

## WKV

150 - 230  
300 - 348

USER'S OPERATION INSTRUCTION

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## 1 - SYMBOLS USED IN THIS GUIDE

When reading this guide particular care has to be given to the parts marked with the followings symbols:



**DANGER!**  
Indicates serious danger for your personal safety and for your life



**WARNING!**  
Indicates a potentially dangerous situation for the product and the environment



**NOTE!**  
Suggestions for the user

## 2. - CORRECT USE OF THE APPLIANCE



The WKV appliance has been designed utilizing today's heating technology and in compliance with the current safety regulations. However, following an improper use, dangers could arise for the safety and life of the user or of other people, or damage could be caused to the appliance or other objects. The appliance is designed to be used in pumped hot water central heating systems. Any other use of this appliance will be considered improper. The manufacturer declines any responsibility for any damages or injuries caused by an improper use; in this case the risk is completely at the user's responsibility. In order to use the appliance according to the scopes it was designed for it is essential to carefully follow the instructions indicated in this guide.

## 3 - WATER TREATMENT



- The hardness of the mains water supply conditions the frequency with which the heat exchanger is cleaned.
- In hard water areas where the main water can exceed 15°f total hardness, a scale reducing device is recommended. The choice of this device has to be made taking into consideration the characteristics of the water.

## 4 - INFORMATION TO BE HANDED OVER TO THE USER



The user has to be instructed on the use and operation of his heating system, in particular:

- Hand over these instructions to the end user, together with any other literature regarding this appliance, placed inside the envelope contained in the packaging. **The user has to keep these documents in a safe place in order to always have them at hand for future reference.**
- Inform the user on the importance of air vents and of the flue outlet system, stressing the fact that is absolutely forbidden to make any alterations to the boiler.
- Inform the user how to check the system's water pressure as well as informing him how to restore the correct pressure.
- Explain the function of time and temperature controls, thermostats, heating controls and radiators, to ensure the greatest possible fuel economy.
- Remind the user that it is obligatory to carry out a comprehensive service annually and a combustion analysis every two years (in compliance with the national law).
- If the appliance is sold or transferred to another owner or if the present user moves home and leaves the appliance installed, ensure yourself that the manual always follows the appliance so that it can be consulted by the new owner and/or installer.

**Failure to follow the instructions indicated in this guide, which is supplied with the boiler, could cause injury to persons, animals or damage to property. The manufacturer shall not be held liable for any such injury and/or damage.**

### 5 - SAFETY WARNINGS



#### **WARNING!**

The installation, adjustment, and servicing of this appliance must be carried out by a competent person and installed in accordance with the current standards and regulations. Failure to correctly install this appliance could cause injury to persons, animals or damage to property. The manufacturer shall not be held liable for any such injury and/or damage.



#### **DANGER!**

**NEVER** try to service or repair the appliance yourself.

All types of servicing or repairs must be carried out by a professionally qualified person, authorized by the manufacturer; The manufacturer recommends drawing up a service contract. Bad or irregular servicing could compromise the safe operation of the appliance, and could cause injury to persons, animals or damage to property for which The manufacturer shall not be held liable.



#### **Modifications to parts connected to the appliance**

Do not carry out any modifications to the following parts:

- the boiler
- to the gas, air, water supply pipes and electrical current
- to the flue pipe, safety relief valve and its drainage pipe
- to the constructive components which influence the appliance's safe operation



#### **Smell of gas**

If you smell gas follow these safety indications:

- Do not turn on or off electrical switches
- Do no smoke
- Do not use the telephone
- Close the On/Off gas cock
- Open all windows and doors where the gas leakage has occurred
- Inform the gas society or a specialized company



#### **Explosive and easily inflammable substances**

Do not use or leave explosive or easily inflammable material (as for example: petrol, paint, paper) in the room where the appliance has been installed.

## 6 - OPERATING INSTRUCTIONS

### 6.1 - CONTROL PANEL

#### General fuse

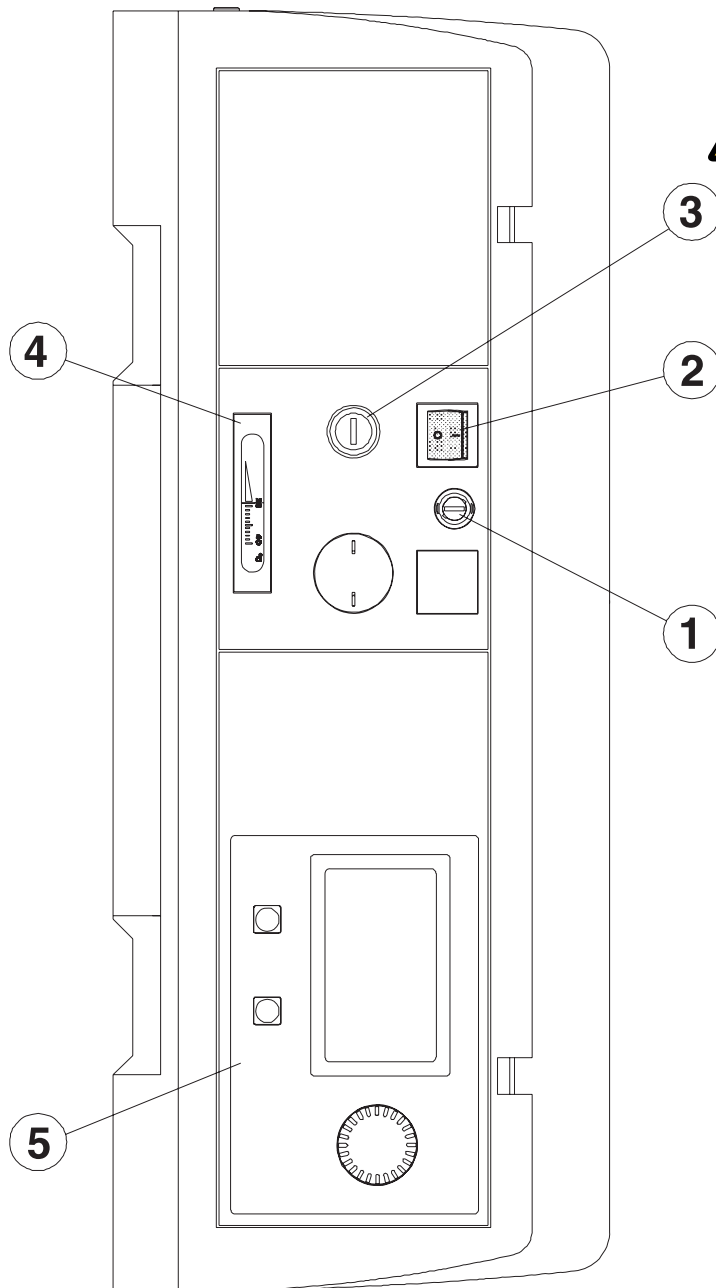


#### IMPORTANT:

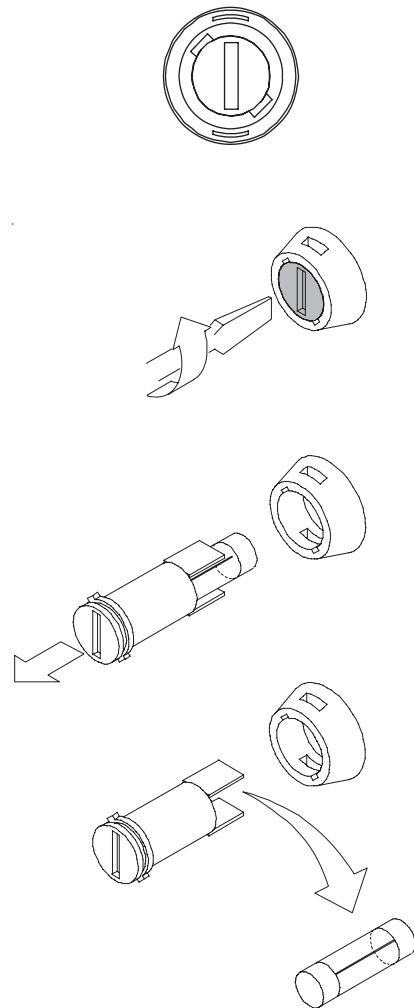
The fuse is located below the cap indicated in the figure to the side.

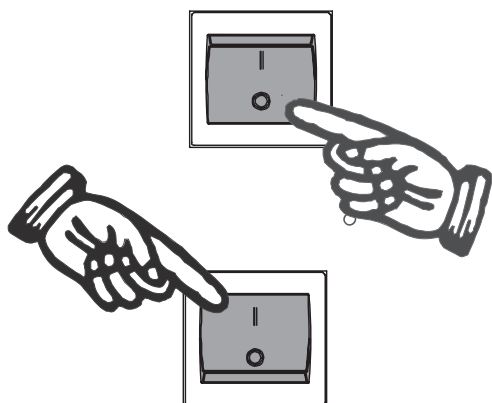
To reach it, rotate the plastic cover of 1/8 turn anticlockwise using a screwdriver, then remove the fuse.

Once the fuse has been checked and/or replaced, reposition the plastic cover with the fuse in it inside its housing.



1. Main fuse
2. Mains ON/OFF switch with indicator light
3. Safety thermostat
4. Central heating thermometer
5. eBus heating controller (not foreseen on the "SLAVE" panel version)

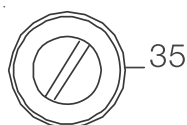




### Mains ON/OFF switch

With this switch it is possible to turn On or Off the electricity supply connection to the boiler:

- With the switch in the '0' position the boiler is not connected to the mains electricity supply (green led light off)
- With the switch in the 'I' position the boiler is connected to the mains electricity supply (green led light illuminated) and is ready to produce hot water for the central heating.



### Safety thermostat (High limit) reset

**IMPORTANT:**

The safety thermostat is positioned under the cover indicated in the figure.

To gain access in case of boiler lock-out, unscrew the plastic cover with the aid of a screwdriver.

After having reset the boiler replace the plastic cover.

The safety thermostat can lock-out the boiler in case of overheating. You can avoid this happening by lowering the boiler's working temperature.

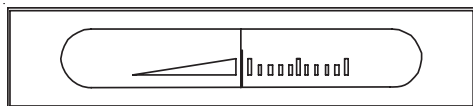


If the boiler's safety thermostat makes the boiler go into lock-out to often do not try to relight the boiler yourself. Contact your nearest authorized After Sales Service Centre.

### Central heating temperature thermometer

The thermometer displays the central heating system temperature, if its bulb has been correctly placed in the pocket positioned on the top part of the boiler body.

Note: There could be a slight difference between the temperature displayed on the analogical thermometer compared to the reading indicated on the heating controller's digital display.

