

CTRL-H0



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CTRL-H0

Control panel for ORION SYSTEM

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Read this manual carefully before using the product and keep it in a safe place for reference. This product was constructed up to standard and in compliance with regulations relating to electrical equipment and must be installed by technically qualified personnel. The manufacturer assumes no responsibility for damage to persons or property resulting from failure to observe the regulations contained in this booklet.

1 PRECAUTIONS

- Make sure that the mains supply to the unit is disconnected before performing any installation, service, maintenance or electrical work!
- The installation and service of the unit and complete ventilation system must be performed by an authorized installer and in accordance with local rules and regulations.
- If any abnormality in operation is detected, disconnect the device from the mains supply and contact a qualified technician immediately.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
- A wrong electrical wiring can cause damage to the fan and interfere with other electronic devices.

2 INSTALLATION

Refer to the manual supplied in the control panel box or consult the website www.aerauliqa.com



3 WIRING DIAGRAM

Refer to the manual supplied in the control panel box or consult the website www.aerauliqa.com

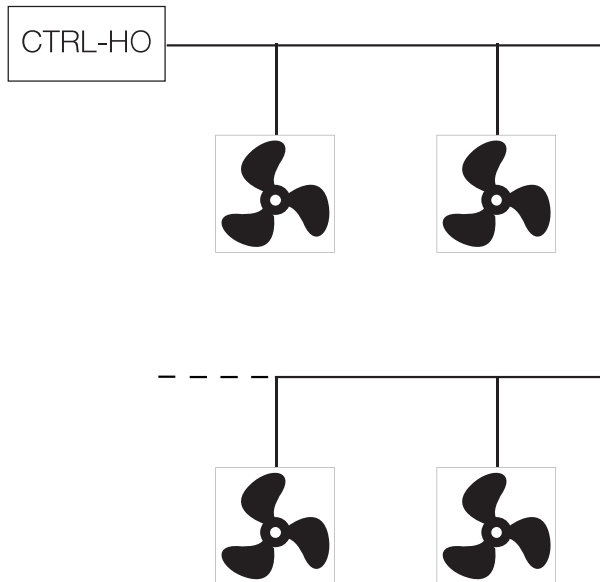


ATTENTION: The control panel must be powered 24 VAC 50/60Hz with maximum load 4VA or 12÷30VDC with maximum load 2W.

3.1 MODBUS CONNECTION

- Use twisted-pair cable type
- Minimum 24AWG (0,5mm) cable cross section
- Max length of the twisted-pair cable between each device of the network: 30m

If more fans (**up to 8**) need to be connected to the control panel, the connection must have a beginning (control panel) and an end (last unit), as shown in the picture below:



If the units are not connected as per the diagram above, a degradation of the communication signal may occur and the network may not function properly.

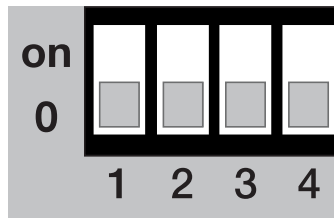
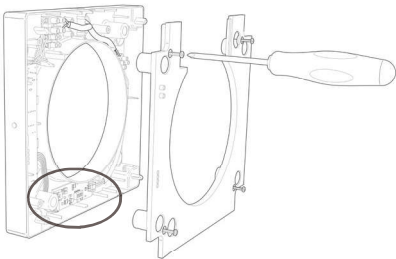
⚠ Before carrying out the following operations, the control panel and the unit must be disconnected from the main power supply.

It is recommended to enable the termination resistor on the control panel and on the last unit connected to the Modbus line as follows:

- Control panel: refer to the installation manual supplied in the box or consult www.aerauliqa.com.



- Last ventilation unit: the termination resistor can be activated via Dip Switch 4 located on the electronic circuit of the support base as follows:



DIP SWITCH		
4	TERMINATION RESISTOR	
0	Terminating resistor DEACTIVATED	default
on	Terminating resistor ACTIVATED	

Using Dip Switches 1-2-3 it is possible to set the Modbus address of each unit starting with number 1.

