

**BAXI LUNA HT Series**  
**HIGH TECH.**  
**Boilers**

**BAXI QAA73**  
**Room Control**  
*By Siemens*

**Step-by-Step**  
**User Guide\***  
**w/ notations**

*By*  
*Johnstone Supply of West Michigan*



\*Notes compiled by Johnstone Supply Technical Services. This document is not intended to replace the manufacturers installation manual. The intent of this document is to offer additional information that may help an end user to apply the Baxi boiler QAA73 control to their particular application. The installing agent is responsible for the final qualification and application of this information and products on any application.

# Welcome

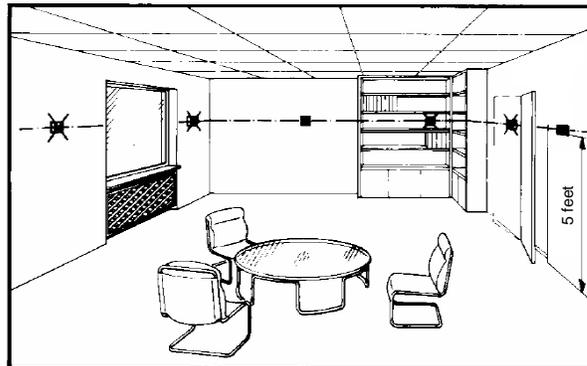
**Note:** Your BAXI LUNA HT Commercial boiler may not include this control.  
Please read and follow the manufacture instructions carefully.

- The following pages can assist the user to set-up and operate the Siemens QAA73 room / boiler control.
- **BASIC SETTINGS** guide - page 6.
- **OPERATING** guide - page 7.
- **PROGRAMMING** guide - page 9.
- This control will maximize the comfort and efficiency offered by the Baxi HT series boiler when installed and operated in accordance to the manufacture instructions.
- BAXI ships boilers to approx. 70 countries world wide, with this in mind you may discover descriptions not normal to your market. ONLY adjust those settings (parameters) that apply to your particular equipment and life style.

***Thank you for purchasing this Baxi product***

## location

- In the main living room or reference room
- The place of installation should be chosen so that the sensor can capture the room temperature as accurately as possible, without being affected by direct solar radiation or other heating or cooling sources.
- Mounting height is about 5 feet above the floor
- The unit can be fitted to most commercially available recessed conduit boxes or directly on the wall.



## Mounting conditions

- Wall
- The controller may not be exposed to dripping water
- Permissible ambient temperature: 32°F - 122°F

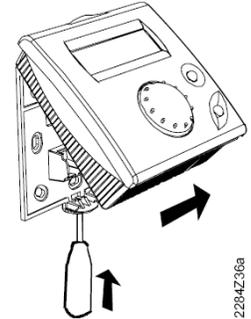
## Wall mounting

### 1. step

Open the unit at the top and remove the base from the housing front.

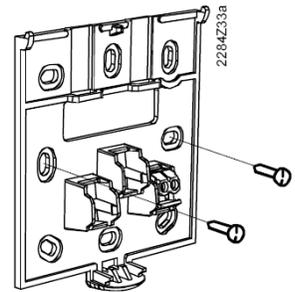
#### Note:

Insert a small flat screw driver under base and exert screw driver upward (DO NOT TWIST) to release control from base.



### 2. step

Fit the base to the wall with the help of screws.

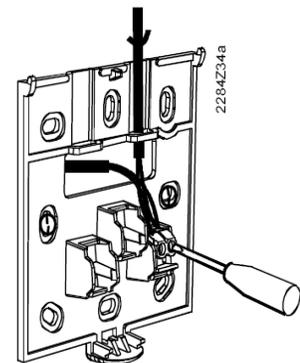


### 3. step

Pull the bus cable through the opening of the base and connect it to the screw terminals. (18-2 thermostat wire typical)

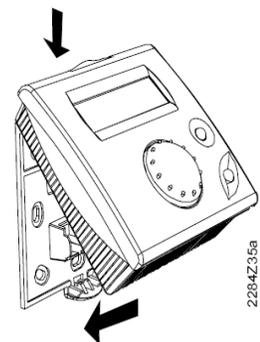
#### Note:

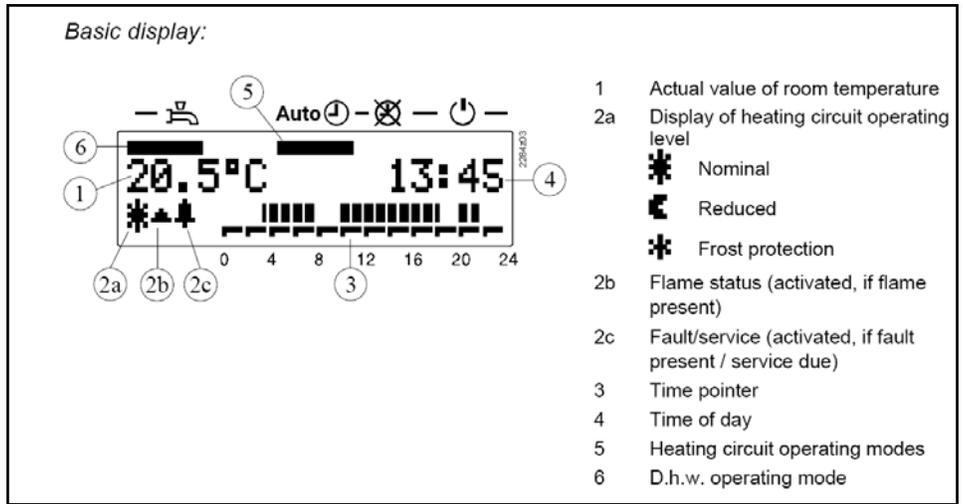
Must retain a minimum distance of 12" between bus cable and any high voltage line.



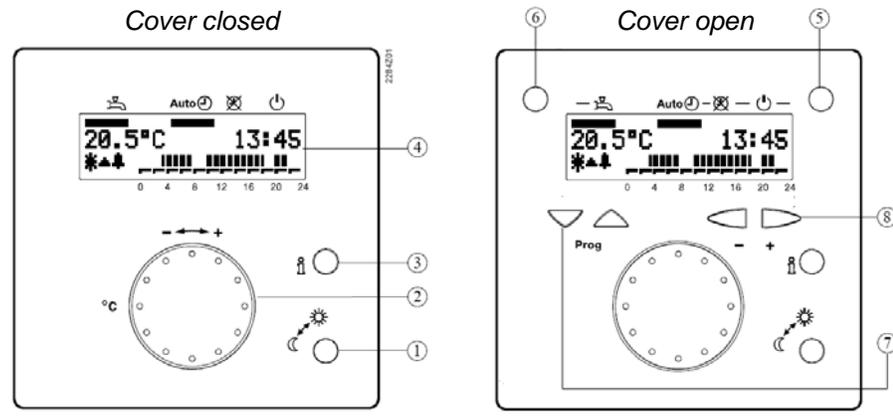
### 4. step

Engage the housing front at the top of the base and close the unit to the bottom.





**Operating elements**



1. First operating level

2. Second operating level

**Legend**

<i>Operating element</i>	<i>Function</i>
① Occupancy button	Changeover of operating level - Occupied / Reduced
② Setpoint knob for nominal temperature	Adjustment of room temperature setpoint
③ Info button	Change of info display
④ LCD with 2 lines each with 16 characters and pointer for operating mode	Display of data and operating mode
⑤ Heating circuit operating mode button and associated symbols	Operating mode changes to: <b>Auto</b> Automatic operation ☒ continuous operation ⏻ Standby ⏻ D.h.w. heating ON / OFF
⑥ D.h.w. operating mode button with associated symbol	
⑦ Line selection buttons (up and down)	Selection of operating line
⑧ Setting buttons (plus and minus)	Setting the parameters

1. First operating level

Operating elements 1 to 4.

2. First operating level

Operating elements 5 to 8. Can be accessed only after opening a cover.



