Temperature control unit

item HC/HS/HD 4695 L/N/NT 4695 AM 5875

Installation manual







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Temperature control unit

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1 INTRODUCTION

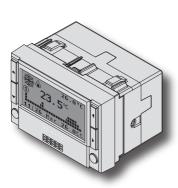
1.1 Warnings and tips

Before proceeding with the installation this manual should be read carefully, because the guarantee is automatically cancelled in the event of negligence, incorrect manoeuvre or improper use or if unauthorised people tamper with the circuit.

Moreover it is cancelled when the fault is due to strong accidental overvoltages on the power supply network. Thus if the Control Unit is installed in a place which is subject to violent atmospheric discharges (*storms*), suitable protection must be installed on the power supply line and it must be connected to the earth as rigorously as possible, in accordance with local regulations.

1.2 Content of the package

- Temperature Control unit item 4695
- Temperature Control unit user manual
- CD-ROM containing: Temperature Control unit installation manual TiThermoBasic software
 TiThermoBasic user manual





2.1 General features

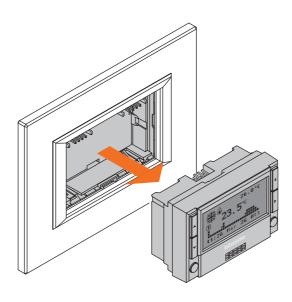
The temperature control unit item 4695 is a control and adjustment device for My Home temperature control systems.

It can be used with heating and air conditioning systems. It can control systems with up to 4 zones, one of which is directly controlled (LOCAL ZONE). It enables setting of the system's parameters and modification of the operating modes.

Operation software is also included, with menus displayed on the backlit screen. The user can display the state and temperature of the zones, select the operating mode, display and set the daily temperature profiles as well as the weekly and holidays programs parameters. The zones can also be configured, and diagnostics for the whole system can be carried out.

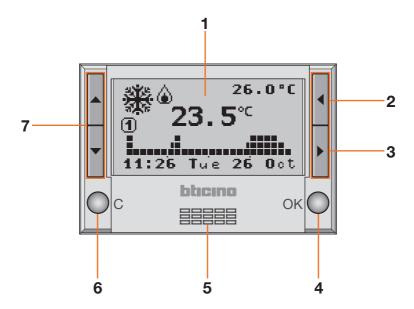
The temperature control unit is made up of a fixed base connected to the system bus and with pull-off front, to let the user program it and change the batteries more easily.

The Control panel must be configured by installing the configurators in their seats (see 3.1 Configuration); programming and configuration of the system can be done using the TiThermoBasic software in the CD supplied.





2.2 The front



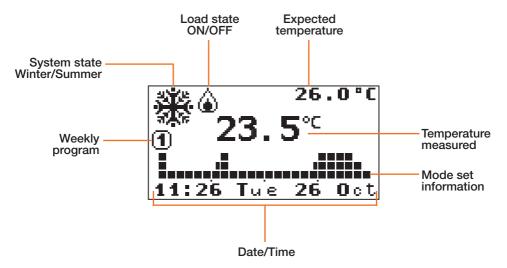
- **1 -Graphic display:** displays the messages which guide the programming operations and the system state.
- 2 ◀ selection key: while the main screen is displayed, when the local zone manages fancoil actuators it can cycle between the operation speeds; inside the menu it can scroll any functions to the left.
- 3 selection key: while the main screen is displayed, when the local zone manages fancoil actuators it can cycle between the operation speeds; inside the menu it can scroll any functions to the right.
- 4 -OK key: enters the main menu, confirms the displayed selection or the entered data.
- **5 -Sensor:** measures the temperature of the local probe.
- **6 -C key:** cancels the selection and returns to the previous page. Keep it pressed to return to the main screen.
- 7 ▲▼ scroll keys: these let you change the set temperature while the main screen is being viewed just on the local zone; when inside the menu, you can scroll the list of the options available.

2.3 The main screen

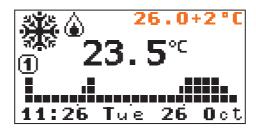
In the idle conditions a screensaver, which can be selected by the user among the ones installed, will be displayed. Press any key to switch the display on and display the main screen.

Background information

During normal operation the display shows the following information:



Depending on the set mode, the temperature of the whole profile (weekly or holiday) or the set point (manual timer), can be changed by \pm 3°C intervals using the \blacktriangle \blacktriangledown keys on the main screen.



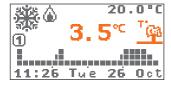
With the ▶ key you can cycle between the mode selected (E.g.: Weekly), Antifreeze or Thermal protection and OFF; the new local mode flashes, but is not active: press **OK** to select it.



Editing the offset with the ▲ ▼ keys and the cycling between the modes with the ▶ key only have effect on the local zone and not on the whole system.



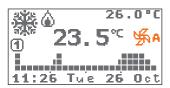
Signalling icon



External temperature

If the system is connected to a suitably configured external probe and the function (SETUP > External temperature) has been activated on the menu, the internal and external temperatures will alternate on the screen at two seconds intervals.

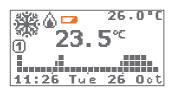
When the external temperature is being displayed, the relevant icon will be also displayed near the Celsius value. Where applicable, this icon will alternate with the fan-coil mode icon.



Fan-coil

The display shows (except in the OFF mode) whether the loads associated to the local zone are fan-coil.

The indication of the fan speed management mode appears at the side of the icon: "A" automatic; "1" minimum, "2" medium and "3" maximum



Battery

Battery flat signal icon.

The display shows when the battery voltage drops below 2V; if the device does not have batteries the icon does not appear.



26.0°C 23.5°C 11:26 Tue 26 0ct

Caution

Fault signal icon.

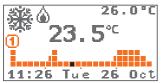
If there is an error on one of the controlled zones the triangular caution icon is displayed. Press any key to access the Diagnostic menu.

If the problem is not solved the Control unit will continue to give a signal on the main screen.

If both the battery flat signal and the zone error signal appear, the icons will be displayed alternately.