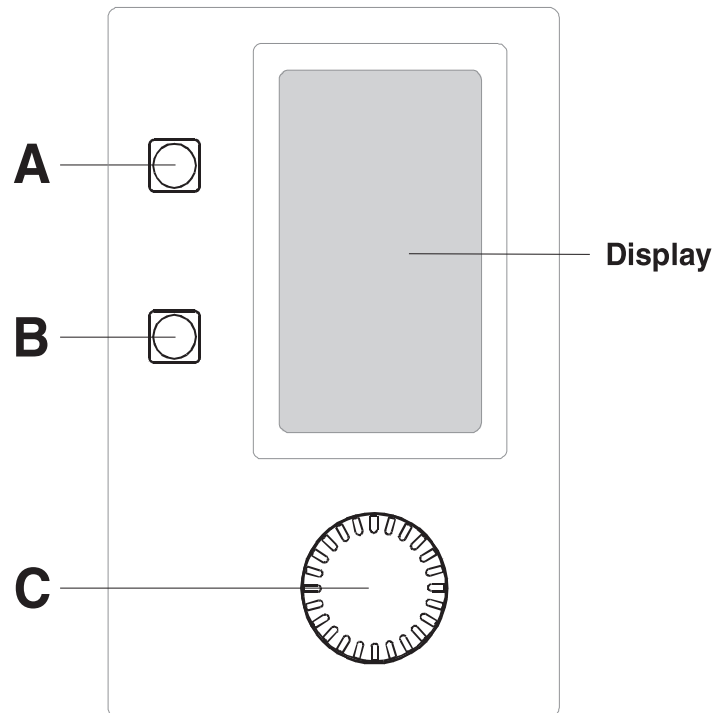


## 7 - eBUS HEATING CONTROLLER OPERATING INSTRUCTIONS

### 7.1 - GENERAL INFORMATION

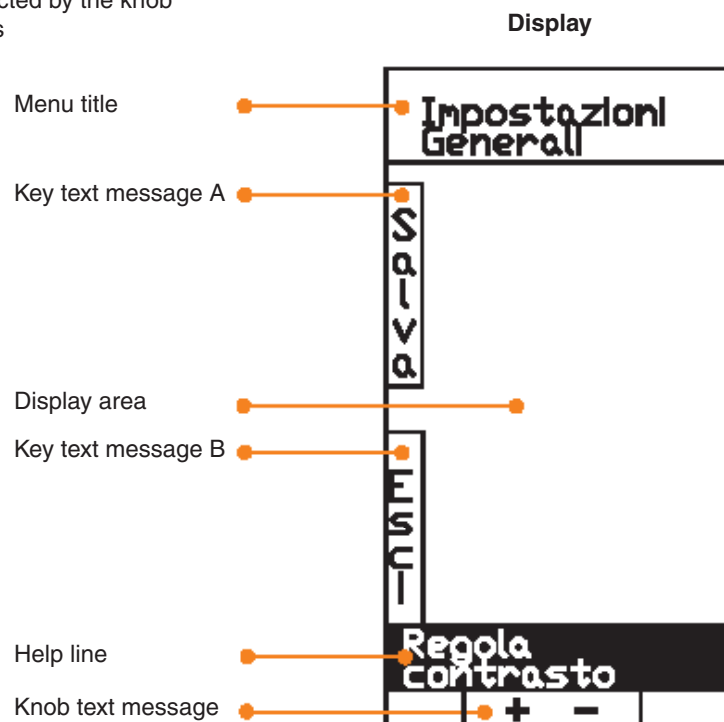
The heating controller has a wide display, two keys (A and B) and a knob C. message which indicates the specific function in every operation mode.

In general the keys and the knob are accompanied by a text



On the display there is:

- one line for the selected menu title
- an area where the functions are displayed
- a help line always highlighted which supplies information on the symbols or the modes selected by the knob
- the keys and knobs text messages



## 7.2 - FUNCTIONS

The initial display on the screen remains visible only for a few seconds: it displays the manufacturer's logo and the product code, indicating the version and revision number:



The controller automatically advances to the next display which contains active information:

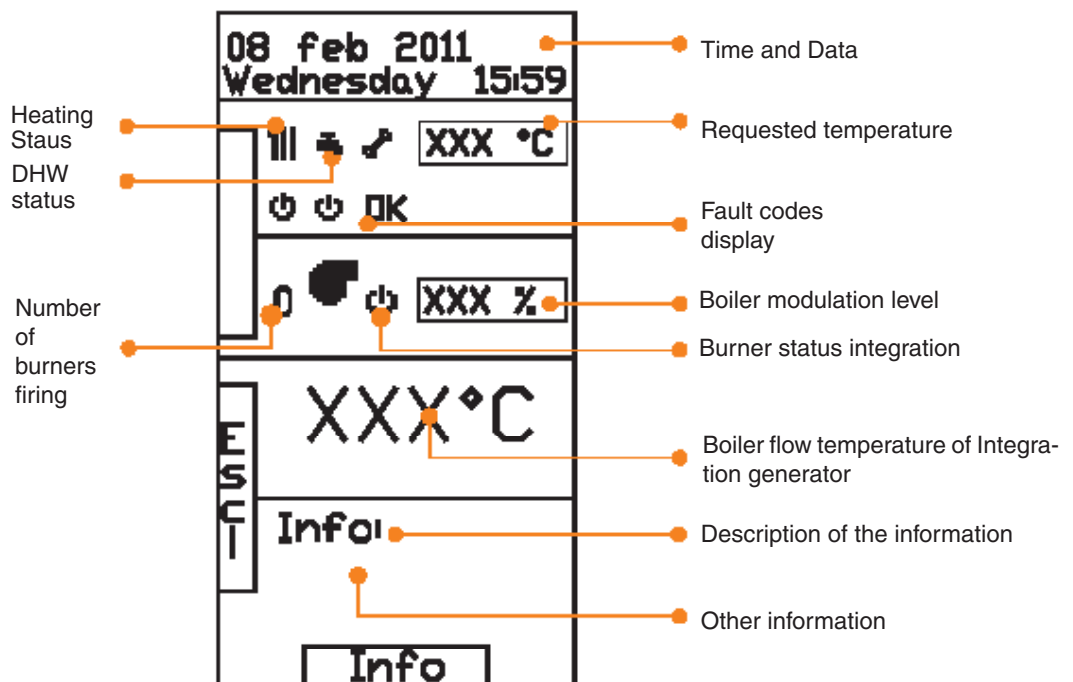
Knob function C:  
it scrolls and displays in the help line, the "other informations" (info).

key function A  
in case of alarm, it enables reset

key function B  
to gain access to the function menu

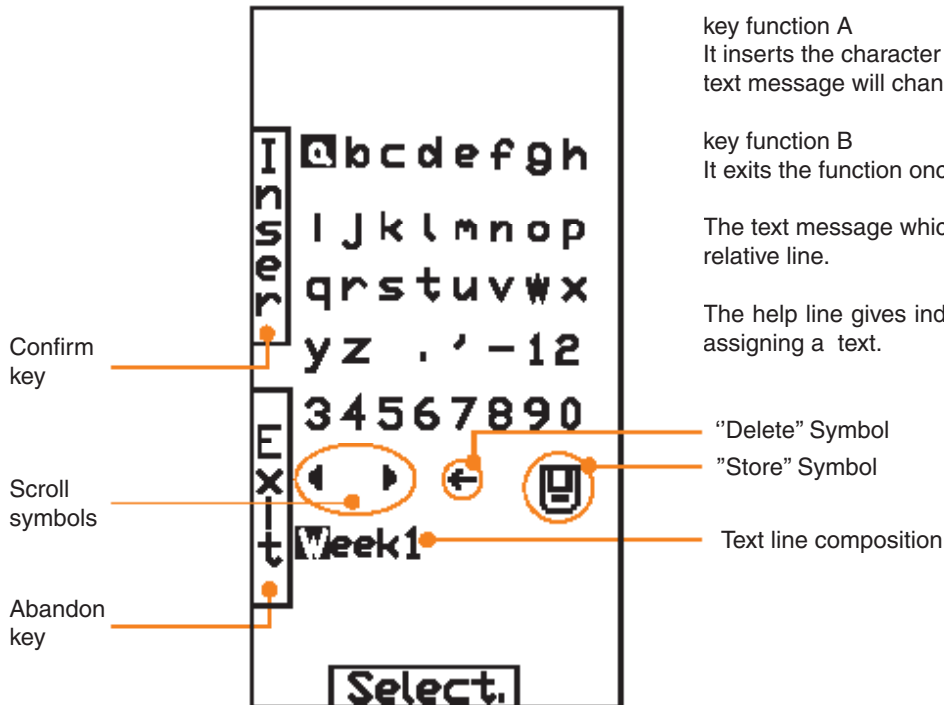
Legend of the symbols

| symbol | description   |
|--------|---|
|        | Staus: ON   |
|        | Staus: Standby  |
|        | Staus: Active<br>in case of Alarm:<br>· Info: error code  |
|        | · Help line: description of the fault and indication of the device which set off the alarm<br>Left key text message: "reset". |



## 7.3 - BASIC FUNCTIONS

### 7.3.1 - TEXT MODES



Knob functions C:

It moves the indicator to select the character to insert (letter, punctuation or number) or the command to carry out (it moves the cursor, deletes or saves)

key function A

It inserts the character or executes the command selected, the text message will change accordingly.

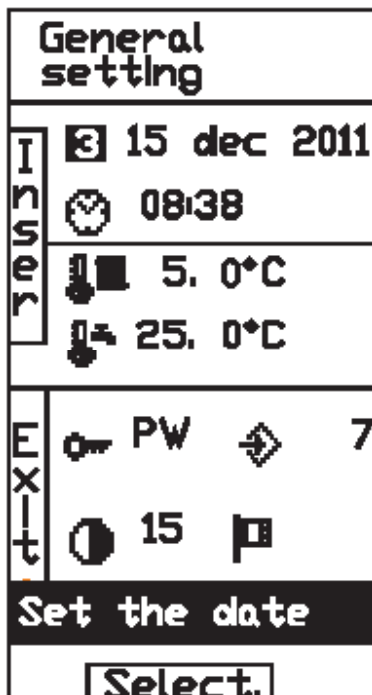
key function B

It exits the function once the operation has been completed

The text message which is being composed is displayed in the relative line.

The help line gives indication to the element to which you are assigning a text.

### 7.3.2 - NUMERIC VALUE CHANGES



**knob functions C:**

As indicated by the text, it increases or lowers the parameter value you want to change within the permitted range.

**Left key function A:**

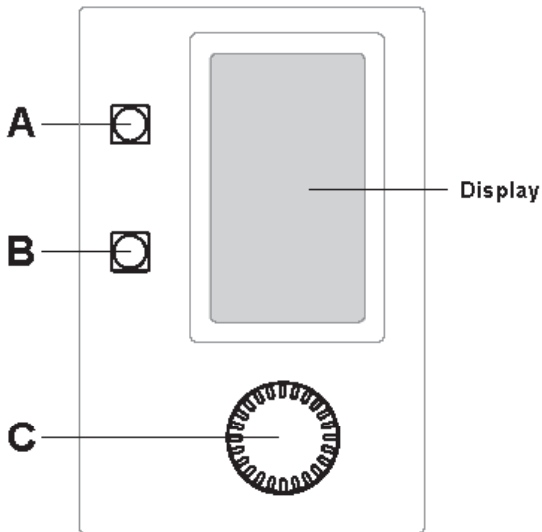
It stores the new value assigned to the parameter

**Right key function B:**

It exits the edit function mode without saving the changes made

## 7.4 - USER'S GUIDED PROCEDURE

Here below you can find the step by step procedure for changing the basic settings.



Press the key B (menu) to enter the menu 'Select the function'

Turn the knob C until you reach "General Setting" (symbol ) and press key A (Selection).

- Setting current date

### Setting the current date

Turn knob C until you reach "Set the date" ).

Press key A the "day" appears underlined.

Press key A (Selez.), the "day" appears highlighted as follows....

Turn knob C to select the current "day"

Press key A (Store) to confirm

Turn knob C to change the "month",

Press key A (Selection), the "month" is highlighted as follows

Turn the knob C to select the current "month"

Press key A (Store ) to confirm.

Turn the knob C to select the current "month",

Press key A (Selection), the "year" is highlighted as follows

Turn the knob C to select the current "year",


Press key A (Store) to confirm.



Turn the knob C to select the date "day/month/year" as follow

Press key A  (Store) to confirm

**Setting the time**

Turn the knob C  until you reach "time setting" (symbol ).



Press key A  (Selection), the "minutes" appear underlined

Press key A  (Selection), the "minutes" are highlighted as follows .

Turn the knob C  to selection the current minutes

Press key A  (Store) to confirm.

Turn the knob C  to change "hour",

Press A  (Selection), the "hour" appears highlighted .

Turn knob C  to select the current 'hour'.

Press A  (Store) to confirm.

Turn the knob C  to select the current time, "hours/minutes as follows .

Press key A  (Store) to confirm.

**Display contrast adjustment**

Turn the knob C  until your reach "Contrast adjustment" (symbol ).



Press key A  (Selection), the 'contrasts' appears highlighted as follows .


