2VV

PARTNER IN VENTILATION 2VV.CZ

AirGENIO
SUPERIOR

Operation instructions

1. CONTROL

READ CAREFULLY!

Before the initial commissioning, check:

- that the device is well fastened to the support structure,
- that the device is properly closed
- that the power supply is properly connected, including the earthing and the external trigger protection,
- that all the electrical components are securely connected,
- that the installation complies with all the instructions herein,
- that no tool or any other object that may damage the unit remains within.

⚠ CAUTION!

- Interventions or changes to the internal connections are forbidden and shall result in the loss of warranty.
- We recommend the use of accessories supplied by our company. Contact your supplier in case of doubts regarding the use of non-original accessories.
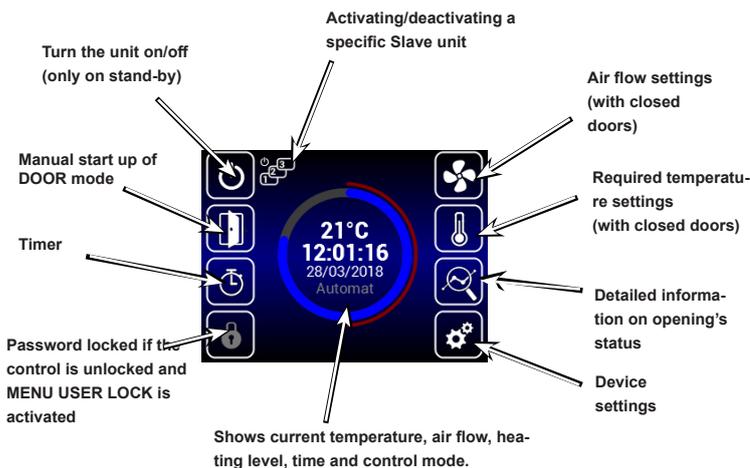
START-UP

After connecting power supply, the display lights up and the data is loaded.
The device is ready to be activated once the service data has fully loaded.
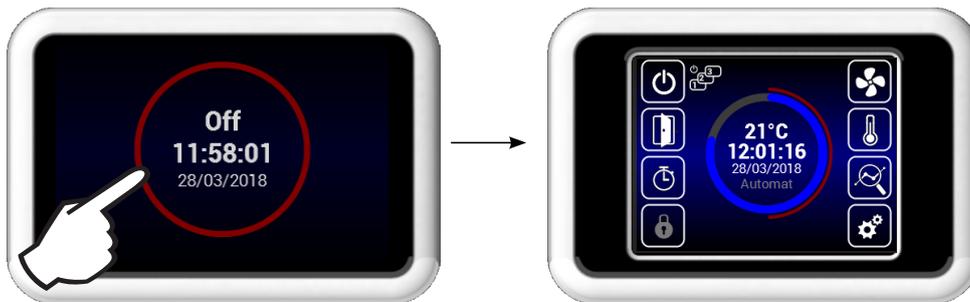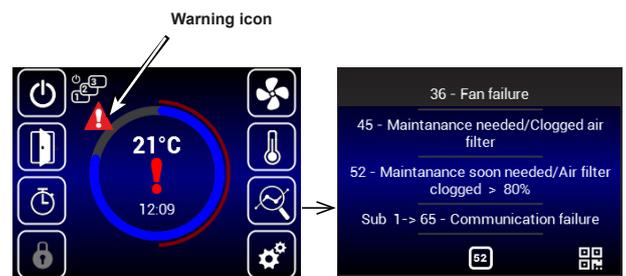
The remote control has a touch screen. The device is controlled tapping the symbols on the screen
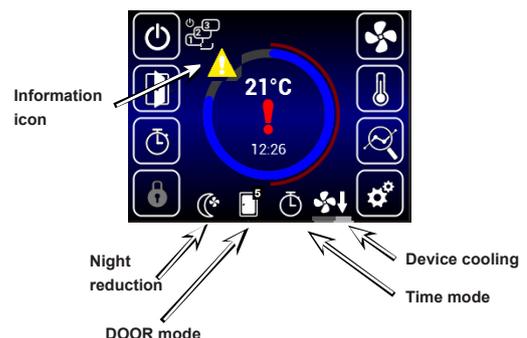
Description of main screen