Mode information

The following symbols will appear on the display, depending on the selected mode:



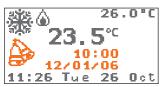
Weekly

Daily temperature profile and active program number The range corresponding to the current time will flash on the graph (for example, 11:26 will flash on the square corresponding to the time from 11:00 to 12:00).



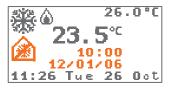
Manual

Manual mode Icon



Holiday

Icon of the mode and time/date of Holiday program end



Holidays

Antifreeze or Thermal protection Icon, time and date of Holidays program end



Timed

Manual mode Icon, number of hours and minutes to the end of the Timed program



OFF

OFF mode Icon



Antifreeze/Thermal protection

Antifreeze (winter) or Thermal protection (summer) mode Icon



2.4 Mode of operation

Weekly

3 weekly programs can be created for each of the two functions (heating and cooling); daily temperature profiles (0h - 24h), different for each day of the week and for each zone, can be defined for each of these.

Manual

In this mode a fixed temperature can be set for all the zones of the system, without time settings.

Holiday

The Holiday mode can select a particular daily profile for a set period. The program is run until the date and time programmed, after which the weekly program selected is reset.

Holidays

This mode keeps the system in Antifreeze or Thermal protection until the date and time set. At the end the weekly program selected is reset.

Timed

The Timed setting is used to set a fixed temperature for all areas for a certain period of time (hours and minutes up to a maximum of 24 hours and 59 minutes). Once this period has expired, the previous settings will be restored.

OFF

When this mode of operation is entered the Control Unit switches off all the system until one of the other modes is reset.

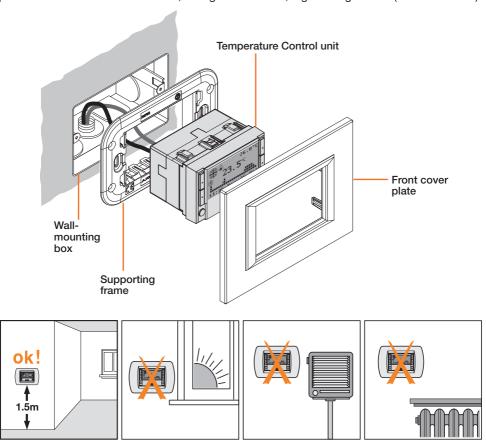
Antifreeze / Thermal protection

In this mode the system sets the antifreeze or thermal protection temperature on the whole system or on the individual zone on the basis of the current system function (summer/winter).

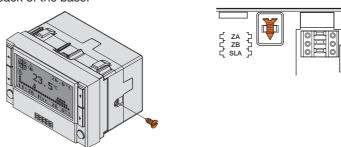


3 INSTALLATION

The Temperature Control unit must be installed using boxes, supporting frames and cover plates of the same series: Axolute, Living International, Light or Light Tech (3 DIN modules).



Removal of the Control unit can be prevented (e.g. public establishments) using the screw provided on the back of the base.





3 INSTALLATION

3.1 Configuration

The temperature Control unit is fitted with an integrated temperature probe and must therefore be configured. The configuration seats on the back of the Control unit, dedicated to the integrated probe, are: [ZA], [ZB] e [SLA]. During the configuration operation the seats [ZA] and [ZB] must always be used by inserting two configurators that identify the address, and therefore the number of the zone controlled by the probe. Although it is not necessary to start with zone 01, it is however imperative that the zones following the Control unit address are allocated the next higher value. The configuration procedure is completed by using the "Configuration zone" menu of the Control unit and activating the "Learning" function.

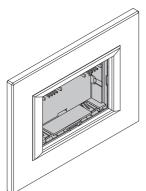
It is also possible to program the device and configure the system using the TiThermoBasic software included.

During programming all functional parameters of the Control unit and the system can be customised. These parameters can then be downloaded from the PC to the Control unit through a serial port. It is also possible to upload all information from the Control unit to the PC, for example when changes to previously set parameters are needed. Downloading and uploading of data can only be done using an USB cable **item 3559**. This cable is an accessory that is not included in the Control unit package and must therefore be purchased separately.

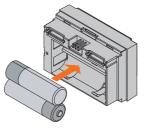
3.2 Changing the batteries

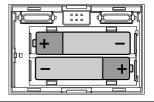
When the display shows the following symbol ____ change the batteries.

The entered data are saved when the batteries are being changed.



- · Take the Control unit out of its base
- Put in 2 LR6/AA 1.5V alkaline batteries respecting the polarities shown in the drawing.

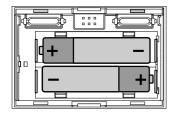






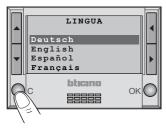
The device is supplied from bus. The two batteries are just used for the programming from PC operations when the Control unit is not inserted on its base and to avoid being out of step with the time when there is no power supply from the bus. The device can however be installed without the aid of batteries. Do not leave the batteries in the device when there will be no power from the bus for a long time, because they would go flat in a few days.

4 SWITCHING ON FOR THE FIRST TIME



 Insert 2 x 1.5V LR6/AA alkaline batteries as shown in the drawing.

Language selection









The Control unit display will show the **LANGUAGE** menu. The first language is highlighted.

The system is factory set to Italian.

 If the C key is pressed, the language selected remains Italian. The user will be asked again to set the language the next time the device is switched on.

Or

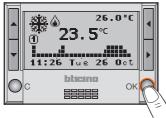
- Use the ▲ ▼ keys to scroll through the list and select the desired language. Press OK to confirm. The selected language will be kept even if the Control unit is switched off and on again. However, if a total reset of the system is carried out, the language setting will be lost and will have to be reset.
- Insert the Control unit in the base, connected to the Bus.

The Control unit display shows the main screen.



