Regulation



WI-SA CONTROL UNIT USER MENU

Electronic regulation unit







TECHNICAL MANUAL

SAFETY WARNINGS

SAFETY WARNINGS

Carefully read this booklet before starting and/or using the appliance and keep it in an easily accessible place .

Contact the manufacturer's technical office at the numbers indicated at the back of this booklet for consultancy or special technical requests.

Installation and maintenance must be carried out only by qualified personnel or else the guarantee will be void.

• Use only original spare parts: Failure to comply with this instruction will make the guarantee void

DISPOSAL



According to the provisions of the following European directives 2011/65/EU, 2012/19/EU, and 2003/108/CE, concerning the restriction of the use of certain hazardous substances in electrical and electronic equipment, as well as waste disposal.

The crossed out wheelie bins symbol on the equipment indicates that, at the end of its useful life, the product must be collected separately from general waste.

Therefore, at the end of its useful life, the user must take the equipment to a designated electrical and electronic waste collection point , or return it to the dealer that, against the purchase of an equivalent appliance, it is obliged to collect the product for disposal free of charge.

Appropriate differentiated waste collection for subsequent recycling, treatment and environment-friendly disposal of the discarded equipment helps preventing possible negative environmental and health effects and encourages recycling of the component materials of the equipment.

Illegal disposal of the product by the user entails the application of sanctions provided by the regulations in force.

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PRESENTATION

WI control unit is customisable and can be used to manage up to 8 mixing systems, 64 climate zones with 64 independent dehumidifiers and control up to 8 air handling units (AHU) with the dehumidification, ventilation, air renewal and integration functions.

Moreover, it can be used in the following operating modes:

- **AUTONOMOUS MODE:** to be installed on systems with independent power production.
- **SLAVE MODE:** to be installed on systems with centralised power production. This configuration provides for the use of WI.MASTER.NET control unit.

The illustrated user manual describes all the possible operating modes.



GENERAL DESCRIPTION

- The control unit is structured in two "access levels":
- "basic": the user can enter the desired temperature values, daily and weekly operating time slots, etc. The data entered are essential for the control unit to meet the user's requirements.
 - **"advanced"**: password-protected, where all the machine settings are configured. These can be accessed only by specialised technicians, since incorrect value entries generate malfunctions. The settings configured by the specialised technician (using the dedicated menu) will allow displaying only the necessary screenshot in the user menu, hiding the other ones for clarity and ease of use.

The control unit is quick and easy to use, since the user is guided through the reading and data entering processes by clear flashing symbols that help selecting which buttons to use (refer to **Table A** - Flashing symbols).

The procedure to enter data is the same for every screenshot, except for some display screenshot that only allow accessing system operation information that cannot be changed.

Table A - FLASHING SYMBOLS			
MOVING ICONS			
When the mouse cursor is blinking	Pressing the button	What happens is	
.	◆ or ◆	You can access the following or previous screenshot	
-	~	You can access modifiable fields within the current screenshot	
Е	Esc	You can go back to the previous menu	
×	◆ or ◆	You can access the following field (where present)	
*	~	You can access the sub menus	
VALUE FIELDS			
example:	◆ or ◆	You can decrease / increase the value (e.g.: from "24°C" to "25°C")	
24°C	~	You can confirm the value and proceed to the next field	
TEXT FIELDS			
example: Off/	◆ or ◆	You can change the current setting (e.g.: from "ON" to "OFF")	
On	~	You can confirm the value expressed by the text and proceed to the next field	

SUMMARY OVERVIEW OF THE SCREENSHOT





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I FUNCTIONAL OVERVIEW OF THE SCREENSHOT

то	THIS IS TH TO	E SCREENSHOT TO REFER
INFORMATION ON: Type of Hardware, board address, type of program, program version.	i	Info: Address:1 Ident:001 Board:UC2 Device:WI-SA Rel: X.X.X Design Release: <mm-yyyy></mm-yyyy>
DISPLAY THE MAIN SCREENSHOT Program version, Season, General Activation, Date.	0	[Wi-RDZ] _{2.2} []]]]]] [] []]]] []]]]]]] []]]] []]] []]] []] []] []] [] [] []] []
SWITCH OFF ALL SYSTEMS Off: Control unit general switch-off On: Control unit general start-up N.B. Screenshot present only in configurations with more than one mixing system	1	<pre>\$ GEN.ON-OFF: On Activation Off-On General</pre>
MANAGE SYSTEMS AND ZONES System-Zone function selection menu: Status / Set / Readouts / Programming	2	< <syst-zone menu="">> Systems/Zones Menu</syst-zone>
MODIFY THE SYSTEM (ON/OFF) AND ZONE (ON/OFF/PGM/PGM-MAN) STATUS	2.1	 [SYST-ZONE STATUS] Set System and zone start-up mode
MODIFY THE SYSTEM STATUS Off: System and associated zones switch-off (the system is automatically activated when the control unit detects a temperature lower than 5°C – anti-freeze function) On: System activation.	2.1.1	 SYSTEM STATUS 01 SYS[1] On No:08 Zones * Activation Status Systems and Zones
 MODIFY A ZONE STATUS AND ITS REMOTE TERMINAL BLOCK Off: Zone switch-off. Man: Zone start-up according to the settings. Pgm: Zone in programming mode (Zone start-up according to the timeslots and set point set in the programming menu). Pgm/Man: Zone in manual programming mode (Zone start-up according to the timeslots set in the programming menu and temperatures set manually). Unlocked: Allows modifying the settings from the remote terminals. Locked: Inhibits the option to modify the settings from the remote terminals. 	2.1.1.1	ZONE 2 ZONE STATUS Image: Status and block setting

MODIFY SYSTEM, ZONE AND AHU PARAMETERS	2.2 2.2.1	 [SET SYST-ZONE] SET SYST-ZONE] Set system and zone values Set system and zone values Set VALUES SYS[1] * SYS[1] * N°:02 Zones * AHU * UXBUS_XX Modify system & Zone Set values
This parameter manages the shift that can be introduced in the system delivery temperature calculation obtained through the compensation line.	2.2.1.1	Parall shift: 0.0°C ID-Remote:*
MODIFY DIGITAL INPUTS Digital input modification by changing their intended use and identification of the contact status with idle component.	2.2.1.1.1	Type of signal Wi-Ml digital inp. N/N 0/0 ID1:Season →NO ID2:General On-Off →NO ID3:→NO ID4:→NO
MODIFY ZONE PARAMETERS Temperature and humidity parameter setting (if dehumidifier is present) of the zones in MANUAL or PROGRAMMING MANUAL operation.	2.2.1.2	\$ZONE 1 Set Sum Val 22.0 55 25.0 55 \$Setting 24h manual setpoints
CHANGE AHU PARAMETERS Activate or deactivate the integration function and set the relevant functioning temperatures; if there is an air quality sensor , set the reference value of CO2 to activate the renewal function.	2.2.1.3	AHU[1] Set AHU Act.Sum:No Act.Win:No Integr. diff:03.0°C Neutral air:22.0°C CO2:30%
Ux READINGS/SETTINGS: Unit type selected (Ux) and identification address. CO2: Displays the value of Co2 (with probe A present)	2.2.1.4	<pre>\$ UxBUS_02 UC12 Readings: : * Settings: : * CO2 : 26.8% - Id-01 Ver.: 000 Rev. 0000</pre>
TEMPERATURE READINGS for UxBUS_xy (xy = unit index) Supply Temp: Delivery air temperature. Water Temp: Inflow water temperature. Conden Temp: Gas condensation temperature. Evapor Temp: Gas evaporation temperature. External temp: Reading of the outside temperature Operation status Image:	2.2.1.4.1.1	UxBUS_01 UC11 Temperature Readings Supply temp.:000.0% Water temp.:000.0% Conden.temp.:000.0% Evapor.temp.:000.0% Extern.temp.:000.0% EXTERN.TEMP.:000.0%

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FAN READINGS for selected Ux: rpm Room: Rotation speed of the supply fan. rpm Exhaust: Rotation speed of the expulsion fan. Press Tran. A: Transducer A differential air pressure reading Press Tran. B: Transducer B differential air pressure reading H2O Pos. Valve: H2O Valve position.	2.2.1.4.1.2	UxBUS_01 UC11 Fans Readings rpm Room :00000 rpm Exhaust:00000 Press. Tran. A:0000.0 Press. Tran. B:0000.0 H20 Pos. Valve:00000
DEFROSTING READINGS for selected Ux: Defrost ON/Off: It shows the defrosting status Num. Defrost: It shows the number of defrosting cycles already performed	2.2.1.4.1.3	UxBUS_01 UC11 Reading defrost Defrost ON/Off: 000 Num. Defrost: 000
 DA PARAMETERES READINGS for selected Ux: Superheat Temp: Overheating temperature H2O P Pos.Valv.: Position of the water valve for the pre-treatment coil H2O C Pos.Valv.: Position of the water valve of the condensation coil 	2.2.1.4.1.4	UxBUS_01 UC11 Parameters Readings Superheat Temp: 00.0° H20 P Pos.Valv.: 100% H20 C Pos.Valv.: 100%
UNIT INFO READINGS: Free Cooling connection type. Pre: Free Cooling air inlet before coils. Post: Free Cooling air inlet after coils.	2.2.1.4.1.5	UxBUS_01 UC11 Unit Info FreeCooling: Pre
GENERAL INFORMATION for SELECTED Ux: ID Ux: Modbus net index. Model: Ux Model. Ver: Software version installed. Rev: Software revision installed. Inst. dx/sx: Left / right installation (* Only for WHR units).	2.2.1.4.1.6	<pre> UxBUS_01 UC11 Readings ID UxBUS:09 - Modbus Model:- Rel:xxx Rev:0000 Inst. dx/sx (*) </pre>
General Information on the selected Ux: Hour fun.filt.: Indicates the machine operating hours for the filters in use. (* Only for WHR units).	2.2.1.4.1.7	UxBUS_01 UC1 Filters Readings Hour fun.filt.: 0000
GENERAL SETTINGS for SELECTED Ux: Cool supply temp: Summer supply temperature setting. Heat supply temp: Winter supply temperature setting. Room flow rate: Room flow rate setting.	2.2.1.4.2	UxBUS_02 UC12 Configuration Cool supply temp:25.0°c Heat supply temp:21.0°c room flowrate:040%
READ THE SYSTEM, ZONE AND AIR HANDLING UNIT PARAMETERS	2.3 2.3.1	 [SYST-ZONE READOUTS] [SYST-ZONE READOUTS] [Measured Syst/Zone Value readouts] Measured Syst/Zone Value readouts READOUTS Cei SYS[1] * AHU * UXBUS_XX [SYS[1] * AHU * UXBUS_XX [System Zone values]

