IMMERGAS

USER'S MANUAL

HSCP

Control panel

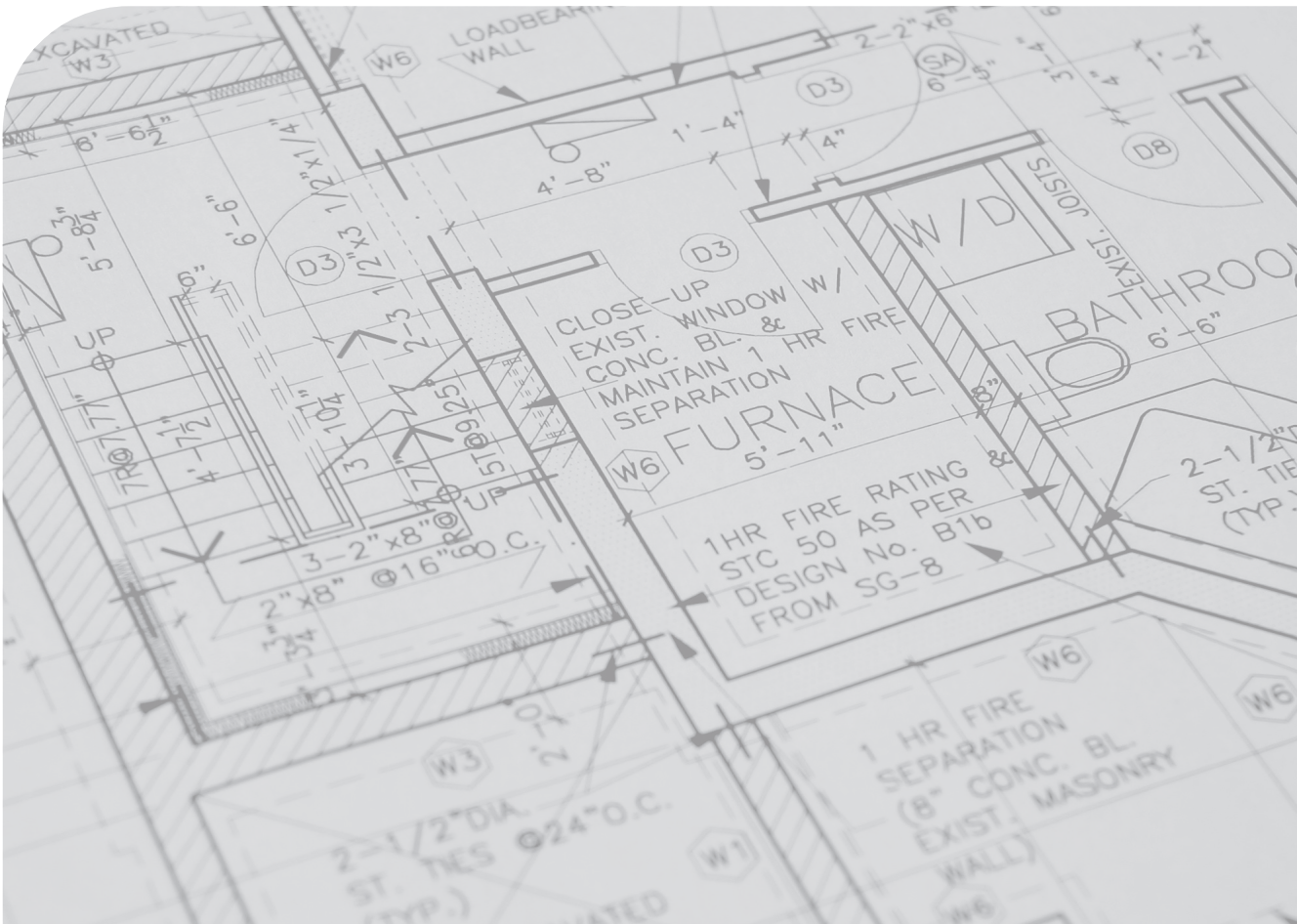
IE

Instructions and recommendations

Installer

Maintenance technician

1.043693ENG



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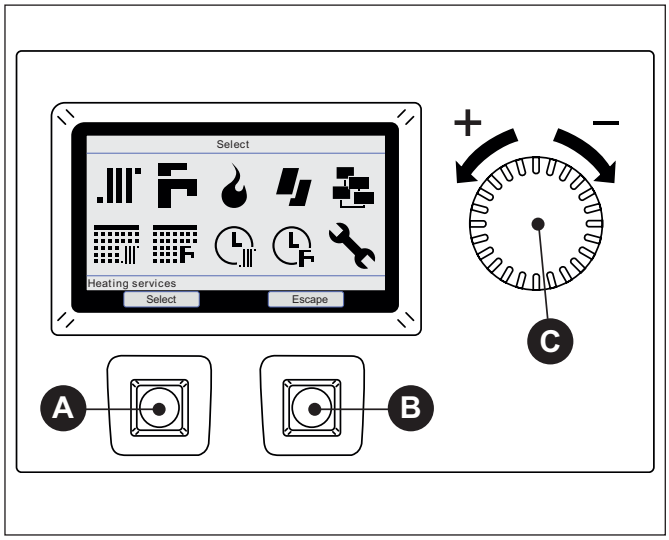
1 INSTRUCTIONS FOR USE

1.1 CONTROL PANEL

1.1.1 CONTROL UNIT

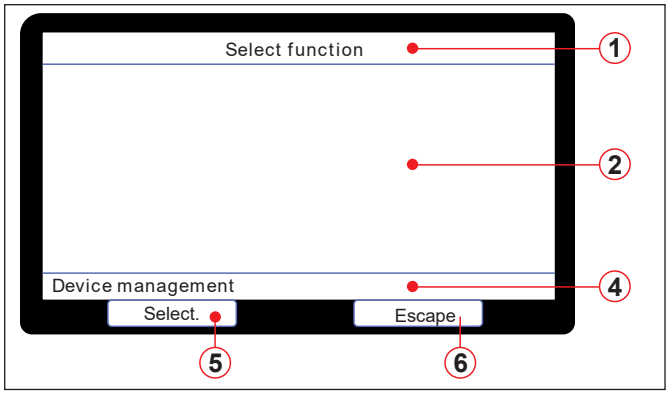


The control unit has a large display, two buttons (A and B) and a knob C.

A	Key
B	Key
C	Knob

In general, the buttons and the knob are accompanied by a label that specifies the functionality in each individual state of use of the appliance.

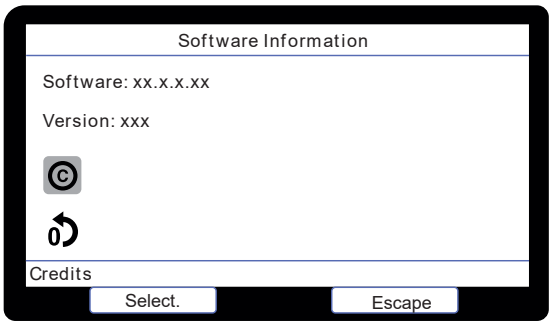
1.1.2 DISPLAY



1	Title line of the selected menu
2	Function display area
3	Knob label
4	HELP line (*)
5	Button A label
6	Button B label

(*) always highlighted, which provides information on the symbols or fields selected with the knob.

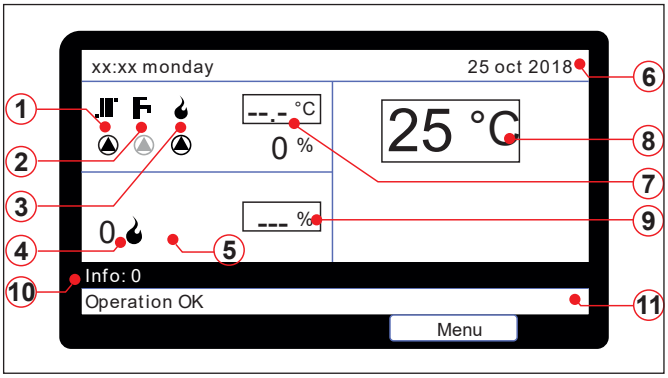
1.1.3 IGNITION



When the device is switched on, a power-on screen appears for a few seconds, showing:
- the software code and any revision.