## Simplified user parameter chart

Line	Function	Range	Unit	Resolution	Factory setting
<i>Time of day</i>					
1	Time of day	0 ... 23:59	hh:mm	1 min	–
2	Date (day, month)	1. Jan ... 31. Dec	dd.mm	1 day	–
3	Year	2000 ... 2094	jjjj	1 year	–
<i>Setpoints</i>					
5	Reduced room temperature setpoint		°C	0.5	16.0(60°F)
6	Frost protection setpoint of room temperature		°C	0.5	10.0(50°F)
7*	Nominal setpoint of the d.h.w. temperature		°C	1	55 (130°F)
<i>Time switch program 1 (heating circuit 1)</i>					
10	Preselecting the weekday	Mo...Su, week	week-day	1 day	–
11	Switch-on time period 1	--:-- / 00:00 ... 24:00	hh:mm	10 min	06:00
12	Switch-off time period 1	--:-- / 00:00 ... 24:00	hh:mm	10 min	22:00
13	Switch-on time period 2	--:-- / 00:00 ... 24:00	hh:mm	10 min	--:--
14	Switch-on time period 2	--:-- / 00:00 ... 24:00	hh:mm	10 min	--:--
15	Switch-on time period 3	--:-- / 00:00 ... 24:00	hh:mm	10 min	--:--
16	Switch-off time period 3	--:-- / 00:00 ... 24:00	hh:mm	10 min	--:--
<i>Time switch program 3 (d.h.w.)</i>					
30*	Preselecting the weekday	Mo...Su, week	week-day	1 day	–
31*	Switch-on time period 1	--:-- / 00:00 ... 24:00	hh:mm	10 min	06:00
32*	Switch-off time period 1	--:-- / 00:00 ... 24:00	hh:mm	10 min	22:00
33*	Switch-on time period 2	--:-- / 00:00 ... 24:00	hh:mm	10 min	--:--
34*	Switch-off time period 2	--:-- / 00:00 ... 24:00	hh:mm	10 min	--:--
35*	Switch-on time period 3	--:-- / 00:00 ... 24:00	hh:mm	10 min	--:--
36*	Switch-off time period 3	--:-- / 00:00 ... 24:00	hh:mm	10 min	--:--
<i>Holidays</i>					
40	Holidays start (day.month) -- Inactive	1. Jan ... 31. Dec	dd.mm	1 day	--:--
41	Holidays end (day.month) --: Inactive	1. Jan ... 31. Dec	dd.mm	1 day	--:--
42	Heating circuit operating level during holidays	Frost, reduced	–	–	Frost
<i>General</i>					
45	STANDARD time switch programs for HC1 and d.h.w. (press both buttons +/- for 3 s)	No, yes	–	–	No
46	Summer / winter changeover temperature	8 ... 30	°C	0.5	17.0(63°F)
47	Language	German, English	–	–	German
48	Temperature display	°C / °F	--	--	°C
50*	Display of fault (error code of QAA73.110 or boiler control)	0 ... 255	–	1	–