READ SYSTEM PARAMETERS Mix: Mixing valve activation percentage Ext: External temperature Del: Delivery Temperature Calc: Calculated Delivery Temperature System pump activation status Energy source (boiler-chiller)	2.3.1.1	<pre>\$\$YST[1] ★ ₽#</pre> Mix: 087% Ext: 27.6 Del:18.2 Calc:20.0 09:10 Floor
READ ZONE PARAMETERS Zone status: Off / On / Pgm / Pgm-Man; Start-up status T: Temperature / D: Dehumidification / H: Humidification / [V:Ventilation / R:Air Renewal]; b: Boost; f: Free Cooling; Com: Comfort Programming CM: Comfort Index Eco: Economy Programming; Measured Temperature; Measured Humidity (only for TA/H sensors)	2.3.1.2	\$ZONA 1 * • </td
READ AHU PARAMETERS Start-up status [D:Dehumidification/ H: Humidification / V:Ventilation / R:Air Renewal] System pump activation/deactivation Integration activation/deactivation En.Mix:Mixing calculation enabled Del: Value detected by the duct sensor Cal: Calculated mixing Temperature Out: Mixing valve output value Mix: Mixing valve opening percentage En.CO ₂ : Presence of the air quality sensor CO ₂ : CO ₂ percentage value detected by the duct sensor QA-Bad: Too much CO ₂ in the air Set: Threshold for the quality of clean air	2.3.1.3	<pre> AHU[1] AHU Readouts En.Mix:No Del:53.7°C Out:00.0V Calc:22.0°C Mix:000 % En.CO2:No QA-Bad:No CO2: % Set:30.0% </pre>
Ux READINGS/SETTINGS: Unit type selected (Ux) and identification address. CO2: Displays the value of Co2 (with probe A present)	2.3.1.4	<pre>\$ UxBUS_02 UC12 Readings: : * Settings: : * CO2 : 26.8% - Id-01 Ver.: 000 Rev. 0000</pre>
TEMPERATURE READINGS for UxBUS_xy (xy = unit index) Supply Temp: Delivery air temperature. Water Temp: Inflow water temperature. Conden Temp: Gas condensation temperature. Evapor Temp: Gas evaporation temperature. Evapor Temp: Reading of the outside temperature Operation status EXERCISE EXERCISE Dehumidification: E Evapor: E Dehumidification: E ON Integration: E E ON E E E E Supply Temp: Deliver E <td>2.3.1.4.1.1</td> <td>UxBUS_01 UC11 Temperature Readings Supply temp.:000.0% Water temp.:000.0% Conden.temp.:000.0% Evapor.temp.:000.0% Extern.temp.:000.0% EIEFFEE</td>	2.3.1.4.1.1	UxBUS_01 UC11 Temperature Readings Supply temp.:000.0% Water temp.:000.0% Conden.temp.:000.0% Evapor.temp.:000.0% Extern.temp.:000.0% EIEFFEE
FAN READINGS for selected Ux: rpm Room: Rotation speed of the supply fan. rpm Exhaust: Rotation speed of the expulsion fan. Press Tran. A: Transducer A differential air pressure reading Press Tran. B: Transducer B differential air pressure reading H2O Pos. Valve: H2O Valve position.	2.3.1.4.1.2	<pre>UxBUS_01 UC11 Fans Readings rpm Room :00000 rpm Exhaust:00000 Press. Tran. A:0000.0 Press. Tran. B:0000.0 H20 Pos. Valve:00000</pre>
DEFROSTING READINGS for selected Ux: Defrost ON/Off: It shows the defrosting status Num. Defrost: It shows the number of defrosting cycles already performed	2.3.1.4.1.3	UxBUS_01 UC11 Reading defrost Defrost ON/Off: 000 Num. Defrost: 000

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DA PARAMETERES READINGS for selected Ux: Superheat Temp: Overheating temperature H2O P Pos.Valv.: Position of the water valve for the pre-treatment coil H2O C Pos.Valv.: Position of the water valve of the condensation coil	2.3.1.4.1.4	UxBUS_01 UC11 Parameters Readings Superheat Temp: 00.0% H20 P Pos.Valv.: 100% H20 C Pos.Valv.: 100%
UNIT INFO READINGS: Free Cooling connection type. Pre: Free Cooling air inlet before coils. Post: Free Cooling air inlet after coils.	2.3.1.4.1.5	↓ UxBUS_01 UC11 Unit Info FreeCooling: Pre
GENERAL INFORMATION for SELECTED Ux: ID Ux: Modbus net index. Model: Ux Model. Ver: Software version installed. Rev: Software revision installed. Inst. dx/sx: Left / right installation (* Only for WHR units).	2.3.1.4.1.6	UxBUS_01 UC11 Readings ID UxBUS:09 - Modbus Model:- Rel:xxx Rev:0000 Inst. dx/sx (*)
General Information on the selected Ux: Hour fun.filt.: Indicates the machine operating hours for the filters in use. (* Only for WHR units).	2.3.1.4.1.7	UxBUS_01 UC1 Filters Readings Hour fun.filt.: 0000
WEEKLY PROGRAM	2.4	 [SYST-ZONE PROGRAM] Programming the Timeslots
SELECT THE SYSTEM TO BE PROGRAMMED	2.4.1	PROGRAMMING SYSTEM SYS[1] N°:08 Zones Set programs for selected system
SELECT PROGRAMMING T: Temperature D: Dehumidification (summer) / H: Humidification (winter) V: Ventilation R : Air renewal E: System economy ECO UCxx: UCxx economy AUX1: Auxiliary chrono 1 AUX2: Auxiliary chrono 2	2.4.1.1 2.4.1.2 2.4.1.3 2.4.1.4 2.4.1.5 2.4.1.6 2.4.1.7 2.4.1.8	 TEMPERATURE Modifying system and zone set values CONF/ECO CONF/ECO Modifying system and zone set values
MODIFY A PROGRAM OR SET A WEEK	2.4.1.1.1 2.4.1.2.1 2.4.1.3.1 2.4.1.4.1	TPR/Week ZONE Tmp Program type * Weekly program *

SET A PROGRAM Standard (STD), Weekday (WD), Weekend (WE), etc Copy a program	2.4.1.1.1.1 2.4.1.2.1.1 2.4.1.3.1.1 2.4.1.4.1.1	★⊠ From To Em 27.0 Tmp 07:30 12:00 25.0 Sum 13:00 17:00 24.0 Std 19:00 22:30 26.0 Image: Program timeslots
ASSOCIATE A PROGRAM TO THE DAYS OF THE WEEK Copy a weekly program	2.4.1.1.1.2 2.4.1.2.1.2 2.4.1.3.1.2 2.4.1.4.1.2	<pre>\$ZONE 1 Tmp X MO:Std TU:Std WE:Std TH:Std FR:Std SA:Fer SU:Fes ************************************</pre>
SET THE TIMESLOTS FOR ECONOMY MODE ON THE SELECTED SYSTEM	2.4.1.5.1	<pre> \$\$ \$Y\$[1] ECO NO FROM TO 05.0 IMP 07:30 12:00 ECO 13:00 17:00 19:00 22:30 Program timeslots </pre>
SET THE TIMESLOTS FOR ECONOMY MODE ON Ux	2.4.1.6.1	<pre></pre>
SET THE TIMESLOTS ACTIVATION FOR TWO EXTERNAL DEVICES THROUGH INTEGRATED RELAYS	2.4.1.7.1 2.4.1.8.1	AUX 1 ECO NO FROM TO 07:30 12:00 ECO 13:00 19:00 22:30
CHANGE SYSTEM AND PROGRAM SETTINGS	3	<pre>\$ << SETTINGS >> \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$</pre>
SET THE SEASON (SUMMER/WINTER)	3.1 3.1.1	 [SET SEASON] [SET SEASON] [Set season mode [SEASON [SEASON [Winter : [[] [Press PRG for Manual/Automatic
SET AUTOMATIC OR MANUAL CHANGE OF SEASON N.B. only for systems hydraulically set for automatic operation	3.1.1.1	Auto Auto Set change:22.0 °C Sampling:030 sec Neutral Tmp.:1.0 °C

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SET DATE AND TIME	3.2 3.2.1	<pre>\$ [SET DATE-TIME] \$ \$ \$ [SET DATE-TIME] \$ \$ \$ \$ Set Date and Time of the control unit \$ \$ \$ Set Date and Time of the control unit \$ \$ \$ Set Date and Time of the control unit \$ Set Date and Time of the control unit \$ Set Date and Time of the control unit \$ Set Date and Time of the control unit \$ Set Date and Time of the control unit \$ Set Date and Time of the control unit \$ Set Date and Time of the control unit \$ Set Date and Time of the control unit \$ Set Date and Time of the control unit \$ Set Date and Time of the control unit \$ Set Date and Time of the control unit \$ Set Date and Time of the control unit</pre>
SET A PERIOD WHEN THE SYSTEM MUST REMAIN OFF (E.G.: HOLIDAYS)	3.3 3.3.1	 [SET HOLIDAYS] Set holidays Holiday Timer HOLIDAYS Enable From:24 December 2010 To:05 January 2011 Set holidays timer
MODIFY SYSTEM NAMES OR FUNCTIONAL PARAMETERS	3.4	 [TECHNICAL MENU] Access TECHNICAL
SELECT WHAT TO MODIFY System Zone Dehumidifiers	3.4.1.1	<pre> <pre> <pre></pre></pre></pre>
MODIFY SYSTEM PARAMETERS Modify system name Modify settings: Climate Winter climate Summer climate Adjustment Type of structure (delta structure) Dynamic compensation	3.4.1.1.1 3.4.1.1.1.1 3.4.1.1.1.2	<pre> <um> System Names: * Settings * Settings * SYS Name 01 S Y S [1] SYS[1] 01 Setting Definition of parameters for mixing</um></pre>

MODIFY SYSTEM PARAMETERS Modify system name Modify settings: Climate Summer climate Adjustment Type of structure (delta structure) Dynamic compensation	3.4.1.1.2.1 3.4.1.1.2.2 3.4.1.1.2.3 3.4.1.1.2.4 3.4.1.1.2.5 3.4.1.1.2.6 3.4.1.1.2.7	<pre>\$YS[1] Climate 01 Type:External/Room Season:Win + Sum: Climate and season \$Climate and season \$SYS[1] WinComp 01 Min Max Off TExt:-05.0 20.0 0.0 TDel:45.0 22.0 \$Winter compensation curve \$SYS[1] SumComp 01 Min Max Off TExt:23.0 32.0 0.0 TDel:20.0 15.0 \$Summer compensation curve \$SYS[1] Adjustment 01 \$Summer compensation curve \$SYS[1] Adjustment 01 \$Summer: 2.0 10 Winter: -2.0 -10 \$Eco. adjustment Manual program \$SYS[1] DELTA STR.01 Delta Structure: 2.0 \$Type of screed \$SYS[1] DynComp 01 Enable:Yes Pilot:01 KDSum:3 KDWin:03 TMin:10.0 TMax:50.0 \$Room dynamic compensation \$UMMER WINTER TMin:10.0 TMax:50.0 \$Room dynamic compensation \$Compensation \$COMPENSENCE \$C</pre>
MODIFY ZONE PARAMETERS Modify zone name	3.4.1.1.2	‡ ZONE Name 01 ZONE 1
MODIFY DEHUMIDIFIER PARAMETERS Modify dehumidifier name	3.4.1.1.3	DEHUMID. Name 01 AHU[1]
QR-CODE / MANUALS DOWNLOAD Scan the QR code to access updated manuals in digital format.	4	DOWNLOAD MANUALS

ć info

ACTIONS ON THE MENUS

In the following pages are described all the user menus. The screenshot is presented with a brief description of its features and symbols.

EXAMPLE

ADDRESS 2 SYSTEM-ZONE MENU/ 2.2 SYSTEM-ZONE SET / 2.2.1 SET VALUES/

2.2.1.2 ZONE SET VALUES SCREENSHOT



By accessing the "Set Sum. (Summer)/Win (Winter) values" submenu, you can establish the Temperature/Humidity comfort values (the latter only in summer) for the various zones. These values come into play when the zone activation status is "**Man**" (see 2.1.1.1 - "Zone Status"). The zone and dehumidifier activation behaviour, together with the activation differentials and setpoints, are schematically summarised in figures 2.2.1, 2.2.2, 2.2.3 in the following page, where the temperature and humidity values of the relative season are considered. As for the sets, the system "On" and "Off" statuses are indicated.