1.1.4 THE HOME SCREEN

It automatically switches to the next screen that contains the active information:



Knob C functions	Scrolls and Displays the "More Information" (Info) in the Help Line.
Key A functions	Allows Reset in case of an Alarm
Key B functions	Accesses the Functions Menu

Key of the symbols:

SYMBOL	DESCRIPTION
	Status: On
	Status: Standby
	Status: Active

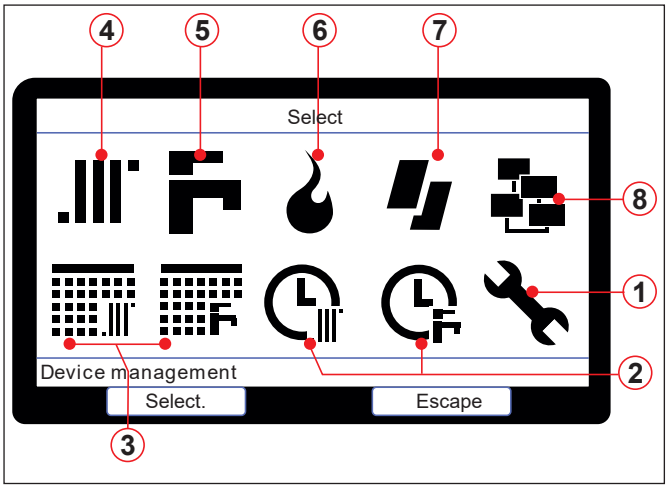
In case of an Alarm:

SYMBOL	DESCRIPTION
	- info: error code.
	- help line: description of the error and indication of the device in alarm.
	- left button label: "reset".

1	Central heating status
2	Domestic hot water status
3	Fault warning
4	Number of active burners
5	Status of the burner of the integration generator
6	Time and Date
7	Primary temperature required (solar/generator integration)
8	Flow temperature of the integration generator
9	Level of modulation of the integration generator
10	Other Information
11	Description of the Information: - Module T. - External T. - Room T. - Pressure - Return T.

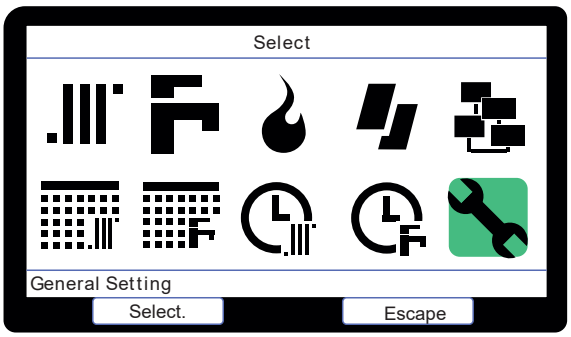
1.1.5 MAIN MENU

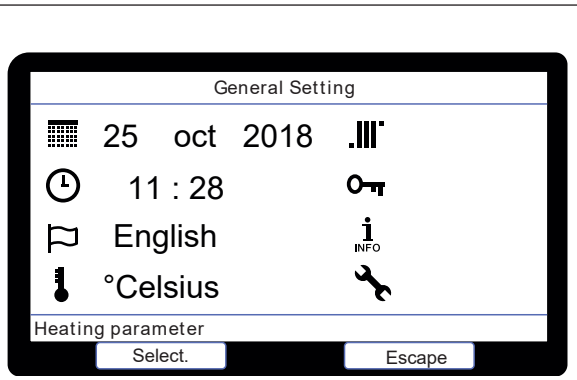
Press **Key B** to access the main menu **"Select"**.



1	**General settings** - Setting of today's date - Setting of the current date - Central heating parameters - Setting of the reduced DHW temperature - Entering the password - Setting of the contrast of the display - Indication of the modbus address - National settings
2	**Definition of the daily programs** - Central heating and domestic hot water - Selection of the daily program to display and/or change - Display of the selected daily program - Change of name of the selected daily program - Setting of the data of the selected daily program definition
3	**Definition of the weekly programs** - Central heating and domestic hot water - Selection of the weekly program to display and/or change - Display of the selected weekly program - Change of the name of the selected weekly program - Assigning of the daily programs to the single days of the week
4	**Central heating services** - Display of the current status - Assigning of the Weekly program - ECO program - Comfort program - Manual temporary programming (temperature and time) - Selection of the circuit - Setting of the parameters of the selected circuit
5	**DHW** - Display of the current status - Assigning of the weekly program - Manual temporary programming (temperature and time) Note: The function is only active if a domestic hot water service is present in the system.
6	**Generator control** - Display of the current status of the Generator - Display of the current status of the Burners - Setting of the parameters of the heat generator - Setting of the parameters of the individual burners - Manual control of the individual burners
7	**Solar storage** - Display of the temperatures of the solar collector and storage - Display of the status of the solar energy sample - Manual activation of the solar pumps - Solar service activation/stand-by
8	**Device management** - List of control devices in the system - Display of the data and information concerning each device - Display and manage of the activity counters - Setting of the specific parameters of each device - Log of errors

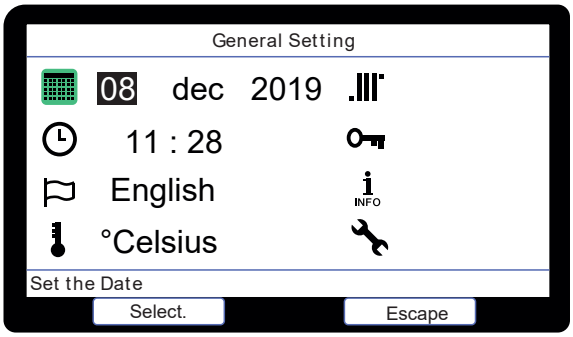
1.2 GENERAL SETTINGS

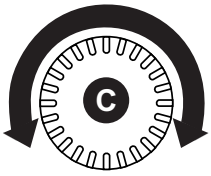
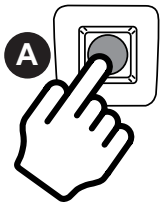




SYMBOL	DESCRIPTION	PROCEDURE
	Adjusts the time	After having pressed button A, verify the changed date and time
	Sets the date	After having pressed button A, verify the changed date and time
	Sets the parameters (*1)	After having pressed button A, verify the changed Central heating parameters
	Set the language	After having pressed button A, refer to chapt. on changing the national setting
	Enters and manages the password	After having pressed button A, verify the changed texts
	Set the unit of temperature	After having pressed button A, refer to chapt. on changing scale temperature (Celsius or Farenheit) (*1)
INFO	Software information	
	Display and device setting	

1.2.1 SETTING THE DATE



ROTATE	POSITION	SELECT
		

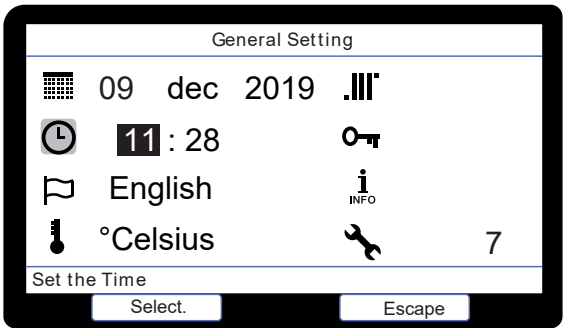
SELECT	CONFIRM	SET	CONFIRM
DAY with knob **"C"**	By pressing Key **"A"**	the current date with knob **"C"**	The change by pressing KEY **"A"**

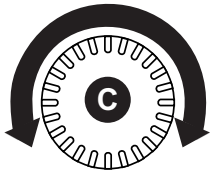
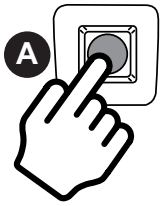
SELECT	CONFIRM	SET	CONFIRM
the current **MONTH** with knob **"C"**	By pressing Key **"A"**	the current month with knob **"C"**	The change by pressing KEY **"A"**

SELECT	CONFIRM	SET	CONFIRM
the current **YEAR** with knob **"C"**	By pressing Key **"A"**	the current year with knob **"C"**	The change by pressing KEY **"A"**

SELECT	CONFIRM
with knob **"C"** **DAY + MONTH + YEAR** (all selected)	The new values by pressing Key **"A"**

