

# Clima controller

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## Temperature Controller



Climate control in style.

## SUMMARY

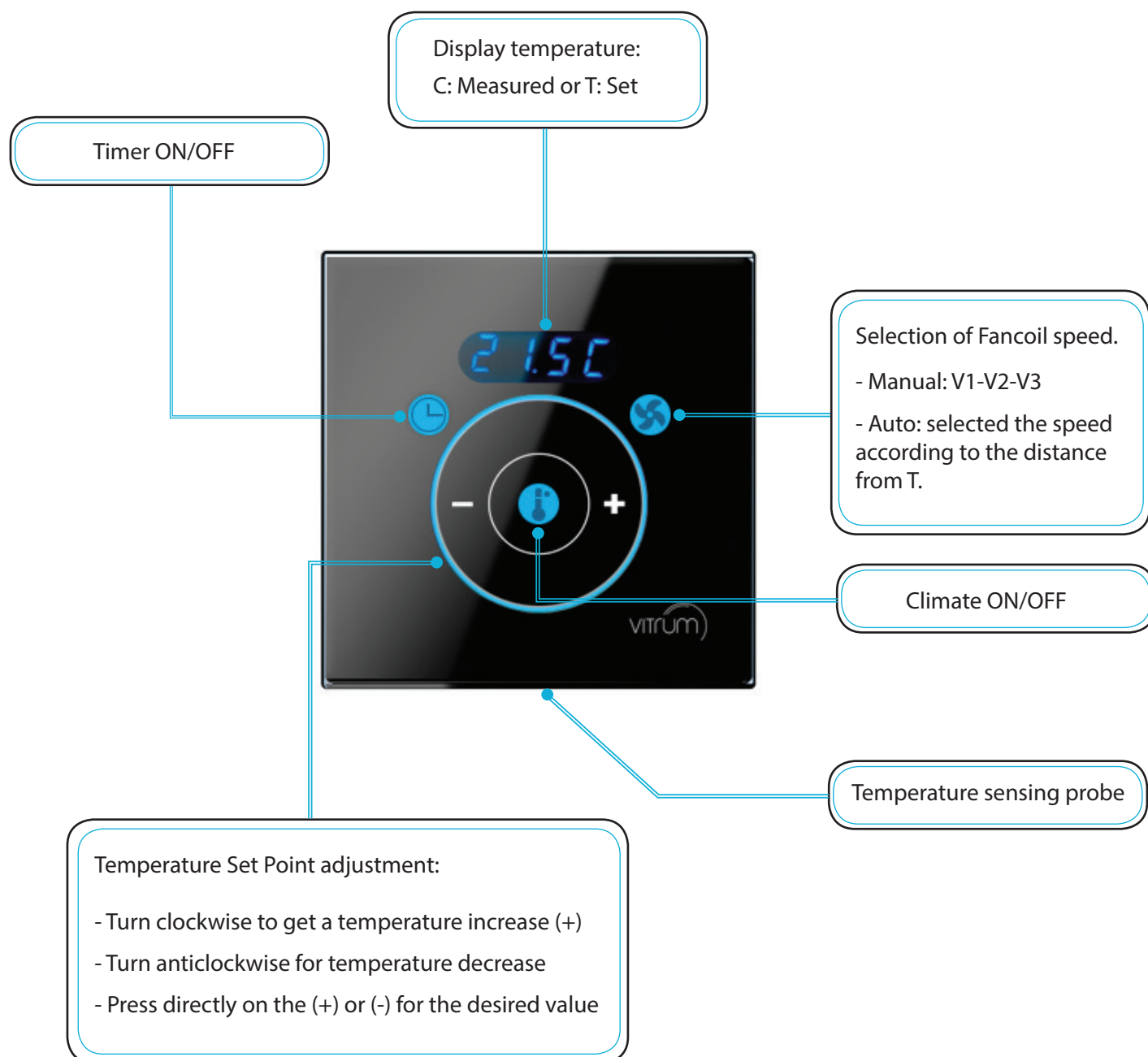
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## 1. FUNCTIONAL SPECIFICATIONS AND INFO