Turn the knob C  to adjust the display's contrast (default: 10).

Press key A  (Store) to confirm

**Reduced heating temperature**

The reduced temperatures (default: CH 5°C; DHW 25°C) are the temperatures which the system will try to reach during the time intervals not managed by the daily programme.

Turn knob C  until your each "Reduced CH temp" (symbol .

Press key A  (Selection), the 'temperature' appears highlighted.

Turn knob C  to adjust the "value".

Press key A  (Store) to confirm.


## Language setting

Turn the knob C  until you reach the 'National settings' (symbol ).

Press key A  (Selection).



Turn knob C  until you reach "Select the language" (symbol ).

Press key A  (Selection).



Turn knob C  to select the desired language (default: Italian)

Press key A  to (store) confirm


## Temperature measuring scale setting


Turn knob C  until you reach the 'National settings' (symbol ).


 Press key A  (Selection.).

Turn knob C  until you reach "U.M. Temperature" (symbol ).

Press key A  (Selection).

Turn knob C  to select the desired temperature scale (default: Celsius degree)

Press key A  (Store) to confirm

Press key B  (exit) to return to the previous menu (Select the function)

- from the menu Daily CH Programmes:



it is possible to set the various consented programmes (up to 5), specifying the name, the time periods and the desired temperatures

- from the menu Daily DHW Programmes:



it is possible to set the various consented programmes (up to 3), specifying the name, the time periods and the desired temperatures

- from the menu Weekly CH Programmes:



- it is possible to set the programmes for a "typical" week specifying the name and associating to each single day the desired daily heating programme.

- from the menu Weekly DHW Programmes:



- it is possible to set the programmes for a "typical" week specifying the name and associating to each single day the desired daily DHW programme.

- From the menu CH:



- it is possible to assign the desired heating weekly programme to each circuit present in the heating system

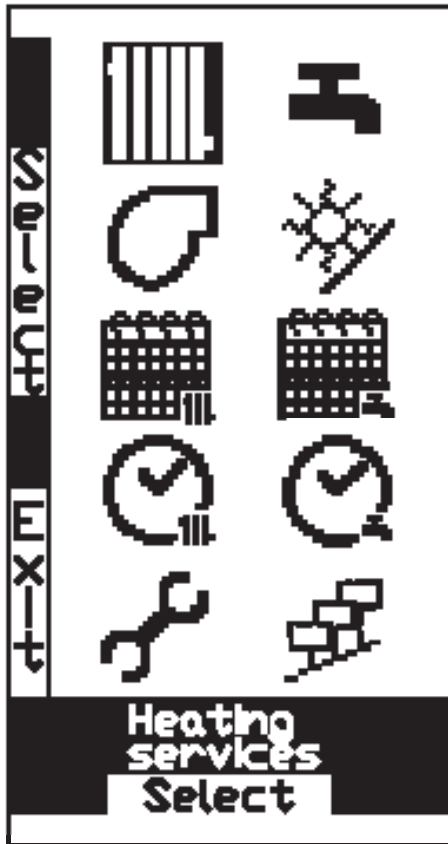
- the parameters of each circuit cannot be checked and modified (if required)

- from the menu Domestic Hot Water:



it is possible to assign the weekly desired DHW programme

7.5 - FUNCTION MENU



To gain access to the selected function, rotate the knob and position it on the corresponding symbol. Then press the left key (Selection).

Functions which can be accessed via the menu:

| symbol | description   |
|--------|---|
|        | <ul style="list-style-type: none"> <li>• <b>Heating modes</b> <ul style="list-style-type: none"> <li>- Current status display</li> <li>- Weekly programme setting</li> <li>- Temporary manual programming (temperature and time)</li> <li>- Circuit selection</li> <li>- Parameter settings of the selected circuit</li> </ul> </li> </ul>      |
|        | <ul style="list-style-type: none"> <li>• <b>Domestic hot water</b> <ul style="list-style-type: none"> <li>- Current status display</li> <li>- Weekly programme setting</li> <li>- Temporary manual programming (temperature and time)</li> <li>- Circuit selection</li> <li>- Parameter settings of the selected circuit</li> </ul> </li> </ul> |

Note:  
The function is enabled only if there is a DHW circuit present in the heating system

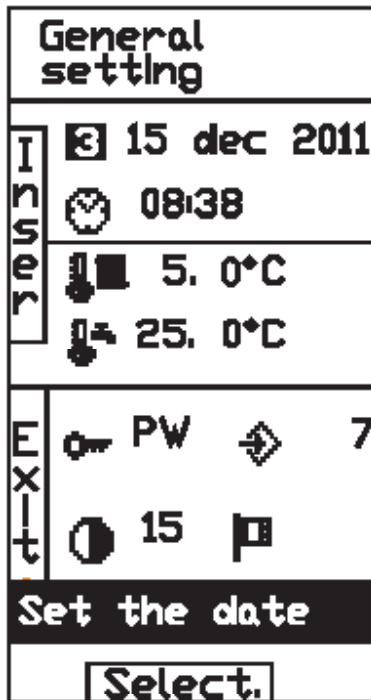
| symbol | description  |
|--------|--|
|        | <ul style="list-style-type: none"> <li>• <b>Boiler control</b> <ul style="list-style-type: none"> <li>- Current boiler status display</li> <li>- Current burner status</li> <li>- Boiler parameter settings</li> <li>- Single burner parameter settings</li> <li>- Manual control of the single burner</li> </ul> </li> </ul>  |
|        | <ul style="list-style-type: none"> <li>• <b>Solar accumulator "NOT ENABLED"</b> <ul style="list-style-type: none"> <li>- Solar collector and accumulator temperature display</li> <li>- Display of solar energy absorption</li> <li>- Manual activation of solar pumps</li> <li>- Activation/Stand-by solar service</li> </ul> </li> </ul>   |
|        | <ul style="list-style-type: none"> <li>• <b>Device control</b> <ul style="list-style-type: none"> <li>- List of the control devices present in the system</li> <li>- View of all the data and information relative to each device</li> <li>- View and control of all the activity counters</li> <li>- Setting of the specific parameters for each device</li> </ul> </li> </ul>  |
|        | <ul style="list-style-type: none"> <li>• <b>Definition of the weekly programmes</b> <ul style="list-style-type: none"> <li>- <b>CH and DHW</b></li> <li>- Selection of the weekly programme to view and/or change</li> <li>- Display of the selected weekly programme</li> <li>- Changing the name of the weekly programme selected</li> <li>- Assigning the daily programmes to the single days of the week</li> </ul> </li> </ul>  |
|        | <ul style="list-style-type: none"> <li>• <b>Definition of the daily programmes</b> <ul style="list-style-type: none"> <li>- <b>CH and DHW</b></li> <li>- Selection of the daily programme to view and/or change</li> <li>- Display of the daily programme selected</li> <li>- Changing the name of the daily programme selected</li> <li>- Setting the data for the definition of the daily programme selected</li> </ul> </li> </ul>  |
|        | <ul style="list-style-type: none"> <li>• <b>General settings</b> <ul style="list-style-type: none"> <li>- Current date setting</li> <li>- Current time setting</li> <li>- Reduced CH temperature setting</li> <li>- Reduced DHW temperature setting</li> <li>- Enter password</li> <li>- LCD display contrast setting</li> <li>- ModBus address indication</li> <li>- Language selection</li> <li>- Temperature unit measurement selection</li> <li>- Enablement /Assignment sensor</li> <li>- Room temperature compensation adjustment</li> </ul> </li> </ul> |



Danger: the functions flagged with the symbol can be accessed only after having entered the password correctly.

## 7.6 - DETAILS OF THE FUNCTIONS

### 7.6.1 - GENERAL SETTING



Knob function C:







It scrolls the cursor through the parameters which can be set



Left key function A:

It permits you to change the selected parameter. After having pressed this key the value which can be changed is displayed in reverse.

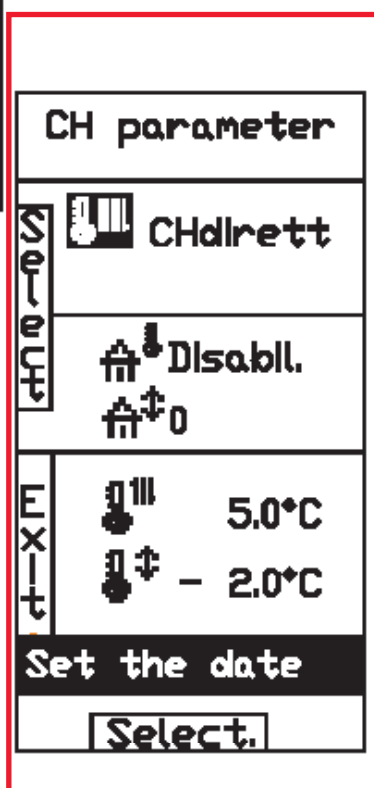
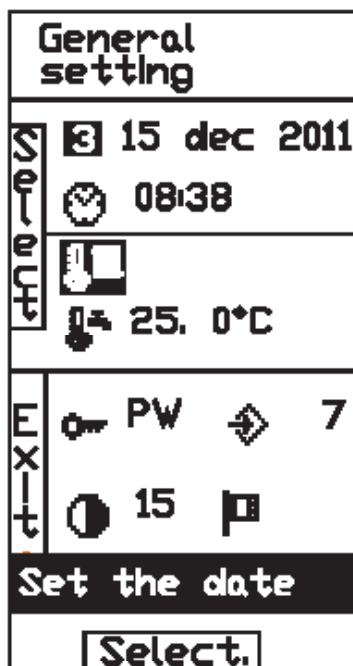
Right key function B:

It exits the function and returns to the main menu. The changes made and saved are stored.

| <i>symbol</i>   | <i>description</i>  | <i>procedure</i>  |
|---|---|---|
|  | Sets the time   | After pressed the left key A, refer to chapt. on changing the time and date       |
|  | Sets the date   | After pressed the left key A, refer to chapt. on changing the time and date       |
|  | set parameter (*1)  | After pressed the left key A, refer to chapt. on changing CH parameter            |
|  | Set the reduced DHW temperature (economy) within the consented limits | After having press the left key A, refer to chapt. on changing the numeric values |
|  | Enters and controls the password                                      | Once key A has been pressed, see modify texts                                     |
|  | Adjusts the contrast of the display                                   | After having pressed the A key, see modify numerical values                       |

| <i>symbol</i>   | <i>description</i>  | <i>procedure</i>   |
|---|---|--|
|  | set adress of ModBus  | After pressed the left key A, refer to chapt. on changing the numeric values |
|  | Select the language and the scale temperature scale (Celsius or Fahrenheit)(*1) | After having pressed the left key A , on changing the national setting       |




 (\*1) HEATING PARAMETERS






Knob function C:  
It scrolls the cursor through the parameters which can be set

Left key function A:  
It permits you to change the selected parameter. After having pressed this key the value which can be changed is displayed in reverse.