Turn the unit on/off (only on stand-by)

Activating/deactivating a specific Slave unit

Air flow settings (with closed doors)

Manual start up of DOOR mode

Required temperature settings (with closed doors)

Timer

Detailed information on opening's status

Password locked if the control is unlocked and MENU USER LOCK is activated

Device settings

Shows current temperature, air flow, heating level, time and control mode.

Warning icons

They inform about errors. Clicking on them opens a screen with the error report.

Warning icon

36 - Fan failure
45 - Maintanance needed/Clogged air filter
52 - Maintanance soon needed/Air filter clogged > 80%
Sub 1-> 65 - Communication failure

Information icons

They only inform about status, not errors.

Information icon

Night reduction

DOOR mode

Device cooling

Time mode

1. CONTROL

Current status

This screen show the detailed status of the opening and the sensor values:
- Current air-flow settings (step or %), information icons
- Air temperature at intake*, exhaust*, room temperature* and outside temperature* (* – if the relevant sensors are installed and enabled)
- Heater output settings (if included)

Outside temperature

Inlet temperature

Room temperature

Back to previous screen

Heat power

Fan speed

Information on the type of unit

SP= Temperature setpoint

Indicates heating is blocked (summer mode)

Return water temperature

Green color = active sensor

The information on any connected SLAVE units will be shown here. It can be accessed moving the screen upwards.

The settings can be found below, under "SUBUNITS"

Settings MENU

Display backlight

Language

Date and time

Air flow settings (with closed doors)

AirGENIO app

Back to previous screen

QR code

Parameters

Required temperature settings (with closed doors)

Required temperature settings with closed doors

Actual temperature at selected sensor in menu 09

Reduce or increase required temperature

Required output
Manual mode = %
Automatic mode = °C

Confirm + return

If the heating is blocked in summer mode
(MENU - SUMMER HEATING), the screen will show a "Sun" icon and will not allow to select the output.

Air flow settings with closed doors

Display required air flow (20% steps)

Display the current air flow status

Reduce or increase opening's air flow (with closed doors)

Confirm + return

Date and time settings

Current date and time

Confirm + return

Back to main screen

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3

1. CONTROL

Timer

Unless otherwise set, the unit goes on stand-by mode after the timer expires.

Schedule 09:10

- Activate/deactivate timer
- Enable
- week regime — Weekly mode
- year regime — Annual mode
- Confirm + return
- Back to main screen

Weekly mode

Tap on a day to set different time modes

Button to copy the day plan to another day

- 07:00 - 11:30 60% 20°C
- 12:30 - 15:30 50% 21°C
- 15:30 - 16:30 50% 23°C
- 16:30 - 16:31 100% 20°C
- 17:30 - 18:45 20% 15°C
- 19:00 - 21:30 75% 25°C

Thursday Copy to :
- Monday
- Tuesday
- Wednesday
- ☑ Thursday
- Friday
- Saturday
- Sunday

- Copy + return
- Copy to

Annual mode

year regime
- 01/01 - 14/02 60% 20°C
- 01/03 - 14/03 60% 20°C
- ADD

Tap to add a new time mode

START / STOP interval

Start 14 / 03   Stop 24 / 03

0%   0°C

CANCEL

- Off mode — Only MANUAL
- Fan 20% — Required ventilation rate in manual mode
- Temperature 0°C — Required heating rate in manual mode

Language

There are 5 languages available

Language 10:45
- Select language
- Suomea
- English
- Français
- Confirm + return
- Back to main screen
- Confirmation of selection