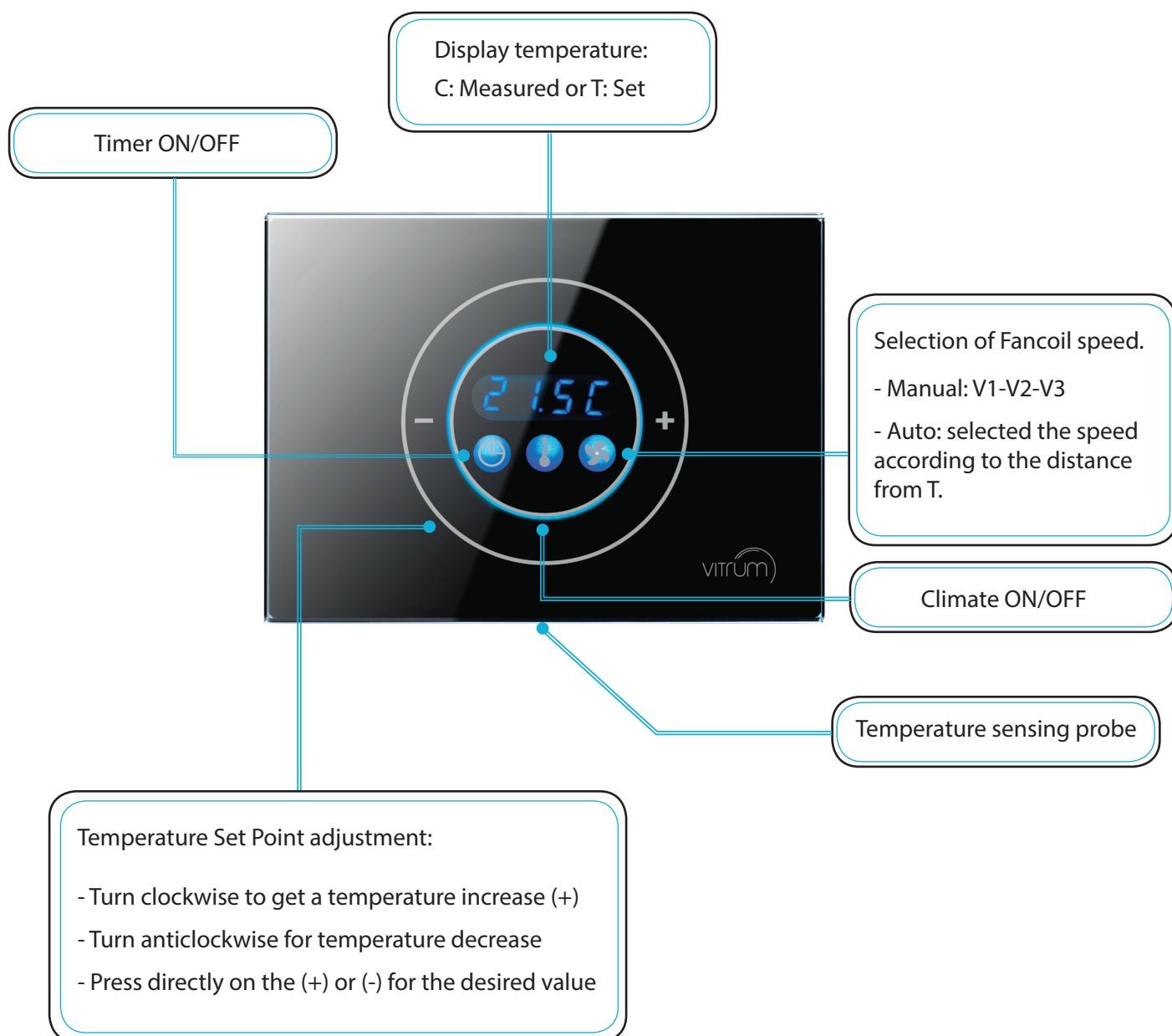
- The ICU700 device is setup and ready to be connected and work immediately.
- The CLIMA CONTROL , allows to manage every type of climate configuration (Plant), referring to the diagram based on Pag. 6 (Fig.1).
- On the alphanumeric display it is possible to read the temperature "Set" (when changing a set point) or the temperature "Detected".
- Buttons "+" and "-" are used to manual setup the desired temperature. Desired temperature can be set within a certain range based on Summer or Winter set:  
 Summer: min 15° - max 29°  
 Winter: min 10° - max 29°
- By the CLIMA CONTROL, it is possible to assign the address to the ICU.
- Multiple ICU can be installed in the same environment: in this case it is important to set different addresses to the various ICU. On the same environment multiple ICU can be installed and set in different climate configuration (single pump, fancoil etc...).
- Every ICU + CLIMA CONTROL works in stand alone mode. In case a supervisor is required (HomeMaster router and iPad application), all the ICU must communicate on 485 Bus with the HomeMaster device.
- Timer function is available. Weekly and daily basis setup is available from the iPad application program.
- Minimum Temperature adjustable step is 1°C.
- When the control through water pumps is selected (plant type A/0 and F/3/4/5), the algorithm in use is hysteresis based on +/-0,3° referring to the desired Set Point (DB parameter).
- When the control through fancoils is selected (plant type B/1, C/1, D/2 and E/2), the algorithm in use is called Proportional Integral (PI). Parameters connected to this mode are HG, HI, HP, H3 and H6.