DIP SWITCH				
ADDRESS	1	2	3	
1	0	0	0	default
2	0	0	on	
3	0	on	0	
4	0	on	on	
5	on	0	0	
6	on	0	on	
7	on	on	0	
8	on	on	on	









4 OPERATION

4.1 HOME PAGE

Attention: The CTRL-HO is the remote control panel (master) which allows all connected ORION units (slaves) to be controlled simultaneously. It does not control the units individually.

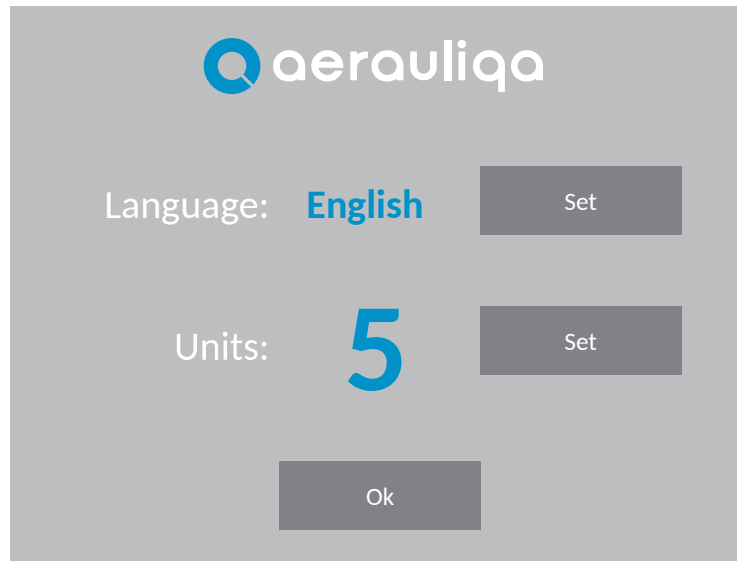


Button	Description																		
	Mode selection “On” (ventilation units are running) or “Off” (ventilation units are not running).																		
	Access to Setting page (paragraph 4.4)																		
	Speed setting: Touching the symbols or the speed of the all connected units increases or decreases. The display shows the number of the selected speed according to the following table:																		
	<table border="1"> <thead> <tr> <th>SPEED</th> <th>ORION 100</th> <th>ORION 150</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>10 m³/h</td> <td>20 m³/h</td> </tr> <tr> <td>2</td> <td>14 m³/h</td> <td>30 m³/h</td> </tr> <tr> <td>3</td> <td>17 m³/h</td> <td>40 m³/h</td> </tr> <tr> <td>4</td> <td>21 m³/h</td> <td>50 m³/h</td> </tr> <tr> <td>5</td> <td>25 m³/h</td> <td>60 m³/h</td> </tr> </tbody> </table>	SPEED	ORION 100	ORION 150	1	10 m ³ /h	20 m ³ /h	2	14 m ³ /h	30 m ³ /h	3	17 m ³ /h	40 m ³ /h	4	21 m ³ /h	50 m ³ /h	5	25 m ³ /h	60 m ³ /h
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4	21 m ³ /h	50 m ³ /h																	
5	25 m ³ /h	60 m ³ /h																	
Free cooling	Touching the text on the display the free cooling function is manually activated (paragraph 4.3): when activated “Free Cooling” is displayed.																		
	Comfort/Efficiency mode: touch the button to select Comfort or Efficiency mode (paragraph 4.3). “Comfort” or “Efficiency” is displayed.																		
	Boost: touching the button the Boost mode is activated. The icon is displayed. The button also allows to select the timing of the Boost function (10-20-30 minutes) or to deactivate it (paragraph 4.3).																		

Icon	Description
	Filter Alarm: the symbol  is displayed when filter maintenance is required (paragraph 4.3)
	Smart humidity control: the symbol  is displayed if the humidity sensor is active (paragraph 4.3)
	Antifrost: the symbol  is displayed if the antifrost function is active (paragraph 4.3)
 Modbus	Modbus alarm: the symbol  is displayed if one or more units fail to communicate on the Modbus network. Access the “Unit Status” screen (paragraph 4.4.2)