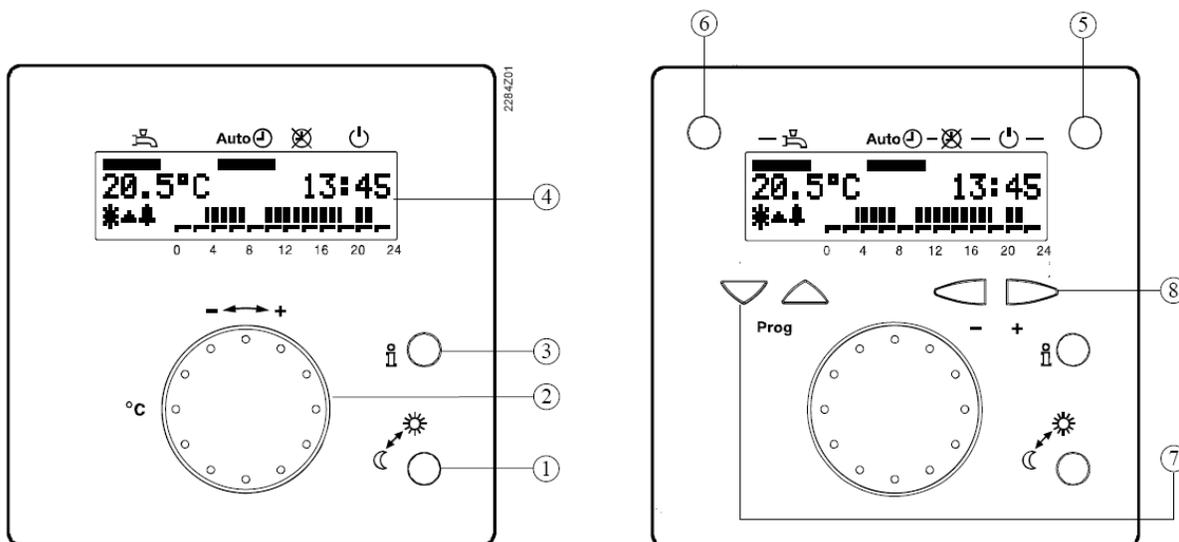
This feature is normally not used

--:-- = Switching point inactive

# #1 Basic user settings

## Temperature, Language & Summer/Winter change-over

1. Flip down the front cover
2. Press the down **PROG** button (#7) on the lower left to the display. If you press the upper **PROG** button that's just fine to, however by pressing the down **PROG** button this will take you quickly to the setting. Now go to line (*parameter*) number **48** "**Temp unit**" shown in the left of the display and select °F (right side of display) for the temperature display by pressing the left minus (-) settings button (#8) . You may also press the plus (+) settings button (#8). *Note: Your Baxi HT boiler front display will always display the water temperature in Celsius. This setting only effects the QAA73 room control.*
3. Press the down **PROG** button (#7) on the lower left to the display to go to line (*parameter*) number **47** and select **ENGLISH** for the language by pressing the left minus (-) settings button (#8) twice. You may press the plus (+) settings button (#8) also, however this will take longer to find and select **ENGLISH** as a language.
4. Press the down **PROG** button (#7) on the lower left of the display to go to line number **46** for the "**Summer/Winter changeover**" select a set point of **86°F** by pressing the settings buttons (#8). This average outside temperature setting is the temperature that the Baxi HT boiler WILL NOT deliver heat to your house (*energy saving feature ONLY with an optional QAC34 outdoor temperature sensor*). Because this is an TIME WEIGHTED AVERAGE there will be a delay when the outside temperature drops below this setting. This high set point will compensate for quick cold fronts. *Note: If your QAA73 control doesn't display an outdoor temperature by pressing the "info" button (see page 13) then this setting is not necessary.*
5. Press the "i" button (#3) to save these settings and return to the normal display.



## #2 Basic user settings

### Time, Date & Year

1. Flip down the front cover
2. Press the up **PROG** button (#7) on the lower left to the display. If you press the down **PROG** button that's just fine to, however by pressing the up **PROG** button this will take you quickly to the setting. Now go to line (*parameter*) number **1** and enter the current **time** by pressing the minus (-) & plus (+) settings button (#8). This is 24 hour "military" time. *You may hold these buttons in to go quickly. Note: 6:00am is 06:00 or 2:00pm is 14:00.*
3. Press the up **PROG** button (#7) on the lower left to the display to go to line (*parameter*) number **2** and enter the **date** by pressing the minus (-) & plus (+) settings button (#8). *You may hold these buttons in to go quickly.*
4. Press the up **PROG** button (#7) on the lower left of the display to go to line (*parameter*) number **3** and enter the **year** by pressing the minus (-) & plus (+) settings button (#8). *You may hold these buttons in to go quickly.*
5. Press the "i" button (#3) to save these settings and return to the normal display.

## #3 Operation settings

### Domestic Hot Water option & Freeze Protection

1. Flip down the front cover
2. Press the **DHW** button (#6) on the upper left to the display. You will see the LCD bar displayed under the faucet symbol. Press the **DHW** button (#6) again and the LCD bar is not displayed. This will turn on or off the hot water feature to your boiler.
3. Press the up **PROG** button (#7) on the lower left of the display to go to line (*parameter*) number **7** "**Dhw nominal**" and select 120°F, code temperature, or temperature to your liking. Adjust the hot water temperature by pressing the settings buttons (#8). **WARNING EXCESSIVE HOT WATER TEMPERATURE MAY CAUSE HARM!**  
*Note: Baxi HT combination boilers (330 & 380 models) this is the exact domestic hot water temperature leaving your boiler. Other Baxi HT boilers may operating an optional storage tank water heater. The tank temperature will drift above and below the temperature setting.*
4. Press the **PROG** button (#7) on the lower left of the display to go to line (*parameter*) number **6** for the room thermostat freeze safety feature. This is factory set to 50°F. If the QAA73 control senses the room fall below this setting, it will turn on the boiler to maintain a minimum temperature to help prevent the house or room from freezing. This feature also works when the QAA73 control is turned off (*stand-by mode*) as well. You can adjust this set point by pressing the settings buttons (#8).
5. Press the "i" button (#3) to save these settings and return to the normal display.