Right key function B:  
It exits the function and returns to the main menu. The changes made and saved are stored.

| symbol  | description   | procedure   |
|---|---|---|
|    | Room compensation: Adjustable range. For every °C of measured error adjustment, 2°C will be added to the primary temperature requested (calculated on the basis of the outdoor sensor temperature)<br>Description: Room compensation: Adjustable range. For every °C of measured error adjustment, 2°C will be added to the primary temperature requested (calculated on the basis of the outdoor sensor temperature) | After having pressed the key A, select the numeric value to set with the cursor C . Then press the key A to save. |
|  | ECO room temperature : It sets the reduced central heating temperature within the consented limits.   | After having pressed the key A refer to chapter on changing the numeric values.                                   |
|  | Correction room temperature: It sets the correction to be applied to the room temperature measured by the sensor integrated in the console. Range +5°C/ - 5°C.  | After having pressed the key A refer to chapter on changing the numeric values.                                   |

| symbol  | description   | procedure   |
|---|---|---|
|  | Thermostat position: selection of the CH circuit to which the room sensor and/ or room temperature compensation function should be assigned | After having pressed the key A , select the heating circuit to which the function should be assigned with the cursor. Then press the key A to save. |

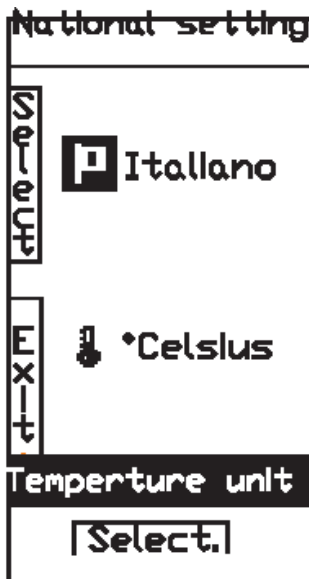
|  |  |  |
|--|--|--|
|  | Room thermostat Enables/disables the room thermostat function integrated in the console, assigning it to the pre-selected circuit via (inserimento simbolo),  | After having pressed the key A, refer to chapter on changing the numeric values. |
|--|--|--|

Note: Useful function if you wish to improve the precision of the measurement. It will be necessary to use a precision instrument for the reading compensation.

## User guide



### (\*2) NATIONAL SETTING



Knob function C:


It scrolls the cursor through the parameters which can be set


key function A:

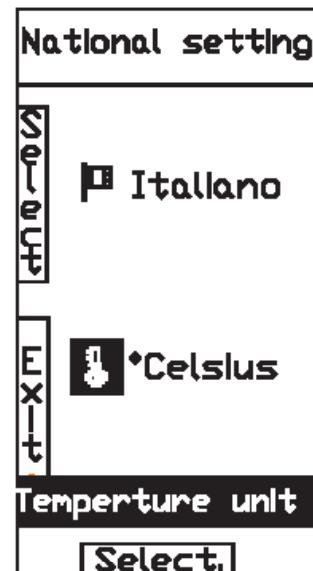
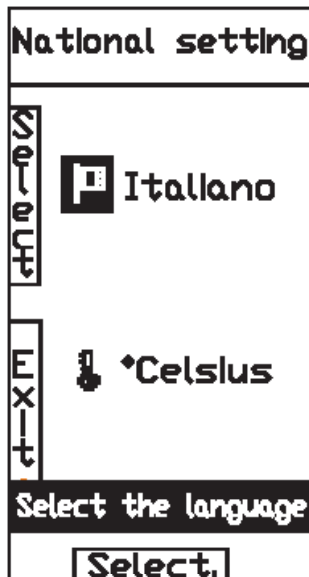
It permits you to change the selected parameter. After having pressed this key the value which can be changed is displayed in reverse.

key function B:

It exits the function and returns to the main menu. The changes made and saved are stored.

| symbol  | description     | procedure  |
|---|-----------------|--|
|  | Select language | After having pressed the left key A, select the desired language with the cursor (+ and -). Then press the left key A to save. |

| symbol  | description                                       | procedure  |
|---|---|--|
|  | Set the temperature scale (Celsius or Farenheit). | After having pressed the left key A, select the desired lscale with the cursor (+ and -). Then press the left key A to save. |



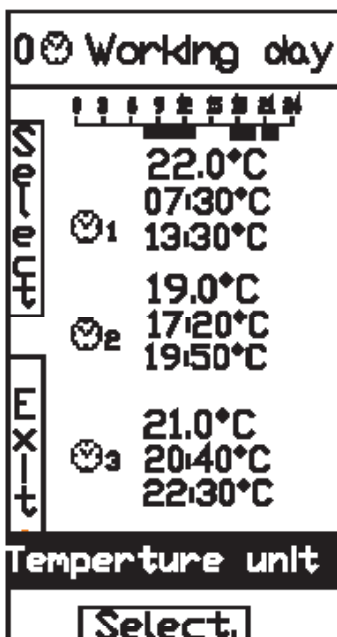
7.6.2 - DAILY PROGRAMMES – CENTRAL HEATING AND DOMESTIC HOT WATER

There are 5 different daily programmes for CH and 3 for DHW : the aim is of creating “typical” daily programmes, according to your own needs and custom.

It is therefore advisable to give each programme a significant name, valid for all the days which have similar heating needs: the programme for the days with full-time hours, the days with part-time hours, the days you are shut-down, the days where you work without stopping for a break, etc..

In the title line there is displayed the name of the programme, its reference index (the number which is on the left hand side of the clock), the symbol (radiator or tap) of the circuit whose programme you are setting. Each daily programme foresees three different time periods settings to which you can associate the desired temperature; during the time periods not covered by the programme the reduced temperatures indicated in the general settings will be reached.

Each time a change is made and stored, the temporal line on the display is automatically updated; no time overlaps are admitted: the limits of the following time periods are automatically updated on the basis of the previous time periods.

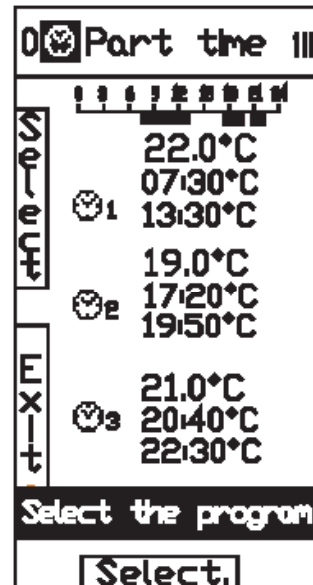


Knob function C:  
It scrolls the cursor through the parameters which can be set.

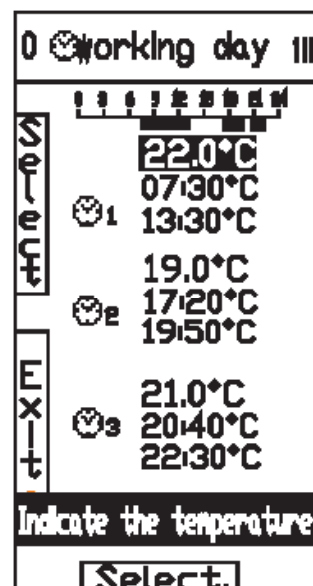
Left key function A:  
It permits you to set the selected parameter.

Right key function B:  
It exits the function and returns to the previous menu. The changes made and saved are stored.

| symbol | description                                     | procedure   |
|--------|---|---|
|        | Selection of the daily programme to set or view | After having pressed the left key A , select the desired programme with the knob C (+ and -) Press the left key A to save |



| symbol      | description   | procedure  |
|-------------|---|--|
| Temperature | Sets or changes the desired temperature in a specific time interval | After having pressed the left key A, select the desired value with the knob C (+ and -). The values can be increased by ½ grades. Press the left key A to save |



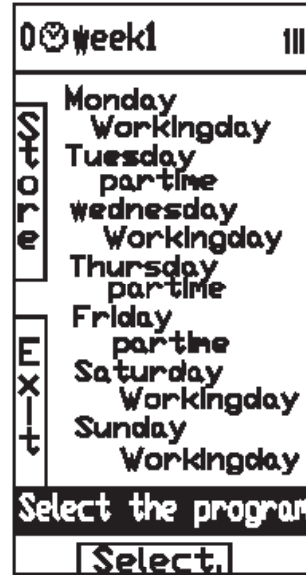
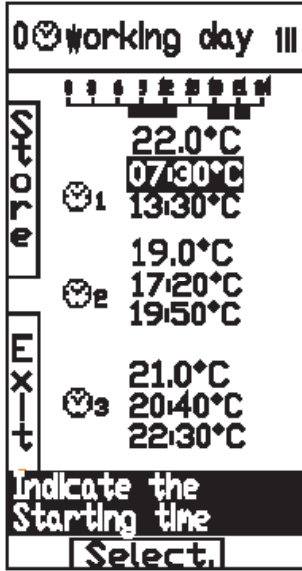
# User guide

| symbol | description   | procedure  |
|--------|---|--|
| time   | Sets or changes the time period (start or end) in which you desire a different temperature from the reduced one | After having pressed the left key A, select the desired value with the knob C (+ and -). The values can be increased by 10 minutes. Press the left key A to save |



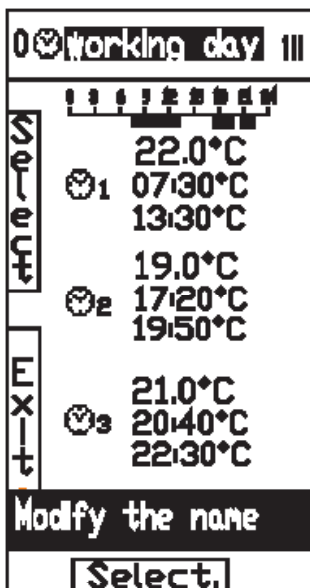
## 7.6.3 -WEEKLY PROGRAMMES CH AND DHW

The weekly programming permits you to create up to three “typical” weeks (to which you must assign specific names) assigning a special daily programme to each day (to view and/or change in the appropriate section).



| symbol | description   | procedure                            |
|--------|---|--------------------------------------|
| name   | Assigns or changes the name of the daily programme selected | Refer to the chapter on “Text modes” |

This setting makes it easier to make any changes when needed: for example, if on the Mondays during the summer period the working hours change from part-time to continuous, in the programming of the summer week it will be sufficient to associate to these ‘Mondays’ the daily programme ‘continuous hours’. Also in this section, in the title line there is displayed the name of the programme, its reference index (the number which is on the left hand side of the clock), the symbol (radiator or tap) of the circuit whose programme you are setting.



### Knob function C:


It scrolls the cursor through the functions in which you can set a value.

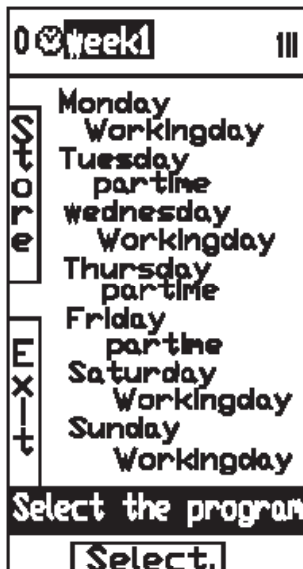
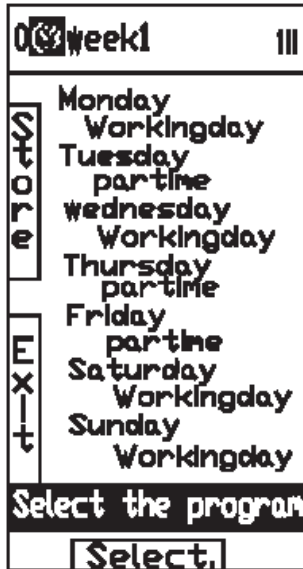
### Left key function A:

It permits you to set the value of the selected function. After having pressed this key the value which can be changed is displayed in reverse.

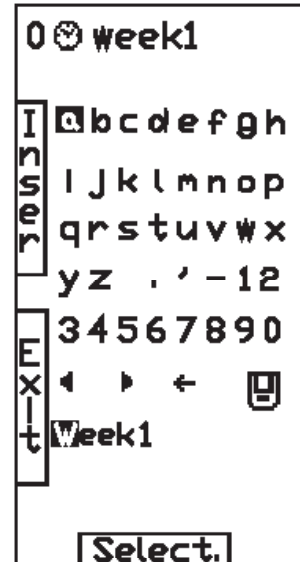
### Right key function B:

It exits the function and returns to the main menu. The changes made and saved are stored.

| symbol  | description                                  | procedure   |
|---|--|---|
|  | Selecting the daily programme to set or view | After having pressed the left key A, select the desired programme with the knob C (+ and -). Press the left key A to save |



| symbol | description  | procedure                            |
|--------|--|--------------------------------------|
| name   | Assigns or changes the name of the weekly programme selected | Refer to the chapter on "Text modes" |

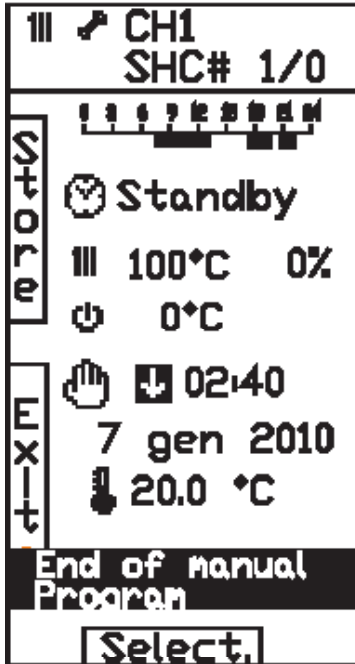


| symbol | description   | procedure  |
|--------|---|--|
| time   | Sets or changes the daily programme to each day of the week | After having pressed the left key A, select the desired value with the knob C (+ and -). The values can be increased by 10 minutes. Press the left key A to save |



# User guide

## 7.6.4 - CENTRAL HEATING FUNCTIONS



### Knob function C:

It scrolls the cursor through the functions in which you can set a value.