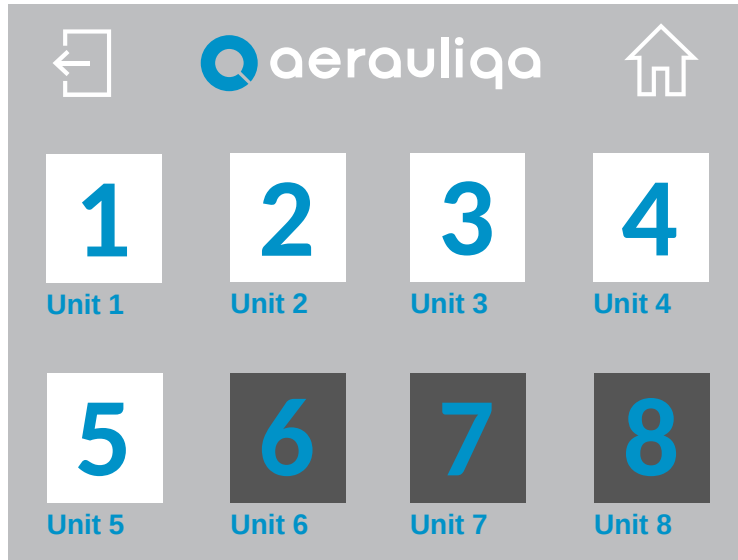
4.2 SETTING OF THE LANGUAGE AND NUMBER OF VENTILATION UNITS

When the control panel is powered ON for the first time, the following screen is displayed:



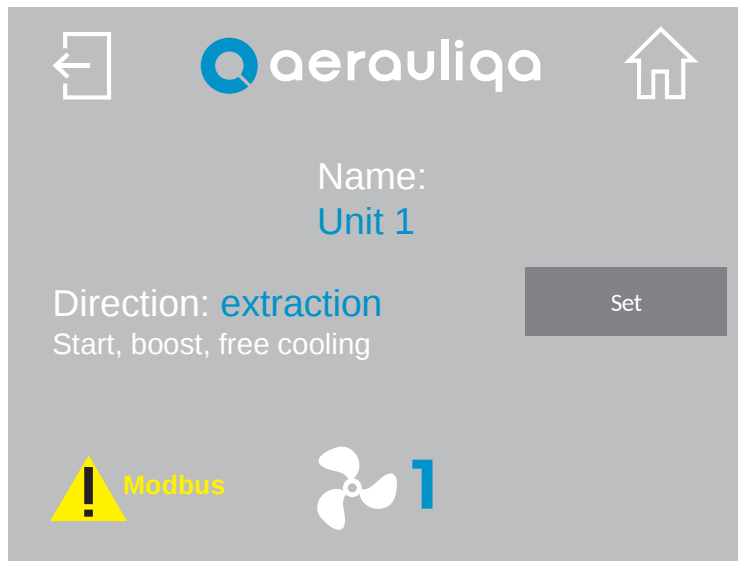
Button	Description
Language Set	Language selection (Italian, English, French, Spanish or German)
Unit Set	Setting of the number of units of the system (max 8 units)
Ok	Confirm and access to the next screen

Touching the OK button the following screen is displayed:










Button	Description
	Back to the previous screen
	Back to the Home Page
	Selection of the connected unit

Touching the number the following screen is displayed:



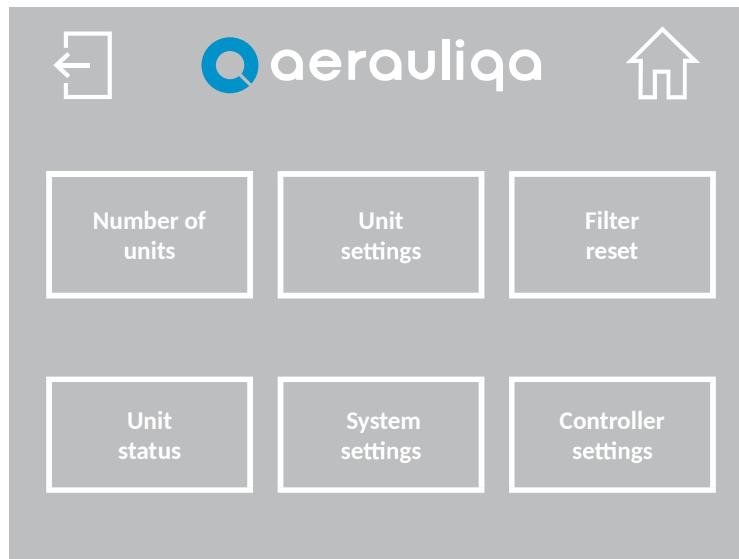
Button	Description
	Back to the previous screen
	Back to the Home Page
Unit 1	Touching the text, a name can be assigned to the unit
Set	Selection of the airflow direction (extract or intake) when the unit is first switched on, when the unit is in Boost mode and in Free Cooling mode
	Touching the symbol switches to the next unit screen
	Modbus alarm: the symbol is displayed if one or more units fail to communicate on the Modbus network. Access the "Unit Status" screen (paragraph 4.4.2)