Table of variables			
No.	Descr	iption	
0	Tempe	erature v	alue
0	Humidity value		
Table of movements			
Bu	tton	Screen	shot
(Esc	2.2.1	SET VALUES

The following are represented:

- on top the path to access the screenshot.
- in the centre a graphical representation of the screenshot with the relative interpretation of the variables.
- on the left a description of the screenshot and the directions for use.
- on the right two tables:
 - the first one describes the variables in the screenshot and the possible options.
 - The example shows the temperature and humidity values that can be modified.
 - The second represents the screenshot that can be accessed by pressing the various buttons. The example shows the screenshot that can be accessed; by pressing "ESC" you access the screenshot "2.2.1 Set Values".

SYMBOLS

\$\$\prod_ZONE 1 Set Sum Val \$\$\prod_Z5.0% 55% \$\$\$ Set settings \$\$\$\$ Set settings \$	The cursor flashes in a different way whether there are: - several systems ≑ in such case you can scroll through them) - only one system 🖪.
ON OFF By pressing the UP and DOWN	N arrows, the values shift from "off" to "on" and viceversa.
For further information on button and screensh with the thumb index:	ot functions, refer to the first few pages of the manual marked

INFO



By pressing **ESC+DOWN** simultaneously, you can assess the general information menu.

In this section you can view in succession: Address :Plan address.

Ident: Supervisor address.

Device : Name of the controller category.

Rel : Programme release.

Issue : Date of issue for the software.

0 *Main* **S***creenshot*



This screenshot is displayed in the following situations: • upon system start-up;

• after a settable amount of user inactivity time (the motion icon in the top left corner of the display flashes).

Warning!

This screenshot displays the system status and it cannot be modified.

For example, to activate the "Holidays - holiday timer" function, you need to access the "Holidays" screenshot ("3 Settings Menu" -> "3.3 Holidays") pressing the "ARROW DOWN", and set the activation and the start and the end of this period.

Table	Table of icons				
lcon	Description				
	The symbol \checkmark means that the protocol of the interface				
	connected with J5 is P-LAN.				
	The symbol \uparrow means that the protocol of the interface				
	connected with J5 is Modbus				
M	If this icon is visible, the "Antifreeze" mode is activated.				
X.X	Software version				
***	Season				
	₩=Winter ×=Summer				
8	Control unit activation status				
	🖴 = Activated				
	\blacksquare = Deactivated				
•	If this icon is visible, the "energy source" mode is				
	activated.				
	Output C1 activated				
C 2	Output C2 activated				
	Control unit in "holiday" mode				

Table of movements				
Button	Screensho	Screenshot		
Prg	2.4	PROGRAMMING		
	3	SETTINGS MENU		
•	2.3	READOUTS		
•	1	GENERAL ON-OFF		

\$ (GEN.ON-OFF:				
1	On	ON			
0	Activation C General		Off-On		

Warning! This screenshot is displayed only if the control unit manages more than one mixing system.

On: implies the activation of all the functions according to the settings of the various systems and zones configured.

Off: if you choose to deactivate the systems (general Off), everything will stop.

Should you wish to reactivate the system (general ON), the systems will start operating again according to the previously set status.

The activation mode is summarised in **"System and associated zones behaviour".**

Only the zones belonging to the system that were active before turning the system OFF are restored in their functionality.

Table of variables No. Description Image: Construction of the second system status on of the second system status on of the second system status of the second system st

Table of movements					
Button	Screen	Screenshot			
Esc	0	MAIN			
	0	MAIN			
•	1	GENERAL ON-OFF (Modify values)			
•	2	SYSTEM/ZONE MENU			

Behaviour of the system and associated zones

STATUS								FUNCT		/ATION		
General ON- OFF		System ON- OFF		ON-OF	ON-OFF-PGM-PGM/MAN Zone			SYSTEM STATUS		ZONE ST	ATUS (2)	
OFF	ON	OFF	ON	OFF	ON	PGM	PGM/ MAN	(1)	Temp.	Humidity	Ventil.	Renewal
Х		*	*	*	*	*	*	OFF	OFF	OFF	OFF	OFF
	Х	Х		*	*	*	*	OFF	OFF	OFF	OFF	OFF
	Х		Х	Х				ON	OFF	OFF	OFF	OFF
	Х		Х		Х			ON	SET	SET	PGM	PGM
	Х		Х			Х		ON	PGM	PGM	PGM	PGM
	Х		Х				Х	ON	SET + PGM	SET + PGM	PGM	PGM

Where the symbols used in the table have the following meaning:

X: situation of the setting.

*: irrelevant setting situation.

(1) SYSTEM STATUS:

• OFF: Deactivated system. Mixing is disabled and all the zones associated to the system are deactivated. Operates in ANTIFREEZE mode during winter.

• ON: Activated system. Mixing is enabled according to the calculated temperature setpoint. The system zones operate according to their set status.

(2) ZONE STATUS:

OFF: Deactivated zone function.

• SET: The zone is activated or deactivated according to the manual set. This status refers to both the temperature and humidity.

• PGM: Activation occurs according to the timeslots and corresponding sets.

• SET+PGM: Activation occurs according to the timeslots and manual sets.



Table of	Table of movements				
Button	Screenshot				
Esc	0	MAIN			
	1	GENERAL ON-OFF			
•	2.1	SYSTEM/ZONE STATUS			
♦	3	SETTINGS			

Through menu 2 "System/Zone Menu" you can:

- menu 2.1 = define the system operating status (On/Off) and of the zone it belongs to (Off/Del/Pgm).
- menu 2.2 = modify operating parameters that characterise the system and the zones (if set to Manual MAN).
- menu 2.3 = read all the operating values of the various systems and correlated zones.
- menu 2.4 = set every week the required temperature, humidity and functions (air renewal or ventilation) for every hour of the day in the various zones (if set during programming PGM).

Address	2 S YSTEM-ZONE MENU

2.1 System/Zone Status screenshot

[SYST-ZONE STATUS]				
				ţ Î.
2	Set System and Zone start-up mode			

Table of movements				
Button	Screen	Screenshot		
Esc	0	MAIN		
•	2	SYSTEM/ZONE MENU		
•	2.1.1	SYSTEM STATUS		
•	2.2	SYSTEM/ZONE SET		

Menu 2.1 "System/zone status" allows defining the operating status of the system and its zones.

Example

A house with a system associated to every floor: System 1 - Ground Floor System 2 - First Floor System 3 - Second Floor etc.

Every system (floor) is divided into zones that can be managed separately:

System 1 (ground floor):	System 2 (first floor):	System 3 (second floor):
Zone 1 - kitchen	Zone 1 - room 1	Zone 1 - bathroom
Zone 2 - living room	Zone 2 - room 2	Zone 2 - room 4
Zone 3 - laundry	Zone 3 - room 3	Zone 3 - study
etc.		-

For every system you can define the status (ON/OFF) and for every zone you can define the type of operation (OFF/MAN/PGM). **OFF**: zone Deactivated.

MAN: the zone is activated in Manual mode with the settings configured in menu 2.2 "System/Zone Set".

PGM: the zone operates in Programmed mode with the settings configured in menu 2.4 "Programming".

PGM/MAN: This zone functions in programming mode according to timeslots set in menu 2.4 "Programming" and temperature/ humidity set in menu 2.2 "System / Zone Setting".

Address 2 System-Zone Menu/ 2.1 System-Zone Status /

2.1.1 System Status Screenshot

This screenshot allows defining the operating status (On or Off) of the displayed system (e.g.: SYS[1]).

If the control unit manages more than one system, the screenshot pertaining to the configured systems will be displayed in sequence.

The cursor flashes on the top left corner; by pressing "ENTER" you can move it in the text field: by pressing "ARROW UP" and "ARROW DOWN" you can modify the setting in the field (e.g.: from "On" to "Off").

• **"Off" setting:** switches off the system (maintaining the ANTIFREEZE* function) and all the zones associated to it.

• "On" setting: starts the system according to the operating status of the associated zones.

Setting the system to "On" ensures the setpoint values set by the user in the zones in timeslots, outside of which the temperature setpoint attenuation shall be applied.

* ANTIFREEZE FUNCTIONS:

If the system is OFF and the control unit detects a zone with a temperature below 5° C, the system is activated to take it to 6° C. This function prevents damage to the system caused by frost.



Table	Table of variables			
No.	Description			
0	System status			
	ON			
	OFF			
2	Allows accessing the settings of the zones belonging			
	to the system			