Lightning settings

Display 10:59
- On mode — Display backlight when on
- Standby
- Confirm + return
- Lightning level on stand-by
- Back to main screen
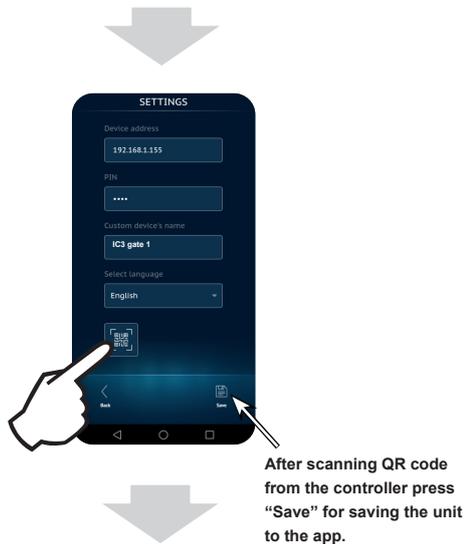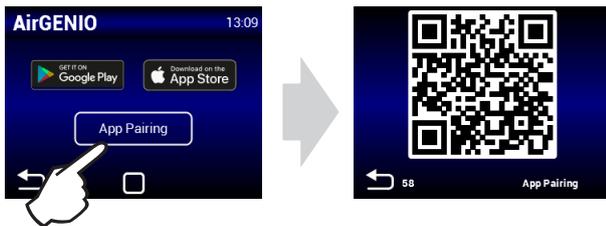
1. CONTROL

AirGENIO App

QR code for downloading the AirGENIO application for smart devices

Pairing mobile device with unit using QR code.

Pairing smart device:

The IP address and PIN of the unit can be entered manually or
by using a QR code for quick pairing of the unit.

1. Pairing using QR code:

After scanning QR code from the controller press "Save" for saving the unit to the app.

2. Manual pairing:

Network
IP address: 192.168.1.100
App PIN: 0000
Mask: 255.255.255.0
Gateway: 192.168.1.0
MAC address: 00:0a:14:1e:28:32
DHCP: ON

Enter the IP address from controler

Enter the PIN from the controller

Device´s name

After entering all the information from the controller press "Save" for saving the unit to the app.
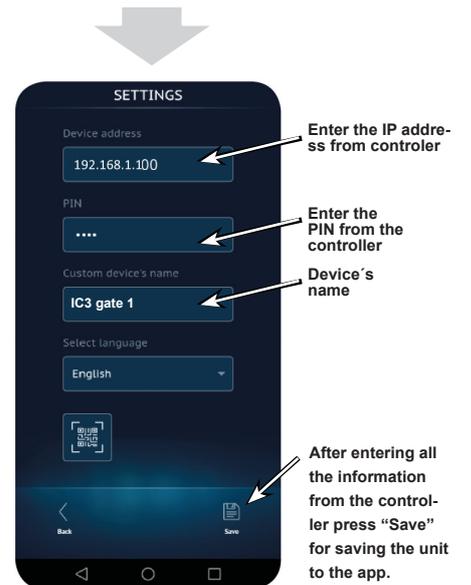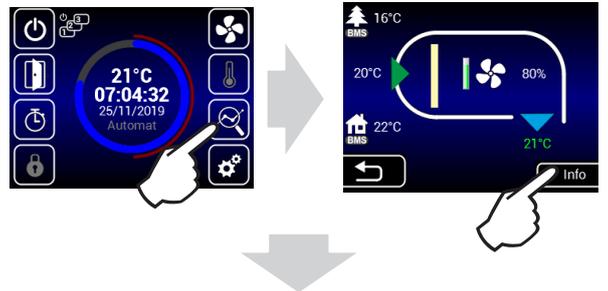
1. CONTROL