<b>cod</b>	<b>Description</b>	<b>default</b>	<b>range</b>
DB	Dead zone used on pump usage (on-off). 1° corresponds to 9 units	6	1-20
H3	Fan speeds change from V1 to V2	33	2-99
H6	Fan speeds change from V2 to V3	66	1-99
HG	Temperature gain	25	5-40
HI	Integral time	15	5-30
HP	Hysteresis fancoil speed selection	4	0-19
UU-VV	Fancoil max speed	3	0-3

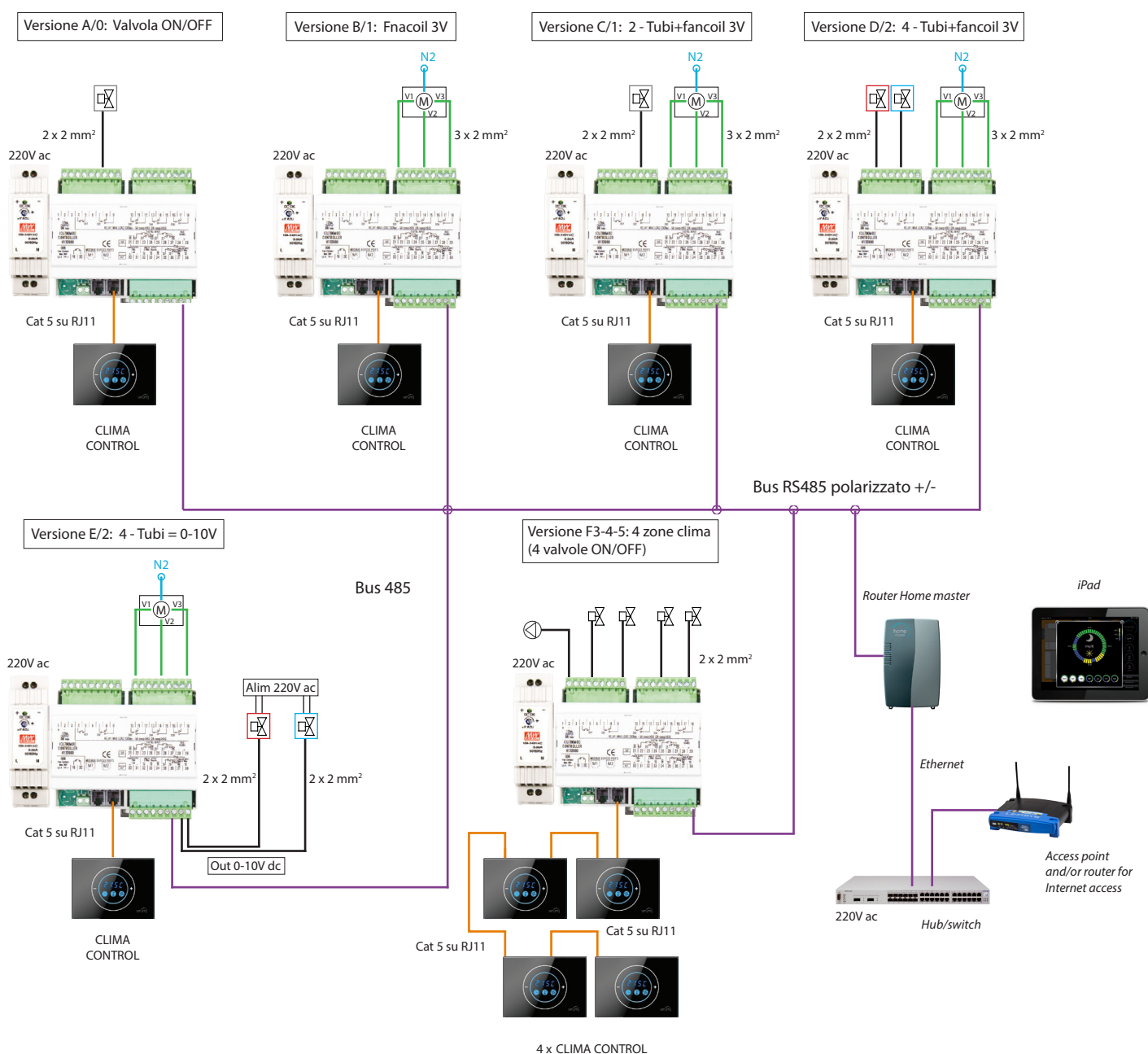
## 2. FEATURE CONTROL PANEL VERSION "BRITISH"



### 3. FEATURE CONTROL PANEL VERSION "EU 503"



## 4. DIAGRAMS CLIMATE CONTROL (Fig.1)






## 5. CONFIGURATION

The required steps are: **address** the ICU700 and **set** the **type of Plant** in use.