4.3 OPERATION DESCRIPTION

Operation	Description	Button	Icon/text on display
Comfort	The units maximise the thermal and acoustic comfort. The inversion time varies automatically between 40÷120 seconds, thanks to the integrated temperature sensor. The first time cycle is 70 seconds, then it varies automatically depending on the detected conditions. The first unit reversing the flow causes the reversal of the whole system.		Comfort
Efficiency	The units maximise the thermal efficiency. The inversion time is fixed at 70 seconds.		Efficiency
Free Cooling	The units operate in extract-only or intake-only for 30 minutes to avoid heat recovery when not required. To select the airflow direction of each unit refer to paragraph 4.2.	-	-
	Manual free cooling: can be activated via dedicated button on the display.	Free cooling	Free Cooling
	Automatic free cooling: refer to paragraph 4.4.5 for setting	Auto free cooling	Auto free cooling
Boost	The units operate at speed 5 (maximum) for a period of time selectable via the dedicated button (10-20-30 minutes), and then return to the previously set mode/speed. To select the airflow direction of each unit refer to paragraph 4.2.		
Filter reset	Approximately every 3 months, the relevant icon is displayed, advising the user to perform filter maintenance on all units. To reset the timing refer to paragraph 4.4.1	-	
Smart humidity control	When the humidity sensor of a unit detects a quick variation in the relative humidity level, the speed is automatically increased to the higher speed on all the connected units. After 10 minutes from the last quick variation detected by the same unit, all units return to operate at the speed selected via the control panel. The smart humidity control is only active if the airflow direction of the units is set on alternate or extraction: if speed 5 has been selected, the intervention of the humidity probe does not generate variations. To disable this function on all units refer to paragraph 4.4.5	-	
Night Mode	If active, from 8 p.m. to 8 a.m. (cannot be changed) the smart humidity control function is disabled on all connected units. To enable/disable this function refer to paragraph 4.4.5	-	-
Antifrost	This feature refers to each individual unit and prevents excessively cold air from passing through the ceramic exchanger, with the risk of damaging it. When activated, the unit operates in extract mode at speed 1 for 30 minutes.	-	

4.4 CONFIGURATION



Touching the button  the following screen is displayed:



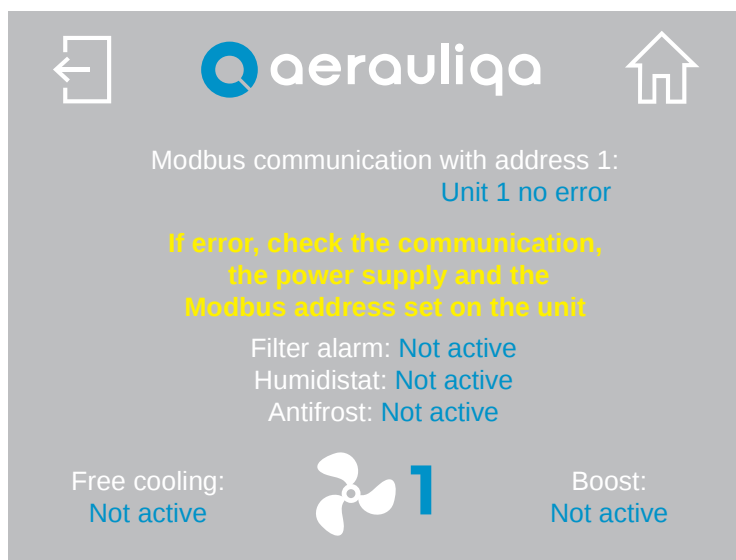
Button	Description
	Back to the previous screen
	Back to the Home Page
Number of units	Setting the number of wired units (paragraph 4.2)
Unit setting	Setting the airflow direction of each unit (paragraph 4.2)
Filter reset	Resetting of Filter Alarm and Timing (paragraph 4.4.1)
Unit status	Information on the status of each unit (paragraph 4.4.2)
System settings	Setting of the language, buzzer, backlight and password (paragraph 4.4.3)
Controller settings	Setting of the free cooling, night mode and smart humidity control (paragraph 4.4.5)