Table of movements				
Button	Screenshot			
Esc	2.1	SYSTEM/ZONE STATUS		
~~~	2.1.1.1	ZONE STATUS		

Address 2 System-Zone Menu/ 2.1 System-Zone Status / 2.1.1 System Status /

2.1.1.1 ZONE STATUS SCREENSHOT

This screenshot allows defining the operating status of the selected zone.

The "**On**" status of the system allows the zones to operate according to the set operating status.

The status of the zones involves its deactivation: this status automatically switches off the zone, regardless of the set status of the selected zone.

The status enables zone operation according to the measured Temperature/Humidity and set setpoint (menu 2.2 "System / Zone Set").

The **Total** • status enables zone operation according to the timeslots and the Temperature/Humidity programming settings (*menu 2.4 "Programming"*).

The status **Pomes** activates the zone relating to the timeslots (*menu 2.4 "Programming"*) and to the manual settings for Temperature/Humidity (*menu 2.2 "System/Zone Set"*).

The **"Locked"** status locks setpoint modification from bus or wireless terminals.

The **"Unlocked"** status allows setpoint modification from bus or wireless terminals.



Table of variables			
No.	Description		
	Zone status		
0	MAR 🖴 = Manual		
	🖽 🕐 = Programming		
	PGMER = Manual programming		
6	Sensor block: appears only in presence of wireless or		
	bus terminals.		

Table of movements				
Button	Screenshot			
Esc	2.1.1	SYSTEM STATUS		

Warning! The zone operating status is always related to the status of the system associated to it!

If, for example, the system is Off, all the correlated zones will be deactivated.

2.2 System/Zone set screenshot

Menu 2.2 "System/Zone Set" allows modifying the operating parameters that characterise the system and the zones.

System variations: you can set the variation to introduce in the system delivery temperature calculation (parallel shift).

Zone variations: if the zone operates in Manual mode, you can set at which temperature and humidity it must be configured.

Example:

2.2.1

If you want "zone 1" to operate in Manual mode (to be set through menu 2.1" System / Zone Status"), at 24°C -> you must set this value in menu 2.2.1.2" Zone set values".

When in "zone 1" the temperature drops below the set value, heating is activated and will turn off once a temperature of 24°C is reached.



Table of movements				
Button	Screen	shot		
Esc	0	MAIN		
•	2.1	SYSTEM/ZONE STATUS		
•	2.2.1	SET VALUES		
•	2.3	SYSTEM/ZONE READOUTS		

Address 2 System-Zone Menu/ 2.2 System-Zone Set /

SET VALUES SCREENSHOT

<pre>\$\$\$\$ SET VALUES SYS[1] \$\$ S</pre>	SET VALUES SCREENSITOT
SYS[1] O* N°:02 Zones 2* AHU O* UxBUS_x Modify system & zone set values	SET VALUES
Modify system & zone set values	SYS[1] O* N°:02 Zones O* AHU O* UxBUS_X
	Modify system & zone set values

Table of variables			
No.	Description		
0	When it flashes you can access the "Parallel shifting" screenshot		
2	When it flashes you can access the "Zone Set Values" screenshot		
8	When it flashes you can access the "AHU Set Values" screenshot		
4	When it flashes you can access the "UxBUS_xx" screenshot		

Table of movements					
Button	Screenshot				
Esc	2.2	SYSTEM/ZONE SET			
~	2.2.1.1	PARALLEL SHIFTING			
(()()()	2.2.1.2	ZONE SET VALUES			
~~~~~	2.2.1.3	DEHUMIDIFIERS			
~~~~~~~~~~~~~	2.2.1.4	UxBUS_xx			

This section allows modifying the operating parameters that characterise the system, zones and air handling units.

2 SYSTEM / ZONE MENU

Address 2 System-Zone Menu/ 2.2 System-Zone Set / 2.2.1 Set Values /

2.2.1.1 *Parallel Shifting Screenshot*

SYS[1]	Set Sum			
Parallel	shift:0.0°C (
ID-Remote:* 2				

By accessing the system setting subscreenshot, you can set the "Parallel shifting" parameter according to the season operating mode.

This parameter manages the shift that can be introduced in the system delivery temperature calculation obtained through the compensation line.

Table	Table of variables				
No.	Descri	cription			
0	When	it flashes y	t flashes you can modify the value		
2	When screen	Vhen it flashes you can access the "Type of Signal" creenshot			
Table of movements					
Bu	Button Screenshot				
(Esc	2.2.1 SET VALUES			

DIGITAL INPUTS

(4)

2.2.1.1.1

Address	2 System-Zone Menu/ 2.2 System-Zone Set / 2.2.1 Set Values/ 2.2.1.1 Parallel Shifting	/
---------	---	---

2.2.1.1.1 DIGITAL INPUT SCREENSHOT

	- Type of signal Wi-M1 digital inpu	ıţ
_	N 0	/N /0
Q	ID1:Season -	NO
2	ID2:General On-Off 🚽	NO
ğ	B7:→	NO
4	B8:→	·NO

Table of variables				
No.	Descri	ption		
0	Digital	Input 1	Setting	
2	Digital Input 2 Setting			
8	Digital Input 3 Setting			
4	Digital Input 4 Setting			
Table of movements				
Button		Screen	shot	
(H	Esc 2.2.1.1 PARALLEL SHIFTING			

You can define the meaning of each of the 4 digital inputs on the WI-M1 board. The admitted values are:

- -----
- Chiller Alarm
- Boiler Alarm
- Remote thermostat for low temp. Sys.1
- Remote thermostat for low temp. Sys.2
- Remote thermostat for high temp.
- General On-Off
- Season
- boost UCxx1
- boost UCxx2
- Economy/Comfort

A value is allocated according to the chosen meaning **NO** (=normally open) **NC** (=normally closed)

N.B. For the expansion WI-Sx it is possible to configure only the inputs for low- and high-temperature call.

Address 2 System-Zone Menu/ 2.2 System-Zone Set / 2.2.1 Set Values/

2.2.1.2 Zone Set Values Screenshot



Table	of variables	Table of movements			
No.	Description	Button	Screenshot		
0	Temperature value	Esc	2.2.1	SET VALUES	
2	Humidity value (or Index Comfort)			,	

By accessing the "Set Values Sum. (Summer)/Win (Winter)" submenu, you can establish the Temperature/Humidity comfort values for the various zones. These values come into play when the zone activation status is "**Man**" (see 2.1.1.1 - "Zone Status"). The zone and dehumidifier activation behaviour, together with the activation differentials and setpoints, are schematically summarised in figures 2.2.1, 2.2.2, 2.2.3 in the following page, where the temperature and humidity values of the relative season are considered. As for the sets, the system "On" and "Off" statuses are indicated.



2.2.1.2	AHU SET VALUES SCREENSHOT
---------	----------------------------------

	‡AHU[1] Set AHU
1234	Act.Sum:No Act.Win:No Integr. diff:03.0°C Neutral air :22.0°C CO2:30%
	🖪 AHU parameter set

Table of movements			
Button	Screenshot		
Esc	2.2.1	SET VALUES	

Table of variables		
No.	Description	
0	Summer/Winter Integration Activation	
2	Differential for the integration activation	
8	Reference temperature for neutral air	
4	CO2 value according to which AHU keeps air renewal	
	on (only with QA sensor)	

ADDRESS 2 SYSTEM-ZONE MENU/ 2.2 SYSTEM-ZONE SET / 2.2.1 SET VALUES/

2.2.1.4	UxBUS_ xx S CREENSHOT



Table of movements			
Button	Screenshot		
Esc	2.2.1	READOUTS	
~	2.3.1.4.1	UxBUS_xx READOUTS	
~~~~	2.3.1.4.2	UxBUS_xx SETTINGS	

Table of variables			
No.	Description		
0	Enter the readings menu		
2	Enter the settings menu		
6	View CO2 value (with QA probe present)		
4	Referred to the Ux unit connected		
6	Referred to the software version installed in the unit.		
6	Referred to the number of the selected unit.		
7	Referred to the software revision installed in the unit.		

INDIRIZZO 2 SYSTEM-ZONE MENU/ 2.2 SYSTEM-ZONE SET / 2.2.1 SET VALUES / 2.2.1.4 UXBUS_XX



UxBUS_02 UC12 Configuration Cool supply temp:25.09 Heat supply temp:21.09

Cool supply temp:25.0 Heat supply temp:21.0 room flowrate:040%

Table of variables		
No.	Description	
0	Summer supply temperature setting	
2	Winter supply temperature setting	
8	Room flow rate	

Table of movements		
Button	Screenshot	
Esc	2.2.1.4	UxBUS_xx

Address 2 System-Zone Menu

2.3 System/Zone Readout Screenshot



Table of movements			
Button	Screenshot		
Esc	0	MAIN	
	2.2	SYSTEM/ZONE SET	
•	2.3.1	READOUTS	
•	2.4	PROGRAMMING	

Menu 2.3 "System/Zone Readouts" allows reading all the operating values detected by the various systems and zones correlated to them.

Address 2 System-Zone Menu/ 2.3	System-Zone Readouts /
---------------------------------	------------------------

2.3.1 Readout Screenshot



Table of movements			
Button	Screenshot		
Esc	2.3	SYSTEM/ZONE READOUTS	
~	2.3.1.1	SYSTEM READOUTS	
(()()(()(()()(()()(()()()(()()())()()())()())())())())())())())())())())())())())())	2.3.1.2	ZONE READOUTS	
(()(2.3.1.3	AHU READOUTS	
	2.3.1.4	UxBUS_xx READOUTS	

The Readout section allows displaying the essential SYSTEM and ZONE operating data.

Table of variables				
No.	Description			
0	When it flashes you can access the "System Readouts" screenshot			
2	When it flashes you can access the "Zone Readouts" screenshot			
8	When it flashes you can access the "AHU Readouts" screenshot			
4	When it flashes you can access the "UxBUS_xx Readouts" screenshot			

Address 2 System-Zone Menu/ 2.3 System-Zone Readouts / 2.3.1 Readouts /

2.3.1.1 System Readout Screenshot



Table of variables		
No.	Description	
0	Name of the system	
2	System Activation Status Activated Deactivated 	
8	Season 🔆 = Summer 🛛 🗰 = Winter	
4	Low Temperature production external request from a remote contact	
6	High Temperature production external request from a remote contact	
6	Mixing valve opening percentage	
7	External temperature	

Table of movements			
Button	Screenshot		
•	2.3.1.2	.1.2 ZONE READOUT	
Esc	2.3.1	READOUTS	

No.	Description		
8	Detected delivery temperature		
0	Detected calculated delivery temperature		
Ð	System pump activation status = Activated = Deactivated 		
Ð	Production activation status = Activated = Deactivated Production Type = Cooling = Heating		
Ð	Mixing valve activation status Activated Deactivated 		
B	It appears only in winter season P = Hot water produced through Heat Pump C = Hot water produced through Boiler		

ADDRESS 2 SYSTEM-ZONE MENU/ 2.3 SYSTEM-ZONE READOUTS / 2.3.1 READOUTS /

3.1.2	ZONE READOUT SCREENSHO

2



Table of movements				
Button	Screenshot			
Esc	2.3.1	READOUTS		

Table of variables				
No.	Description			
0	Name of the zone			
2	Season ※ = Summer ﷺ = Winter			
6	Off I / On Status of the digital output (potential free contact) available on the electronic board associated to the Zone. Related to the Zone energy supply according to the temperature setpoint. If the zone is in programming mode, the "Comfort" com or "Economy" com status is displayed with the programming set corresponding to the operating time.			
4 (A)	The zone dehumidification Off () On Status (available only when the Zone is configured with a TA/H sensor and a Dehumidifier). If the zone is in programming mode, the "Comfort" or "Economy" status is displayed with the programming set corresponding to the operating time.			
4 (B)	The zone humidification Off I / On Status (available only when the Zone is configured with a TA/H sensor and a humidifier). If the zone is in programming mode, the "Comfort" I on or "Economy" I on status is displayed with the programming set corresponding to the operating time.			
6	The zone ventilation Off I / I On Status (available only when the Zone is configured with a TA/H sensor and a Dehumidifier with ventilation).			
6	The zone Air Renewal Off 🖻 / 🖬 On Status (available only when the Zone is configured with a TA/H sensor and a Dehumidifier with Air Renewal).			

No.	Description
7	Dehumidification Pump in operation
8	Zone alarm active
0	Zone status $\Box = Off$ $\Box = On$
	 Programming Manual programming
10	Integration in operation
1	b = Boost in operating f = Free-Cooling in operation
Ð	Zone alarm active through external digital contact
B	Displays the Comfort/Economy status + desired Temperature
14	Displays the Comfort/Economy status + desired Humidity
Ð	Displays the Comfort Index
16	Measured temperature
Ð	Measured humidity (only for TA/H "temperature/ humidity" sensors).
B	Zone Temperature/ Humidity activation through external digital contact
19	r Indicates that the zone is replicated
20	Time
2	Type of terminal
Ð	Setpoint modification from terminal block

In this screenshot it is also possible to change the functioning status of the selected zone.

The "**On**" status of the system allows the zones to operate according to the set operating status.

The $\square \square \square$ \square status of the zones involves its deactivation: this status automatically switches off the zone, regardless of the set status of the selected zone.

The **IDE** e status enables zone operation according to the measured Temperature/Humidity and set setpoint *(menu 2.2 "System / Zone Set")*.

The **E** status enables zone operation according to the timeslots and the Temperature/Humidity programming settings (*menu 2.4 "Programming"*).

The status **Pomes** activates the zone relating to the timeslots (*menu 2.4 "Programming"*) and the manual settings for Temperature/Humidity (*menu 2.2 "Set Impianto/Zone"*).

2.3.1.3 **AHU READOUT SCREENSHOT**



Table of variables				
No.	Description			
1 (A)	AHU dehumidification Off 🗈 / 🖻 On status			
1 (B)	AHU humidification Off 💷 / 🛄 On status			
2	AHU ventilation Off ⊡ / 🖬 On status			
6	AHU air renewal Off 🖻 / 🖻 On status			
4	AHU pump activated			
6	Integration request activated			

Table of movements					
Button		Screenshot			
Esc)	2.3.1	READOUTS		
No.	Description				
6	Mixir	ng calibr	ation enabled		
7	Value detected by the duct sensor				
8	Calculated mixing temperature				
0	Mixing valve output value				
Ð	Mixing valve opening percentage				
1	Presence of the air quality sensor				
Ð	CO2 percentage value detected by the duct sensor				
B	Too much CO2 in the air				
14	Threshold for the quality of clean air				

Address 2 System-Zone Menu/ 2.3 System-Zone Readouts / 2.3.1 Readouts /

.4	UxBUS_xx So	CREENSHOT
	ŧ UxBUS_02	UC12
	Readings Settings CO2	: * 1 : * 2 : 26.8% 3
	4 - 5 Ver.: 000	Id-01 6 Rev. 0000 7

View CO2 value (with QA probe present)

2.3.1

No.

0 0

B

Table of variables Description

Enter the readings menu

Enter the settings menu

d-01 (] w. 0000 ()	•	2.3.1.4.1	TEMPERATURE READINGS FOR UxBUS_ xx	
	No.	Description		
	4	Referred to the Ux unit connected		
	6	G Referred to the software version installed in the		
	6	Referred to the	ne number of the selected unit.	