Service menu

Enter code 1616 to access the service menu

1616

Delete/return

Access menu

Choose this menu after centring the screen and tapping on enter.


```
Service                    12:39
49 - Other settings
50 - Factory reset
01 - Mode
02 - Hw Setting
09 - Temperature sensor
```
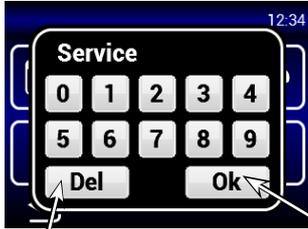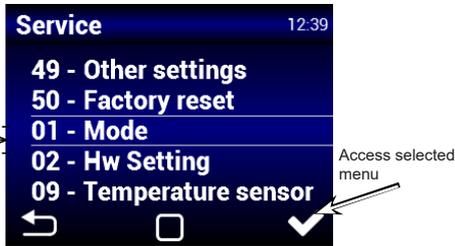
Access selected menu

MENU - MODE


```
01  Mode                   12:41
Heating mode
Automat
☐ Auto speed control
```
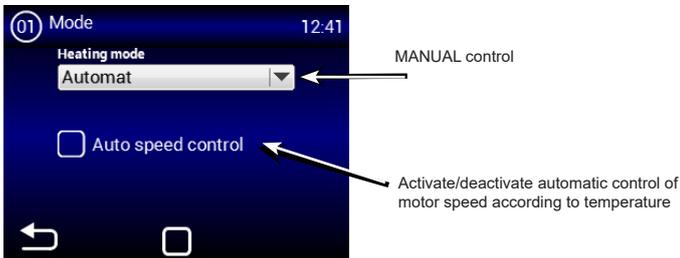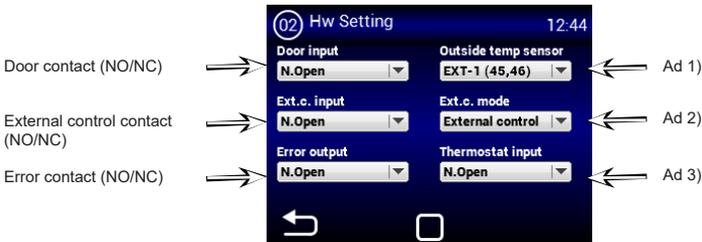
MANUAL control

Activate/deactivate automatic control of motor speed according to temperature

Setting AUTO or MANUAL may block/unblock certain items in the service menu.

MENU - HW SETTING

Use this menu to set the detailed behaviour of the inputs and outputs of the regulators

Door contact (NO/NC)

External control contact (NO/NC)

Error contact (NO/NC)


```
02  Hw Setting            12:44
Door input        Outside temp sensor
N.Open            EXT-1 (45,46)
Ext.c. input      Ext.c. mode
N.Open            External control
Error output      Thermostat input
N.Open            N.Open
```

Ad 1)

Ad 2)

Ad 3)

Ad 1) – External temperature sensor activation/settings Options:
- **None** – no sensor connected – inactive
- **EXT-1 (45,46)** – sensor connected (must be on terminals 45 y 46)
- **BMS** – sensor active and used from the master system

Ad 2) - Sets the external contact input behaviour. Options:
- **None** – inactive
- **External control** – External switching of device
- **Night reduction** – Night reduction on/off
    (settings described below)

Ad 3) - Thermostat (NO/NC)

MENU - FILTER TIMER

Use this menu to set the period (in motor hours) after which you will be reminded to replace the filters or reset to timer.
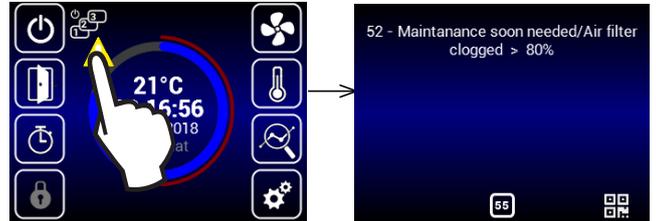
Set the time after which a notice will appear in the main screen.