1.2.2 SETTING THE TIME



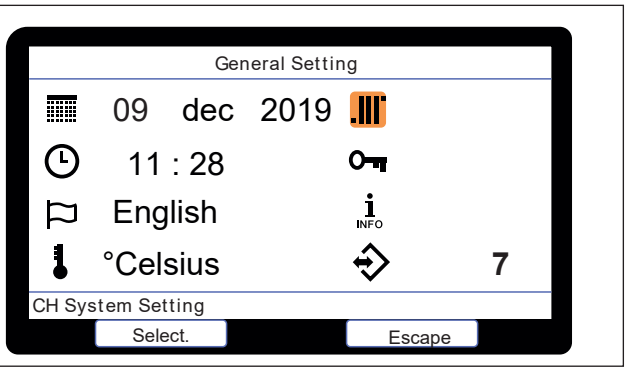
ROTATE	POSITION	SELECT
		

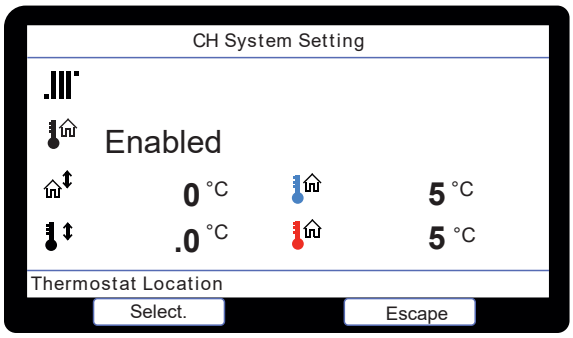
SELECT	CONFIRM	SET	CONFIRM
MINUTES with knob **"C"**	By pressing Key **"A"**	the **MINUTES** with knob **"C"**	The change by pressing KEY **"A"**

SELECT	CONFIRM	SET	CONFIRM
TIME of day with knob **"C"**	By pressing Key **"A"**	the current time with knob **"C"**	The change by pressing KEY **"A"**

SELECT	CONFIRM
with knob **"C"** **TIME + MINUTES** (all selected)	The new values by pressing Key **"A"**

1.2.3 GENERAL SETTINGS

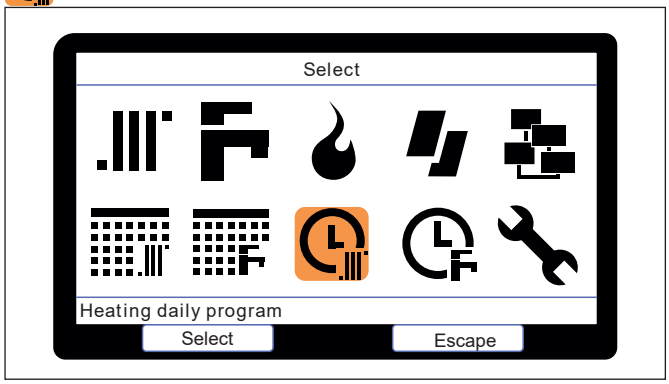


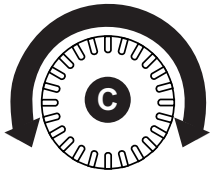
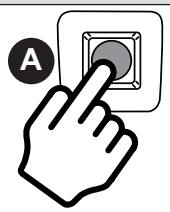


SYMBOL	DESCRIPTION	PROCEDURE
	"Thermostat position" Selection of the CH circuit to which to assign the function as room probe and/or room compensation.	After pressing button **A**, use knob **C** to select the central heating circuit to which the function is to be assigned. Then press button **A**to confirm.
	"Room thermostat" Enables/disables the function as room thermostat integrated in the console, assigning it to the selected circuit, by means of	After having pressed button **A**, verify the changed numerical values
	"Room compensation" 0÷20 adjustable field; 2°C will be added to the required primary temperature for every °C of error in adjustment measured by the room probe (calculated according to the temperature of the external probe)	After having pressed button **A**, use knob **C** to selected the numerical value to set. Then press button **A** to confirm.
	"ECO room Temp." Sets the reduced central heating temperature within the limits allowed 5÷20 °C	After having pressed button **A**, verify the changed numerical values
	"Comfort Temp." Sets the comfort central heating temperature at 5÷30 °C	After having pressed button **A**, verify the changed numerical values
	"Room temp. Correction" sets the correction to apply to the room temperature measured by the probe integrated in the console Range +5°C / - 5°C	After having pressed button **A**, verify the changed numerical values

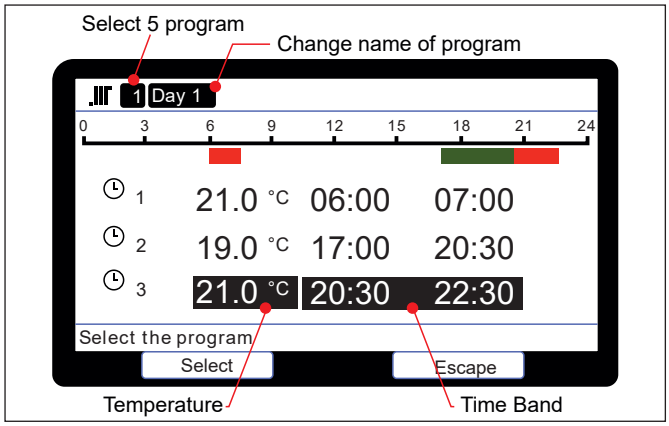
1.3 DAILY PROGRAMS

1.3.1 HEATING



ROTATE	POSITION	SELECT
		

SELECT	CONFIRM	SET
Central heating Daily Progr.or **DHW Daily Progr.**	By pressing Key **"A"** Enter the submenu	Use knob **"C"** to move to select the field to be changed



5 various "**specific days**" can be set and renamed (e.g. weekday, holiday, part time, etc.), and each one can have max of **3** request bands at **3** different temperatures ("room" for the **Central heating** menu or "storage tank" for the **DHW** menu).

SELECT	CONFIRM	SET	CONFIRM
TEMPERATURES/ TIMES with knob **"C"**	By pressing Key **"A"**	**TEMPERATURES/ TIMES** with knob **"C"**	The change by pressing KEY **"A"**

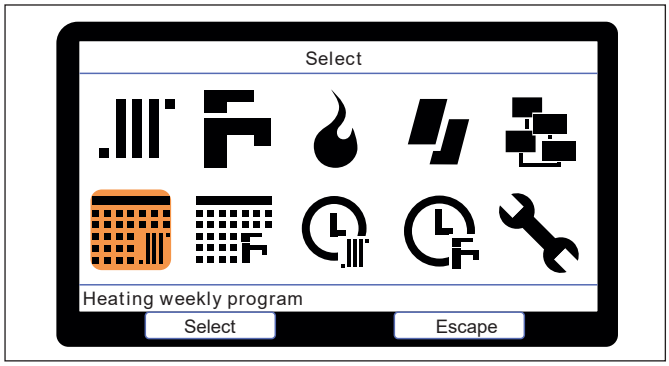
Outside the bands, the temperature set as "reduction" in the General settings will be used.

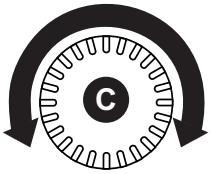
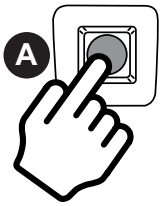
1.3.2 DHW DOMESTIC HOT WATER

See left-hand column 1.3.1

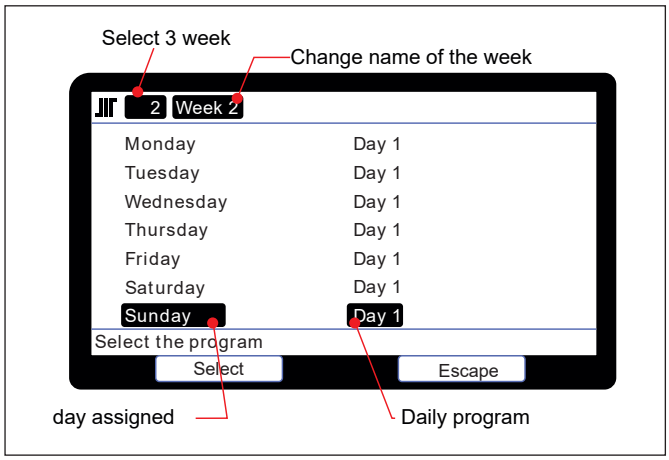
1.4 WEEKLY PROGRAMS

1.4.1 HEATING



ROTATE	POSITION	SELECT
		

SELECT	CONFIRM	SET
Central heating Weekly Progr. or **DHW Weekly Progr.**	By pressing Key **"A"** Enter the submenu	Use knob **"C"** to move to select the field to be changed



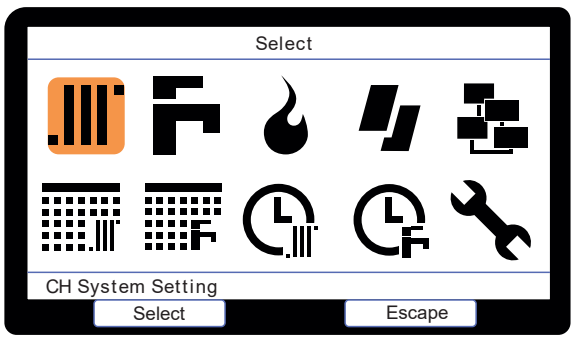
3 different "**specific weeks**" can be set and renamed, assigning to each day one of the previously created daily programs (see "Daily programs").