Button

(Esc)

Table of movements

Screenshot

2.3.1

7 Referred to the software revision installed in the unit.

READOUTS

ADDRESS 2 SYSTEM-ZONE MENU/ 2.3 SYSTEM-ZONE READOUTS / 2.3.1 READOUTS / 2.3.1.4 UXBUS_XX

2.3.1.4.1.1 **UxBUS_***xx* **T***emperatures* **R***eadouts* **S***creenshot*



Table	Table of variables				
No.	Description				
0	Delivery air temperature.				
2	Inflow water temperature .				
8	Condensation coil temperature.				
4	Evaporation coil temperature.				
6	External temperature detected.				
6	Dehumidifier status:				
7	Integration status: I = OFF I = ON				

Table of	Table of movements						
Button	Screenshot						
Esc	2.3.1.4	UxBUS_xx					
	2.3.1.4.1.4	GENERAL INFO READINGS					
♦	2.3.1.4.1.2	FAN READINGS					

No.	Description	
8	Fresh air renewal status:	E = ON
0	Ventilation status: = OFF	■ = ON
1	Free-cooling status:	Ft = ON
Ð	Boost status: = OFF	= ON
Ð	Economy status:	E = ON

ADDRESS 2 SYSTEM-ZONE MENU/ 2.3 SYSTEM-ZONE READOUTS / 2.3.1 READOUTS / 2.3.1.4 UXBUS_XX

2.3.1.4.1.2 UxBUS_xx Fan Readings Screenshot

		_01	UC11
	rans i	keauin	ys -
12345	rpm rpm 1 Press. Press. H2O Pos	Room Exhaus Iran. Iran. . Valv	:00000 t:00000 A:0000.0 B:0000.0 e:00000

Table	Table of variables				
No.	Description				
1	Speed for supply air fan				
2	Speed for exhaust air fan				
8	Transducer A differential air pressure reading				
4	Transducer B differential air pressure reading				
6	H2O Valve position.				

Table of	Table of movements					
Button	Screensho	t				
Esc	2.3.1.4	UxBUS_xx				
	2.3.1.4.1.1	TEMPERATURE READINGS				
	2.3.1.4.1.3	DEFROST READINGS				

Address	2 System-Zone Menu/ 2	.3 System-Zone Readouts	/ 2.3.1 READOUTS / 2.3.1.4 UxB	US_xx
---------	-----------------------	-------------------------	--------------------------------	-------

2.3	.1.4.1.3	Defrost Readings S	CREENSHOT				
	0	UxBUS_01 UC1 Reading defros Defrost ON/Off: Num. Defrost:	1 ;t 000 000				
					Table of	movements	
					Button	Screenshot	
Table	of variable	25			Esc	2.3.1.4	UxBUS_xx
No.	Descriptio	on				231412	FAN READINGS
0	It shows the	ne defrosting status				2.0	
2	It shows th	ne number of defrosting	cycles already performed	ł	•	2.3.1.4.1.4	DA PARAMETERS READINGS

ADDRESS 2 SYSTEM-ZONE MENU/ 2.3 SYSTEM-ZONE READOUTS / 2.3.1 READOUTS / 2.3.1.4 UXBUS_XX

4.1.4	4 <i>l</i>	DA Pari	AMETER	s R EA	DING	s S cr	EENSH	от
		BUS_01	U rs Po	C11	<i>a</i> a			
1 2 3	Supe: H20 I H20 (rheat P Pos. C Pos.	Temp: Valv. Valv.	00. : 10 : 10	0 2 0 8 0 8			

2.3.1

Ta N

Table	able of variables			
No.	Description			
0	Overheating temperature			
2	Position of the water valve for the pre-treatment coil			
8	Position of the water valve of the condensation coil			

Table of I	movements	
Button	Screenshot	
Esc	2.3.1.4	UxBUS_xx
F	2.3.1.4.1.3	DEFROST READINGS
•	2.3.1.4.1.5	FREE COOLING READINGS

ADDRESS 2 SYSTEM-ZONE MENU/ 2.3 SYSTEM-ZONE READOUTS / 2.3.1 READOUTS / 2.3.1.4 UXBUS_XX

UxBUS_xx Free Cooling Readings Screenshot 2.3.1.4.1.5

		IIVBUS 01	11011	
		Unit Info	UCII	
	0	FreeCooling:	Pre	
able	of varia	bles		
No.	Descrip	otion		
0	Free Co	oling connection ty	vpe	

Table of movements				
Button	Screenshot			
Esc	2.3.1.4	UxBUS_xx		
	2.3.1.4.1.4	DA PARAMETERS READINGS		
♦	2.3.1.4.1.6	GENERAL INFO READINGS		

ADDRESS 2 SYSTEM-ZONE MENU/ 2.3 SYSTEM-ZONE READOUTS / 2.3.1 READOUTS / 2.3.1.4 UXBUS_XX

2.3.1.4.1.6 **UXBUS XX GENERAL INFO READINGS SCREENSHOT** Table of movements Table of variables 3_01 UC11 Reading info UxBUS_01 **Button** Screenshot Description No. 1]ID UxBUS:09 - Modbus Modbus net index. 0 (Esc) 2.3.1.4 UxBUS_xx 2 Model:-0 Model 3 Rel:xxx (\uparrow) 2.3.1.4.1.5 LETTURE FREE COOLING Rev:0000 ß Software version installed JInst. dx/sx (*) **`**↓` 4 Software revision installed 2.3.1.4.1.7 LETTURE FILTRI 6 * Right / left Installat. (WHR only)

ADDRESS 2 SYSTEM-ZONE MENU/ 2.3 SYSTEM-ZONE READOUTS / 2.3.1 READOUTS / 2.3.1.4 UXBUS_XX

2.3.1.4.1.7 **UxBUS_**xx Filters Readings Screenshot UxBUS_01 UC1 Table of movements Table of variables Filters Readings Description **Button** Screenshot No. Hour fun.filt.: 0000 ถ Indicates the machine operating hours for (Esc) 2.3.1.4 UxBUS xx the filters in use. (* Only for WHR units).

Address 2 System-Zone Menu

2.4 System/Zone Program Screenshot [SYST-ZONE PROGRAM] à Table of movements **Button** Screenshot 頥 Esc MAIN 0 (\uparrow) Programming the 2.3 SYSTEM/ZONE READOUTS Timeslots (4) 2.4.1 PROGRAMMING

2

Menu 2.4 "Programming" allows weekly setting the required temperature, humidity, ventilation and air renewal for every hour of the day.

NB: The **"Ventilation"** and **"Air Renewal"** functions (where provided) allow respectively for dehumidifier operation in "ventilation only" mode and forced indoor air renewal

with outdoor air.

The user must first set the programs (STD: standard, WD: weekday, WE: weekend, Pg1...Pg5: generic programs) to decide the desired temperature or humidity (ventilation/air renewal) around the clock.

SYSTEM/ZONE MENU

For example, to manage the temperature, you can set the STD program as follows:

♦

22°C from 06:00 to 12:00,

20°C from 13:00:00 to 18:00:00,

21°C from 18:00:00 to 22:30:00.

and to manage humidity, you can set program Pg1 as follows:

40% humidity from 08:00 to 12:00 (only in "SUMMER" mode),

30% humidity from 13:00 to 22:30 (only in "SUMMER" mode). and so on for all the available programs.

The temperature or humidity set by the user in the various timeslots are identified with the **"COMFORT"** status; on the other hand, whenever there is no temperature or humidity associated to the timeslot (in the example between 12:00 and 13:00 and between 22:30 and 6:00), the temperature or humidity will be identified with the **"ECONOMY"** status, also settable as you wish. Upon setting the various programs, the user must decide the ones to assign to every day of the week. For example:

from Monday to Friday you can apply the "STD" program for the temperature and "Pg1" for the humidity; Saturday "WD" for the temperature and "Pg1" for humidity; Sunday "WE" for humidity and "STD" for ventilation, etc.

Address 2 System-Zone Menu/ 2.4 System-Zone Program /

2.4.1	Programming Screenshot					
	MMING		Table of n	noveme	nts	-
SYSTEM		Button	Screenshot] :	
N°:08 Zones		Esc	2	SYSTEM/ZONE MENU	i	
for sel	progra	ms vstem	•	2.4.1.1	TEMPERATURE	
	<u></u>	1			CAMBIO IMPIANTO	1

The programming menu dedicated to the zones that belong to the selected system **allows the user to activate some functions in the desired timeslots**.

In screenshot "2.4.1 Programming" you can select only the system to be programmed; the possible functions shall be analysed in detail at a later stage.

Address 2 System-Zone Menu/ 2.4 System-Zone Program / 2.4.1 Programming /

2.4.1.1	Temperature Screenshot
2.4.1.2	D EHUMIDIFICATION SCREENSHOT H UMIDIFICATION SCREENSHOT
2.4.1.3	Ventilation Screenshot
2.4.1.4	Air renewal Screenshot



This screenshot allows selecting the parameter to be programmed in the next screenshot.

- The parameters that can be modified are the following:
- Room temperature
- Dehumidification / Humidification
- Ventilation
- Air renewal
- System Economy
- UxBUS_xx Economy
- AUX1 Economy
- AUX2 Economy

2.4.1. 2.4.1. 2.4.1. 2.4.1.	5 Syst 6 UxB 7 AUX 8 AUX	System Economy Scrennshot UxBUS_xx Economy Screenshot AUX 1 Screenshot AUX 2 Screenshot	
Table of	moveme	nts	
Button Screen		not	
Esc	2.4.1	PROGRAMMING	
	2.4.1.1	TEMPERATURE	
	2.4.1.2	DEHUMIDIFICATION / HUMIDIFICATION	
	2.4.1.3	VENTILATION	
	2.4.1.4	AIR RENEWAL	
	2.4.1.5	SYSTEM ECONOMY	
	2.4.1.6	UxBUS_xx ECONOMY	

2.4.1.7 AUX 1

AUX 2

2.4.1.8

Table	Table of variables				
No.	Description				
0	Temperature timeslot programming				
2	Dehumidification timeslot programming				
8	Ventilation timeslot programming				
4	Air Renewal timeslot programming				
6	System timeslot programming				
6	UxBUS_xx timeslot programming				
7	Auxiliary contact 1 timeslot programming				
8	Auxiliary contact 2 timeslot programming				

Example: To program weekly the temperature function, you can select icon 1)"Temperature" pressing "ARROW UP" and "ARROW DOWN" until the cursor flashes on the first symbol on the left.

Press "ENTER" to access its programming (screenshot 2.4.1.1.1 Type of weekly program).

Warning! The "Dehumidification" icon is only visible during summer; during winter, you will be able to view the "Humidification" icon. The functions are visible only if enabled during configuration.

Address 2 System-Zone Menu/ 2.4 System-Zone Program / 2.4.1 Programming / 2.4.1.x /

2.4.1.x.1 Type of Program - Weekly screenshot

TPR/Week ZONE	Tmp
Type of Program Weekly program	* 1 * 2
0	

This screenshot allows customising the previously chosen parameter programming (TEMPERATURE / DEHUMIDIFICATION / HUMIDIFICATION / VENTILATION / AIR RENEWAL) for:

- Type of Program Std / Fer/ Fes / Pg1 / Pg2 / Pg3 / Pg4 / Pg5
- ZONE weekly program: weekly association MO / TU / WE / TH / FR / SA / SU of the various zones and dehumidifiers to the generic programs (Std / Fer / Fes / Pg1 / Pg2 / Pg3 / Pg4 / Pg5).