4 SWITCHING ON FOR THE FIRST TIME

Access the Maintenance menu



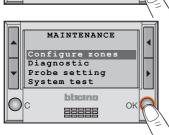
Press the OK key to access the MAIN MENU



With the ▲ ▼ keys scroll the list and select Maintenance



 Press the OK key to access the Maintenance Menu



Press the OK key to access the Configure zones
 Menu

To activate the temperature Control unit the system must be configured using the following procedures:

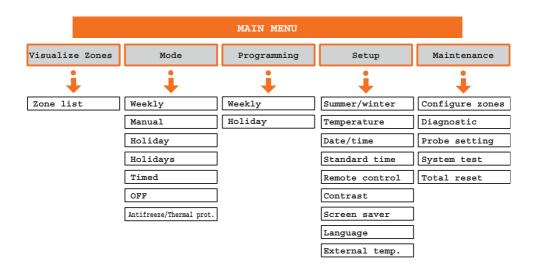
See Chapter 5 > MAIN MENU > MAINTENANCE > Configure zones

- Learning it enables to detect the configuration of the zones within the system
- Rename is used to rename the zones
- Actuators is used for the configuration of the zone actuators
- **Pumps** is used for the configurations of the pumps of the zones

Insert date and time **SETUP > Date/time** and define the system operating mode **SETUP > Summer/Winter**

The menu structure

The MAIN Menu gives access to programming, configuration and customisation menus that enable the user to make the most of the Control unit features and fulfil all their requirements.



General menu observations

All menus are cyclical. This means that when the last menu item is selected, pressing the \blacktriangledown key will move the cursor to the first item. When the first item is selected, pressing the \blacktriangle key will move the cursor to the last item.



If during navigation no key is pressed for 30 second the light on the screen will go off and the screen saver will automatically start. This time-out is extended to 2 minutes when the display is showing the daily profile update screen. If the Maintenance menu is displayed, the light of the screen will go off after 30 seconds but the screen-saver will not start. The Control unit will remain on the same menu and pressing any key will reactivate the light.



Visualize Zones

Mode

Programming

Setup

Maintenance

5.1 Visualize Zones

Is used to display the following information on the status of the selected zone:

- actual zone temperature
- set zone temperature (except when in the OFF mode)
- summer/winter symbol (except when in the OFF mode)
- load status: on/off
- selected mode information
- zone name
- any errors on the zone
- fan-coil mode symbol, if applicable

MAIN MENU

Visualize Zones

Mode Programming Setup

OK to confirm

ZONE LIST

LOCAL ZONE

ZONE 2

ZONE 3

ZONE 4

With the ▲ ▼ keys select the zone

OK to confirm

Enquiry probe . . .



Differently from the main screen, no parameters can be changed here (e.g. setpoint or mode) by operating the keys. This screen can only be used for displaying the full status.

26.0°C ----<u>-</u>-----ZONE

MAIN MENU

Visualize Zones

Mode

Programming Setup

With the keys:

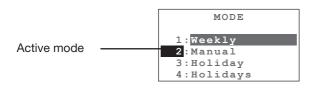
▲ ▼ displays the following/previous zone

C to return to the previous screen

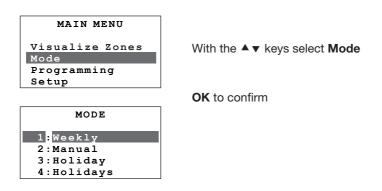


5.2 Mode

This mode can select the mode of operation in every zone of the system; the active mode are identified by the highlighted identification code.



To access the MODE menu.



The menu includes the following Operating modes:

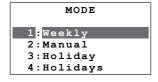
- 1: Weekly 3 Winter programs, 3 Summer programs
- 2: Manual constant temperature in all the system
- 3: Holiday "Holiday" program for each zone
- 4: Holidays system in antifreeze or thermal protection until the date and time set
- 5: Timed Manual mode for a set time
- 6: OFF all zones in OFF
- 7: Antifreeze one or more zones in Antifreeze or Thermal protection



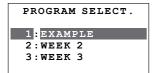
Visualize Zones Mode Programming Setup Maintenance

5.2.1 Weekly

Can set a weekly program selected from those programmed.



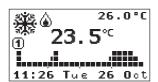
With the ▲ ▼ keys select **Weekly**



OK to confirm

With the ▲ ▼ keys select the weekly program required

If the Weekly operating mode is selected, the number identifying the active program is highlighted.



OK to confirm

The main screen is displayed, showing the program set.

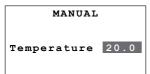
5.2.2 Manual

This can set a constant temperature in all the system.



With the ▲ ▼ keys select Manual

OK to confirm



With the \blacktriangle v keys increase or decrease the temperature value by 0.5°C

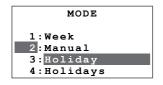
OK to confirm

The main screen is displayed, showing the program set.

| Visualize Zones | Mode | Programming | Setup | Maintenance

5.2.3 Holiday

The Holiday mode can select a particular daily profile for a set period. The program is run until the programmed date and time, after which the weekly program chosen will be reset.



HOLIDAYS

up to 00:00
of 08/07/07

END HOLIDAYS

1:EXAMPLE
2:WEEK 2
3:WEEK 3

With the ▲ ▼ keys select Holiday

OK to confirm

With the ▲▼ keys increase or decrease the figure selected

With the ◀► keys position the cursor on the date and time figure to modify

OK to confirm

With the ▲ ▼ keys select the weekly program which will be activated at the end of the Holiday day

OK to confirm

The main screen is displayed, showing the program set.



Visualize Zones Mode Programming Setup Maintenance

5.2.4 Holidays

This mode keeps the system in Antifreeze or Thermal protection until the set date and time, after which the weekly program chosen will be reset.

- Antifreeze (7°C factory value, can be changed using SETUP > Temperature)
- Thermal protection (35°C factory value, can be changed using SETUP > Temperature)



HOLIDAYS

up to 00:00
of 08/07/07

END HOLIDAYS

1:EXAMPLE
2:WEEK 2
3:WEEK 3

With the ▲ ▼ keys select Holidays

OK to confirm

With the $\blacktriangle \blacktriangledown$ keys increase or decrease the figure selected

With the ◀► keys position the cursor on the date and time figure to modify

OK to confirm

With the ▲▼ keys select the weekly program which will be activated at the end of the Holidays period

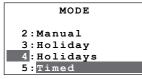
OK to confirm

The main screen is displayed, showing the program set.

| Visualize Zones | Mode | Programming | Setup | Maintenance

5.2.5 Timed

Lets you run the manual mode on all the zones for a set time



With the ▲ ▼ keys select **Timed**

OK to confirm

TIMED
Temp: 20.0
Time: 00:00

With the ▲ ▼ keys increase or decrease the temperature by 0.5, hours and minutes by 1.

