some of the remote control buttons, it is possible that the manual function is enabled by mistake (in this case the display shows the symbol) and that causes the “Holiday Program” function shut off. In this case it is necessary to repeat the instructions described at the beginning of this section to enable again the function.

4.4.2 PARTY function

This function allows the user to set a temporary room temperature value. It is possible to change this temperature value also during the function operation.

The operating mode returns to a previews setting at the end of this period of time.

To enable the function, proceed as follows:

- press the button to set the function to “MANUAL” (symbol);
- press the button, the display shows the writing MM 60 and the flashing;
- to set the period of the timing program see the section 4.4.1.
- to modify the room temperature value, press the “OK” button (the display shows “AMB”) then press the +/- buttons.

5. FILLING THE BOILER

IMPORTANT: Regularly check that the pressure displayed by the pressostat (figure 3) is 0.7 to 1.5 bar, with boiler not operating. In case of overpressure, open the boiler drain valve (figure 3).

In case the pressure is lower open the boiler filling tap (figure 3).

We recommend you open the tap very slowly in order to let off the air.

During this operation, the gas boiler must be in “OFF” mode (press the - figure 1).

NOTE: In case pressure drops occur frequently have the boiler checked by a Qualified Service Engineer.

6. TURNING OFF THE BOILER

To switch off the boiler, the electrical power to the appliance must be turned off. If the boiler is “OFF” (section 3.2), the electrical circuits remain powered and the frost protection function is activated (section 8).

7. GAS CHANGE

These boilers set for natural gas can be converted to work with LPG.

Any gas change must be effected by a Qualified Service Engineer.
We recommend you avoid draining the whole system as water replacements engender purposeless and harmful limestone deposits inside the boiler and on the heating elements. In case the boiler is not operated during wintertime and is therefore exposed to danger of frost we suggest you add some specific-purpose anti-freeze to the water contained in the system (e.g.: propylene glycole coupled with corrosion and scaling inhibitors). The electronic management of boilers includes a “frost protection” function in the central heating system which operates the burner to reach a heating flow temperature of 30°C when the system heating flow temperature drops below 5°C.

The frost protection function is enabled if:
* electrical supply to the boiler is on;
* the gas service cock is open;
* the system pressure is as required;
* the boiler is not blocked.

### 9. ERROR MESSAGES AND TABLE OF FAULTS

There are two type of fault carried out by the temperature control: **FAULT** and **BLOCK**.

**FAULT**

If a fault occurs, the display shows the 🔄 ▶️ symbols flashing together with the `<ERROR>` writing. The fault is identified by an error code followed by E letter and is not resettable. Call an authorized Service Centre.

**BLOCK**

If a block occurs, the display shows the 🔄 ▶️ symbols flashing together with the `<ERROR>` writing alternated, with 2 seconds step, with the `>>>OK` flashing writing.

The block fault is identified by an error code (see the table below) followed by E letter.

![Error display](image)

Press the OK button (figure 1) to reset the gas boiler. The display shows the `<RESET>` writing and then the `>>>OK` writing.

![Reset display](image)
<table>
<thead>
<tr>
<th>ERROR CODE</th>
<th>Description of FAULTS</th>
<th>CORRECTIVE ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>01E</td>
<td>Gas supply fault</td>
<td>Press the OK button (figure 1) for at least 2 seconds. If this fault persist, call an authorized Service centre.</td>
</tr>
<tr>
<td>02E</td>
<td>Safety thermostat sensor tripped</td>
<td>Press the OK button (figure 1) for at least 2 seconds. If this fault persist, call an authorized Service centre.</td>
</tr>
<tr>
<td>03</td>
<td>Flue pressure switch tripped</td>
<td>Call an authorised Service centre.</td>
</tr>
<tr>
<td></td>
<td>Flue thermostat sensor tripped</td>
<td>Press the OK button (figure 1) for at least 2 seconds. If this fault persist, call an authorized Service centre.</td>
</tr>
<tr>
<td>04E</td>
<td>Safety error for frequently loss of flame</td>
<td>Call an authorized Service centre.</td>
</tr>
<tr>
<td>05E</td>
<td>Central heating NTC sensor fault</td>
<td>Call an authorised Service centre.</td>
</tr>
<tr>
<td>06E</td>
<td>Domestic Hot Water NTC sensor fault</td>
<td>Call an authorised Service centre.</td>
</tr>
<tr>
<td>10E</td>
<td>Water pressure LOW</td>
<td>Check that the pressure in the system is as specified. See Section 5. If this fault persist, call an authorized Service centre.</td>
</tr>
<tr>
<td>11E</td>
<td>Safety thermostat has cuts out (for low temperature system)</td>
<td>Call an authorized Service centre.</td>
</tr>
<tr>
<td>18E</td>
<td>System water filling function enable (only for predisposed appliances)</td>
<td>Waiting until the system filling is finished</td>
</tr>
<tr>
<td>19E</td>
<td>System filling anomaly (only for predisposed appliances)</td>
<td>Call an authorized Service centre.</td>
</tr>
<tr>
<td>25E</td>
<td>Boiler max temperature exceeded (probable pump jammed or air in the circuit)</td>
<td>Call an authorized Service centre.</td>
</tr>
<tr>
<td>31E</td>
<td>No communication between the main board and the remote temperature control</td>
<td>Press the OK button (figure 1) for at least 2 seconds. If this fault persists, call an authorized Service centre.</td>
</tr>
<tr>
<td>35E</td>
<td>Fault flame (parasitic flame)</td>
<td>Press the OK button (figure 1) for at least 2 seconds. If this fault persists, call an authorized Service centre.</td>
</tr>
<tr>
<td>80E-96E</td>
<td>Internal remote control error</td>
<td>Call an authorized Service centre.</td>
</tr>
<tr>
<td>97E</td>
<td>Wrong power supply electrical frequency (Hz)</td>
<td>Set the correctly electrical frequency (Hz)</td>
</tr>
<tr>
<td>98E-99E</td>
<td>Electrical main board internal error</td>
<td>Call an authorized Service centre.</td>
</tr>
</tbody>
</table>