There possible **Service Menu** to select are the following:

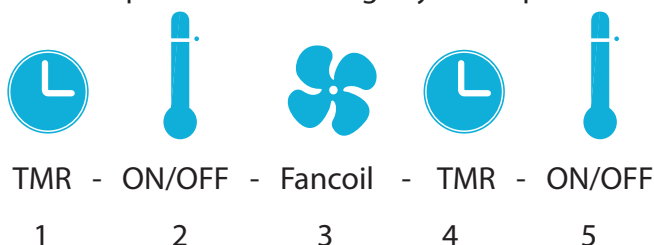
- the Season in use " **Summer** or **Winter** "
- the type of Climate configuration (referring to the diagrams of fig.1) and Address setup.

### 1a. Season Change:

- Press and hold " ON/OFF "  for 6 second to access the season menu.
- The display will shows the season previously set :  
SUMM = Summer  
UINT = Winter
- Press " TMR "  to select the desired season.
- Press "  " key to **save** and **exit**. If not, after 10 second the system will exit automatically without saving the modifications.

### 1b. Selection of system type - refer to the diagrams (fig. 1)




- press the following keys in sequence :



Repeat the sequence in case the setup menu does not appear immediately.

- When the menù appears, the display will show the type of selected plant (ref. fig. 1)

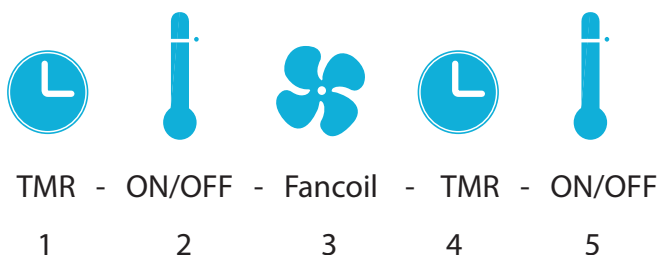
<b>CL0</b>	ref. diagram fig.1 = <b>A / 0</b>
<b>CL1</b>	ref. diagram fig.1 = <b>B e C / 1</b>
<b>CL2</b>	ref. diagram fig.1 = <b>D e E / 2</b>
<b>CL3-4-5</b>	ref. diagram fig.1 = <b>F -3-4-5</b> depending on how many valves/con4 are used (2, 3 or 4 valves/zones)

- Press " TMR "  to decrease (-)
- Press " Fancoil "  to increase ( + )
- Press "  " key to save and exit. If not, after 10 second the system will exit automatically without saving the modifications.


### 1c. Address of ICU700 device:



Every ICU700 installed must be addressed with a progressive number. Default address is 001.

To change or control the address, use the same sequence to enter the setup menu:



Repeat the sequence in case the setup menu does not appear immediately.

When the Menu appears (example: CL0) press "ON/OFF "  to access to the second menu related to the address setup: A001 will appear.

- Press "TMR "  to decrease (-)
- Press " Fancoil "  to increase ( +)

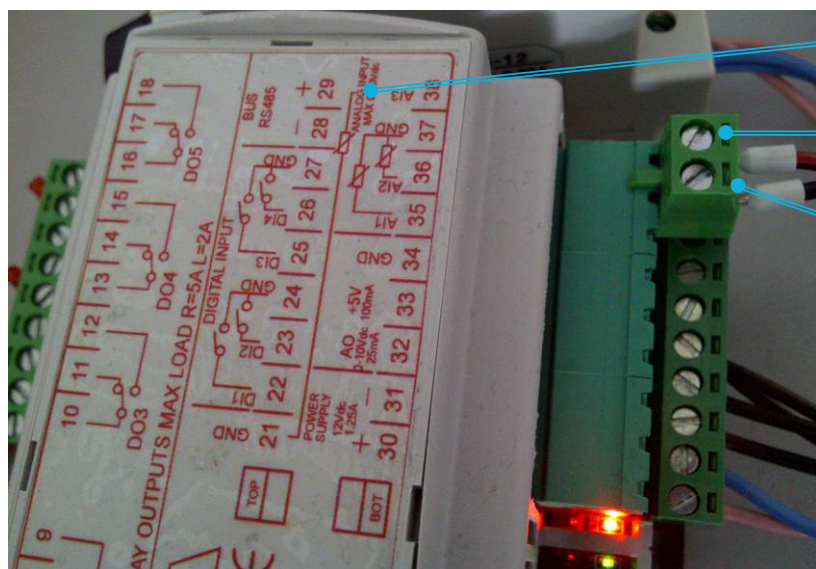
Possible values are between 001 and 999.