With the ◀► keys change from temperature to hours and minutes

OK to confirm

5.2.6 OFF

Lets you switch all the system zones OFF.

MODE

3:Holiday
4:Holidays
5:Timed
6:OFF

With the ▲ ▼ keys select OFF

OK to confirm

5.2.7 Antifreeze/Thermal protection

Lets you set the Antifreeze or Thermal protection temperature in all the system zones.

MODE
4:Holidays
5:Timed
6:OFF
7:Antifreeze

With the ▲ ▼ keys select Antifreeze

OK to confirm

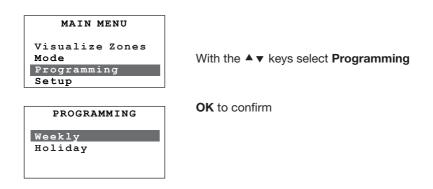


Visualize Zones Mode **Programming** Setup Maintenance

5.3 Programming

This menu is used to create or change the weekly operating programs of the Control unit.

To access the PROGRAMMING menu:



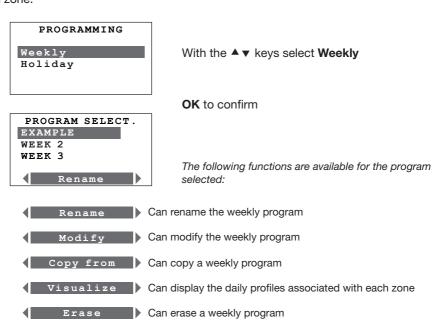
The menu includes the following programs:

- Weekly 3 Winter programs, 2 Summer programs
- Holiday "Holiday" program for each zone

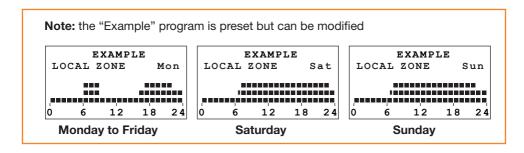
| Visualize Zones | Mode | Programming | Setup | Maintenance

5.3.1 Weekly

Can create up to 3 weekly programs for each of the system modes of operation (heating and cooling). Different daily temperature profiles (0h – 24h) can be defined for each day and each zone.



Use the ◀ ▶ keys to select the function required

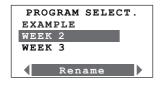




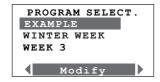
Visualize Zones Mode Programming Setup Maintenance

5.3.1.1 Rename

This function can rename the weekly program selected (max 13 characters).







With the ▲ ▼ keys select the program to be renamed (E.g.: WEEK 2)

OK to confirm

Use the ◀ ▶ keys to position the cursor on the character you want to change; use the ▲ ▼ keys to scroll the alphanumeric characters (only uppercase), numbers and special characters, starting from the one that is selected:

OK to confirm (changes into Modify) **C** to cancel

C to return to the previous page.

| Visualize Zones | Mode | Programming | Setup | Maintenance

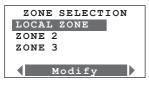
5.3.1.2 Modify

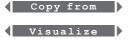
This function can modify the weekly program selected, associating a daily profile to each zone.

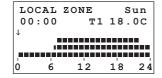












With the ▲ ▼ keys select the program to modify (e.g.: EXAMPLE)

OK to confirm

With the ▲ ▼ keys select the day of the week (e.g.: Sunday)

OK to confirm

With the ◀ ▶ keys select the following function:

Copy from - this function enables the user to copy the program from another day that has already been programmed.

With the ▲ ▼ keys select the zone (e.g.: LOCAL ZONE)

OK to confirm

With the ◀ ► keys select the following functions:

Copy from – this function enables the user to copy the programming parameters from another zone that has already been programmed for the selected day and the Visualize function to display the day profile.

The profile displayed can be modified.

For more information see the example in the following pages.



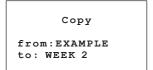
Visualize Zones Mode Programming Setup Maintenance

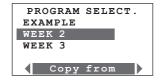
5.3.1.3 Copy from (weekly program)

This function can copy a weekly program.









OK to confirm

With the ▲ ▼ keys select the program from which to copy (E.g.: EXAMPLE)

OK to confirm

With the ▲ ▼ keys it is possible to select another program where to copy,

or

press C to return to the previous page



5.3.1.4 Visualize

This function can display the daily profiles associated with each zone.

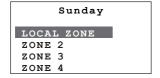


With the ▲ ▼ keys select the program



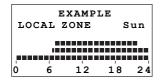
OK to confirm

With the ▲ ▼ keys select the day



OK to confirm

With the ▲ ▼ keys select the zone



With the $\blacktriangle \blacktriangledown$ keys it is possible to display the other zones

or

press \mathbf{OK} or \mathbf{C} to return to the previous page



Visualize Zones Mode Programming Setup Maintenance

5.3.1.5 Erase

This function can erase a weekly program resetting the default name, the profiles of all the zones and putting the program into antifreeze or thermal protection.

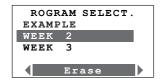


With the ▲ ▼ keys select the program to be erased



OK to confirm

With the ◀ ► keys select **YES**



OK to confirm

With the ▲ ▼ keys it is possible to select another program to delete

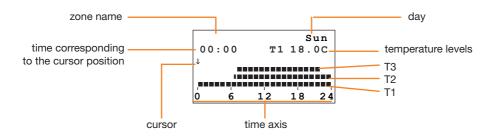
C to return to the previous page

The cancelled programs are reset to all the factory settings (profile and name).