### Left key function A:

It permits you to set the value of the selected function. After having pressed this key the value which can be changed is displayed in reverse.

### Right key function B:

It exits the function and returns to the main menu. The changes made and saved are stored.

| symbol                  | description   | procedure  |
|-------------------------|---|--|
|                         | Circuit in Stand-by   | Read only  |
|                         | Circuit energised   | Read only (effective temperature is not available for CH2) |
| <b>The temperatures</b> | The first one is the effective temperature; the 2 <sup>nd</sup> the one requested | Read only (effective temperature is not available for CH2) |
| <b>Values in %</b>      | Indicates the system's adjustment level   | only display   |

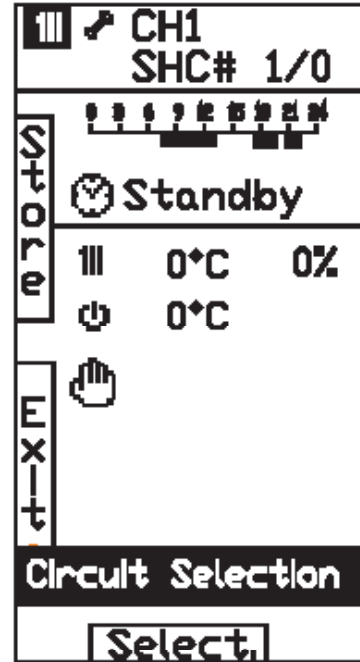
| symbol | description | procedure |
|--------|-------------|-----------|
|--------|-------------|-----------|



Searching for the circuit

After having pressed the left key A, choose the desired circuit via the knob C. Press the left key A to save.

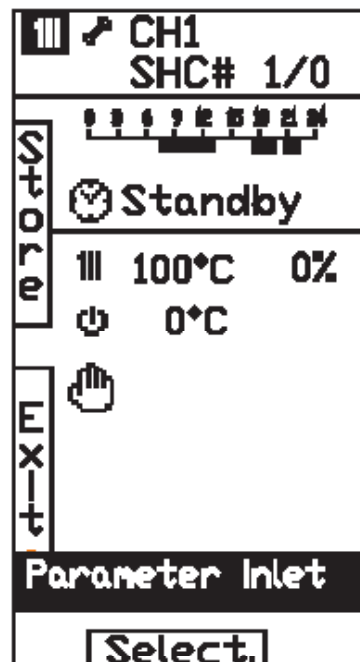
CH1 is the default mixer circuit (generally used for low temperature zone) while CH2 is the direct circuit (generally used for high temperature zone).



| symbole | description | procedure |
|---------|-------------|-----------|
|---------|-------------|-----------|



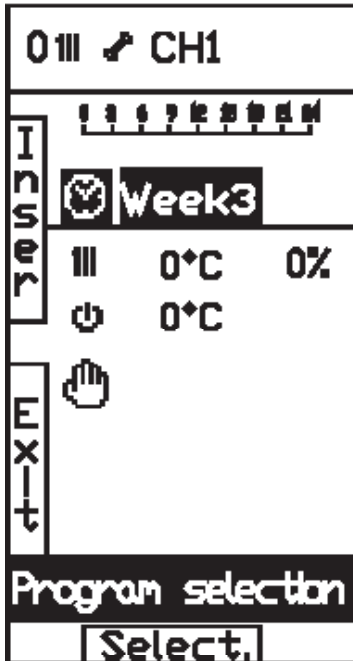
Parameter settings of the selected circuit then verified (\*1)



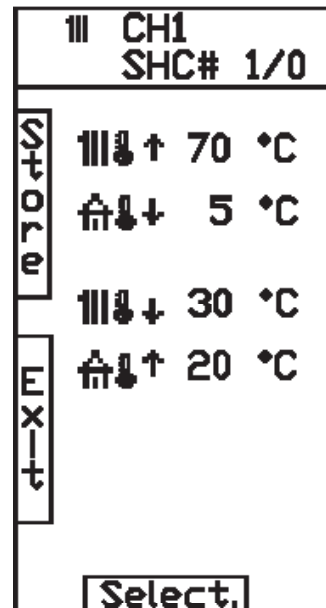
*symbol*    *description*    *procedure*



Assignment or change of the weekly programme  
After having pressed the left key A, choose the desired weekly programme via the knob C. Press the left key A to save.



(\*1) PARAMETER SETTING



**Knob function C:**

It scrolls the cursor through the functions in which you can set a value.

**Left key function A:**

It permits you to set the value of the selected function. After having pressed this key the value which can be changed is displayed in reverse.

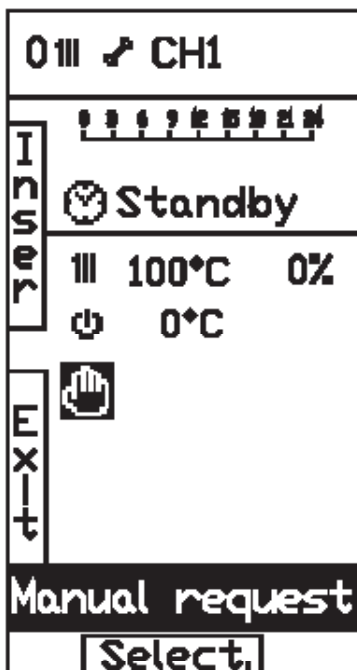
**Right key function B:**

It exits the function and returns to the main menu. The changes made and saved are stored.

*symbol*    *description*    *procedure*



Access or completion of the manual settings (\*2)  
After pressing the left key A, new data is displayed, which will be then verified

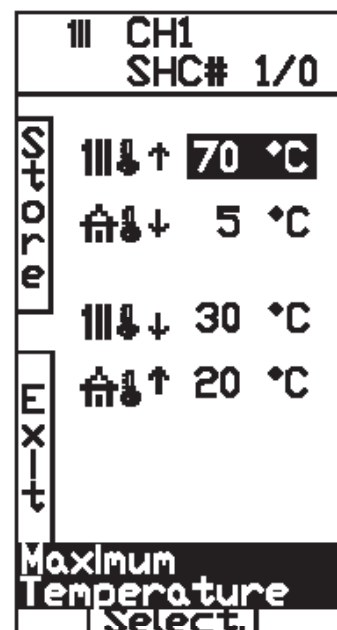


*symbol*    *description*    *procedure*




Max requested temperature when the outdoor temperature reaches the minimum value.

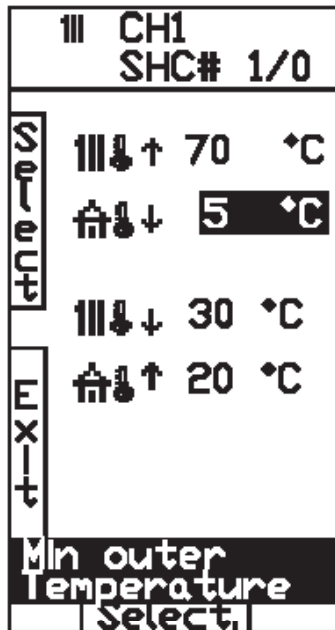
After having pressed the left key A refer to chapt. on changing the numeric values




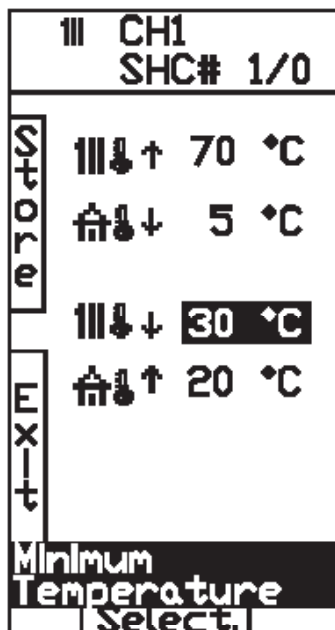
(\*n) more detail later

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| symbol  | description   | procedure  |
|---|---|--|
|  | Minimum outdoor temperature for which the heating system has been designed for. | After having pressed the left key A refer to chapt. on changing the numeric values |



| symbol  | description   | procedure  |
|---|---|--|
|  | Min. requested temperature when the outdoor temperature reaches the maximum value | After having pressed the left key A refer to chapt. on changing the numeric values |

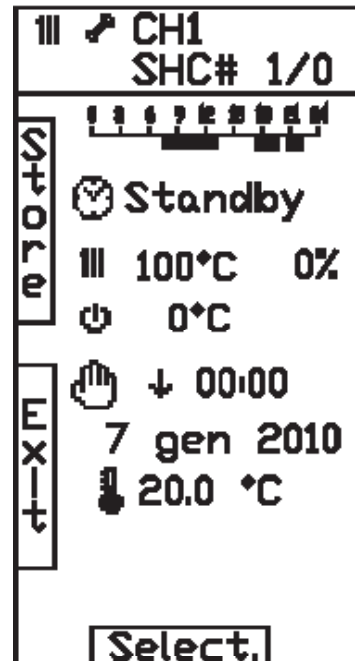


| simbole   | description                 | procedure |
|---|-----------------------------|-----------|
|  | Maximum outdoor temperature |           |



### (\*2) MANUAL REQUEST

This function can be used when you want to make temporary changes to the daily or weekly programmes already set: until the hour of the indicated day the new settings will be valid.



#### Knob function C:

It scrolls the cursor through the functions in which you can set a value.

#### Left key function A:

It permits you to set the value of the selected function. After having pressed this key the value which can be changed is displayed in reverse.

#### Right key function B:

It exits the function and returns to the main menu. The changes made and saved are stored.

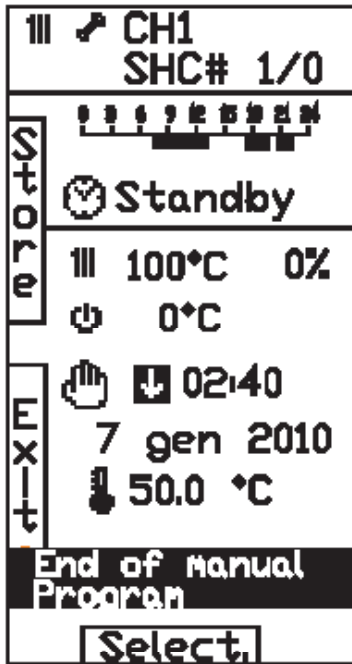
*symbol description procedure*



End of manual settings (day and time).

After having pressed the left key refer to chapt. on changing the numeric values and then changing the date

To stop the service in advance of "manual" is required to insert a date / time prior to the current one.