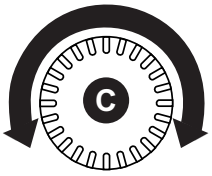
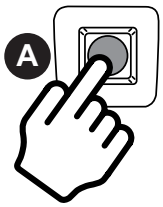
SELECT	CONFIRM	SET	CONFIRM
DAY with knob **"C"**	By pressing Key **"A"**	**DAY** with knob **"C"**	By pressing Key **"A"**

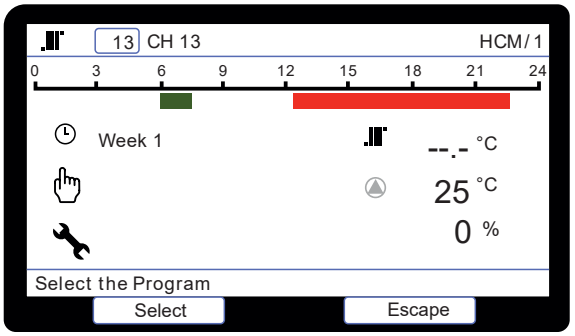
1.4.2 DHW DOMESTIC HOT WATER

See left-hand column 1.4.1

1.5 CENTRAL HEATING PARAMETERS



ROTATE	POSITION	SELECT
		



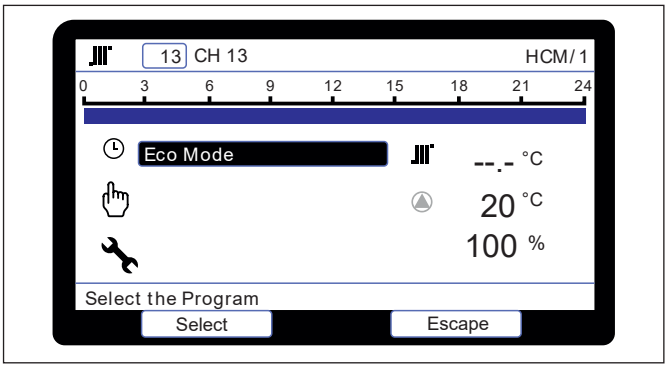
SELECT	CONFIRM	DISPLAY/MODIFY
with knob "C"	By pressing Key "A"	the settings of the corresponding circuit can be displayed and changed with knob "C".

SELECT	CONFIRM	DISPLAY/MODIFY
with knob "C"	By pressing Key "A"	one of the 3 previously set operating weeks can be combined with each circuit (see "Weekly programs").

The time bands of the current day are displayed in the upper scale.

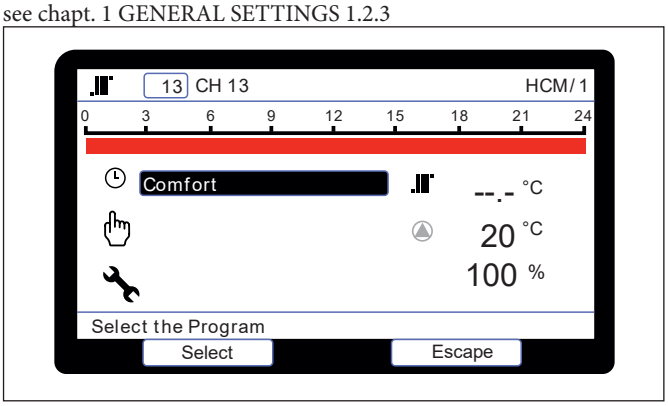
SELECT	CONFIRM	DISPLAY/MODIFY
with knob "C"	By pressing Key "A"	The ECO function is active

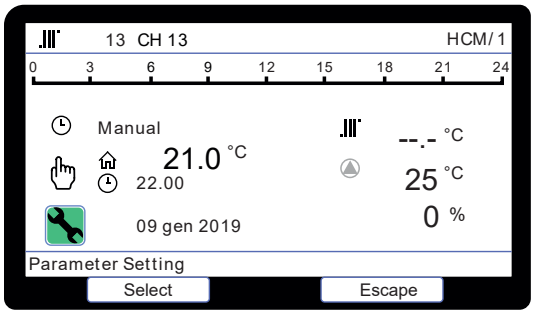
Continuous reduced temperature within the 24h.
see chapt. 1 GENERAL SETTINGS 1.2.3

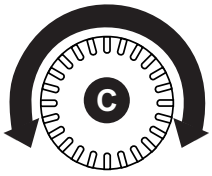
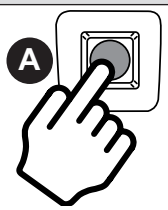


SELECT	CONFIRM	DISPLAY/MODIFY
with knob "C"	By pressing Key "A"	The COMFORT function is active

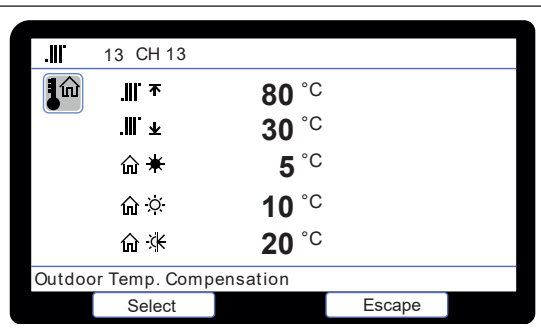
Continuous reduced temperature within the 24h.
see chapt. 1 GENERAL SETTINGS 1.2.3





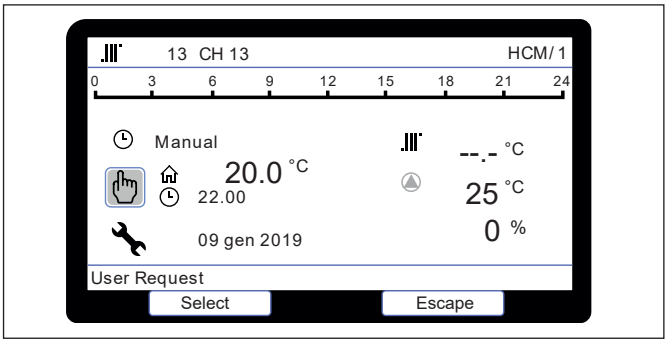
ROTATE	POSITION	SELECT
		

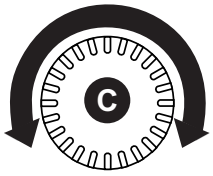
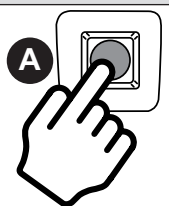
The desired values can be set to define the central heating operation curve.



	Maximum flow temperature
	Minimum flow temperature
	Minimum external temperature
	Maximum external temperature
	Heating block external temperature

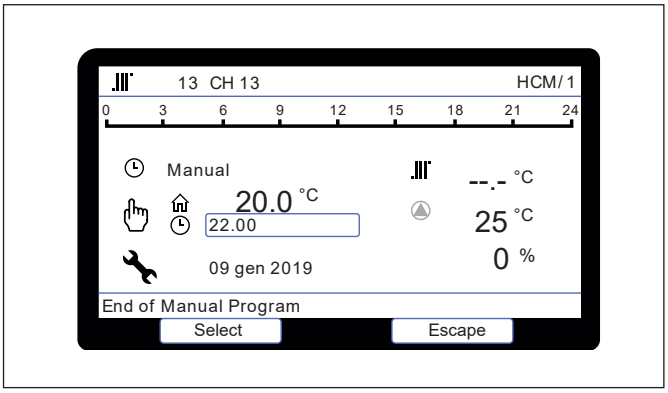
Its name can also be changed by highlighting the name of the circuit with knob **C**.