## #4 Operating settings

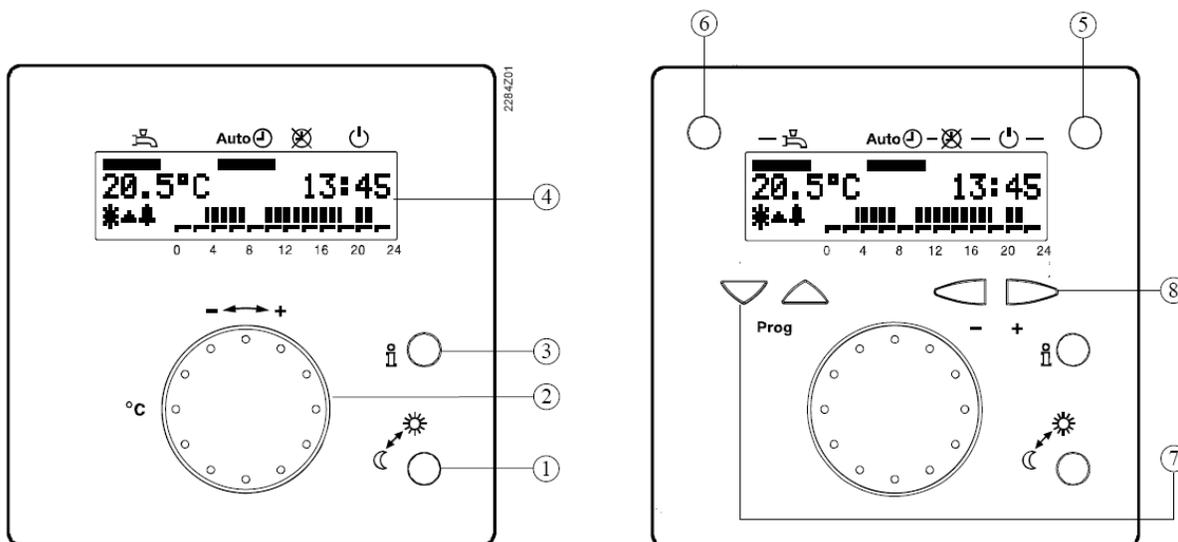
### Automatic / Continuous / Stand-by

#### You can select three modes of operation:

- Auto**  **Auto clock** - This mode is a 7 day individually programmable set-back thermostat known to Baxi as “**Automatic operation**”.
-  **Non clock** - This mode is a standard single temperature thermostat (no set-back) known to Baxi as “**Continuous operation**”.
-  **Circle w/ line** - This is in the OFF position for the thermostat feature known to Baxi as “**Stand-by**”.

1. Flip down the front cover
2. Press the upper right button (#5). You will see the LCD bar move under each symbol.
3. The “**Stand-by**” mode is typically used only in the summer. Remember this “Stand-by” mode **DOES NOT** shut off the boiler, only the QAA73 controls thermostat feature. If you have other thermostats in the house, you will need to shut those off as well, or simply put the Baxi HT boiler into the Summer mode (provides domestic hot water—no central heat) by turning the boilers left control knob to the right.
4. The “**Continuous**” mode is used when you need to operate the QAA73 control as a standard non-programmable thermostat. Simply press the upper right hand #5 mode button to the center position. Next turn the LARGE temperature knob #2 to the desired setting. *Note if you ever want to see the set-point of the temperature knob, simply turn it ONE “CLICK” ONLY and it is displayed. Typically it will display the current temperature and you will not see any change.*
5. The “**Auto clock**” feature offers up to three different times in a day for warmer “**occupancy**” periods. The set-back “**reduced**” temperature will be the same for the week. Also a 24 hour visual scale is displayed showing the occupancy & reduced periods as well as a flashing bar indicating the current hour.

Continued...



## #5 Programming settings

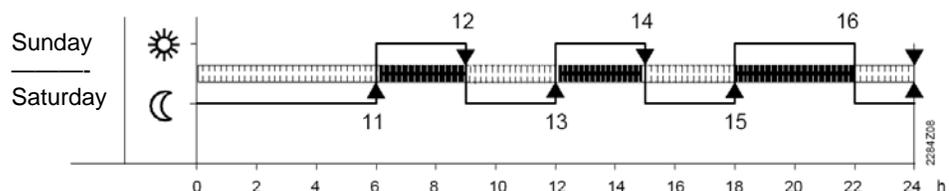
Continued...