4.4.1 FILTER RESET



Button	Description
	Back to the previous screen
	Back to the Home Page
Ok	Alarm/Timer reset and return to previous screen

4.4.2 UNIT STATUS



Button	Description
	Back to the previous screen
	Back to the Home Page
	Selection of the unit number to which the screen refers

If necessary, follow the instructions on the display to solve the problem or contact technical support.


4.4.3 SYSTEM SETTINGS



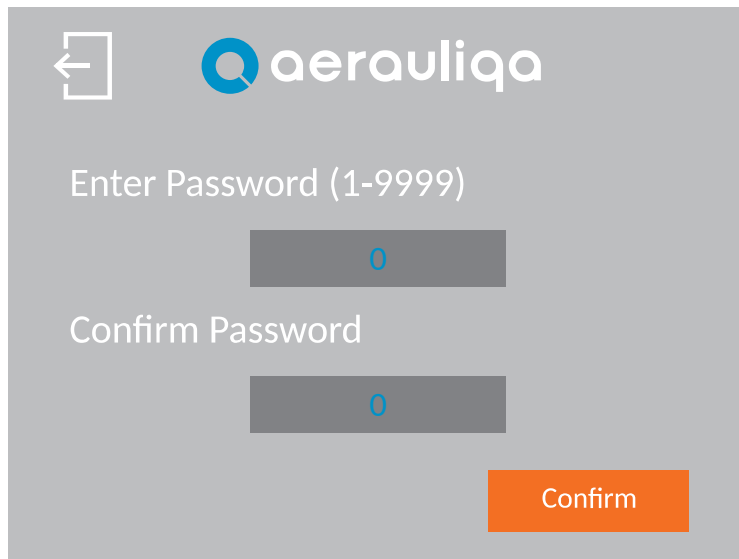
Button	Description
	Back to the previous screen
	Back to the Home Page
Firmware	Firmware reference loaded on the control panel
Language Set	Language selection (Italian, English, French, Spanish or German)
Buzzer Set	Beep setting: choose between “On” or “Off” .
Backlight Set	Backlight set: choose between “always on” or “time-controlled”.
Password	Password setting (paragraph 4.4.4)


4.4.4 PASSWORD



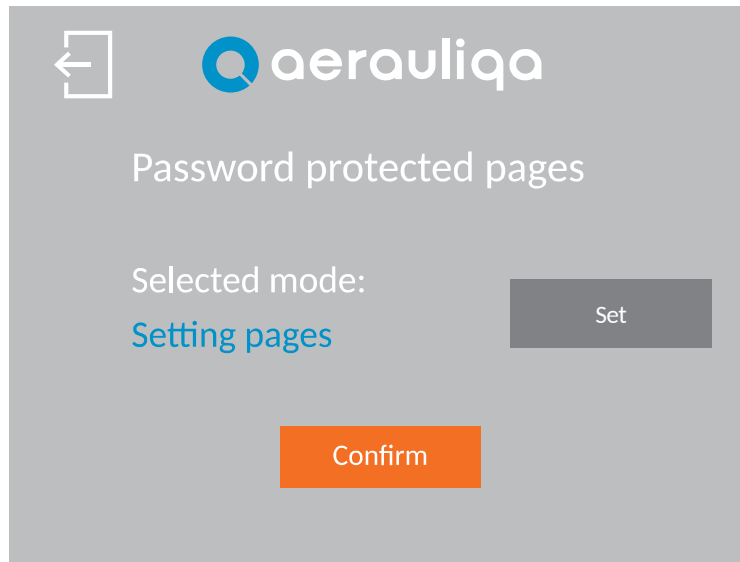
Button	Description
	Back to the previous screen
Set	Password setting (enter numbers only, from 1 to 9999)
Scope	Choose whether to protect “All pages” or only “Setting pages”.
Disable	Touch to disable the password