- Press "  " key to save and exit. If not, after 10 second the system will exit automatically without saving the modifications.



## 6. BUS CONNECTION

View of BUS connection on ICU700 side:

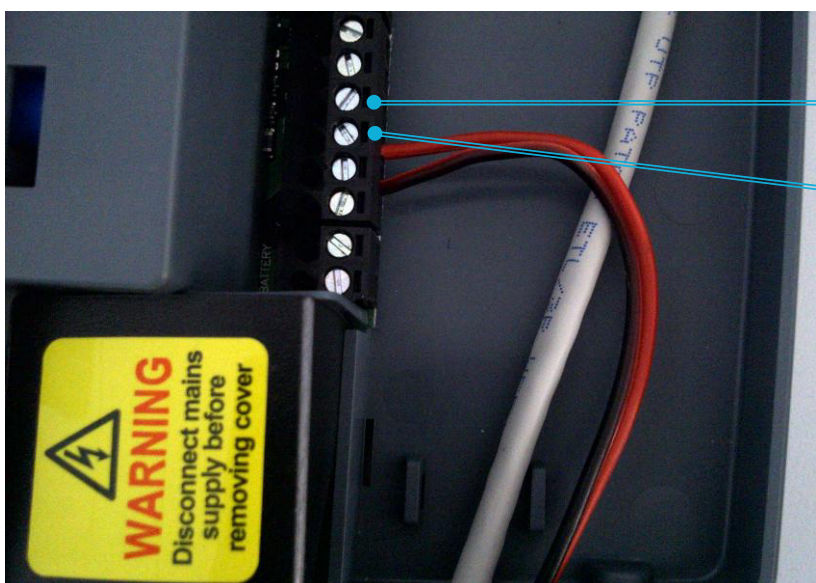


Label of BUS connection

Bus positive  
(1<sup>st</sup> on top right)

Bus positive  
(2<sup>nd</sup> on top right)

View of BUS connection on HMR side:



Bus positive  
(5<sup>th</sup> on top right)

Bus positive  
(4<sup>th</sup> on top right)

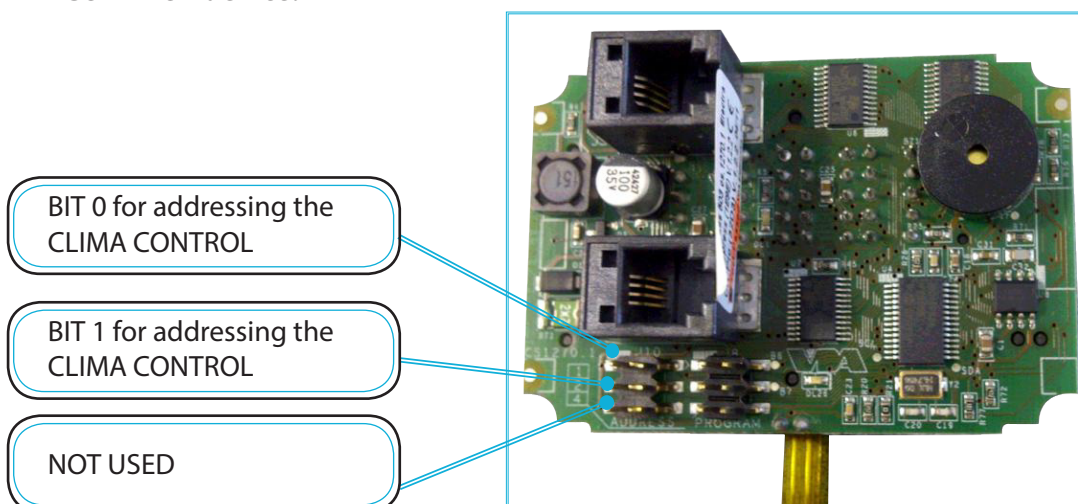
## 7. MULTI-ZONE TEMPERATURE, CLIMA CONTROL ADDRESSING

A single ICU700 can control up to 4 different zones; the different zones can be set in the mode ON/OFF pump control.