1000h ~ 5000h


```
06  Filter timer          13:12
Filter max. time    1500h/5000h
     ▲                 30%
   5000h
     ▼              RESET timer !
```

Current timer status

RESET button (use after replacing filters)

Shows the status of the clogged filter in the main screen


```
21°C
16:56
2018
```

52 - Maintanance soon needed/Air filter clogged > 80%

MENU - TEMPERATURE SENSOR

Available only in automatic mode
Use this menu to select the sensor to be used for primary temperature control


```
09  Temperature sensor    13:2
⦿ Outlet
○ Inlet
○ Room
○ Thermostat
○ Room BMS
```
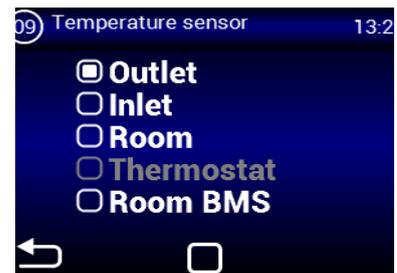
Only available in Manual mode.


```
09  Temperature sensor
⦿ None
○ Inlet
○ Room
○ Thermostat
○ Room BMS
```
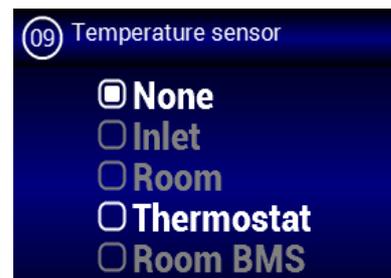
Options:

- **Outlet** – Temperature sensor at the outlet (behind the exchanger)
- **Inlet** – Temperature sensor at the inlet (before the exchanger)
- **Room** – Room temperature sensor
- **Thermostat** – Room thermostat (ON/OFF)
- **Room BMS** – Room temperature sensor from master system

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1. CONTROL

MENU - OUTLET TEMP LIMITS

Use this menu to set the limits of the exhaust

Maximum temperature limit: 25°C - 45°C

Minimum temperature limit: 15°C - 20°C

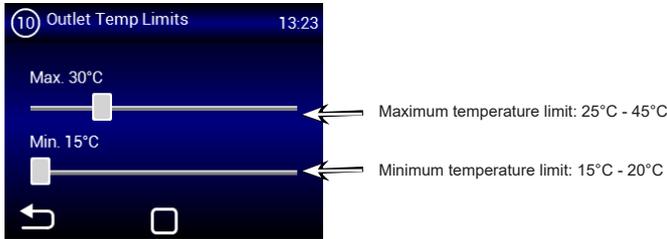If "OUTLET" is selected in the TEMPERATURE SENSOR MENU, it will not be possible to set values as they are already defined by the sensor. You will see this screen:


MENU - MODBUS RTU

Use this menu to set the Modbus RTU communication parameters

Address
1~247

Communication speed:
4800 Bd
9600 Bd
14400 Bd
19200 Bd
38400 Bd

Parity
None
Odd
Even

⚠ An incorrect setting may prevent communication with the regulator

MENU - NETWORK

Use this menu to set the communication parameters of the network interface

DHCP blocked/enabled

Regulator network settings to be entered manually:
IP address
Mask
Gate
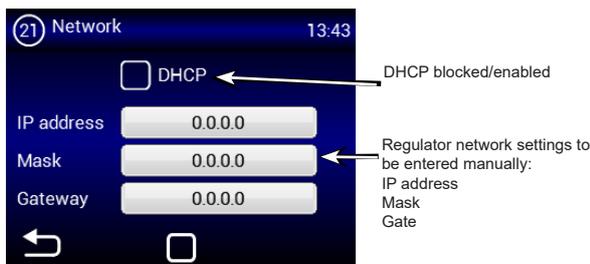
⚠ An incorrect setting may prevent communication with the regulator

MENU - USER LOCK

Use this menu to set the limits to control the regulator with a multi-level panel

Limit level – see Ad1)