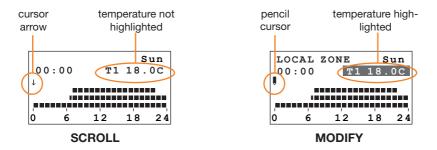
Visualize Zones	Mode	Programming	Setup	Maintenance

Daily profile modification tools

Information shown on the display:



There are two modes of work:



How to use the cursor keys:

- ◆ move the cursor along the time axis
- ▲▼ change from SCROLL mode to MODIFY, in the MODIFY mode scroll the three temperature levels
- OK change from MODIFY mode to SCROLL in SCROLL mode confirms quitting **Modify**
- **C** returns to the previous page without saving



| Visualize Zones | Mode | Programming | Setup | Maintenance

Create a new daily profile

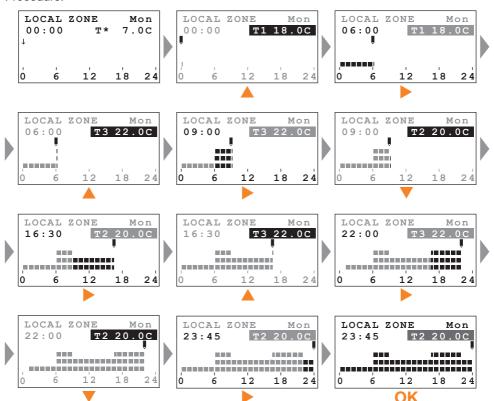
We recommend following the procedure in this example carefully. This will give the user the opportunity to learn to use the MODIFY and SCROLL operating modes and to use the navigation keys.

Example: creation of the Monday daily temperature profile.

- 1 from 00:00 to 06:00 18°C (T1)
- 2 from 06:00 to 09:00 22°C (T3)
- 3 from 09:00 to 16:30 20°C (T2)
- 4 from 16:30 to 22:00 22°C (T3)
- 5 from 22:00 to 24:00 20°C (T2)

Temperature levels set T1= 18°C - T2= 20°C - T3= 22°C

Procedure:

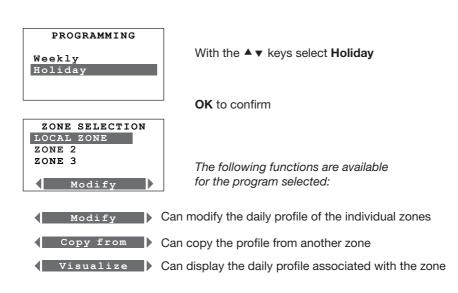


At the end of the procedure, it will be possible to use the "Copy from" function to copy the "Monday" profile set, to the other days of the weekly program.



5.3.2 Holiday

Can program a daily profile for each zone (as base the profile of the Sunday of the Example program is associated with each zone).



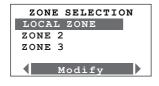
Use the ◀▶ keys to select the function required.



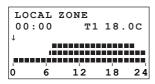
Visualize Zones Mode Programming Setup Maintenance

5.3.2.1 Modify

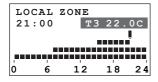
This function can modify the daily profile associated with a zone.



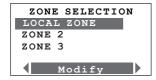
With the ▲ ▼ keys select the ZONE



OK to confirm



With the ▲ ▼ and ◀ ▶ keys modify the profile



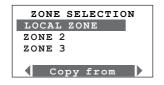
OK to confirm

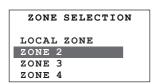
C to return to the previous page

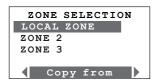


5.3.2.2 Copy from

Can copy the daily profile from an already programmed zone.







With the ▲▼ keys select the ZONE the profile should be copied to

OK to confirm

With the ▲▼ the keys select the ZONE the profile should be copied from

OK to confirm

With the $\blacktriangle \blacktriangledown$ keys it is possible to select another zone where to copy to,

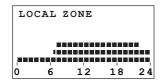
or

press C to return to the previous page

5.3.2.3 Visualize

This function can display the daily profile associated with each zone.





With the ▲ ▼ keys select the zone

OK to confirm

With the ▲ ▼ keys it is possible to display the other zones

or

press **OK** or **C** to return to the previous page



Visualize Zones Mode Programming Setup Maintenance

5.4 Setup

This menu can modify the available settings.

To access the SETUP menu:



With the ▲ ▼ keys select **SETUP**

SETUP

Summer/winter
Temperature
Date/time
Standard time

OK to confirm

With the ▲ ▼ keys select a setting

The menu includes the following settings:

- Summer/Winter toggles the system operating mode
- Temperature enables setting 3 temperatures levels and Antifreeze/ Thermal protection
- Date/time to set the current date and time
- Standard time toggles the mode of transfer to standard time from Manual to Automatic
- Remote control enable/disable remote control
- Contrast to adjust the display contrast
- Screen saver to select the screensaver
- Language to select the menu language
- External temperature to display the external temperature

Visualize Zones Mode Programming Setup Maintenance

5.4.1 Summer/Winter

Sets the mode of operation of the Cooling or Heating system.



Before performing the switching, perform all the operations necessary for correct working on the hydraulic system.



With the ▲ ▼ keys select Summer/Winter

SUMMER/WINTER
Operation:
Winter
Summer

OK to confirm

the display shows the mode of operation set: Winter

SUMMER/WINTER
Operation:

OK to confirm

Summer Winter the display shows the new mode of operation set: **Summer**

C to return to the previous page

When switching the Antifreeze (for Winter) or Thermal protection (for Summer) mode is set.



Visualize Zones Mode Programming Setup Maintenance

5.4.2 Temperature

Can set the temperature levels T1, T2, T3 and Antifreeze/Thermal protection (as base the same for all the zones) for each zone.

SETUP Summer/winter Temperature Date/time Standard time

With the ▲ ▼ keys select **Temperature**

TEMPERATURE

OK to confirm

ALL ZONES LOCAL ZONE

With the ▲ ▼ keys select ALL ZONES or LOCAL ZONE

TEMPERATURE T*: 7.0C T1: 18.0C 20.0C T2: **T3**: 22.0C

OK to confirm

With the ▲ ▼ keys select the temperature level

TEMPERATURE T*: 7.0C T1: 15.0C T2: 20.0C 22.0C T3:

OK to confirm

With the ▲ ▼ keys select the temperature level required (increment + 0.5°C)

OK to confirm

C to return to the previous page

TEMPERATURE ALL ZONES LOCAL ZONE

To guarantee correct system working the Control unit automatically checks that T3 is higher than T2 and T2 higher than T1.