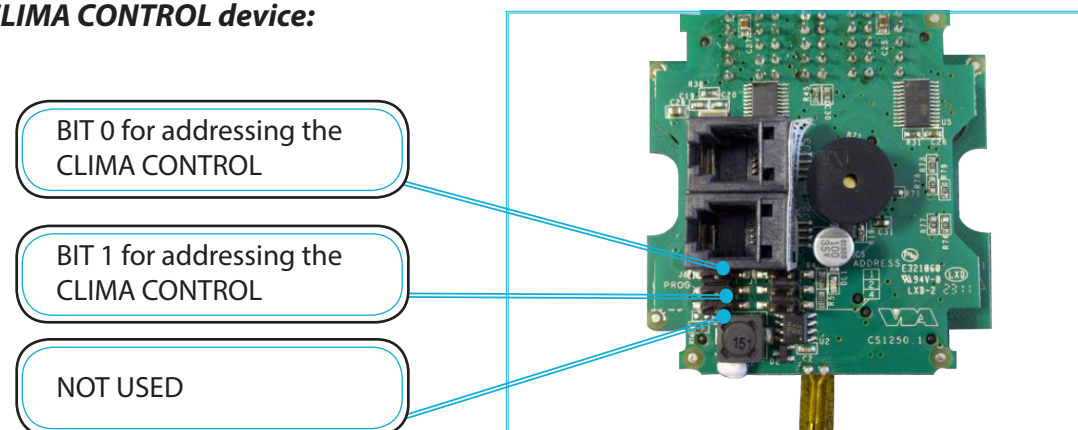
The number of zone must be assigned from 1 to 4 with a binary combination directly in the back of each CLIMA CONTROL. Every CLIMA CONTROL is supplied with 2 jumpers that must be used according to the zone required.

Zone 1	- no jumpers required	- binary code: 00
Zone 2	- 1 jumper required	- binary code: 01
Zone 3	- 1 jumper required	- binary code: 10
Zone 4	- 2 jumpers required	- binary code: 11

### ***EU 503 CLIMA CONTROL device:***

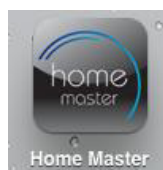


### ***BRITISH CLIMA CONTROL device:***



## 8. IPAD FUNCTIONALITIES AND TIMER SETUP

**Home Master** is the application used to control the Vitrum devices and the Temperature Controller.

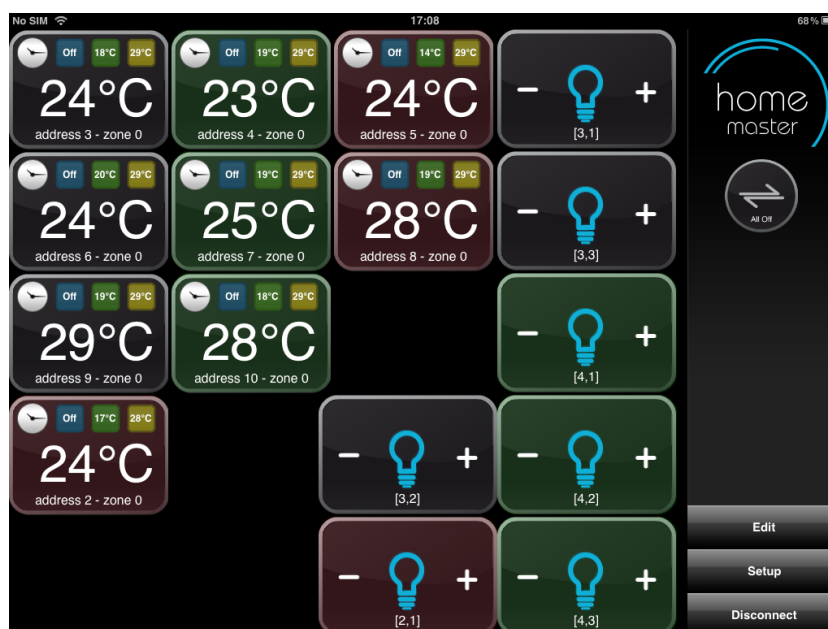


The Temperature Controller is displayed with the following icon:



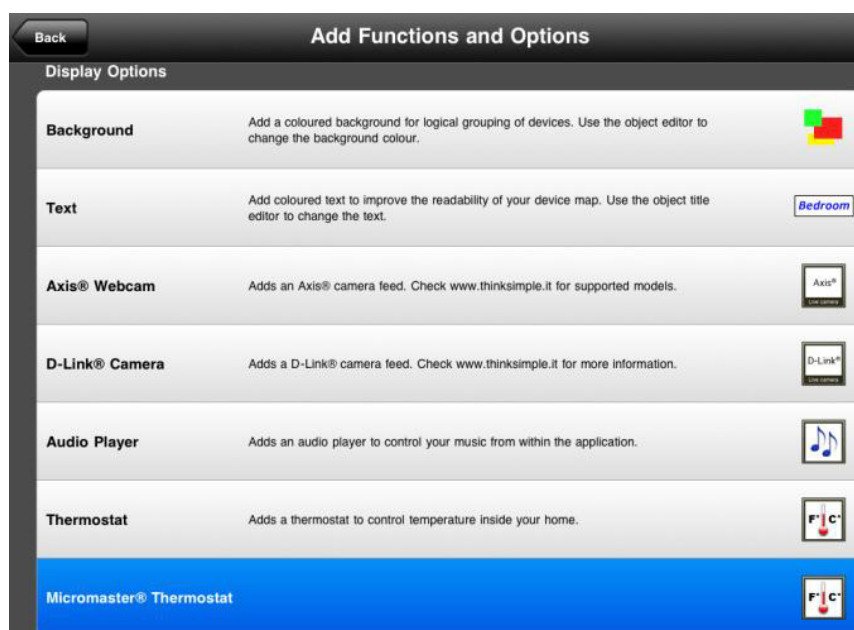
Detected temperature and status of the system are reported live with a refresh withing 10 sec. In case of multiple Temperature Controller this time could be higher according to the number of devices that need to be polled.

An example of application set with multiple temperature controller is displayed on the picture below: every ICU + CLIMA CONTROL (9 pieces) are reporting directly to the dedicated temperature controller and a general view of the system is immediately available.

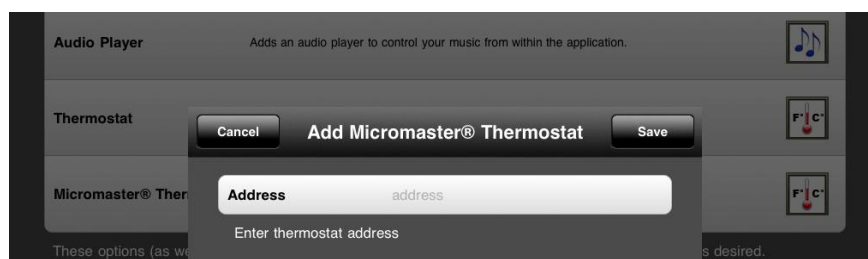


To enter a new Temperature Controller Widget on the main panel, select **Setup – Add Functions and Options** and select **Micromaster® Thermostat**.

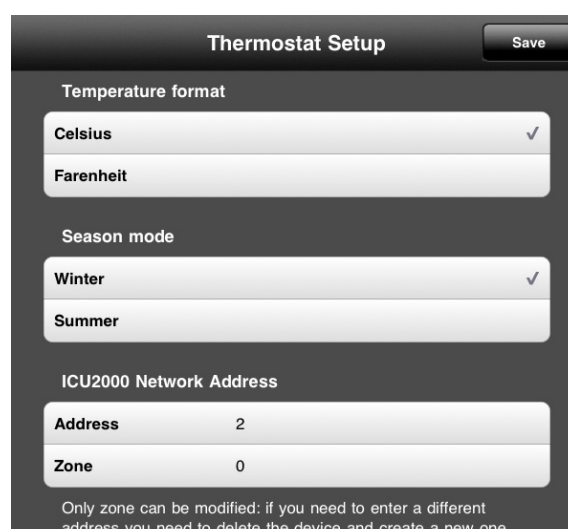
Choose the number of zones according to the plant in use, from 1 up to 4 different zones.



The following windows will appear where the same address assigned to the ICU device must be entered (range 1 – 999).



When the Widget appears (after 30 seconds), by pressing and holding the finger on the widget itself, the following menu will pop-up where the following choices can be made.