Enter PIN 0000~9999 (numeric values only)
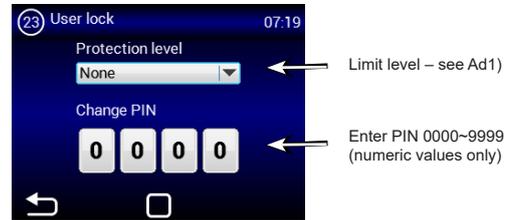
Options:
None – Limit inactive
On/Off – Only On/Off and access to the information menu are enabled in the main screen
On/Off, Temp, Flow – On/Off, the information menu, and temperature and air flow settings can be accessed without password.
Full – Only the information menu can be accessed without password
User mode – Special user mode, see image below

MENU - SUMMER HEATING

Use this menu to set heating limits in summer months

Enable/disable function

End of winter period (month number)

Start of winter period (month number)

Temperature limit – the heating is disabled if the temperature on the "Outdoor" sensor is higher than the one set here

If the outside temperature sensor is not set, the "summer heating" mode will operate only according to the selected time and the temperature will not be taken into account

MENU - Night Reduction

This MENU allows for setting reduced temperatures during night hours with closed doors.

Setting start time for reduced temperature

Setting time for ending reduced temperature.

Setting reduced temperature range -1~-5°C

Activating function

In this menu, the reduction of temperature may be set only by five degrees at the set time compared to the set (required) temperature.

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7

1. CONTROL

MENU - DOOR CONTACT

🔍 This MENU allows for setting the behaviour of the regulator according to doors contact

Mode:
Fixed - fixed setting
Selflearning - automation menu

Zapnutí/vypnutí této funkce

Setting Fixed mode

Time interval

Blower power with open doors

Required temperature with open doors

Suspend mode:
at a set time, or upon achieving a specific temperature

Time of shutter operation per minimum rotation of the motor from closed doors.

Time of shutter operation per maximum rotation of the motor from closed doors.

Temperature

Blower power with open doors.

The temperature the shutter attempts to reach with open doors.

In this menu it is possible to specify which sensor will be active and the temperature the shutter will attempt to reach after closing doors so as to balance temperature loss. After reaching the set temperature, the shutter transitions into the selected automatic/manual mode.

MENU - DOOR CONTACT

MENU Selflearning

Selflearning- available only in automation and active function mode (Auto speed control), depending on the number of open doors it optimises the period in which the shutter is in operation, even when doors are closed.

Must be set to activate Selflearning.

MENU - WATER ANTIFREEZE
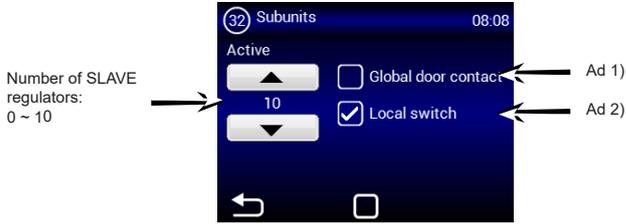
The menu is enabled only in units with water exchanger

Settings (20%-100%)

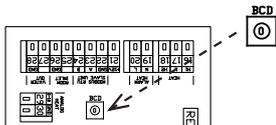Ventilation rate with open doors (20%-100%)

1. CONTROL

MENU - SUBUNITS

🔍 Use this menu to set the behaviour of the IC-S regulators connected as SLAVE

Number of SLAVE regulators: 0 ~ 10

Slave address parameter:

ADDRESS	SLAVE UNIT	ADDRESS	SLAVE UNIT
1	1	6	6
2	2	7	7
3	3	8	8
4	4	9	9
5	5	A	10

Ad 1) – Use one door contact as main. Its status will be sent to the SLAVE regulators and it will no longer be necessary to connect it to each regulator, if required.