ROTATE	POSITION	SELECT
		

The **manual request** function can be activated.

This feature can be used if you want to make **temporary** changes to the preset daily and weekly programming.

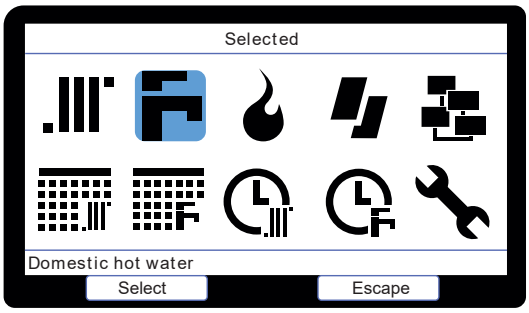


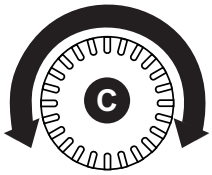
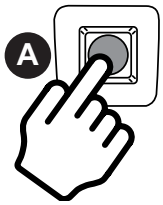
The new settings will be valid up to **the time of the indicated day**.

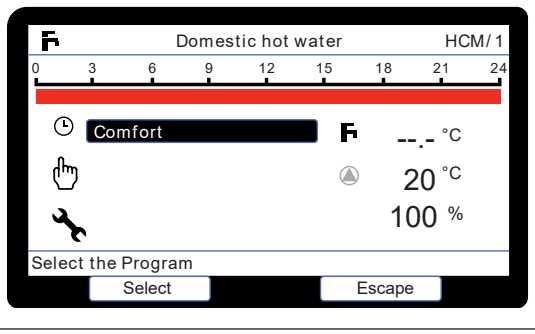
The manual request has **priority** on the daily/weekly programming.

To deactivate the manual function, move to and confirm with key **A**: the temperature and time display lines disappear.

1.6 DHW PARAMETERS

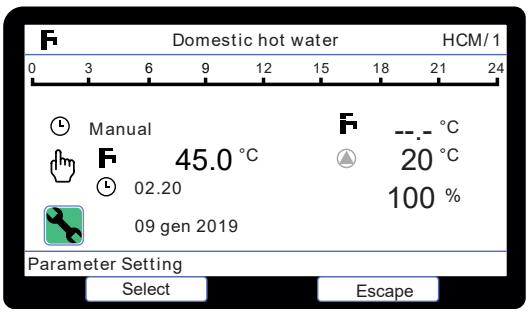


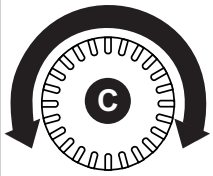
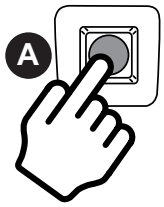
ROTATE	POSITION	SELECT
		

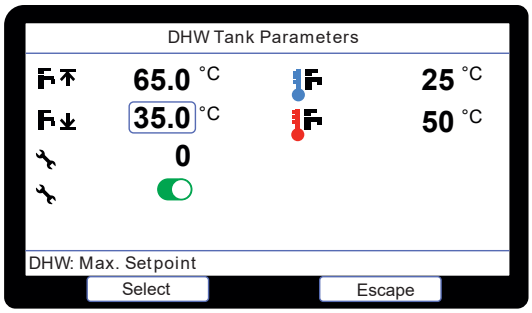


SELECT	CONFIRM	DISPLAY/MODIFY
with knob "C"	By pressing Key "A"	One of the 3 previously set operating weeks can be combined with each circuit (see "Weekly programs").

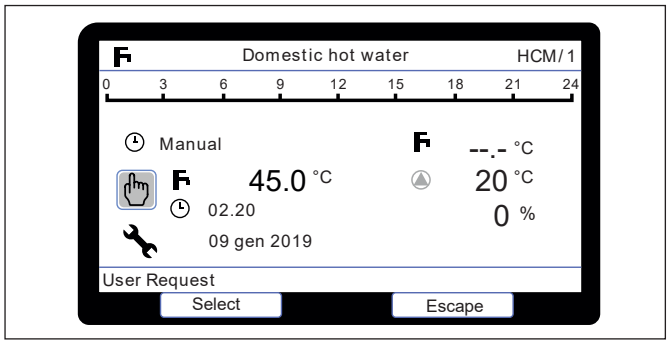
The time bands of the current day are displayed in the upper scale.

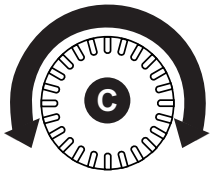
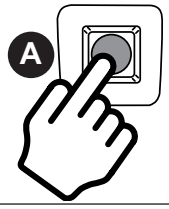


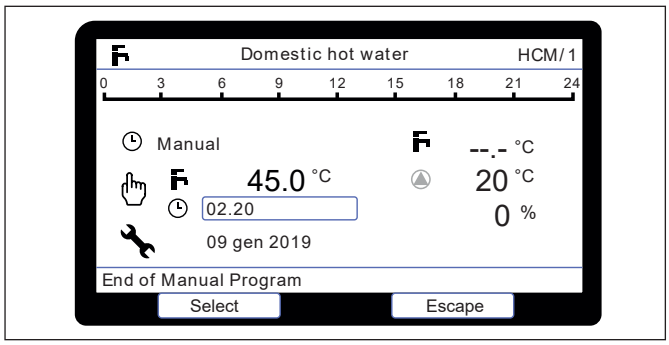
ROTATE	POSITION	SELECT
		



	Domestic hot water maximum temperature
	Domestic hot water minimum temperature
	Tank setting
	Legionella
	DHW eco temperature
	DHW comfort temperature



ROTATE	POSITION	SELECT
		



The **manual request function can be activated.**

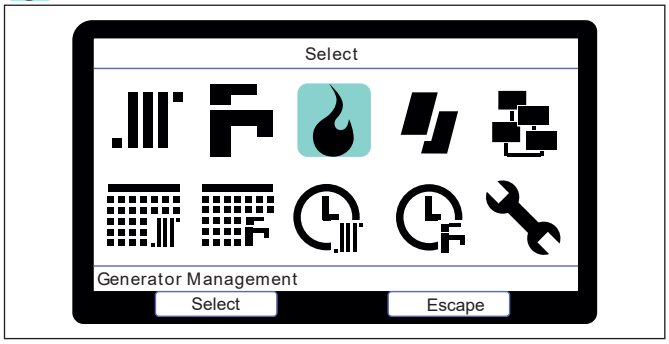
This feature can be used if you want to make **temporary** changes to the preset daily and weekly programming.

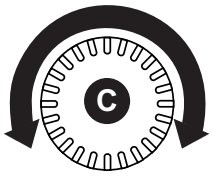
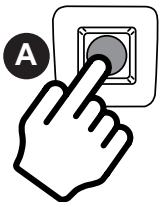
The new settings will be valid up to **the time of the indicated day**.

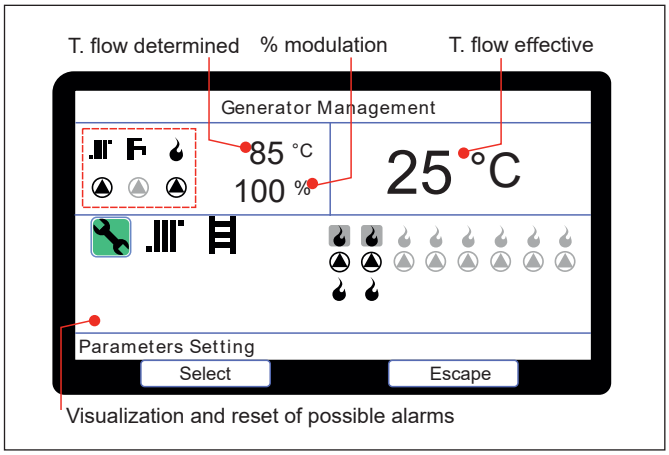
The manual request has **priority** on the daily/weekly programming.

To deactivate the manual function, move to and confirm with key **A**: the temperature and time display lines disappear.