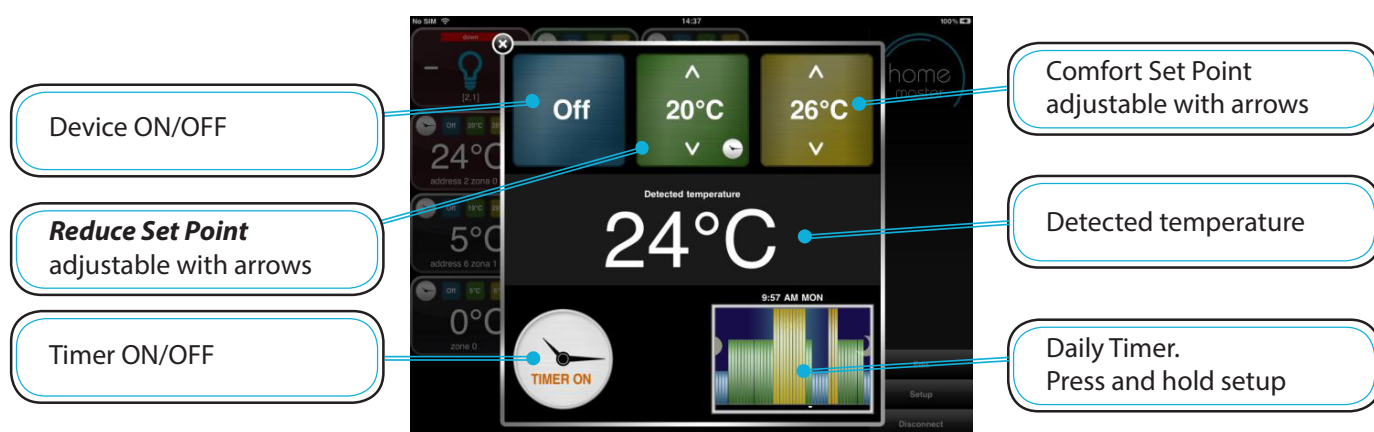


**Important:** the Season mode will effect automatically also the ICU devices without need to manually set them through the CLIMA CONTROL.

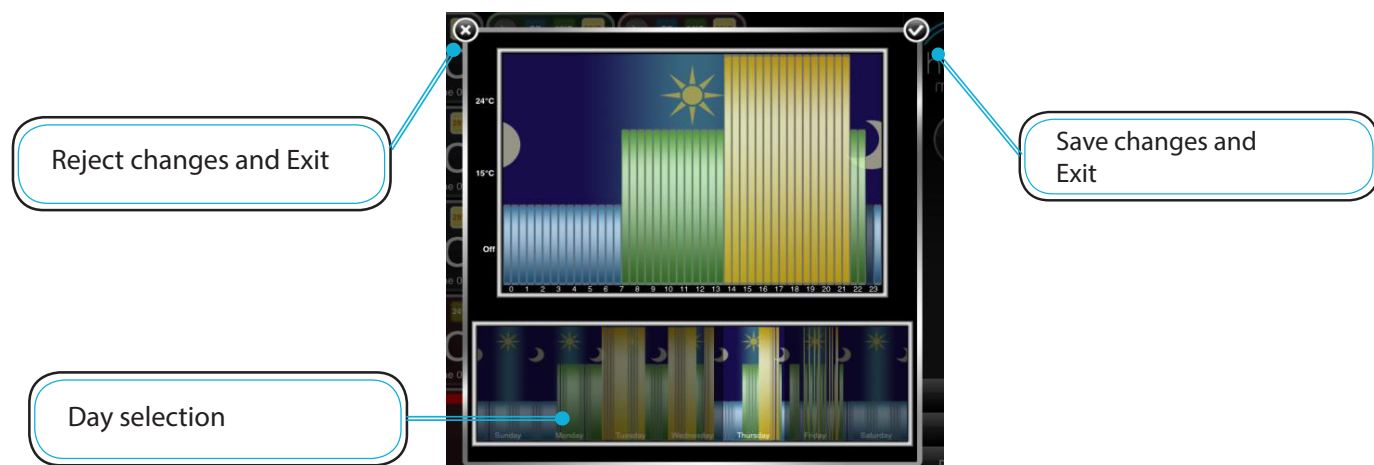
**Zone:** it correspond to the different zones controller by the same ICU and different CLIMA CONTROL. Default is 1 in case of just 1 zone; other values can be 2 (2<sup>nd</sup> zone), 3 (3<sup>rd</sup> zone), 4 (4<sup>th</sup> zone). Zone set on the CLIMA CONTROL depends on the hardware bridge (jumpers) in the back of the device (see previous chapter).

By clicking on the single Temperature Controller Widget, the view will expand in order to be able to perform different actions:

- control the system by **ON/OFF**, **Set Point** and **Timer activation**
- set the desired Set Point to a certain temperature
- Setup the Timer



When Timer is activated, by pressing and holding the timer icon, it is possible to edit the days and the timer set. With the finger simply change for every day of the week, and every half-an- hour the desired set point choosing between: switch-off, reduced and comfort set point.





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