Factory setting - Temperatures:

Winter: T*= 7.0°C T1= 18.0°C T2= 20°C T3= 22°C Summer: Tp= 35.0°C T1= 20.0°C T2= 23°C T3= 25°C

Visualize Zones Mode Programming Setup Maintenance

5.4.3 Date/time

Sets the current date and time.

SETUP
Summer/winter
Temperature
Date/time
Standard time

Time: 00:00
Date: 22/08/06

00:00 Mar 22Aug

CHANGE TIME/DATE

Time: 08:20
Date: 07/07/07

00:00 Mar 22Aug

Summer/winter
Temperature
Date/time
Standard time

CHANGE TIME/DATE

Time: 08:21
Date: 07/07/07

08:21 Sat 07Jul

With the ▲ ▼ keys select Date/time

OK to confirm

the display shows the date and time set.

Set current date and time:

With the $\blacktriangle \blacktriangledown$ keys increase/decrease the selected figure by ± 1

With the ◀ ▶ keys scroll the date/time figures

OK to confirm

The Control unit returns to the previous page. Selecting Date/time again it is possible to check that this has been updated.

OK to confirm





Visualize Zones Mode Programming Setup Maintenance

5.4.4 Standard time

For the standard time you can set one of the following modes:

Manual: the standard time must be updated manually

Automatic: changes summer/winter time automatically, according to the following rule:

- changes to summer time on the last Sunday of March at 02:00
- returns to winter time on the last Sunday of October at 03:00

SETUP
Summer/winter
Temperature
Date/time
Standard time

With the ▲ ▼ keys select **Standard time**

STANDARD TIME

State: Manual

Automatic

OK to confirm

The display shows the screen indicating the state set (Manual).

STANDARD TIME

State: Automatic

Manual

OK to switch the mode

SETUP

Summer/winter Temperature Date/time Standard time



Visualize Zones Mode Programming Setup Maintenance

5.4.5 Remote control

Can enable/disable the remote control for remote management (user) and remote aftersales service (installer) using My Home portal. The remote management lets the user know and control the temperature of each zone remotely. The remote after-sales service lets the installer program the control unit and perform the system diagnostics remotely.

SETUP
Temperature
Date/time
Standard time
Remote control

REMOTE CONTROL

State:
enabled

Disable

REMOTE CONTROL

State:
enabled

Enable

SETUP
Temperature
Date/time
Standard time
Remote control

With the ▲ ▼ keys select Remote control

OK to confirm

The display shows the screen indicating the state set (enabled).

OK to switch the mode



Visualize Zones Mode Programming Setup Maintenance

5.4.6 Contrast

Sets the level of contrast of the graphic display.

SETUP

Date/time Standard time Remote control Contrast

CONTRAST

Increase by ▲
Decrease by ▼

SETUP

Date/time Standard time Remote control Contrast With the ▲ ▼ keys select Contrast

OK to confirm

With the ▲ ▼ keys adjust the contrast level

OK to confirm and to return to the previous page **C** to cancel and to return to the previous page

Visualize Zones Mode Programming Setup Maintenance

5.4.7 Screen saver

It enables selecting what should be displayed on the Control unit screen in idle conditions. You can select from the following screen savers:

- Temp. only displays the measured temperature only
- Temp./Date/Time displays the measured temperature and date/time
- Main screen displays the complete main screen
- Display Off the display is completely OFF

SETUP

Standard time
Remote control
Contrast
Screen saver

With the ▲ ▼ keys select **Screen saver**

SCREEN SAVER

Temp. only Temp/Date/Time Main screen Display off **OK** to confirm

The display shows the selection set now.

SCREEN SAVER

Temp. only
Temp/Date/Time
Main screen
Display off

With the ▲ ▼ keys select the Screen saver (E.g.: Main screen)

SETUP

Standard time Remote control Contrast Screen saver **OK** to confirm and to return to the previous page **C** to cancel and to return to the previous page



Visualize Zones

Mode

Programming

Setup

Maintenance

5.4.8 Language

It enables selecting the menu language.

IMPOSTAZIONI

Controllo remoto Contrasto Screen saver Lingua

LINGUA

English Español Français Italiano

LINGUA

Deutsch English Español Français

SETUP

Remote control Contrast Screen saver Language With the ▲ ▼ keys select Lingua (Language)

OK to confirm

The display shows the language set now.

With the ▲ ▼ keys select the language (E.g.: English)

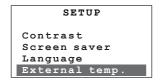
OK to confirm and to return to the previous page



| Visualize Zones | Mode | Programming | Setup | Maintenance

5.4.9 External temperature

It enables displaying of the temperature and setting of the external probe address.



With the ▲ ▼ keys select **External Temp.**



OK to confirm

With the $\blacktriangle \blacktriangledown$ keys scroll the probe address values 1-9



With the ◀ ► keys change the state of activation Not active/Active

SETUP

Contrast
Screen saver
Language
External temp.

OK to confirm and to return to the previous page



Visualize Zones Mode Programming Setup Maintenance

5.5 Maintenance

This menu includes all the configuration and control functions for the system.

To access the MAINTENANCE menu:



With the ▲ ▼ keys select Maintenance

MAINTENANCE

Configure zones

Diagnostic

Probe setting

System test

OK to confirm

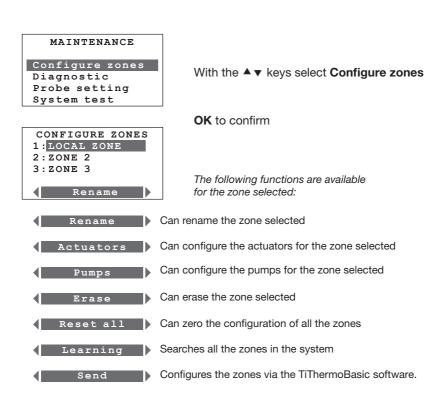
The menu includes the following items:

- Configure zones Can configure the system zones
- Diagnostic can be used to check the installed devices
- Probe setting Can vary the temperature measured
- System test Can perform maintenance or checks on the system
- Total reset Resets the control unit totally

| Visualize Zones | Mode | Programming | Setup | Maintenance

5.5.1 Configure zones

Can perform the system learning and manage the zone configuration.