Table of movements					
Button	Screenshot				
Esc	2.4.1.1 2.4.1.2 2.4.1.3 2.4.1.4	TEMPERATURE DEHUMIDIFICATION / HUMIDIFICATION VENTILATION AIR RENEWAL			
~	2.4.1.x(1).1.1	PROGRAMMING TYPE			
(4)	2.4.1.x(1).1.2	WEEKLY ZONE PROGRAM			

Table of variables				
No.	Description			
0	Access to the Programming Type screenshot			
2	Access to the Zone weekly program screenshot			



Table of movements				
Button	Screenshot			
Prg	-	СОРҮ		
Esc	2.4.1.x.1	TYPE OF PROGRAM/WEEKLY		

Table	Table of variables				
No.	Description				
0	Functions to be programmed:				
	Tmp	Tmp = Temperature			
	Deh = Dehumidification / Hum = Humidification				
	Ven	= Ventilation			
	Ren = Air renewal				
2	Season				
	Sum	= Summer			
	Win	= Winter			

No.	Description				
8	Program TYPE:				
	Std = Standard				
	Fer = Weekday				
	Fes = Weekend				
	Pg1Pg5 = Program 15				
4	Starting Time				
6	End Time				
6	"Economy" Temperature				
7	"Comfort" temperature				
8	"Economy" Humidity				
9	"Comfort" Humidity				
	·				

Once the functions to be programmed in the previous menu (e.g.: temperature) have been defined, you can customise the programs:

- Std: Standard Program
- Fer: Weekday
- Fes: Weekend
- **Pg1**...Pg5: Program 1..5.

The first thing to do is define the operating set outside of the "**Economy Set**" programming.

Programming allows dividing the day in 3 programming slots. For each of these slots, you must define the starting time. "From" and the ending time "To" with the respective "Comfort set" (i.e., the temperature to be maintained).

Dehumidification, ventilation and air renewal selected in the previous menu 2.4.1.1 "Temperature / Dehumidification / Ventilation / Air renewal must be set the same way.

Warning!

Unlike for temperature and dehumidification/ Humidification, ventilation and renewal only require programming the function activation and switch-off slots. The weekly dehumidification program it is only available during the summer, whereas during winter only the Humidification program will be available. This must be set for all the TA/H zones. Reference to the dehumidifier is implicit in the TA/H sensor setting configured during the customisation phase.

Copy program

In the event of similar programs, you can copy them in order to easily modify the differences between them.

Upon selecting the type of program (e.g.: Win Tmp Std), press PRG to access the copy program screenshot.

There are two ways to copy a program:

- Total: The program (e.g.: Win Tmp Std screenshot "A") will be copied to all the programs "Std / Fer / Fes / Pg1 / Pg2 / Pg3 / Pg4 / Pg5 ".
- **Single**: The program (e.g.: Win Tmp Std) will be copied only to the selected program (e.g.: Win Tmp Std to Pg1).





Address 2 System-Zone Menu/ 2.4 System-Zone Program / 2.4.1 Programming / 2.4.1.x / 2.4.1.x.1 Type of program - Weekly /

2.4.1.x.1.2 WEEKLY SCREENSHOT



Once the programs have been set (refer to menu 2.4.1.1.1.1 "Type of program"), you can associate the days of the week: MO / TU / WE / TH / FR / SA / SU other types of program: Std / Fer / Fes / Pg1 / Pg2 / Pg3 / Pg4 / Pg5/ Off / Man.

Table of movements			
Button	Screenshot		
Esc	2.4.1.x.1	TYPE OF PROGRAM/WEEKLY	



Copy of a weekly program

In the event the control unit manages more than one zone, you can copy the program set for one zone to another. Below you can find an example of how to copy a temperature program from ZONE1 to ZONE2.

Example: Upon selecting the zone to which you want to copy the program, press PRG to proceed. This procedure can be used for all the ZONES configured in the system.







Table of	fmovements	
Button	Screenshot	
Esc	2.4.1	PROGRAMMING

Table	Table of variables		
No.	Description		
0	Programmable operations: Sys = System (different for each system) Ahu = UCxx (different for each unit) Aux1 = Auxiliary contact 1 (NO5) Aux2 = Auxiliary contact 2 (NO6)		
2	Start time		

No.	Description
8	Finish time
4	Enable/Disable function programming
6	Adjustable delta on system calculated temperature
6	Flow rate adjustment percentage for UCxx

AUX2





Example of manual operation (summer)



Example of weekly assignment

In the kitchen (zone 1) with the following Comfort set:

From MONDAY to FRIDAY:

22°C temperature between 06:00 ant 12:00 20°C temperature between 13:00 ant 18:00 20°C temperature between 19:00 ant 22:30 55% humidity: between 06:00 and 12:15 60% humidity: between 14:00 and 17:00 65% humidity: between 20:45 and 23:30

SATURDAY:

20°C temperature between 08:00 ant 12:00 20°C temperature between 13:00 ant 18:00 55% humidity: between 00:00 and 24:00

SUNDAY:

20°C temperature between 10:00 ant 16:00 55% humidity: between 00:00 and 24:00

GUIDED PROCEDURE:

- A) If necessary, set the "Summer" mode -> refer to menu 3.1 "Set season"; this allows also setting the dehumidification function (this function is NOT available during the "Winter" season).
- B) If you haven't done it previously, you can assign a different name to "Zone 1" to simplify its identification (e.g. you can call it "kitchen well") -> refer to menu 3.4.1.1.2 "Zone Menu - zone names".
- C) 1) Access menu 2.4.1.1 "Temperature / Dehumidification / Ventilation / Air renewal":

2) Select the "Temperature" section -> menu 2.4.1.1.1 "Type of weekly program - TPR/Week ZONE " will appear;

3) Select "Type of program";

4) Set the required temperature timeslots in the available programs ("Std", "WD", etc.) (for example set "STD" with the temperature timeslots that you wish from Monday to Friday; "WD" program for Saturday etc. (for the settings follow the indications provided in menu 2.4.1.1.1.1 "Programming").

E) 1) Return to menu 2.4.1.1 "Temperature / Dehumidification / Ventilation / Air renewal";

2) Select the "dehumidification"

section -> menu 2.4.1.1.1 "Type of weekly program - TPR/Week ZONE " will appear;

3) Select "Type of program";

4) Set the required humidity percentage in the various timeslots of the available programs ("Std", "WD", etc.).

- F) If necessary, set the timeslots for the "air renewal" and "ventilation" functions - where available.
- G) 1)Access menu 2.4.1.1.1 "Type of weekly program - TPR/Week ZONE"; 2) Select "Zone weekly program"; 3) Associate the various programs for managing temperature and humidity (and if necessary ventilation and air renewal) to every day of the week. for example *MON-FRI* = "Std" for temperature and "Pg1" for humidity, SAT= "WD" for temperature and humidity, SUN= "WE" For temperature and "Pg2" for humidity).



EXAMPLE OF A STD (STANDARD) PROGRAM temperature
 ➡∑
 From
 Tores

 Tmp
 06:00
 12:00

 Win
 13:00
 18:00

 Std
 19:00
 22:30
 18.0 "Fconomy" 22.0 temperature 'Comfort 21.0 temperature **FND** time START time Program name: STD (standard) Seasonal operating mode "Summer" Dehumidificatio
 Image: Second condition
 Torest

 Deh
 06:00
 12:15

 Sum
 14:00
 17:00

 Std
 20:45
 23:30
 "Economy" humidity 55 60 65 'Comfort" humiditv EXAMPLE OF WEEKLY TEMPERATURE ASSIGNMENT G) ≑⊠ From Torce 06:00 12:00 13:00 17:00 19:00 22:30 18.0 22.0 20.0 21.0 Tmp Win std Program timeslots Dav Progr Monday Std 18.0 20.0 From Tom 08:00 12:00 l≑⊠. Tmp Win Tuesday Std 13:00 18:00 20.0 00:00 00:00 20.0 Wednesday Std Thursday Std Program timeslots Ø. Friday Std Saturday Fer
 Imp
 From
 Toler

 Tmp
 10:00
 16:00

 Win
 00:00
 00:00

 WE
 00:00
 00:00
 18.0 20.0 Fes Sunday 20.0 Program timeslots

SYSTEM / ZONE MENU N

3



Table of movements			
Button	Screenshot		
Esc	0	MAIN	
	2	SYSTEM/ZONE MENU	
•	3.1	SET SEASON	
•	0	MAIN	

Through menu 3 "Settings menu" you can:

- menu 3.1 = Change season (SUMMER or WINTER)
- menu 3.2 = Change/set the date and time

Address 3 Settings Menu /

3.1

- menu 3.3 = Set a time range within which the system shall remain off (for examples during holidays)
- menu 3.4 = Change the system name (e.g., System 1 becomes: floor 1), and zones (e.g.: Zone 1 becomes: Kitchen), and dehumidifiers or modify the system settings

Set Season Screenshot		
ESET SEASON]		
Set Season mode		

Table of mov	Table of movements			
Button	Screenshot			
Esc	0	MAIN		
	3	SETTINGS MENU		
•	3.1.1	SEASON		
v	3.2	SET DATE-TIME		

Address 3 Settings Menu / 3.1 Set Season /

3.1.1 Season Screenshot



Table	Table of movements			
Bu	tton	Screenshot		
	Esc	3.1	SET SEASON	
(Prg	3.1.1.1	AUTOMATIC SEASON	
Table	e of vari	ables		
No.	lo. Description			
Set season:				

In the SEASON section you can set the seasonal operating mode of the control unit. This setting is allowed only if the control unit is set to Winter/Summer operating mode and the digital input for the season is not configured (see screenshot 2.2.1.1.1).

This setting is not allowed if the control unit is configured in SLAVE mode (in a centralised system).

ADDRESS 3 SETTINGS MENU / 3.1 SET SEASON / 3.1.1 SEASON

3.1.1.1 Automatic/Manual Season

Automatic Season	
Auto Set change:22.0 °C Sampling:030 sec Neutral Temp:1.0 °C	
🖪 Change mode	

The Man/Auto Freehold allows changing the season as follows: **Man:** the change of season is managed by the user through the Summer/Winter field

Auto: The change of season is managed by the control unit, according to set temperature. The control unit will decide whether to set the season to Summer or Winter and, according to the external temperature, whether the system must work in heating or in cooling mode.

Table of movements			
Button	Screenshot		
Esc	3.1.1	SEASON	

Table	Table of variables			
No.	Description			
0	Set Auto/Manual Season			
2	External temperature value that determines the change of season			
8	Time elapsed between detections			
4	Differential beyond which a zone can request the change of season regardless of the external temperature.			

2, **3**, **4** variables are irrelevant if the change of season is set to MANUAL.

WARNING: This function is activated only for systems that can be hydraulically set to the automatic heating/cooling mode.



Address 3 Settings Menu /

3.2 Set Date-Time Screenshot



Table of movements			
Button	Screen	Screenshot	
Esc	0	MAIN	
	3.1	SET SEASON	
•	3.2.1	DATE / TIME	
•	3.3	SET HOLIDAYS	

ADDRESS 3 SETTINGS MENU / 3.2 SET DATE-TIME /

3.2.1 Set Date-Time Screenshot

Fri -ddM 08 Ma	-hh- 16 1 ⁴ y	-mm- 372 -YY- 2016	
Modify date values hh-mm dd-MM-YYY			

The "DATE/TIME" screenshot allows changing the date and time configured in the control unit.

N.B. This setting is not allowed if the control unit is configured in SLAVE mode (in a centralised system).