1.7 GENERATOR CONTROL

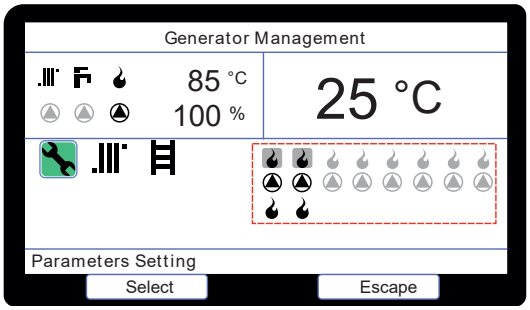


ROTATE	POSITION	SELECT
		



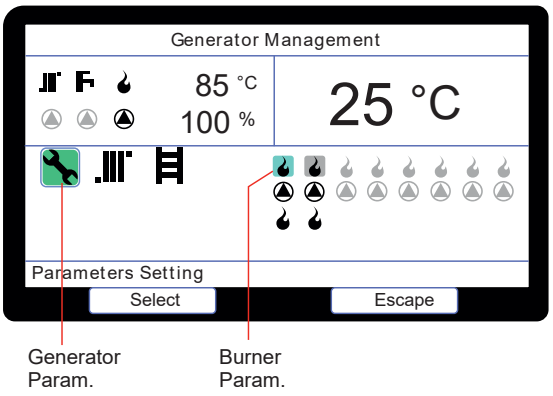
The shaded area shows the status of the services (Heating / DHW) and any presence of boiler alarms:

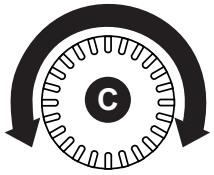
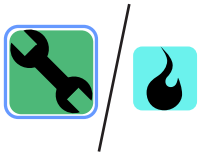
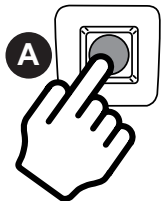
	Inactive service
	Call service
	Presence of faults
	Fault reset



The highlighted sector shows the burners found and their operating status:

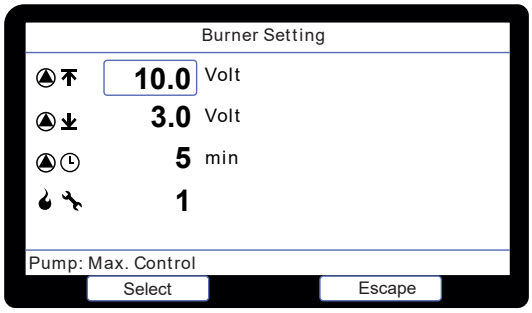
	Burner active
	Burner inactive
	Stand-by
	Engaged
	Flame Presence
	Fault/Anomaly



ROTATE	POSITION	SELECT
		

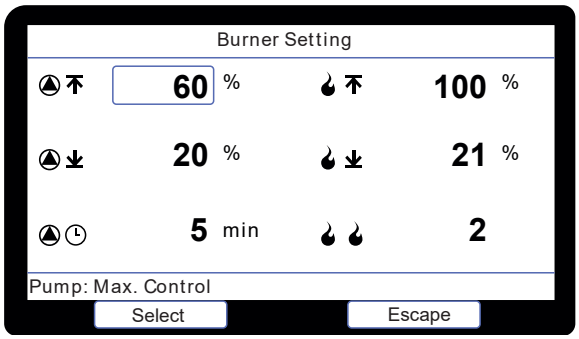
You can access to the **Boiler parameters** or to each **Burner parameters** (by enter password).

1.7.1 BOILER PARAMETER



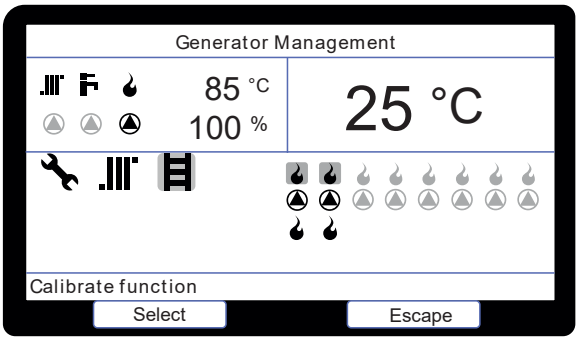
	Control (%) of the pump in line with the maximum level of the burners
	Control (%) of the pump in line with the minimum level of the burners
	Pump post-circulation time (in minutes) after the burner is switched off.
	Burners: Min. entered

1.7.2 BURNER PARAMETERS



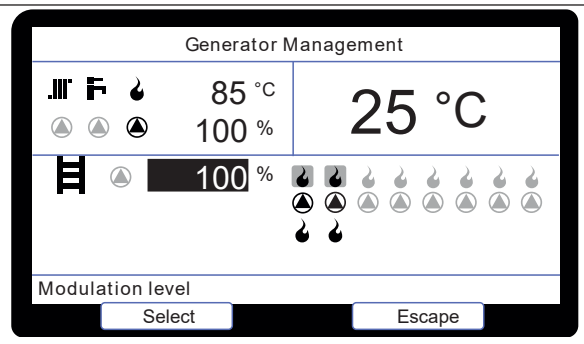
	Pump min. modulation (%)
	Pump max. modulation (%)
	Time (in minutes) of pump post-circulation
	Burner max. modulation (%)
	Burner min. modulation (%)
	Burner modulation level (%) during ignition phase

1.7.3 CALIBRATION FUNCTION SELECTION



Go to with knob **"C"** and confirm with key **A (enter the access code)**.
Go again to

1.7.4 MAXIMUM/MINIMUM POWER



Use knob **"C"** to go to

Confirm with key **"A"** to display

Use knob **"C"** to go to 0 %

Confirm using key **"A"**

Use knob **"C"** to adjust the power that calibration is to be implemented at and confirm with key **"A".**

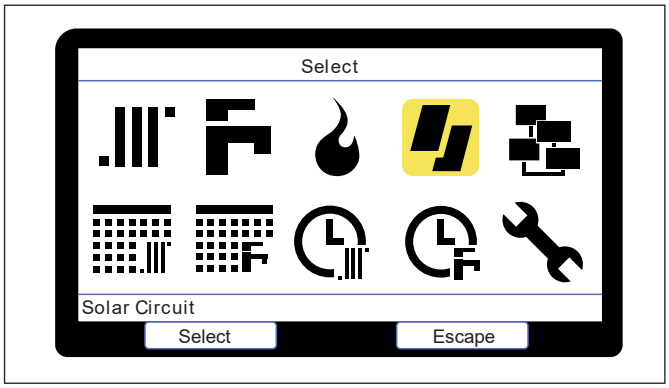
- **MINIMUM POWER =** 1 %
- **MAXIMUM POWER =** 100 %

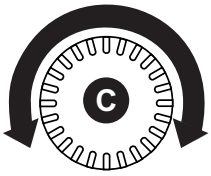
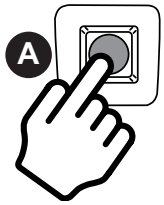
Calibrate each heating element by selecting the burners:

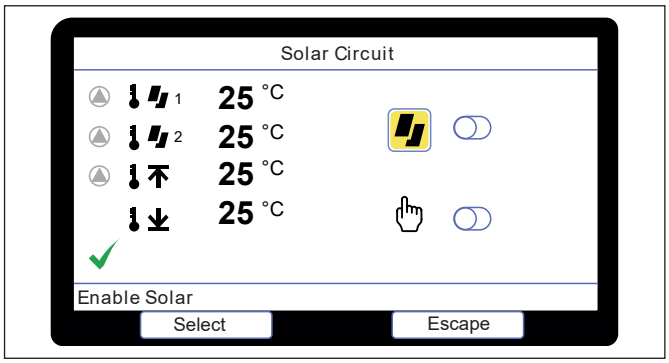
1.7.5 DEACTIVATION

After calibrating, press key **"B"** to go back to the home page.