Use the ◀ ▶ keys to select the function required.



Visualize Zones Mode Programming Setup Maintenance

5.5.1.1 Rename

This function enables to assign a name to each zone.







With the ▲▼ keys select the zone to be renamed (E.g.: LOCAL ZONE)

OK to confirm

Enter the zone name (E.g.: LIVING ROOM)

Use the ◀ ▶ keys to position the cursor on the character you want to change;

use the ▲ ▼ keys to scroll the alphanumeric characters (only uppercase), numbers and special characters, starting from the one that is selected.

Press **OK** to save the parameter or **C** to cancel

Visualize Zones Mode Programming Setup Maintenance

5.5.1.2 Actuators

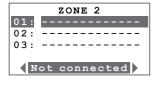
This function is used to complete the configuration of the zones, indicating:

- which actuators are installed for the Heating system
- which actuators are installed for the Cooling system
- which type of load the zone manages.



With the ▲ ▼ keys select the zone to be configured (E.g.: ZONE 2)

OK to confirm



One of the following options can be selected for each actuator in the list:

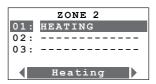


Actuator not in the system

Actuator used to manage the Heating system

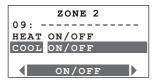
Actuator used to manage the Cooling system

Actuator used to manage both the Heating system and the Cooling system (E.g.: 2 pipe fan-coil)



With the ◀ ► keys select the required option (E.g.: **Heating**)

OK to confirm



With the ▲ ▼ keys scroll the list of actuators.

The last two items of the menu can be used to select the type of load to be managed

continues



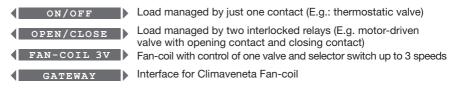
Visualize Zones Mode Programming Setup Maintenance

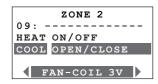
5.5.1.2 Actuators

continues



One of the following options can be selected for each operation:



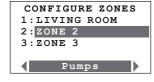


With the ◀► keys select the required option

OK to confirm

ZONE 2 Zone test...

Pressing the ${\bf C}$ key, the set configuration is sent to the zone



Complete the configuration of the zone by configuring the Pumps

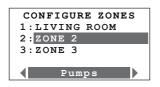


The zone test screen does not appear for the local zone because the settings are managed directly by the Control unit.

Visualize Zones Mode Programming Setup Maintenance

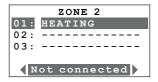
5.5.1.3 Pumps

Can complete the configuration of the zones, indicating which pumps must control the zone and with how much delay.

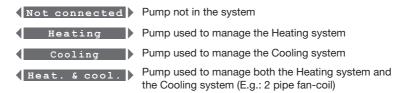


With the ▲ ▼ keys select the zone to be configured (E.g.: ZONE 2)

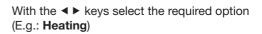
OK to confirm



One of the following options can be selected for each pump in the list:







ZONE 2
09: ----HEAT 1 With the COOL 0 The last t

OK to confirm

With the ▲ ▼ keys scroll the list of pumps.

The last two items of the menu can be used to select the pump activation delay (0 to 9)

continues



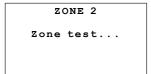
In case of probes configured on the P seat, this function can be used only if the CEN configurator is in the P seat itself.

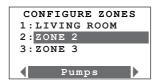


Visualize Zones Mode Programming Setup Maintenance

5.5.1.3 Pumps

continues





Press the ${\bf C}$ key to send the configuration set to the zone.

Once the test procedure is complete, the following will be displayed should an error be present on the zone:

ZONE 2

ERROR

Verify the

probe

configuration.

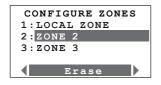
Check that any P seat on the probe has been configured (P = CEN) and try again.

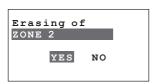


Visualize Zones Mode Programming Setup Maintenance

5.5.1.4 Erase

Can erase the zone selected from the configuration.







With the ▲ ▼ keys select the zone (e.g.: ZONE 2)

With the ◀ ► keys select Erase

OK to confirm

With the ◀ ► keys select: YES to erase the zone NO to cancel

OK to confirm

C to return to the previous screen



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5.5.1.5 Reset all

Can erase the saved configuration of all the zones.



With the ◀ ▶ keys select Reset all



OK to confirm

With the ◀► keys select: YES to erase all the zones NO to cancel



OK to confirm

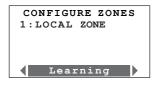


The Control unit resets itself, removing all the zones, which will no longer be managed. To resume system operation, the zones LEARN-ING procedure must be completed.



5.5.1.6 Learning

This function searches for the 3 zones within the system, which address is subsequent to the Control unit address (e.g.: if the address of the Control unit is 21, it will search for zones 22, 23 and 24).



The display shows the LOCAL ZONE

With the ◀ ► keys select Learning

OK to confirm



The Control unit will search for the 3 zones within the system subsequent to the local zone.



Once the acquiring process is completed, all the zones found will be displayed.

C to return to the previous screen



Visualize Zones Mode Programming Setup Maintenance

5.5.1.7 Send

It sends the Control unit configuration to the zones. The configuration could, for example, be completed from the pc, using the TiThermoBasic software.



With the ◀► keys select **Send**

ZONE 2

OK to confirm

The Control unit sends the information to all the zones

ZONE 3
ERROR
Verify the
probe
configuration.

In case of ERROR, the following message will be displayed.

ZONE 4

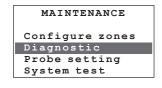
 $\ensuremath{\text{OK}}$ to continue sending to the other zones



| Visualize Zones | Mode | Programming | Setup | Maintenance

5.5.2 Diagnostic

In case of fault in one or more zones, it enables the user to check all devices installed in each zone.