- Press the up **PROG** button (#7) on the lower left to the display. If you press the down **PROG** button that's just fine to, however by pressing the up **PROG** button this will take you quickly to the setting. Now go to line (*parameter*) number **5** and select the "**reduced**" set-back temperature you would like by pressing the minus (-) & plus (+) settings button (#8)
- Press the up **PROG** button (#7) on the lower left to the display. Now go to line (parameter) number **10**. Here is where you will select what day of the week to program. You may have many days during the week that are the same. Simply choose "**week**" and program all the days the same, later return here and select the day(s) that are different and simply program those days to your liking.
- Press the up **PROG** button (#7) on the lower left to the display. Now go to line (parameter) number **11**. This is the beginning of the first "**occupied**" period. Simply enter the time in the morning that you would like the house to be up to temperature (*this thermostat will turn-on the heat at a calculated time BEFORE HAND to ensure that the room is up to temperature at the start of the occupied period*). This may be 6:00am.
- Press the up **PROG** button (#7) to line number **12**. This is the time to set-back the space to the economical "**reduced**" temperature. This may be 9:00am.
- Press the up **PROG** button (#7) on the lower left to the display. Now go to line (parameter) number **13**. This is the beginning of the second "**occupied**" period. Simply enter the time that you would like the house to be up to temperature. This may be 12:00pm.
- Press the up **PROG** button (#7) to line number **14**. This is the time to set-back the space to the economical "**reduced**" temperature. This may be 3:00pm.
- Press the up **PROG** button (#7) on the lower left to the display. Now go to line (parameter) number **15**. This is the beginning of the third "**occupied**" period. Simply enter the time that you would like the house to be up to temperature. This may be 6:00pm home.
- Press the up **PROG** button (#7) to line number **16**. This is the time to set-back the space to the economical "**reduced**" temperature. This may be 10:00pm.
- Once this has been done press the "i" button and you have done it! Again if there are days that have different schedules, just go back to line parameter #10 choose that day and then go to line **11 & 12**, **13 & 14** and **15 & 16** to enter those "**occupied**" schedules. This example is on the bottom of this page.

Continued...

### Example

The nominal phases depend on the settings made on lines 11 through 16 for heating



# #6 Programming settings

Continued...

## Example below (graph) of a work week:

15. Monday through Friday the same schedule with Saturday & Sunday different schedules. This would be accomplished by first choosing “week” on line parameter 10, then moving up to parameters 11 & 12 and 13 & 14 for on/off “occupied” times.
16. Once set, return to line parameter 10 and choose “Saturday” for the day instead of “week”. Reprogram lines 11 & 12, then on lines 13 & 14 those MUST BE CLEARED by simply holding in the plus button (- :- - displayed) on each parameter.
17. Once set, return to line parameter 10 and choose “Sunday” for the day instead of “Saturday”. Reprogram lines 11 & 12, then on lines 13 & 14 again those must be cleared as before.

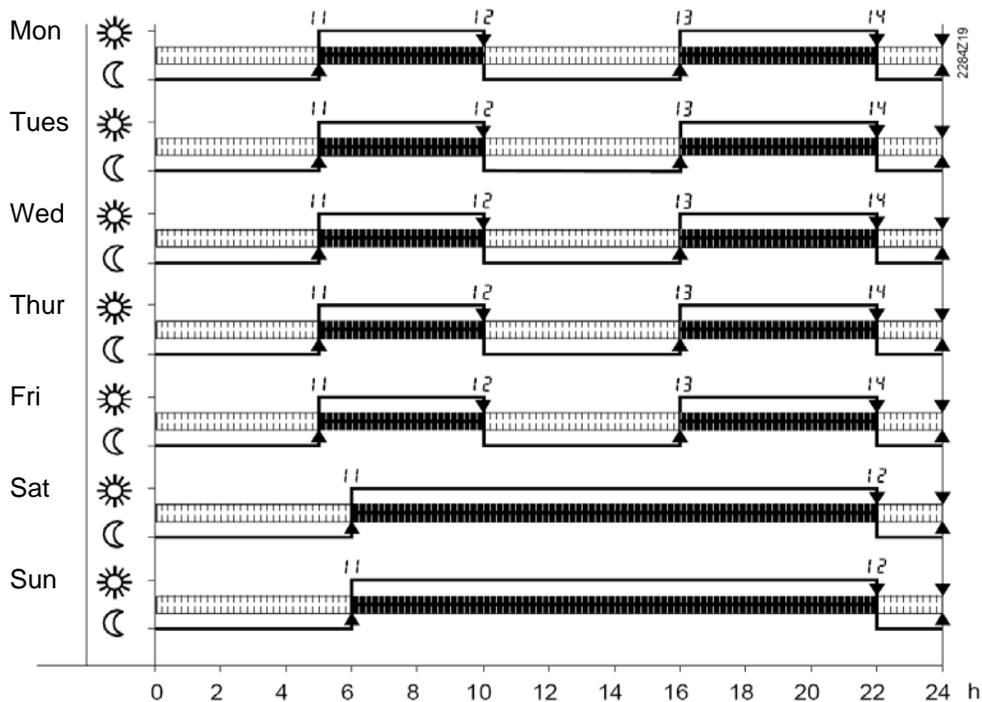
## Congratulations you are finished!