1.8 SOLAR SYSTEM

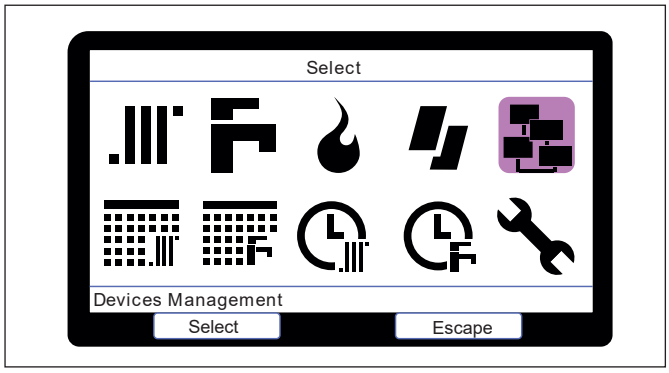


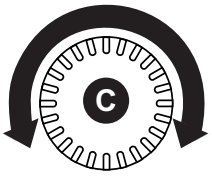
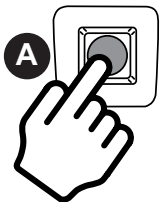
ROTATE	POSITION	SELECT
		



1	Temperature solar collector lap 1 and status of the corresponding pump	
2	Temperature solar collector lap 2 (if any) and status of the corresponding pump	
	Higher temperature storage solar tank and status of the integration source	
	Lower temperature storage solar tank	
	Enables solar system:	
		Stand-by (the solar service is disabled – useful when performing System Maintenance)
		Active (normal operating status)
	Pump Test operation:	
		Activate pump even if the service solar is disabled, useful in case of system deaeration in the absence of insolation

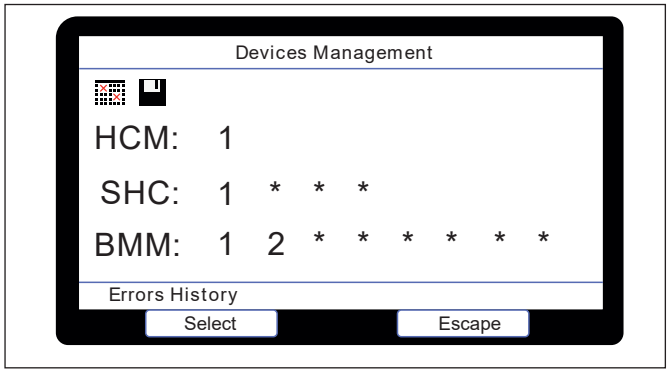
1.9 DEVICE MANAGEMENT



ROTATE	POSITION	SELECT
		

Wait for scanning device (1 minute); to save click:

1.9.1 DEVICE MANAGEMENT SELECTION + LOG

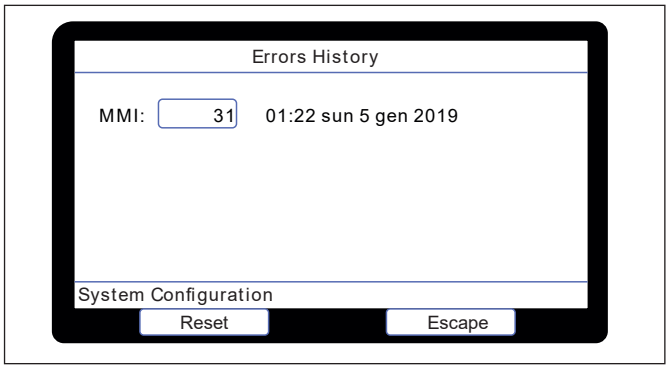


The display shows the devices in the system (- = not present/1-8 = progressive number of the detected device

- **HCM** (BCM cascade controller)
- **SHC** (multifunction module)
- **BMM** (burner management board)

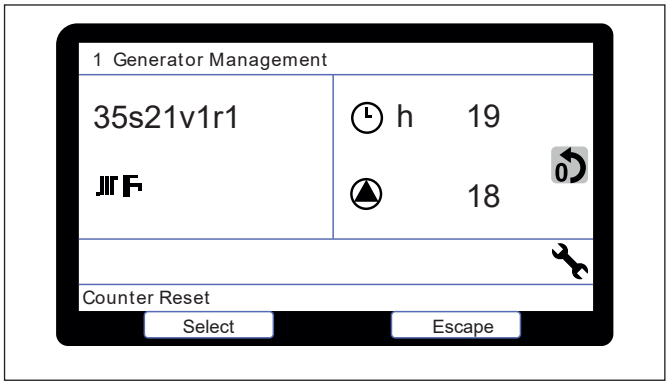
Select the module with knob **"C"** and confirm with key **"A"**. The services provided by the device, parameters and software version are displayed.

1.9.2 LOG OF ERRORS



They are displayed by selecting "Errors history" with key "**A**" from devices management (last 6 errors). Reset to delete the Log. Every row indicates: the device that triggered the error, the error code and the time and date.

1.9.3 DEVICE MANAGEMENT



The screen shows:

- The software version;
- The key of the services provided by the device;
- The meter of the operating hours;
- The switch-on meter.

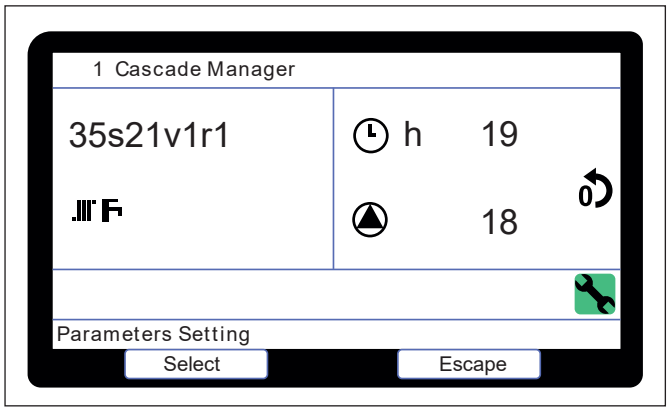
1.9.4 METER RESET

Go to with knob **"C"** and confirm with key **A (enter the access code)**.

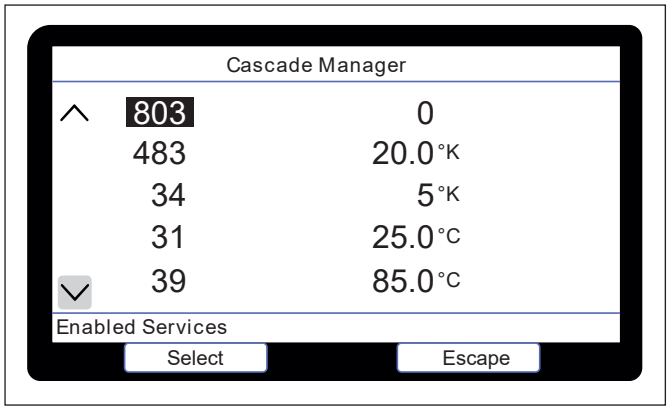
1.9.5 ACCESS TO THE TECHNICAL PROGRAMMING OF EVERY DEVICE

Go to with knob **"C"** and confirm with key **A (enter the access code 0000)**.

Devices setting SELECTION

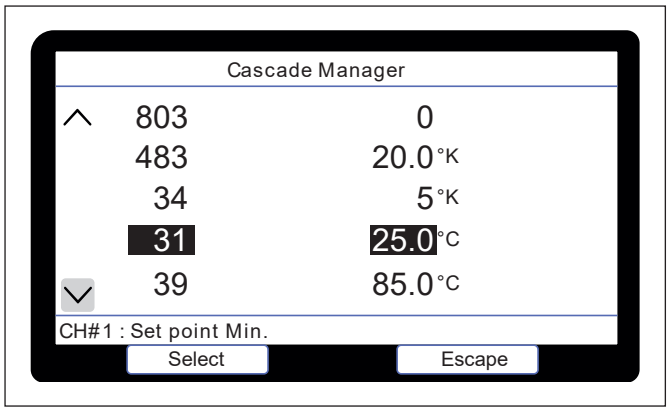


SELECTION



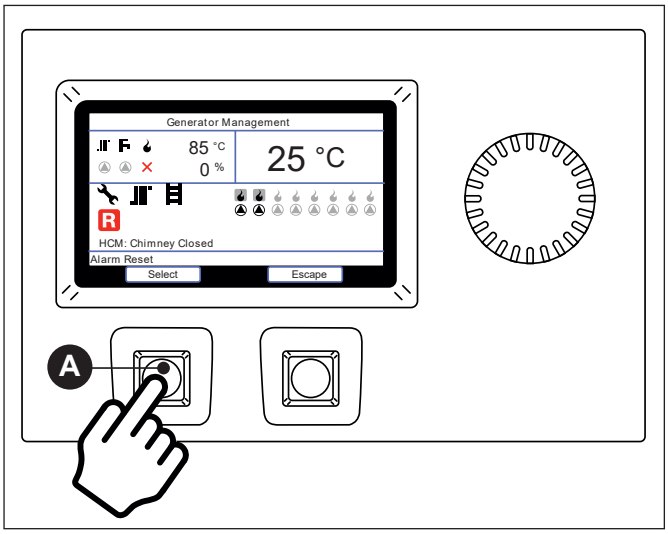
Select the parameter with knob **"C"**
Press key **"A"** (select),