Table of movements					
Bu	tton	Screen	shot		
	Esc	3.2	SET DATE/TIME		
Table	of vari	ables			
No.	Descri	ption			
0	Hour v	alue			
2	Minute	e value			
ß	Day va	lue			
4	Month	value			
6	Year va	alue			

ADDRESS 3 SETTINGS MENU /



Address 3 Settings Menu / 3.3 Set Holidays /

3.3.1 Set Holidays Screenshot



Table of movements						
Bu	tton	Screen	shot			
	Esc 3.3 SET HOLIDAYS					
Table	of vari	ables				
No	Decer	Description				
140.	Descri	puon				
110.	Holida	y Settin	gs Status Enabled/Disabled			
110. 1 2	Holida Holida	y Settin ys starti	gs Status Enabled/Disabled ng date			

The "HOLIDAYS (Timer/Holidays)" section allows setting a time range within which the system remains off. The Holidays Timer can be **Enabled** or **Disabled**: When enabled, the control unit remains off in the time range between the two dates entered.

The time range provides for the following parameters:

- FROM: Date of the 1st day of absence dd-MM-YY (Day-Month-Year).
- TO: Date of the last day of absence dd-MM-YY (Day-Month-Year).

Address 3 Settings Menu /

3.4 TECHNICAL MENU SCREENSHOT



Table of mo	Table of movements						
Button	Screen	Screenshot					
Esc	0	MAIN					
	3.3	SET HOLIDAYS					
•	3.4.1	PASSWORD					
\	3.4	SETTINGS MENU					

ADDRESS 3 SETTINGS MENU / 3.4 TECHNICAL MENU /

3.4.1	PASSWORD SCREENSHOT				
		Table	ofmo	vements	5
	<pre>I <technical menu=""></technical></pre>	Bu	tton	Screen	shot
	0000 MT:		isc	3.4	TECHNICAL MENU
	● 0 01:↔				
	B Set password x	Table	of var	iables	
	access technical menu		Description		
		0	Nume	rical field	from entering the password

By entering the correct password **[0123]** in the "TECHNICAL MENU" screenshot, you can access the menu that allows changing sensitive user details pertaining to the control unit settings, which are listed below.



3.4.1.1	Main Screenshot			
	🖪 <um> Main</um>	Table	ofmo	novements
	System: * 1 Zones: * 2 Dehumidifiers: * 3	Bu	tton sc	Screenshot 3.4 TECHNICAL MENU
		Table	of var	ariables
		No.	Descr	cription
		0	Acces	ess to system settings
		2	Acces	ess to the area for modifying zone names
		8	Acces	ess to the area for modifying dehumidifier names

ADDRESS 3 SETTINGS MENU / 3.4 TECHNICAL MENU / 3.4.1 PASSWORD MENU / 3.4.1.1 MAIN /

System Screenshot 3.4.1.1.1 **Table of movements** F <UM> System Names: * 1 * 2 Settings

This section allows modifying the system name or the operating parameters.

Button	Screenshot			
Esc	3.4.1.1	MAIN		
Table of vari	ables			

2 SETTINGS MENU

No. Description Access to the area for modifying system names 0 0 Access to system settings

Address 3 Settings Menu / 3.4 Technical Menu / 3.4.1 Password Menu / 3.4.1.1 Main / 3.4.1.1.1 System /

3.4.1.1.1.1	System Name Screenshot						
Table of movements							
÷	B	Button Screenshot		ot			
	S Y S T. 1 ()		Esc	3.4.1.1.1	SYSTEM		
			e of var	iables			
		No.	Descr	iption			
		0	Alpha	numerical fi	ields of the system names		

This section allows modifying the name (max 6 characters) of the system.

ADDRESS 3 SETTINGS MENU / 3.4 TECHNICAL MENU / 3.4.1 PASSWORD MENU / 3.4.1.1 MAIN / 3.4.1.1.1 SYSTEM /

3.4.1.1.1.2 SETTINGS SCREENSHOT

S	YS[1]	01
	Settings	
0	Definition of parameters for mixing	

Table of movements						
Button	Screenshot					
Esc	3.4.1.1.1	SYSTEM				

In the event of multisystems, you must select the system on which to modify the parameters.

The 3.4.1.1.1.2 "Settings" section allows accessing and modifying the parameters that affect system operation. This is why these parameters must not be modified by unqualified personnel.

The Manufacturer cannot be held liable for system malfunctions caused by improper configuration of these parameters.

ADDRESS SETTINGS MENU / 3.4 TECHNICAL MENU / 3.4.1 PASSWORD MENU / 3.4.1.1 MAIN / 3.4.1.1.1 SYSTEM /



Climate with external sensor

Only the external sensor is installed in this type of configuration.

Delivery temperatures calculated according to the external compensation curve. The system activates the boiler/chiller and the pump, adjusting the mixing valve to the required calculated temperature. Partial disconnection of the system is controlled by external controls by means of remote thermostats.

Season:

- Winter: Temperature control is activated only during the winter season.
- Winter + Summer Temperature control is activated during Winter + Summer.
- **Summer:** Temperature control is activated only during the summer season. Summer configuration requires extra caution on system external humidity control.

Climate with External + Room sensor

This type of configuration requires the installation of an external sensor and of at least one HT/H or HT room sensor. **Season:**

- Winter: Temperature control is activated only during the winter season. The control unit will deactivate all the summer functions, dehumidifier control, etc. Compensation occurs considering the external temperature curve and (optional) room dynamic compensation.
- Winter + Summer Temperature control is activated inner Winter + Summer. Compensation occurs considering the seasonal external temperature curve and (optional) room dynamic compensation. During summer, in cooling mode, the logic will consider the limitation set by the room dew point.
- **Summer:** Temperature control is activated only during the summer season. The control unit will deactivate all the winter functions. Compensation occurs considering the external temperature curve and (optional) room dynamic compensation. The logic will consider the limitation set by the room dew point.

Address 3 Settings Menu / 3.4 Technical Menu / 3.4.1 Password Menu / 3.4.1.1 Main / 3.4.1.1.1 System / 3.4.1.1.1.2 Settings /

3.4.1.1.1.2.2 Win	NTER COMPENSATION SCREENSHOT			
		Table of mo	vements	
=SYS[1]	WinComp 01	Button	Screenshot	
Mi: TExt:-0	n Max Off 5.0 20.0 0.0	•	3.4.1.1.1.2.1	CLIMATE
TDel:45	el:45.0 22.0	Esc	3.4.1.1.1.2	SETTINGS
Curve	er compensacion		3.4.1.1.1.2.3	SUMMER COMPENSATION

The parameters to be entered in the screenshot represent the characterisation of the compensation curve shown in the figure below. The control unit, will adjust the water delivery temperature according to the outdoor temperature.



Winter Compensation Line Reference Settings

WALL/CEILING								
Name Min Max Name Val								
TExt	-5°C	10°C	Off.	0				
Del.T	48°C	36°C						

FLOOR									
Name	Min	Max	Name	Val					
TExt	-5°C	20°C	Off.	0					
Del.T	Del.T 45°C 22°C								

Address 3 Settings Menu / 3.4 Technical Menu / 3.4.1 Password Menu / 3.4.1.1 Main / 3.4.1.1.1 System / 3.4.1.1.1.2 Settings /

.4.1.1.1.2.3	SUMMER COMPL	ENSATION .	Screenshot			
			1	Table of mo	vements	
₽SY	S[1] SumComp	01		Button	Screenshot	
TEx	Min Max t:23.0 32.0	Off 0.0			3.4.1.1.1.2.2	WINTER COMPENSATION
TDel:2	1:20.0 15.0			Esc	3.4.1.1.1.2	SETTINGS
c	urve	nsation		•	3.4.1.1.1.2.4	ADJUSTMENT

The parameters to be entered in the screenshot represent the characterisation of the compensation curve shown in the figure below. The control unit will adjust the water delivery temperature according to the outdoor temperature and to the dew point.



Summer Compensation Line Reference Settings

WALL/CEILING								
Name	Min	Max	Name	Val				
TExt	20°C	30°C	Off.	0				
Del.T	16°C	12°C						
	F	LOOR						
Name	F Min	LOOR Max	Name	Val				
Name TExt	Fi Min 23°C	LOOR Max 32°C	Name Off.	Val 0				

Address 3 Settings Menu / 3.4 Technical Menu / 3.4.1 Password Menu / 3.4.1.1 Main / 3.4.1.1.1 System / 3.4.1.1.1.2 Settings /

3.4.1.1.1.2.4 Adjustment Screenshot



The parameters to be entered in the screenshot represent the adjustment to be added to the set values for temperature and humidity, in the economy section of the manual programming.

Type of screed

ø

Table of mo	Table of movements					
Button	Screenshot					
	3.4.1.1.1.2.3	SUMMER COMPENSATION				
Esc	3.4.1.1.1.2	SETTINGS				
•	3.4.1.1.1.2.5	TYPE OF STRUCTURE				

Table of variables					
No.	Description				
0	Differential for temperature setting in summer				
2	Differential for humidity setting in summer				
8	Differential for temperature setting in winter				
4	Differential for humidity setting in winter				

SETTINGS

DYNAMIC COMPENSATION

3.4.1.1.1.2

3.4.1.1.1.2.5

Address 3 Settings Menu / 3.4 Technical Menu / 3.4.1 Password Menu / 3.4.1.1 Main / 3.4.1.1.1 System / 3.4.1.1.1.2 Settings /



(Esc)

 (\mathbf{I})

This screenshot allows entering a parameter that characterises the type of screed (wood, plasterboard, etc.). This parameter affects the system delivery temperature, which is calculated according to the thermal resistance of the structure used. Below are some indicative parameters according to the system structure:

	B!Klimax/Ceiling/Wall		
Thickness	Delta - Structure with tile	Delta - Structure with wood	Delta structure
Between 3 and 3.5 cm	2	3	
Between 4 and 4.5 cm	3	4	2
Between 5 and 6 cm 4 5	4	5	Ζ
Between 7 and 8 cm	5	6	

Address 3 Settings Menu / 3.4 Technical Menu / 3.4.1 Password Menu / 3.4.1.1 Main / 3.4.1.1.1 System / 3.4.1.1.1.2 Settings /

3.4.1.1.1.2.6 Dynamic Compensation Screenshot

	SYS	[1]	Dyr	nCom	p	01	
135	Enab KDSu TMi	le:] m:3 n:1((es F 1.0	Pil (DWi: TMa:	ot:03 n:03 x:50)1 3).0	0 0 0
	0	Roc con	om c nper	iyna Isat	mic ion		

Table of variables				
No.	Description			
0	Enable Dynamic Compensation			
2	Pilot Zone Value			
3	Summer compensation value			
4	Winter compensation value			
6	Minimum summer temperature			
6	Maximum winter temperature			

Table of movements						
Button	Screenshot					
	3.4.1.1.1.2.5	TYPE OF STRUCTURE				
Esc	3.4.1.1.1.2	SETTINGS				
•	3.4.1.1.1.2.7	SUPPLY TEMPERATURE LIMIT				

In this section you can enable the dynamic compensation to calculate the delivery temperature by means of the **Enable** variable. Enabling the dynamic compensation provides for the allocation of a **pilot zone**, which affects the delivery temperature value obtained through the compensation line.

To identify this "Pilot Zone", the identification number of the zone, i.e., its position in the room sensor presence/type configuration. The value obtained from the difference between the required set and the measured temperature multiplied by the seasonal coefficient **KDEst/KDInv**, is added to the value of the temperature calculated through the compensation line (see cooling/ heating curve T_{mcl}).

The value obtained will be valid if it falls within the "comfort" limit (limits due to the type of structure during winter and the dew point during summer) and the limits **TMin** for the summer value and **TMax** for the winter value.

Should the result not be valid, the calculated value will be the one set by the "comfort" limits (see delivery temperature calculation logic).