Please refer to page 5 for all the common user parameters.

**Note:** Change line (parameter) 45. This will clear all programmed comfort periods when using this control as a setback clock thermostat (**Automatic operation**) back to the original factory time periods.

**Note:** “Occupied” off times (lines 12,14 & 16) may allow temp. to drop approx. 1°F near the end of a period.

Example of a 7-day time switch program:



First, choose the 7-day block to enter the switching times required for the majority of days; then, select the individual days to make the required adjustments.



# #7 Programming settings

## Vacation / Holiday Mode

### Holiday setting

**Description** During the holiday period, the heating circuit operating level can be reduced. The start and the end of the holiday period are set here. This function is only active in automatic mode

- Line 40, 41**
1. Press the line selection buttons to select line **40** for the start of the holiday period and line **41** for the end of the holiday period.
  2. Press the + / – buttons to set the start and then the end of the holiday period. First, the current date according to the internal clock is proposed.

<u>Line</u>	<u>Display</u>	<u>Unit</u>	<u>Factory setting</u>
40	1. Jan ... 31. Dec	Day.Month	-- : -- (inactiv)
41	1. Jan ... 31. Dec	Day.Month	-- : -- (inactiv)

**Note** The end of the holiday period can be changed only if a value has been set on the line for the start of the holiday period.

- Effect**
- After the start of the holiday period, the heating level will be reduced either to "Reduced" or " Frost" according to the parameter setting made on programming line 42. During the holidays, d.h.w. heating is locked
  - On completion of the holiday period, the current room unit settings apply again
  - The dates of the start and the end of the holiday period will automatically be cleared when the holidays are over

**Clearing** The entered holiday period is cleared or aborted in the following way:  
Select line 40 or 41 and keep the + / – buttons depressed for 3 seconds.

# QAA73 Control References

## Operating modes

Auto , , 

The operating modes are selected by pressing the heating circuit operating mode button. It can be accessed after opening the cover.

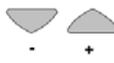
## Effect

Operating mode	Designation	Effect of selected operating mode
Auto 	Automatic operation	<ul style="list-style-type: none"> <li>• Heating circuit 1 according to time switch program 1</li> <li>• Holiday function is active</li> </ul>
	Continuous operation	<ul style="list-style-type: none"> <li>• Heating circuits 1 continuously according to the adjusted nominal room temperature setpoint or reduced setpoint</li> <li>• Holiday function is not active</li> </ul>
	Standby	<ul style="list-style-type: none"> <li>• Heating circuits 1 are switched off</li> <li>• Holiday function is not active</li> <li>• Frost protection functions are active</li> </ul>

## Description

The following settings can be made to meet the individual needs of the enduser.

## Setting

	Buttons	Explanation	Line
1		Press one of the 2 line selection buttons. <i>This will take you directly to the programming level "Enduser".</i>	<b>1</b>
2		Press the line selection buttons to select the required line. <i>The parameter list on the next pages contains all available lines.</i>	<b>1</b> ... <b>50</b>
3		Press the + or – button to set the required value. The setting will be stored as soon as you leave the programming mode or change to another line.	
4		By pressing the Info button, you leave the programming level "Enduser".	Continuous display

## Note

If no button is pressed for about 8 minutes, the room unit will automatically return to the Info level.

# QAA73 Control References

## Occupancy button

**Description** In automatic and continuous operation, the heating circuit operation level can be changed by pressing the occupancy button.

Effect	<i>Current operating mode</i>	<i>Effect on occupancy button</i>
	Automatic operation	The heating circuit operation level changes temporarily from nominal to reduced, or vice versa. This changeover is maintained until the next level changeover point of the time switch program is reached.  The change taking place after pressing the occupancy button will be indicated by the time pointer and appears on the display.
	Continuous operation	The heating circuit operation level changes from nominal to reduced, or vice versa.
	D.h.w.	The occupancy button has no effect on d.h.w. heating.
	Holiday program	The occupancy button has no effect.
	summer operation	After automatic summer changeover, the occupancy button has no effect.

## Info button

**Description** The Info level can be accessed any time by pressing the Info button. By repeatedly pressing the Info button, the various data made available by the Info level can be queried.