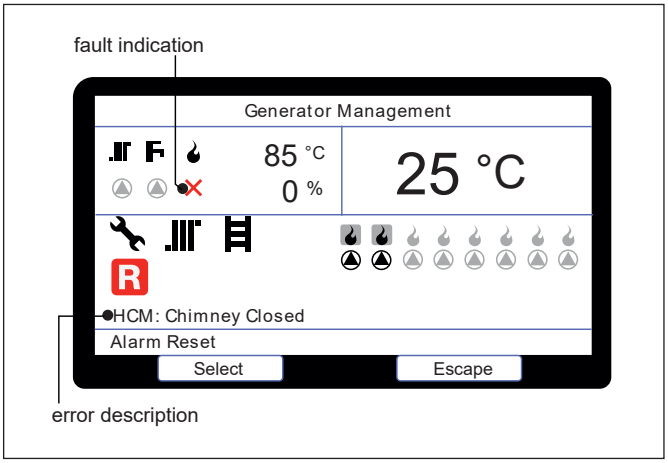
MODIFICATION



Turn knob **"C"** to change the value
Press key **"A"** (save),

1.10 ERROR CODES





When the boiler detects a fault, the alarm symbol is displayed on the screen together with the relative error code and description.
It is possible to reset the boiler by pressing key **"A"**.

Info	DESCRIPTION detected on HSCP
0	Regular operation
1	Overheat Thermostat
2	Low Gas Pressure
3	Overheat Thermostat
4	Ignition Failure
5	Flame Lost
6	Overheating
7	Aux Temp. Sensor
8	Low Water Pressure
9	Outdoor Temp. Sensor
10	Internal Failure
11	Unexpected Flame
12	CH flow sensor
13	DHW Temp. Sensor
14	CH return sensor
15	Differential Temp.
16	Frozen
17	Global Frozen
18	Global Differential Temp.
19	Global Overheating
20	Gas valve leaking
21	Flapper Stuck Open
22	Lack air x ignit
23	Unexpexted Air Flux

24	Low Fan Speed
25	Exhaust Overheating
26	High Fan Speed
27	Lack of air
28	Chimney Closed
29	Condens Level
30	Service Parameters
31	System Configuration
32	Low supply voltage
33	Mix#1: Frozen
34	Mix#2: Frozen
35	Mix#3: Frozen
36	Unknown Error
37	Parameters Memory
38	Factory Parameters
39	User Parameters
40	Low Water Flowrate
41	Mixed Air/Water
42	Pump Locked
43	Pump Not Wired
44	Waterpressure Sensor
45	Water Overpressure
46	Unknown Error
47	Communication
48	Unknown Error
49	HCM Missing
50	Room Temp. Sensor#1
51	Room Temp. Sensor#2
52	Room Temp. Sensor#3
53	Mixer Temp. Sensor#1
54	Mixer Temp. Sensor#2
55	Mixer Temp. Sensor#3
56	Heat Control Lack
57	Burners Lack
58	Global Temp. Sensor
59	Unknown Error
60	Set Date and Time
61	Iono Regulation
62	Actuators
63	BC internal error
64	Calibration
65	Calibration

66	Missing Calibration
67	Iono Setpoint
68	Offset GPV
69	Adaptation not exec.
70	DHW Tank#1: Sensor
71	DHW Tank#2: Sensor
72	DHW Tank#3: Sensor
73	Water Flow Sensor
74	Temperature sensors swap
75	Temperature rise speed
76	Lack of fuel
77	Burner supercharged
78	Lockout by supercharging
79	Unknown Error
80	Sun Panel#1: Sensor
81	Sun Panel#2: Sensor
82	Sun Pan#1: Overheat
83	Sun Pan#2: Overheat
84	Sun Panel#1: Frost
85	Sun Panel#2: Frost
86	SunTank: Top Sensor
87	SunTank: Bottom Sensor
88	SunTank: Inlet Sensor
89	SunTank: Overheat
90	BC Communication
91	Exhaust Sensor
92	Low Battery
93	Safety lock
94	Gas valve wiring
95	Frequent loss of flame
96	Unreliable Reset
97	Test Configuration
98	Iono amplifier
99	CC: internal error
100	CC: unknown lockout
101	CC: ignition failure
102	Iono sensor s.c.
103	VGAS: open delay
104	Keypad locked
105	CC: communication
106	CC: Lambda sensor
107	Services configuration

Immergas S.p.A.
42041 Brescello (RE) - Italy
Tel. 0522.689011
immergas.com

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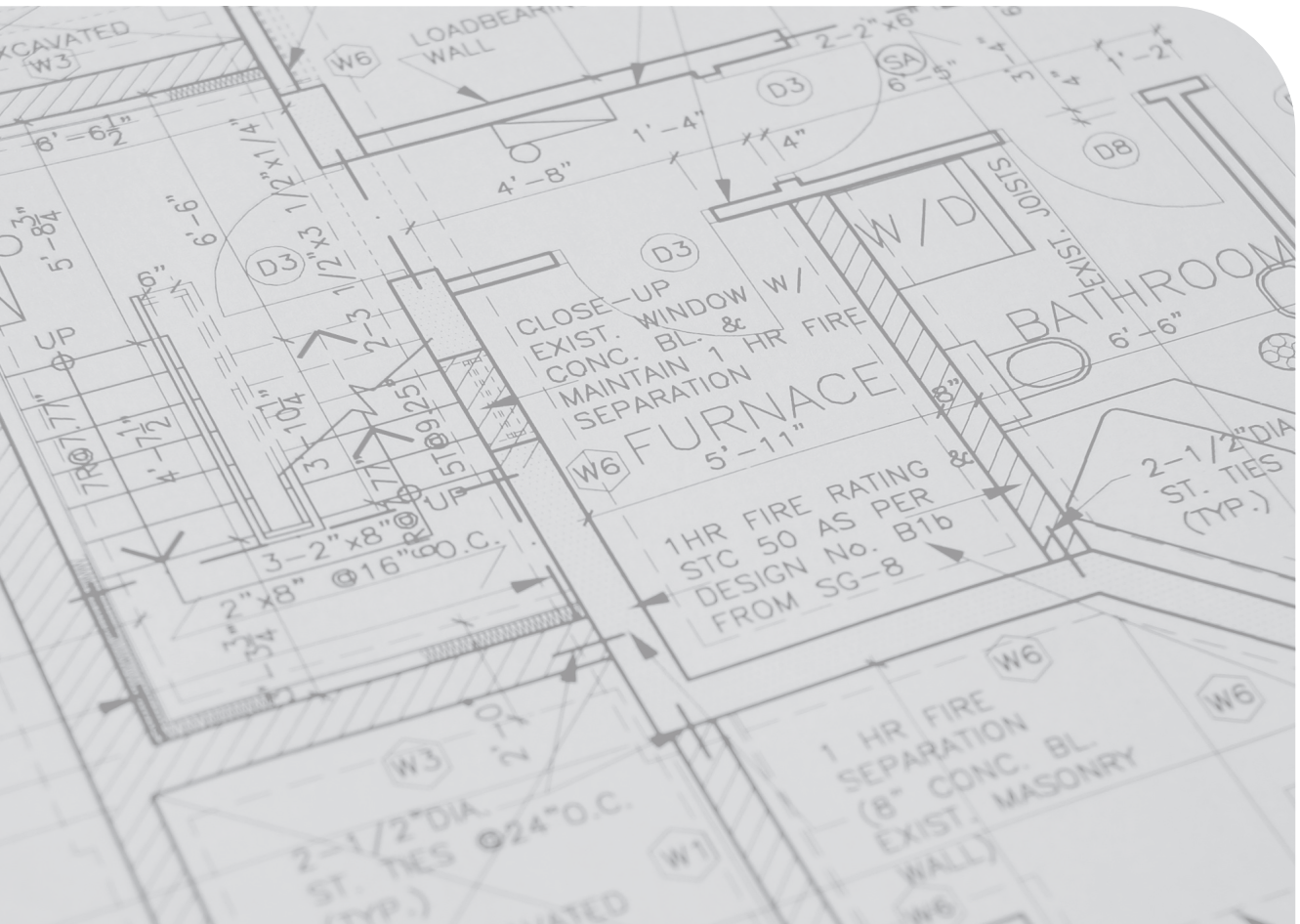
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