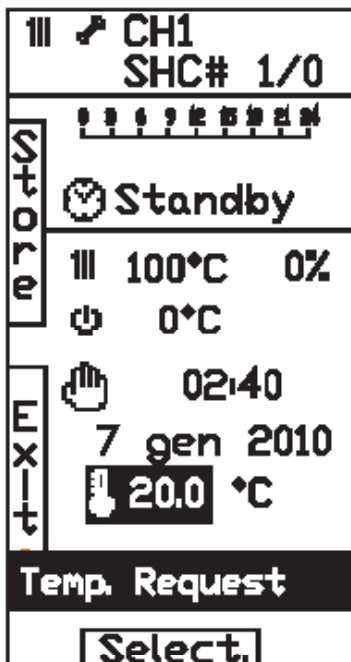


*symbol description procedure*



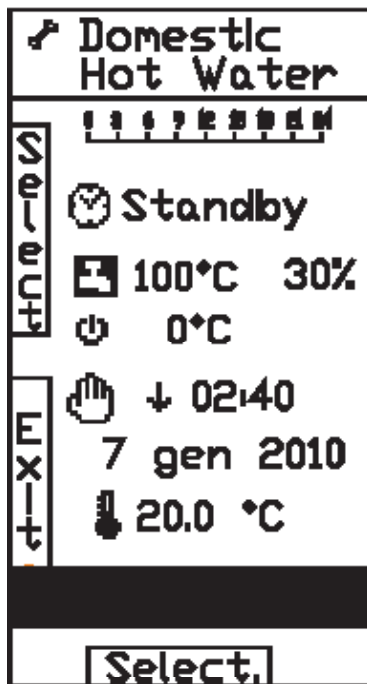
Requested temperature for the time period set manually

After having pressed the left key refer to chapt. on changing the numeric values





7.6.5 - DOMESTIC HOT WATER FUNCTION



**Knob function C:**

It scrolls the cursor through the functions in which you can set a value.

**Left key function A:**

It permits you to set the value of the selected function. After having pressed this key the value which can be changed is displayed in reverse.

**Right key function B:**

It exits the function and returns to the main menu. The changes made and saved are stored.

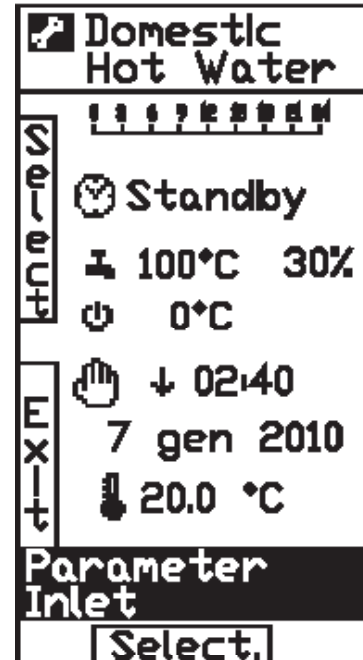
| <i>symbol</i>           | <i>description</i>  | <i>procedure</i> |
|-------------------------|---|------------------|
|                         | Circuit in Stand-by   | Read only        |
|                         | Circuit energised   | Read only        |
| <b>The temperatures</b> | The first one is the effective temperature; the 2 <sup>nd</sup> the one requested | Read only        |
| <b>Values in %</b>      | Indicates the system's adjustment level   | Read only        |

| <i>symbol</i> | <i>description</i> | <i>procedure</i> |
|---------------|--------------------|------------------|
|---------------|--------------------|------------------|



Parameter settings of the selected circuit (\*1)

After having pressed the left key A, a new display is shown which will be then verified

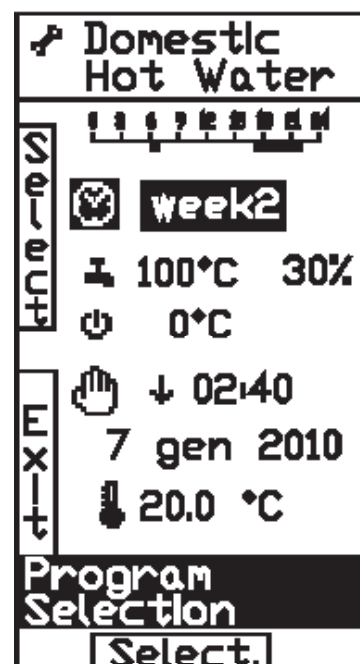


| <i>symbol</i> | <i>description</i> | <i>procedure</i> |
|---------------|--------------------|------------------|
|---------------|--------------------|------------------|



Assignment or change of the weekly programme

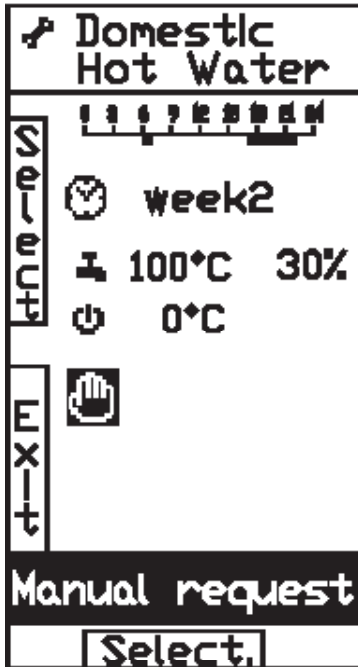
After having pressed the left key A, choose the desired weekly programme via the knob C. Press the left key A to save.



*symbol*    *description*    *procedure*



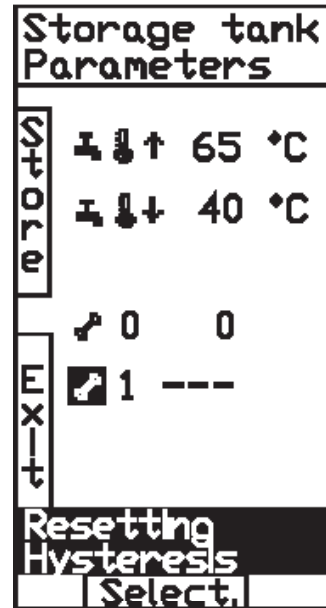
Access or completion of the manual settings (\*2)  
 After pressing the left keyA, new data is displayed, which will be then verified



(\*n) more detail later



(\*1) PARAMETER SETTING



**Knob function C:**

It scrolls the cursor through the functions in which you can set a value.

**Left key function A:**

It permits you to set the value of the selected function. After having pressed this key the value which can be changed is displayed in reverse.

**Right key function B:**

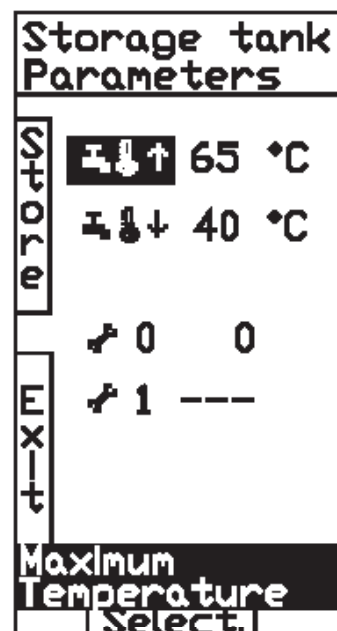
It exits the function and returns to the main menu. The changes made and saved are stored.

*symbol*    *description*    *procedure*





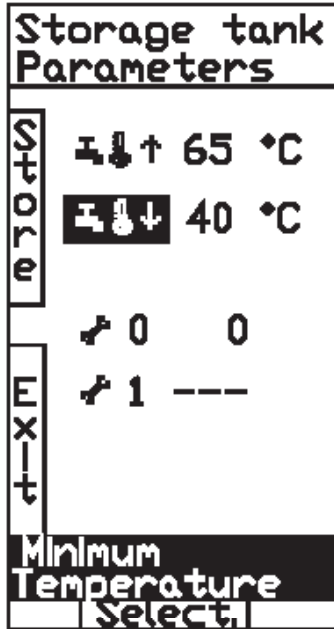
Max temperature that can reach the storage tank



After having pressed the left keyA refer to chapt. on changing the numeric values

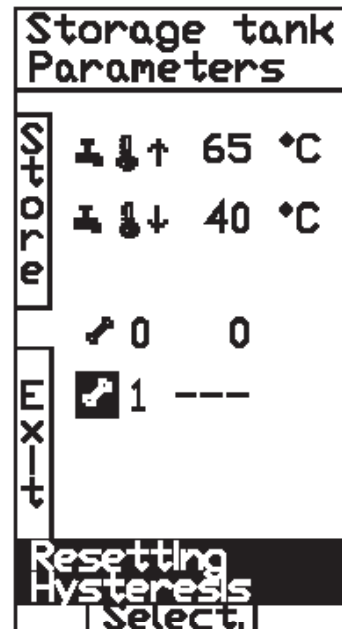




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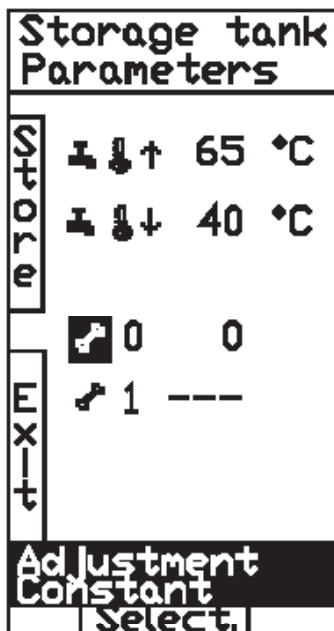
| symbol  | description   | procedure  |
|---|---|--|
|  |  Minimum temperature that can reach the storage tank | After having pressed the left key A refer to chapt. on changing the numeric values |



| simbole   | description   | procedure   |
|---|---|---|
|  1 |  Error limit of the storage tank | After having pressed the left keyA refer to chapt. on changing the numeric values |



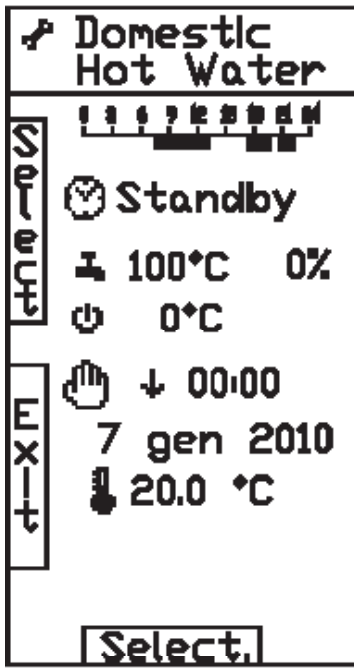
| symbol  | description  | procedure   |
|---|--|---|
|  0 |  Constant adjustment of storage tank temperature. | After having pressed the left keyA refer to chapt. on changing the numeric values |





(\*2) MANUAL REQUEST

This function can be used when you want to make temporary changes to the daily or weekly programmes already set: until the hour of the indicated day the new settings will be valid.



**Knob function C:**

It scrolls the cursor through the functions in which you can set a value.

**Left key function A:**

It permits you to set the value of the selected function. After having pressed this key the value which can be changed is displayed in reverse.

**Right key function B:**

It exits the function and returns to the main menu. The changes made and saved are stored.

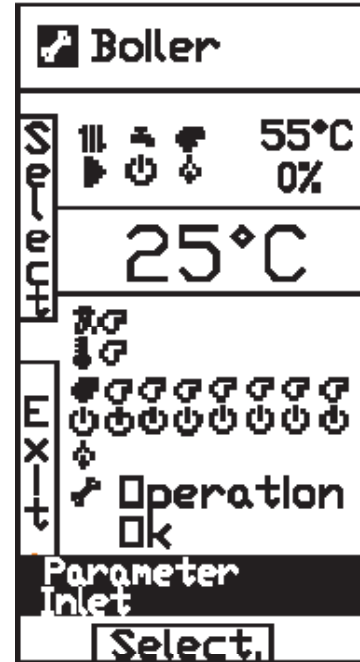
| symbol | description | procedure |
|--------|-------------|-----------|
|--------|-------------|-----------|



End of manual settings (day and time).

After having pressed the left key refer to chapt. on changing the numeric values and then changing the date

To stop the service in advance of "manual" is required to insert a date / time prior to the current one.