☐ Not allowed = the door contact will not transmit to the SLAVE regulator from the MASTER

☑ Allowed = the door contact will transmit to the SLAVE regulator from the MASTER

Ad 2) – Activates in the main screen the icon to turn each SLAVE regulator ON/OFF If inactive, all the SLAVE regulators will be turned on or off simultaneously
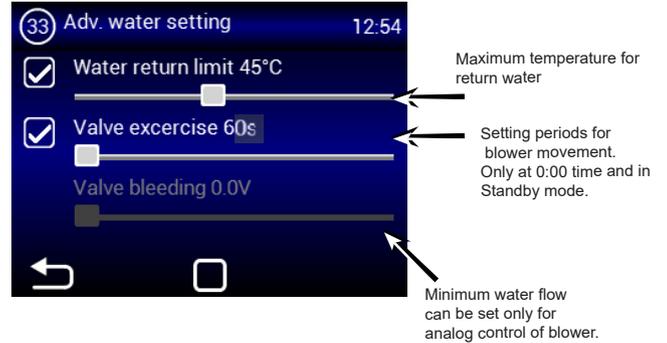
☐ Not allowed = The SLAVE regulators are turned on/off simultaneously

☑ Allowed = The SLAVE regulators can be turned on/off individually form the main screen
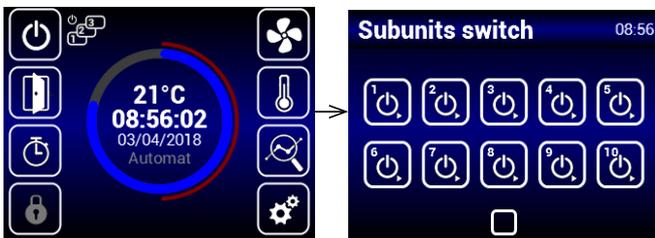
MENU - Adv. WATER SETTING

🔍 This MENU is available only for units with water heat exchanger it allows for advanced setting of water heat exchanger regulation.

Maximum temperature for return water

Setting periods for blower movement. Only at 0:00 time and in Standby mode.

Minimum water flow can be set only for analog control of blower.

MENU - Adv. fan setting

The MENU for setting the blowers when closing and opening doors. It allows for advanced settings of blower control.

The time for which the blower will be operational from the moment the desired temperature is achieved +0.3°C on the ROOM sensor in closed door mode. This setting is available only when the ROOM regulation sensor is selected (1616/Temperature sensor)

Setting blower power limits for open doors. Min - Max

Setting blower power limits limits for closed doors. Min - Max
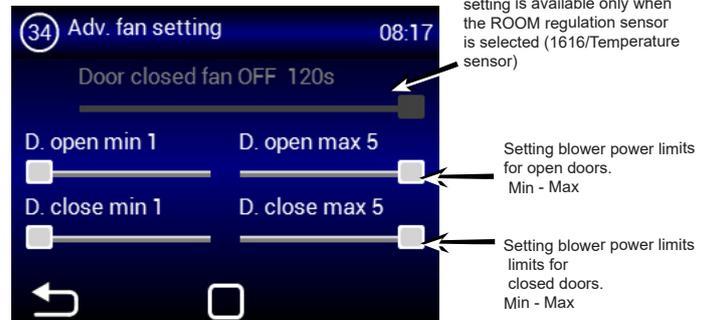
🔍 The set limits on blower power restrict the extent of blower control for open and closed doors. This restriction is applied to manual and automatic control of blower power. Exceeding limits in any blower power setting is signalled when the setting element turns red with the text overruns.

1. CONTROL

MENU - OTHER SETTINGS

🔍 Use this menu to set the remaining parameters

Ad 1) ➤

Enable/disable automatic switch of
summer/winter time

(49) Other settings   08:59
CP CAN Bus address
CP 1
☐ Summer time

Ad 1) – Sets the CAN address of the control panel so up to 2 control panels
may be connected to the MASTER regulator
Options: CP 1 = control panel's address is 1
CP 2 = control panel's address is 2

🔍 The address is set for each control, which then addressed according to it.

⚠ *CAUTION!*

Each panel must have its own address,
otherwise it may result in the malfunction of the regulator.