Touching the “Set Password button”, the following screen is displayed:



Button	Description
	Back to the previous screen
0	Enter password twice
Confirm	Touch to confirm/enable the password

Touching the “Password Scope” button, the following screen is displayed:



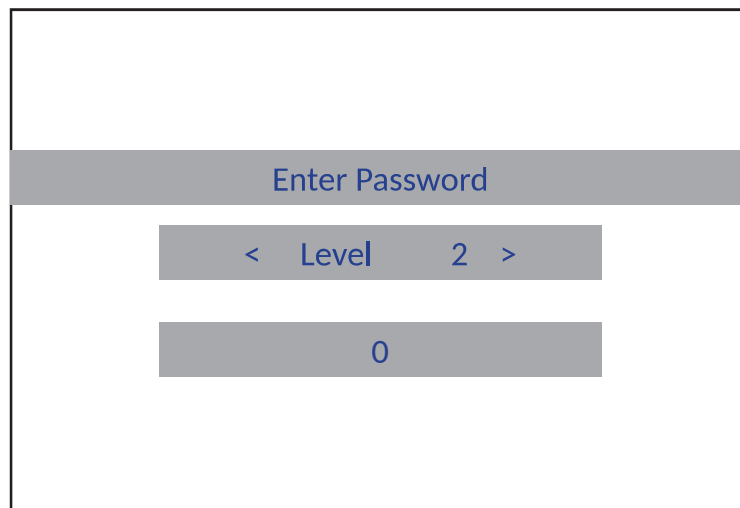
Button	Description
	Back to previous screen
Set	Selection of pages to be protected between “All pages” or “Setting pages”.
Confirm	Touch to confirm

If the password is enabled, when needed, the following screen is displayed.

Enter the correct password to continue.

If the screen does not change, verify password and try again.

If the password has been forgotten, contact the customer service.

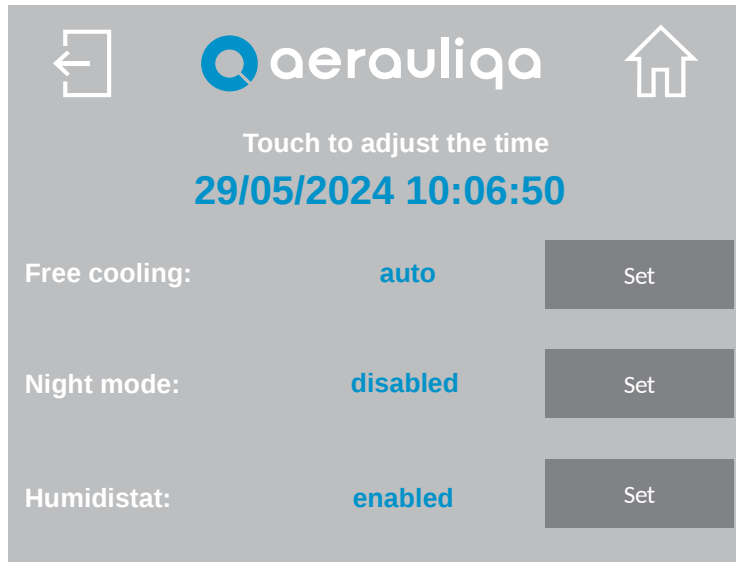


Touching the “Disable Password” button, the following screen is displayed:



Button	Description
←	Back to the previous screen
0	Enter password
Confirm	Touch to disable password

4.4.5 CONTROLLER SETTING



Button	Description
	Back to the previous screen
	Back to the Home Page
Free cooling Set	Choose between Free Cooling “manual” or “auto” (paragraph 4.3)
Night mode Set	Enabling/Disabling of the Night mode (paragraph 4.3)
Humidistat Set	Enabling/Disabling of the smart humidity control (paragraph 4.3)