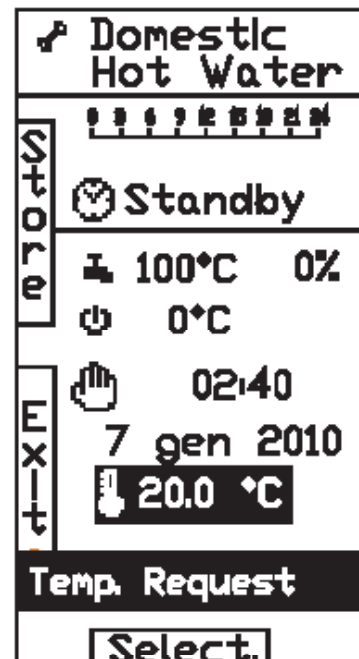


| symbol | description | procedure |
|--------|-------------|-----------|
|--------|-------------|-----------|

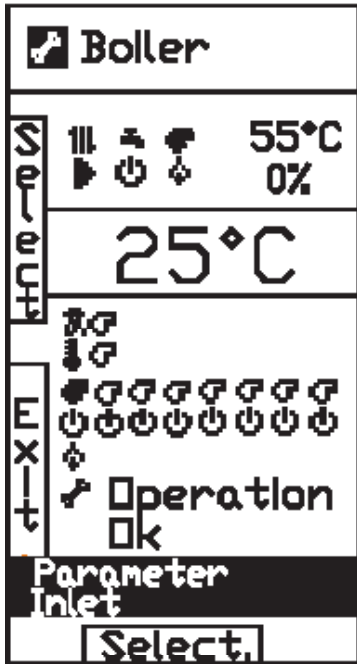


Requested temperature for the time period set manually

After having pressed the left key refer to chapt. on changing the numeric values



7.6.6 - HEATING GENERAL CONTROL



**Knob function C:**

It scrolls the cursor through the functions in which you can set a value.

**Left key function A:**

It permits you to set the value of the selected function. After having pressed this key the value which can be changed is displayed in reverse.

**Right key function B:**

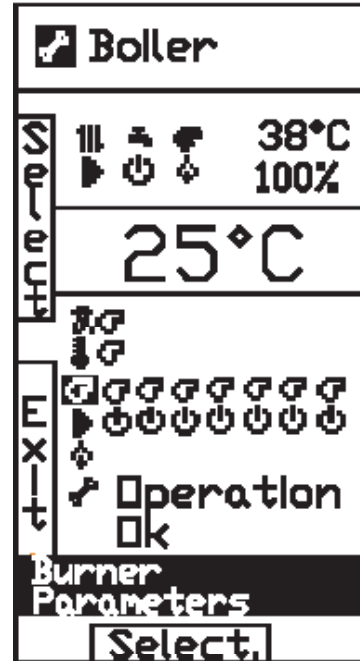
It exits the function and returns to the main menu. The changes made and saved are stored.

| symbol | description | procedure |
|--------|-------------|-----------|
|--------|-------------|-----------|



Burner parameter settings (\*2)

After having pressed the left key A, start entering the manual settings. The detailed functions will follow.



| symbol | description | procedure |
|--------|-------------|-----------|
|--------|-------------|-----------|

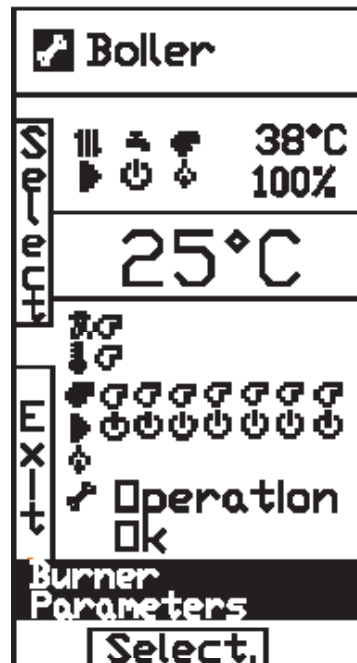


(above)


Boiler parameter settings (\*3)

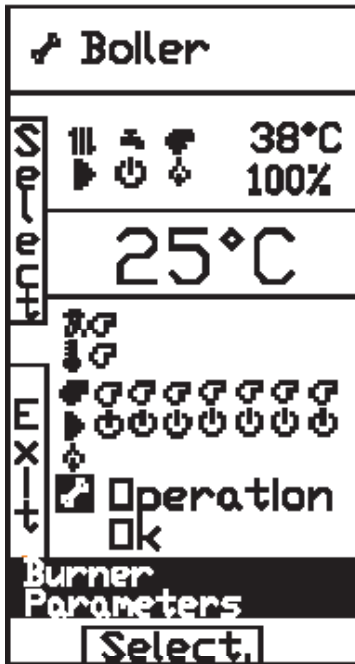
| symbol | description                | procedure |
|--------|----------------------------|-----------|
|        | Status: On/Not functioning | -         |
|        | Status: stand-by/active    | -         |
|        | Burner absent/present      | -         |
|        | Central heating circuit    | -         |
|        | DHW circuit                | -         |

|  |                                    |  |
|--|------------------------------------|--|
|  | manual setting (*1) (sweeper mope) | After having pressed the left key A, start entering the manual settings. The detailed functions will follow. |
|--|------------------------------------|--|



*symbol*      *description*      *procedure*

 reset alarm      Press key A to reset the alarm  
(below)



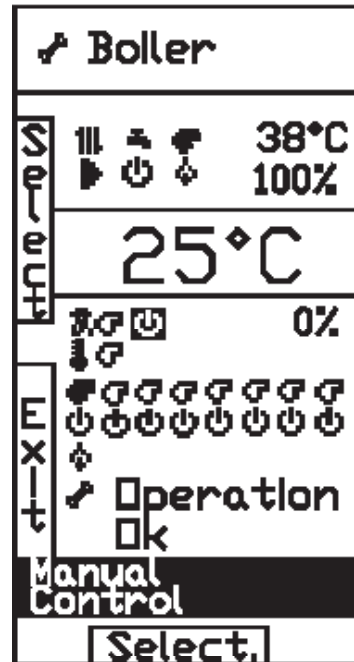
**The Temperature**      The small one is the one requested.  
The large one is the flow temperature

**The percentage value**      System modulation



(\*n) further details will follow

 (\*1) MANUAL CONTROL (SWEEPER)




**Knob function C:**  
It scrolls the cursor through the functions in which you can set a value.


**Left key function A:**  
It permits you to set the value of the selected function. After having pressed this key the value which can be changed is displayed in reverse.


**Right key function B:**  
It exits the function and returns to the main menu. The changes made and saved are stored.


*symbol*      *description*      *procedure*


      State: Stand-by / On      With the left key A you advance from one function to the next


**The percentage value**      It sets the modulation level of the burners firing      After having pressed the left key A refer to chapt. on changing the numeric values

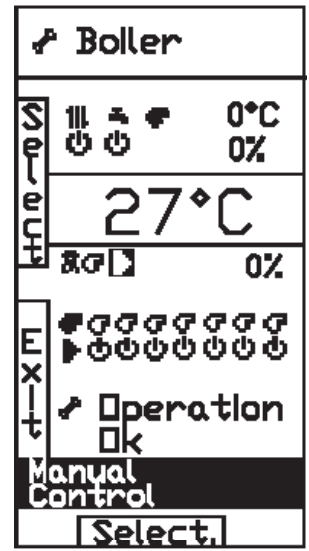
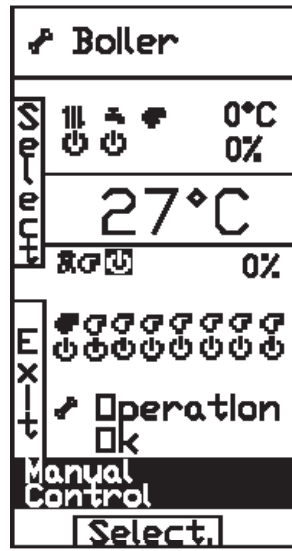
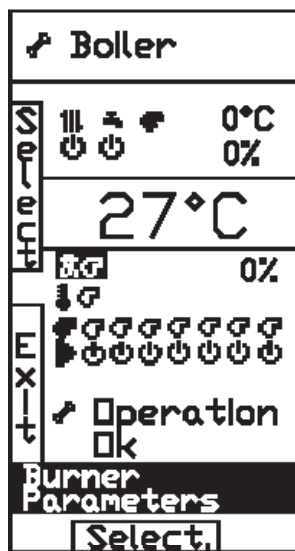
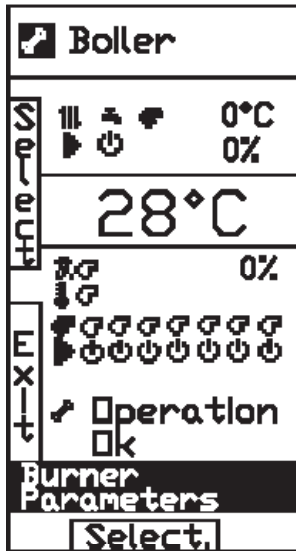
      No burners present      read only

      Burner present and turned off      read only

      Burner enabled      read only

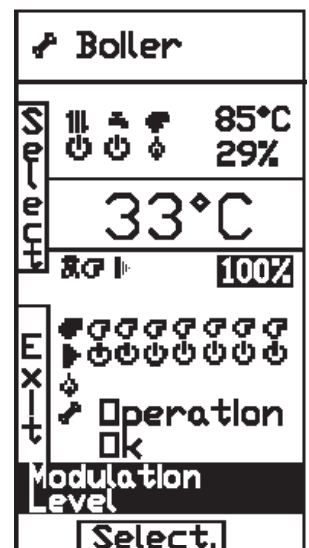
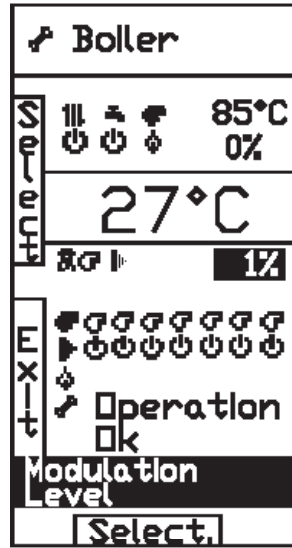
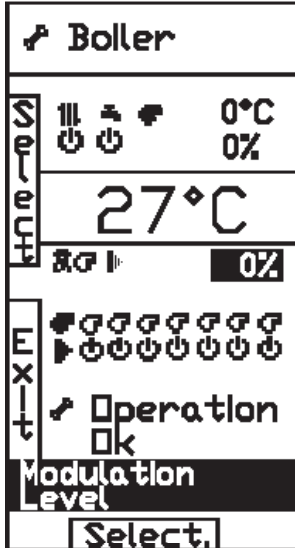
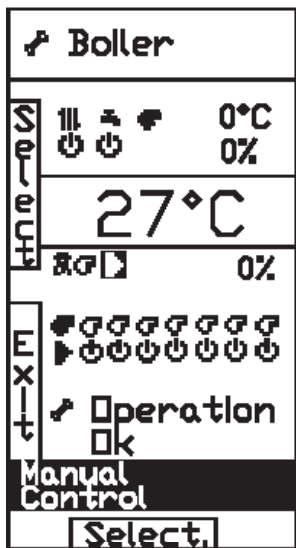
      Burner firing      read only

 Note:  
- Leaving the Control Manual "page" is to the back burner in stand-by (even if it was previously enabled).  
- Manual control function "re-activates the circulation up for all the heating circuits ative and the openings, motorized mixing ra complete.