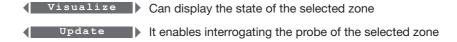
With the ▲ ▼ keys select **Diagnostic**

Diagnostic update... **OK** to confirm

The control unit carries out an automatic diagnostic update of the system



The following functions are available for the zone selected; select the function with \P keys.

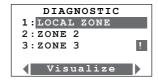




Visualize Zones Mode Programming Setup Maintenance

5.5.2.1 Visualize

It enables displaying detailed diagnostic information for the zones.



LOCAL ZONE

No problem
detected.



ZONE 3
Actuator KO

With the ▲ ▼ keys select the zone (e.g.: LOCAL ZONE)

OK to confirm

The display visualizes the state of the zone

C to return to the previous page

With the ▲ ▼ keys another zone (e.g.: ZONE 3)

OK to confirm

In case of faulty zones, the fault gravity level will be displayed on the screen.

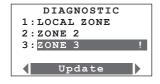


In case of faults refer to the "Troubleshooting" section of this manual.



5.5.2.2 Update

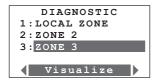
It can update the status of the selected zone.



With the ▲ ▼ keys select the zone (e.g.: ZONE 3)

Enquiry probe... **OK** to confirm

The Control unit carries out an automatic update of the state of the probe.







Visualize Zones Mode Programming Setup Maintenance

5.5.3 Probe setting

Can align the temperature measured by the probes to a value measured with other devices (thermometer,...) to guarantee better precision in system operation.

MAINTENANCE

Configure zones
Diagnostic

Probe setting
System test

PROBE SETTING

LOCAL ZONE

ZONE 2

ZONE 3

ZONE 4

PROBE SETTING
ZONE 2

Measured 20.0C
New 22.5C

Probe setting ZONE 2 in progress...

PROBE SETTING

LOCAL ZONE

ZONE 2

ZONE 3

ZONE 4

With the ▲ ▼ keys select Probe setting

OK to confirm

With the ▲ ▼ keys select the zone

OK to confirm

With the $\blacktriangle \blacktriangledown$ keys set the actual temperature measured in the environment (increase in ± 0.1 °C steps)

OK to confirm

The Control automatically calibrates the probe

| Visualize Zones | Mode | Programming | Setup | Maintenance

5.5.4 System test

Can put the system in **Test** (the whole system OFF) to check the system. It automatically disables all the commands (including the remote commands).

MAINTENANCE

Configure zones
Diagnostic
Probe setting
System test

Verify system Exit with **C**

M30 PIC HW 01.00 04.01 1.00

MAINTENANCE

Configure zones
Diagnostic
Probe setting
System test

With the ▲ ▼ keys select System test

OK to confirm

The display indicates the Control Unit software and hardware versions:

M30 - firmware version

PIC - firmware version SCS interface

HW - hardware version



Visualize Zones Mode Programming Setup Maintenance

5.5.5 Total reset

Can perform a Control Unit total reset. All the settings will be lost and the factory settings will be reset.

MAINTENANCE

Diagnostic
Probe setting
System test
Total reset

ATTENTION!
The programs
will be lost!
Execute?
YES NO

RESET IN PROGRESS...

LANGUAGE

Deutsch

English

Español

Français

With the ▲ ▼ keys select Total reset

OK to confirm

With the ◀ ► keys select YES

OK to confirm

The Control unit carries out a TOTAL RESET, and the factory settings are restored.



TECHNICAL DATA

Rating

Bus SCS power supply: base + front Power supply voltage: 18 - 27V

Max. absorption: 30mA with display ON Typical absorption: 8.5mA with display OFF

Battery power supply: 2 AA 1.5V batteries (only front)

Power supply voltage: 3 Vdc

Max. absorption: 150mA with display ON Typical absorption: 15mA with display OFF

Working temperature: 0°C - +40°C Dimensions: 3 DIN modules

Degree of protection: IP 30

Standards references

The item covered by the manual has the CE Declaration of Conformity according to the requirements indicated below:

BTicino SpA with offices in Via Messina, 38 - 20154 Milano (Italy)

declares that the product item number: 4695

respects the following standards:

EN 6669-2-1

EN 50090-2-2 (HBES)

EN 50090-2-3 (HBES Safety)

EN 50428

EN 60730-2-9

Year of approval CE marking according to the directive indicated: 2007



Troubleshooting

Problem	Solving
Battery exhausted warning	Replace the batteries
Zone fault warning	Check if any other problems are present (Maintenance >Diagnostic >Update)
A zone signals "Error on probe"	The probe does not respond: - check whether it is correctly connected (green LED shining steadily or flashing slowly) and configured (correct zone number and mode).
A zone signals "Actuator KO"	An actuator does not respond: - check whether the actuators are correctly connected and configured (test the actuators with the local key); - with standard configuration, check that the configuration has been performed correctly in the control unit Maintenance>Configure zone>Configure).
A zone signals "Pump KO"	The actuator configured for the control of the circulation pump (Zone = 00) does not respond: - check whether the actuator is correctly connected and configured (test the actuator with the local key) - check the correct configuration of the pump (Maintenance > Configure zones > Pumps)
A zone signals "Slave probe KO"	A slave probe does not respond: - check whether it is correctly connected (green LED shining steadily or flashing slowly) and configured (correct zone number, SLA mode); - check the correct configuration of the slaves to be managed on the Master probe.
A zone signals "T out of limits"	The temperature measured by the probe is too low or too high: - check that the probe is installed correctly (e.g. not too close to heat sources); - set the probe (Maintenance>Probe setting) measuring the room temperature with a thermometer; - if the problem continues, replace the probe; - if it is the local zone that is showing a temperature outside the set limits, completely reset and then reacquire the system.
A zone signals "R/W EEPROM KO"	If there is an internal problem on the probe: - replace the probe.
The Control unit is frozen after connection to the PC	Carry out the RESET procedure as indicated in the TiThermoBasic software manual.



BTicino SpA Via Messina, 38 20154 Milano - Italy www.bticino.com