Address 3 Settings Menu / 3.4 Technical Menu / 3.4.1 Password Menu / 3.4.1.1 Main / 3.4.1.1.1 System / 3.4.1.1.1.2 Settings /

3.4.1.1.1.2.7 Supply Temperature Limit Screenshot

÷.	Supply	temp.	limits
TI	SUMMER Min:10.	WI 0 TMa	NTER x:50.0
0	Room d	ynami pensa	c tion

Table of movements						
Button	Screenshot					
	3.4.1.1.1.2.6	DYNAMIC COMPENSATION				
Esc	3.4.1.1.1.2	SETTINGS				
•	3.4.1.1.1.2.1	CLIMATE				

Table of variables No. Description ① Minimum limit water temperature for mixed system for summer season ② Maximum limit water temperature for mixed system for winter season

Address	3 SETTINGS MENU / 3.4 TECHNICAL MEN	iu / 3.4.1 P assword M	IENU / .	3.4.1.1 Mai	ı/
3.4.1.1.2	Zone Screenshot				
		Та	able o	f moveme	nts
	ZONE NAME UI		Butte	on Scre	enshot
	ZONE 1 ()		Esc) 3.4.1	.1 MAIN
		Та	able o	f variables	
		N	lo. C	Description	
			1 A	Iphanume	ical fields of the zone names

This section allows modifying the name (max 6 characters) of the zone.

Address 3 Settings Menu / 3.4 Technical Menu / 3.4.1 Password Menu / 3.4.1.1 Main /

3.4.1.1.3	AHU SCREENSHOT					
		01	Table	ofmov	vements	
	01	Bu	Button		Screenshot	
	АНИ[1]()		(Esc	3.4.1.1	MAIN
			Table	of vari	ables	
			No.	Descri	ption	
			0	Alphar	numerica	l fields of the AHU names

This section allows modifying the name (max 6 characters) of the AHU.

TROUBLESHOOTING

The red backlight on the **"Alarm"** button indicates that the control unit has detected a system failure or malfunction. To display them, press the **"Alarm"** button: once pressed, the screenshot will display all the information regarding the error. In the event of several errors, you can scroll through them using the **UP-DOWN** buttons.

To return to the control unit menu press the "Alarm" button once again.



ć info

Below are described the possible screenshot explaining each error.

NB: When the problem is solved, the error will no longer be displayed when you access the alarm screenshot again. If everything in the control unit is working properly and you press the "Alarm" button, the screenshot indicating that there is no ongoing alarm shall appear.

Table D - Alarms							
1) BOILER/HEAT PUMP ALARM							
BOILER ALARM Or HEAT PUMP	Boiler/Heat Pump lock (Winter season). All the systems are disabled.						
2) CHILLER/HEAT PUMP ALARM	:						
CHILLER ALARM Or HEAT PUMP	Chiller/Heat Pump lock (Summer season). All the systems are disabled.						
3) ROOM SENSOR ALARM:							
ZONE ALARM ROOM PROBE Enter to view	<pre>\$\$\delta\$ZONE 1 Off Line:Yes Temp. :↓ Humidity:- Deh:-</pre>	The presence of an error is indicated with 4 , while its absence with When the sensor is communicating, errors in detecting Temp. (Temperature)/ Humidity may occur. The Deh (Dehumidifier) session indicates the presence of an alarm concerning the dehumidifier serving the zone. NB: All the functions corresponding to the type of error are deactivated.					
4) SYSTEM ALARM — ROOM TE	MPERATURE SENSOR/S:						
Temperature Sensor/s Faulty-Disconnected Enter Display ALARM	NO ROOM TMP SYSTEM:SYST[1]	This error occurs during winter when there is no temperature detection in the system, i.e., all the temperature sensors connected to the system are malfunctioning or disconnected. NB: system Syst[1] is deactivated.					
5) SYSTEM ALARM — ROOM TEMPERATURE/HUMIDITY SENSOR/S:							
Temperature Sensor/s Faulty-Disconnected Enter Display ALARM	DEW POINT SYSTEM:SYST[1]	This error occurs during summer when there is no temperature/humidity detection in the system, i.e., all the temperature/humidity sensors connected to the system are malfunctioning or disconnected. NB: system Syst[1] is deactivated.					

6) SYSTEM ALARM — EXTERNAL SENSOR:						
EXTERNAL TEMPERATURE	This error occurs when the control unit does not detect the external temperature signal. NB: all the systems continue to operate, considering, during winter mode, the external temperature value set to +5°C and the maximum set to +30°C					
7) SYSTEM ALARM — DELIVER	SENSOR:					
ALARM DELIVERY SENSOR Enter Display	DELIVERY TEMPERATURE	This error occurs when the control unit does not detect the delivery temperature signal. NB: system Syst[1] is deactivated				
6) KOOMI ANTIFKEEZE:						
ANTIFREEZE Enter Display	ANTIFREEZE SYSTEM:SYST[1]	This error occurs when, during winter, the temperature of a zone drops below 5°C (settable). All the zones are activated. The alarm is reset when the temperature in all the zones exceeds 6°C (settable)				
9) THERMAL ALARM:		<u>.</u>				
ALARM	THERMAL					
THERMAL Enter Display	SYSTEM:SYST[1]	This occurs when, during winter, the delivery sens detects a temperature of 45°C (settable) for a certa amount of time while the system is off				
10) WI-Z UNIT ALARM:						
♦ OFF-LINE	≢Exp OffLine Wi- 1					
Enter Display	Wi-Z11:4 Wi-Z12:4 Wi-Z13:4 Wi-Z14:4 Wi-Z15:4 Wi-Z16:4 Wi-Z17:4 Wi-Z18:4	In the event of failed communication, a bell will appea next to the expansion				
↓ OFF-LINE Wi-U ↓ Wi-U11: Wi-U12: ↓ Wi-U21: Wi-U22: ↓ Wi-U31: Wi-U32: ↓ Wi-U41: Wi-U42: ↓	In the event of failed communication, a bell will appear next to the expansion					
12) MAIN UNIT ALARM:						
OFF-LINE Main unit Wi-M1: -Yes Wi-S2: #Yes Wi-M1: #Yes Wi-S2: #Yes	In the event of failed communication, a bell will appear next to the control unit (provided that it is configured) * YES = Main unit OFFLINE -YES = Main unit ONLINE -NO = Main unit not configured					
13) MASTER UNIT ALARM:						
MASTER OFFLINE	This alarm occurs only in the WI.NET control units in the event there is no communication with the WI.MASTER.NET board					

14) UxBUS UNIT ALARM:						
	In the event of failed communication, a bell will appear next to the UxBUS-xx unit (provided that it is configured) * YES = UxBUS OFFLINE -YES = UxBUS ONLINE -NO = UxBUS not configured					
15) MANUAL INTEGRATION RESET:						
#Manual Reset:No Integration						
U-1 U-2 U-3 U-4 Yes No No No U-5 U-6 U-7 U-8 No No No No	In the event of a Ventilation/Air Renewal block in one of the AHUs, it allows resetting the integration function without waiting for restoring the conditions					
16) UC ALARM:						
	<pre>\$ Alarms UC- 0 Gas low pressure:- Gas high press. :- Compr.high temp.:- Bus communicat. :- Pres. ÷¹ next Alm</pre>	Gas low pressure: Low pressure alarm on the refrigerating circuit (Unit of coolant discharge).(*) (*)Gas Missing in case of UAP 200 Gas high press.: High pressure alarm on the refrigerating circuit. Compr. high temp: High temperature alarm on compressor. Bus communicat.: BUS communication alarm.				
	<pre>Alarms UC- 0 Defrosting: - High Temp.water: - Fan 1: - Fan 2: - Pres. + next Alm</pre>	 Defrosting: Ice presence alarm. High Temp. water: High temperature alarm on water.(*) (*)Water Low Temp in case of UAP 200 Fan 1: Fan input alarm. Fan 2: Fan expulsion alarm. Overload Evap.: It shows the alarm for the evaporator overload in DA units. (*) (*) on DA unit Gas Low Pressure: It shows the gas low pressure due to lack of ventilation.(*) (*) on UAP 200 unit The dirty filters alarm is displayed when the set limit values are reached. (*) (*) CHR, WHR, UC xxx RDZ unit, UAP 201-PDC 				
Errors/Faults UxBUS	<pre># Allarms UC- 0 Overload Evap.:b Pres. + next Alm</pre>					
Enter Display	<pre>\$\$\$ Allarms UC- 0 Gas Low Pressure.:b </pre>					
	Pres. \neq J next Alm Alarms UC-i B Inlet Filter.:b Expulsion Filter.:b Machine Block.:b					
	<pre> Res.All. UC-i B U-1 U-2 U-3 U-4 I I I I U-5 U-6 U-7 U-8 I I I I </pre>	On this window you can reset the alarms of the DA units, by enabling the function on the top right. The input is sent by changing the value for each unit. (*) on DA, CHR, UC xxx RDZ unit, UAP 201-PDC				

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17) ERRORS-FAILURES UxBUS:					
	<pre> Errors/Faults UC- 0 Supply sensor:- Evaporation sensor:- Undercool. sensor:- Overheating sensor:- Pres. + next Alm</pre>	Supply sensor: Failure of the flow sensor (NTC1 sensor). Evaporation sensor: Failure of the evaporator sensor (NTC2 sensor). Undercool. sensor: Failure of the subcooling sensor C2 (NTC6 sensor). Overheating sensor: Failure of the overheating sensor (NTC4 sensor)			
	(CHR/WHR) Errors/Faults UC- 0 Supply sensor:- Expulsion sensor:- Extraction sensor:- Overheating sensor:- Pres. + 1 next Alm	CHR Supply Sensor: Supply probe failure Explusion Sensor: Expulsion probe failure Extraction Sensor:	WHR NTC1: NTC1 sensor failure NTC4: NTC4 sensor failure NTC2: NTC2 sensor failure		
	<pre> Errors/Faults UC-0 Undercooling sens.:- Water temp. sensor:- Compr.temp.sensor :- Outdoor.temp.sens.:- </pre>	Extraction probe failure Undercooling sens. Failure of the subcooling sensor C1 (NTC5 sensor). Water temp. sensor: Failure of the water temperature sensor (NTC7 sensor). Compr. temp. sensor: Failure of the compressor temperature sensor (NTC3 sensor). Outdoor. temp. sens.: Failure of the external temperature sensor (NTC8 sensor). CHR WHR			
UXBUS Enter to view	(CHR/WHR)				
	Undercooling sens.:- Water temp. sensor:- Compr.temp.sensor :- Outdoor.temp.sens.:- Pres. +1 next Alm	Failure of the CHR external NTC3 stemperature sensor	NTC3 sensor failure		
	<pre> Errors/Faults UC-0 Pressure transduc.:- Press. transduc.A:- Press. transduc.B:- Press. + 1 next Alm </pre>	Pressure transduc.: Failu pressure.(*) (*) Capacitor probe (in case Press. transduc.A: Failure o in the renewal area. Press. transduc.B: Failure o in the expulsion area.	ure of cooling transducer of UAP 200) f differential pressure sensor f differential pressure sensor		
	WHR/UC 500-MHE Errors/Faults UC-0 Pressure transduc.:- Fluximeter 1:- Fluximeter 2:- Fluximeter 3:- Pres. +J next Alm	WHR/ UC 500-MHE Fluximeter 1: Fluximeter 1 sensor failure Fluximeter 2: Fluximeter 2 sensor failure Fluximeter 3: Fluximeter 3 sensor failure (*) (*) Only for UC 500-MHE			
	۸.				
18) FAILURE AQ SENSUR ALARM:					
QA-1:- QA-5:- QA-2:- QA-6:- QA-3:- QA-7:- QA-4:- QA-8:-	 In this screen through the display of the alarm, you can see if the (configured) AQ sensor, not noticing a correct value, shows an error. = Error = Configured sensor is running or the sensor is not configured 				







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COMPANY WITH **QUALITY SYSTEM CERTIFIED BY DNV GL** = ISO 9001 =