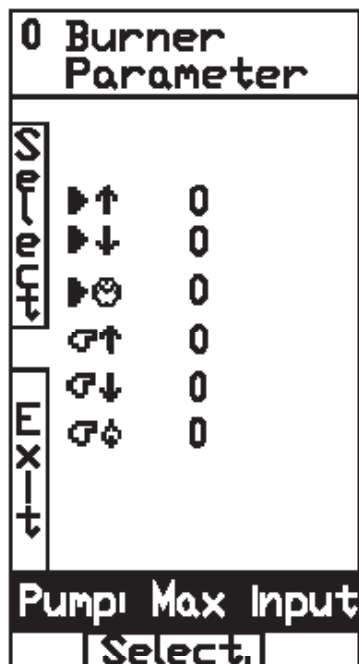
Burner at the minimum power

Burner at the maximum power





(\*2) BURNER PARAMETERS



**Knob function C:**

It scrolls the cursor through the functions in which you can set a value.

**Left key function A:**

It permits you to set the value of the selected function. After having pressed this key the value which can be changed is displayed in reverse.

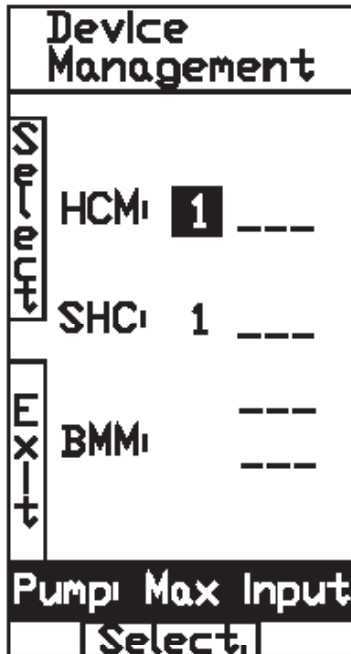
**Right key function B:**

It exits the function and returns to the main menu. The changes made and saved are stored.

| <i>symbol</i> | <i>description</i>   | <i>procedure</i>  |
|---------------|--|---|
|               | Pump control (%) in correspondence to the burner maximum level | After having pressed the left key A refer to chapt. on changing the numeric values  |
|               | Pump control (%) in correspondence to the burner minimum level | After having pressed the left key A refer to chapt. on changing the numeric values  |
|               | tTime (in minutes) of pump post-circulation after burner off   | After having pressed the left key A refer to chapt. on changing the numeric values  |
|               | Max. modulation which can be reached by the burner             | After having pressed the left key A refer to chapt. on changing the numeric values  |
|               | Minimum modulation which can be reached by the burner          | After having pressed the left key A refer to chapt. on changing the numeric values  |
|               | Burner modulation level (percentage) during ignition phase     | After having pressed the left key A refer to chapt. on changing the numeric values (The change can be made only in the first 8 minutes of power supply system). |



7.6.7 - DEVICE SETTINGS



**Knob function C:**

It scrolls the cursor through the functions in which you can set a value.

**Left key function A:**

It permits you to set the value of the selected function. After having pressed this key the value which can be changed is displayed in reverse.

**Right key function B:**

It exits the function and returns to the main menu. The changes made and saved are stored.

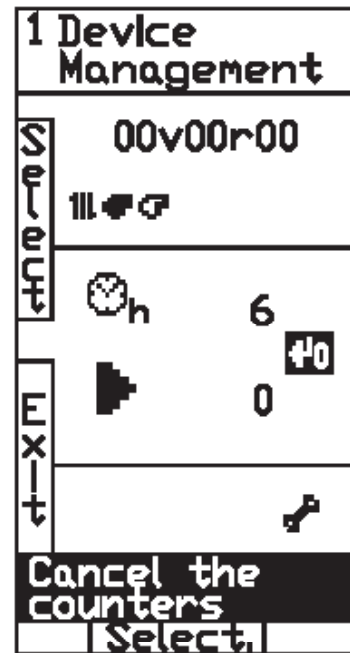
Legenda:

| area | description                |
|------|----------------------------|
| HCM  | Heating control manager    |
| SHC  | .....Slave Heating Control |
| BMM  | Burner control             |



Note: in the title line, the number displayed on the left is the burner whose parameters you are setting

Once you choose the device, it displays its identification code, managed services from the device and its activity counters, you can reset the counters and set the parameters of the device:



**Knob function C:**

It scrolls the cursor through the functions in which you can set a value.

**Left key function A:**

It permits you to set the value of the selected function. After having pressed this key the value which can be changed is displayed in reverse.

**Right key function B:**

It exits the function and returns to the main menu. The changes made and saved are stored.

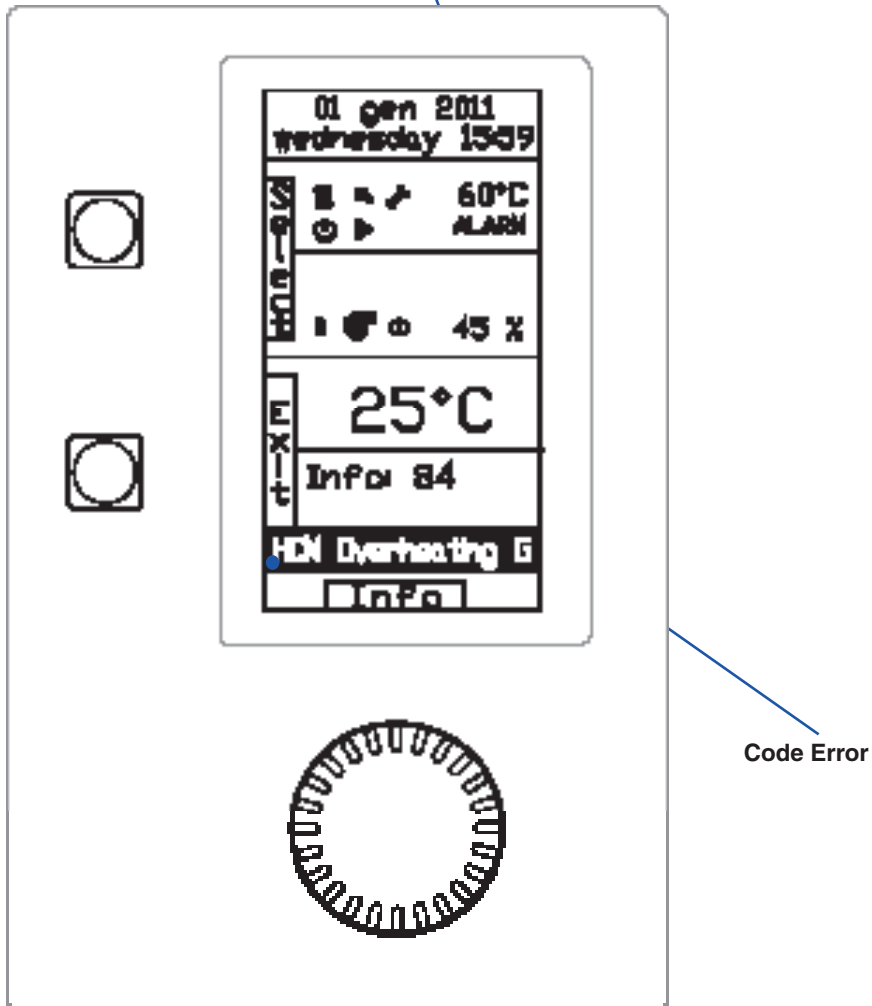
| symbol | description  |
|--------|--|
|        | Mode: central heating                              |
|        | Mode: burner                                       |
|        | Mode: programmable exit                            |
|        | Mode: boiler                                       |
|        | Mode: DHW  |
|        | Mode: solar energy                                 |
|        | Working hours device counter                       |
|        | Counter of the number of activations of the device |
|        | Resetting the counter                              |
|        | Parameter setting (*)                              |

(\*) When selecting the setting, the list of parameters and their current value will be displayed: to change them ( ), refer to the previous chapter on 'Changing the numeric values'.

## 8 - FAULT FINDING

The following are the error codes of EBUS control, their meanings, and corrective actions.

### Fault indication



## User guide

| ERROR CODE | WKV<br><b>BMM</b>  | WKV<br><b>HCM</b> |  |
|------------|--|-------------------|--|
| <b>01</b>  | <p>High limit thermostat</p> <p><b>Corrective action:</b><br/>Reset,<br/>Check circulation</p> <p><b>Effect:</b> Block fire</p>  |                   |  |
| <b>02</b>  | <p>Insufficient gas pressure</p> <p><b>Corrective action:</b><br/>Once the correct gas pressure has been established it will retry ignition.</p> <p><b>Effect:</b>Flame arrest</p>   |                   |  |
| <b>04</b>  | <p>No flame in ignition</p> <p><b>Corrective action:</b><br/>Unblock, check gas and combustion system components.</p> <p><b>Effect:</b> Flame arrest</p>   |                   |  |
| <b>05</b>  | <p>Flame loss during boiler operation</p> <p><b>Corrective action:</b><br/>Check gas and flue outlet pipe</p> <p><b>Effect:</b> Warning</p>  |                   |  |
| <b>06</b>  | <p>Overheating of the boiler's primary heat exchanger. It is enabled when the flow temperature is &gt;95. It resets in an automatic mode when the temperature is &lt;80.</p> <p><b>Corrective action:</b><br/>Check the circulation</p> <p><b>Effect:</b> Burner arrest, pump on</p> |                   |  |
| <b>10</b>  | <p>Internal failure</p> <p><b>Corrective action:</b><br/>Contact the Technical service assistance.<br/>Replace the electronic board.</p> <p><b>Effect:</b> Stop</p>  |                   |  |
| <b>11</b>  | <p>Fiamma parassita (prima dell'accensione)</p> <p><b>Corrective action:</b><br/>Contact the Technical service assistance.</p> <p><b>Effect:</b> Flame arrest</p>  |                   |  |

| ERROR CODE | WKV<br>BMM  | WKV<br>HCM |  |
|------------|---|------------|--|
| <b>12</b>  | Flow sensor failure<br><b>Corrective action:</b><br>Controllo sonda e collegamenti<br><b>Effect:</b> Stop   |            |  |
| <b>13</b>  | DHW sensor failure (only if the boiler is forecast with and external storage tank)<br><b>Corrective action:</b><br>Check the sensor and connections<br><b>Effect:</b> Warning   |            |  |
| <b>16</b>  | Boiler's primary heat exchanger frozen<br><b>Corrective action:</b><br>Try to reset the boiler because the system automatically puts into action the anti-freeze function and therefore it could be only a warning signal.<br><b>Effect:</b> Stop |            |  |
| <b>20</b>  | Undesired flame (after 15 seconds from boiler shutdown)<br><b>Corrective action:</b><br>Contact the Technical service assistance.<br><b>Effect:</b> Stop  |            |  |
| <b>24</b>  | Fan speed out of control: the required fan speed is not reached<br><b>Corrective action:</b><br>Contact the Technical service assistance. Check the appliance's electrical tension<br><b>Effect:</b> Stop   |            |  |
| <b>26</b>  | Fan speed out of control: the fan does not stop when commanded<br><b>Corrective action:</b><br>Contact the Technical service assistance.<br><b>Effect:</b> Stop   |            |  |

## User guide

| ERROR CODE | WKV<br>BMM   | WKV<br>HCM |  |
|------------|--|------------|--|
| <b>28</b>  | <p>Flue duct occluded</p> <p><b>Corrective action:</b><br/>Contact the Technical service assistance, check the flue outlet pipe.</p> <p><b>Effect:</b> Stop</p>  |            |  |
| <b>29</b>  | <p>Water inside the combustion chamber</p> <p><b>Corrective action:</b><br/>Contact the Technical service assistance, check that the drainage siphon is not occluded</p> <p><b>Effect:</b> Stop</p>  |            |  |
| <b>30</b>  | <p>Service parameters corrupted by electromagnetic interferences</p> <p><b>Corrective action:</b><br/>Contact the Technical service assistance.</p> <p><b>Effect:</b> Stop</p>   |            |  |
| <b>32</b>  | <p>230 Vac voltage not within the limits</p> <p><b>Corrective action:</b><br/>The ignition procedure is activated with a &gt; 200 Vac voltage. Contact the Technical service assistance. Replace the board.</p> <p><b>Effect:</b> Stop</p> |            |  |







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