<i>Line</i>	<i>Display</i>
1	Time of day, actual room temperature and operating mode
2	Indication of faults
3 *	Status display:
4	Time of day and operating state heating circuit 1
5	Time of day and date
6 *	Actual value of outside temperature
7 *	Lowest outside temperature**
8 *	Highest outside temperature**
9	Actual value of the room temperature
10	Lowest room temperature**
11	Highest room temperature**
12 *	Actual value of d.h.w. temperature
13 *	Actual value of the boiler temperature
14 *	Actual value of flow temperature
15 *	Burner modulation
16 *	Water pressure heating circuit

The information selected changes back to the normal display after 8 minutes.

## Baxi Luna HT Boiler Control Panel Fault Codes

Fault Code	Meaning	Diagnostic Text	Fault Code	Meaning	Diagnostic Text
E10	Outside Sensor Fault	Short circuit of Outdoor Sensor	E151	BMU internal error	Error in Calculating Heating Demand
E10	Outside Sensor Fault	Open circuit of Outside Sensor	E151	BMU internal error	Invalid Init Status
E20	Boiler Temperature Sensor Fault	Short circuit of boiler temp. sensor	E152	Parameter Setting Error	Invalid Parameter Version Number
E20	Boiler Temperature Sensor Fault	Open circuit of boiler temp. sensor	E152	Parameter Setting Error	Invalid Software Type
E28	Flue gas temperature sensor fault	Short circuit of the flue gas sensor	E152	Parameter Setting Error	Invalid Parameter CRC
E28	Flue gas temperature sensor fault	Open circuit of the flue NTC sensor	E153	Lock-out of Device Active	LMO Communication Timeout
E50	DHW temperature sensor fault	Short circuit of the DHW NTC sensor	E155	Remote Lock-out Release Blocked	Not displayed on LMU, but on QAA73
E50	DHW temperature sensor fault	Open circuit of the DHW NTC sensor	E160	Fan Speed Threshold not reached	Fan run Error or Air Supply issue
E61	Room unit 1 fault	No telegram rec'd within timeout time	E160	Fan Speed Threshold not reached	5 times underrun of fan speed - retry after two hours
E110	SLT Lock-out	Opening of high limit thermostat	E160	Fan Speed Threshold not reached	Fan speed on standstill in stand-by not reached
E119	Water pressure switch has cut out		E160	Fan Speed Threshold not reached	Fan speed threshold in ignition phase not reached
E125	Boiler maximum Temperature exceeded	Pump fault due to temperature check	E160	Fan Speed Threshold not reached	Fan speed threshold in ignition phase with delayed restart not reached
E130	Flue gas maximum temperature exceeded		E160	Fan Speed Threshold not reached	Ignition Fan Speed threshold not reached
E131	Burner lock-out	Pump fault due to flue NTC or temperature check	E161	Maximum Fan Speed Exceeded	Exceeding of maximum fan speed NoGmax
E133	Safety time for flame establishment exceeded		E164	Flow/Pressure Switch heating circuit error	Pump OFF, but flow switch does not open
E151	BMU internal error	non-existing Zeiko number	E164	Flow/Pressure Switch heating circuit error	Pump ON, but flow switch does not open
E151	BMU internal error	non-existing cycle number	E167	Heating power limit exceeded/ under-run	max heat capacity in operating mode exceeded
E151	BMU internal error	program counter is in undefined ROM area	E167	Heating power limit exceeded/ under-run	Under-run of max heat capacity in operating mode
E151	BMU internal error	non-allowed interrupt vektor	E168	Lock-out of Device Active	Burner control communication timeout
E151	BMU internal error	Stack overflow	E180	Chimney Sweep Function ON	
			E181	Regulator Stop Function Active	

# Temperature & Pressure

<b>LUNA</b> by BAXI		<b>PRESSURE</b>	
<b>TEMPERATURE</b>		0.5 BAR	7 PSI
30C	86F	1 BAR	15 PSI
40C	104F	1.5 BAR	22 PSI
50C	122F	2 BAR	29 PSI
60C	140F	2.5 BAR	36 PSI
70C	158F	3 BAR	44 PSI
80C	176F	3.5 BAR	51 PSI
85C	185F	4 BAR	58 PSI



Fahrenheit	Celsius
0	-18
5	-15
10	-12
15	-9
20	-7
25	-4
30	-1
35	2
40	4
45	7
50	10
55	13
60	16
65	18
70	21
75	24
80	27
85	29
90	32
95	35
100	38
105	41
110	43
115	46
120	49
125	52
130	54
135	57
140	60
145	63
150	66
155	68
160	71
165	74
170	77
175	79
176	80

# Notes

Dealer