Terminals must be set if multiple panels are to be connected. They are found in the main electronics and the controller:

Terminal settings

Example of controller connection – Option 1:

Electric connection – Option 1:

CP 1   CP 2

Electric connection – Option 2:

CP 1   CP 2

Electric connection – Option 2:

CP 1   CP 2

MENU - FACTORY RESET

🔍 Use this to reset the default values

(50) Factory reset   16:04
Set unit to factory default setting!
FACTORY RESET

⚠
Press "FACTORY RESET" to reset the
default values of MENU 1616

(50) Factory reset   16:04
100%
In progress...

⚠
Once completed, we recommend to turn the main supply off and on.

2. MALFUNCTIONS

2.1 MALFUNCTIONS

Disconnect the main power supply before any intervention to the unit. If you are not sure of the correct steps, do not attempt to perform any repairs and call a professional service!

Description	Unit behaviour	Likely problem	Solution
44 – Fan error	Unit out of order	Overheated fan or defect on thermal contact of inlet fan	Determine the cause of the overheating (defective bearing, short-circuit...) or replace the motor. Check the thermal contacts from the motor to the regulator.
45 – Mandatory maintenance/filter clogged	Unit operational	Filter clogged or the time to replace it has come	Replace filters. After replacing, do not forget to reset the MENU 1616 – FILTER TIMER
46 – Heater malfunction	Unit out of order	Heater malfunction	Check the heater and the condition of the safety thermostat Does the heater have proper cooling? Check engine running.
47 - malfunction in external temperature sensor (45,46)	Unit out of order	Temperature sensor malfunction on terminals 45,46	Check that the sensor is correctly connected to the electronics or test it measuring its resistance (the resistance value at +20°C is around 10kΩ)
48 – Outlet temperature sensor malfunction (49,50)	Unit out of order	Temperature sensor malfunction on terminals 49,50	Check that the sensor is correctly connected to the electronics or test it measuring its resistance (the resistance value at +20°C is around 10kΩ)
49 – Inlet temperature sensor malfunction (51,52)	Unit out of order	Temperature sensor malfunction on terminals 51,52	Check that the sensor is correctly connected to the electronics or test it measuring its resistance (the resistance value at +20°C is around 10kΩ)
60 – Exchanger's return sensor malfunction (53,54)	Unit out of order	Temperature sensor malfunction on terminals 53,54	Check that the sensor is correctly connected to the electronics or test it measuring its resistance (the resistance value at +20°C is around 10kΩ)
61 – Room temperature sensor malfunction (55,56)	Unit out of order	Temperature sensor malfunction on terminals 55,56	Check that the sensor is correctly connected to the electronics or test it measuring its resistance (the resistance value at +20°C is around 10kΩ)
62 - malfunction in external temperature sensor from BMS	Limited operation of the device	Temperature sensor malfunction in BMS	Check that in the BMS that the address where the sensors sends the data is properly set (on the right regulator) Check the function of the sensor in the BMS
63 - malfunction in room temperature sensor from BMS	Limited operation of the device	Temperature sensor malfunction in BMS	Check that in the BMS that the address where the sensors sends the data is properly set (on the right regulator) Check the function of the sensor in the BMS
79 – Heating reduced due to low air flow	Unit operational	Only information	The air flow settings were reduced, limiting the heater output to prevent overheating
65 – Communication error	Unit out of order	Communication error	Check the communication cable for damages and if it is properly connected Observe the wiring diagram to prevent occurrences that may disrupt communication (wiring near high tension, phenomena on site causing disruptions)
Unit's not working	Unit out of order	Power supply interrupted	Check that the power supply is not interrupted
		Cracked fuse	Check the fuse in side the control module
The heating switches off automatically	Unit operational but not heating	The heater overheats	The heater overheats due to insufficient air flow. Check that the ventilators are in good order and that the air supply is not disrupted.

3. CONCLUSION

3.1 CONCLUSION

In case of any doubt or query, do not hesitate to contact our sales or technical support departments.

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