



PARTNER
IN VENTILATION
2VV.CZ

EN

AirGENIO^{2VW} Superior



OPERATION AND HANDLING

EAC

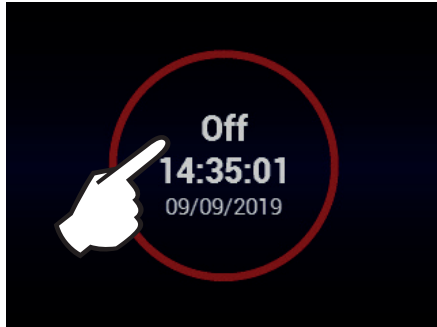
CE

1. CONTROL

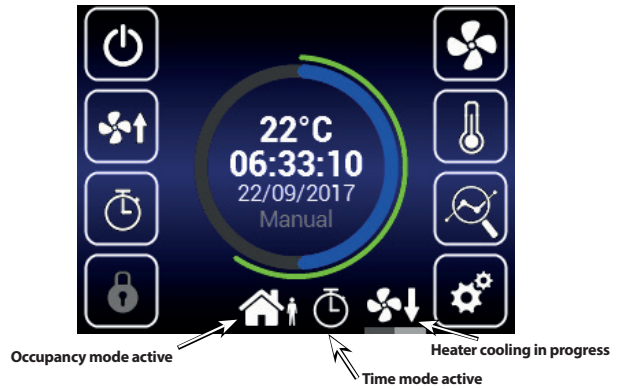
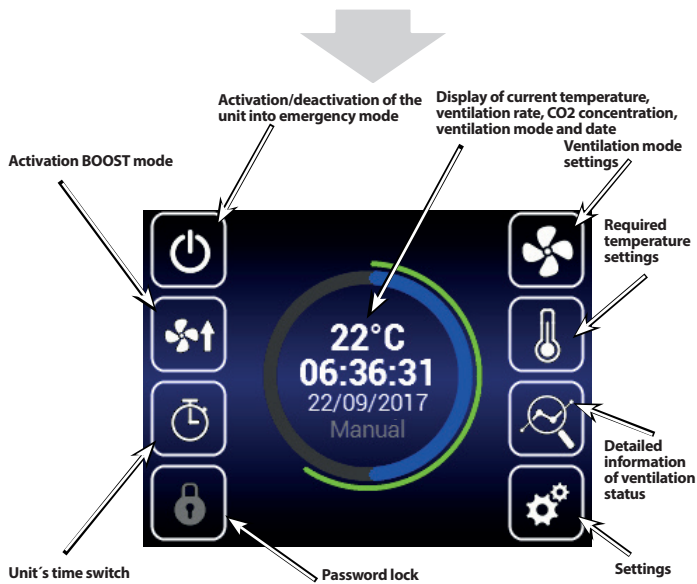
INITIAL COMMISSIONING

- After connecting the unit, the display lights up and the data is loaded. Once it has fully loaded, the unit is ready for start-up.
- The remote control has a touch-screen – the unit is controlled-touching the symbols on the screen.

Start-up:



The unit is launched by pushing the red circle symbol

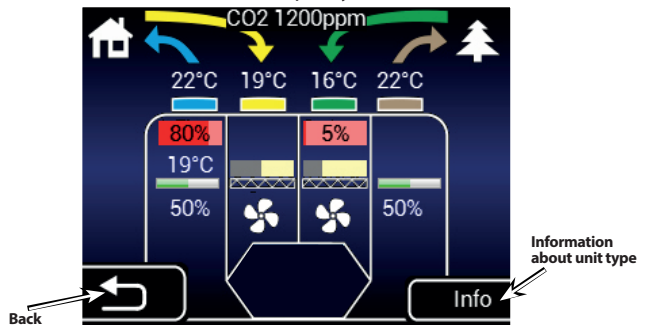


The BOOST mode is activated by touching symbol BOOST regime is displayed in ventilation mode area

INFORMATION ON THE VENTILATION STATUS

This screen shows the status of the unit and the values of the sensors:

- Current air flow of both fans
- Inlet and exhaust air temperature
- Performance of the electric preheating and reheating
- Value of the connected air quality sensor



UNIT SETTINGS

Labels for UNIT SETTINGS:

- Display settings
- Language settings
- Ventilation level settings
- Date and time
- AirGenio app
- Back
- Unit's service settings
- Required temperature settings
- QR code with contact details and technical sheet download link

VENTILATION LEVEL SETTINGS

Labels for VENTILATION LEVEL SETTINGS:

- Display required air flow
- Reducing or increasing unit airflow (min 20% - max 100% in 10% increments)
- Display of current airflow

REQUIRED TEMPERATURE SETTINGS

Labels for REQUIRED TEMPERATURE SETTINGS:

- Display of required temperature
- Reducing or increasing required temperature in the range of +15°C to +45°C
- Display of current temperature (on selected sensor)

UNIT'S TIME SWITCH

Labels for UNIT'S TIME SWITCH:

- Activation / deactivation of time switch
- Week regime
- Year regime

Week mode

Touch a day to set ventilation modes

Labels for Week mode details:

- Touch for copying time interval

Touch to set individual intervals of ventilation (time ON/OFF, vent. mode, vent. level, temperature)

Year mode

Label for Year mode:

- Add a time mode

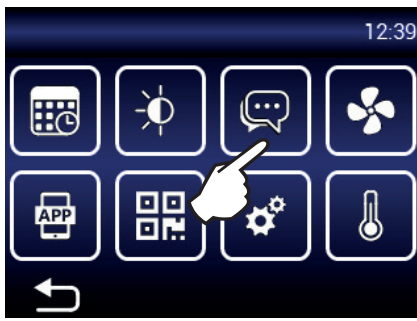
Labels for Year mode interval settings:

- Beginning of time interval (Day/Month)
- End of time interval (Day/Month)
- Values setting
- Delete time interval
- Back

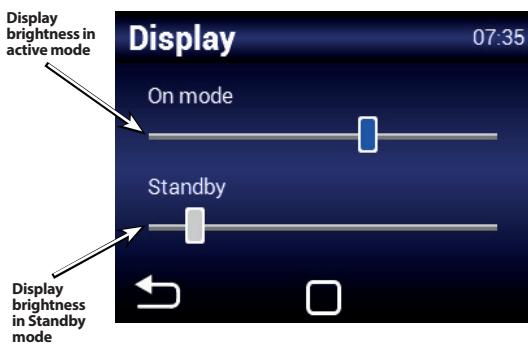
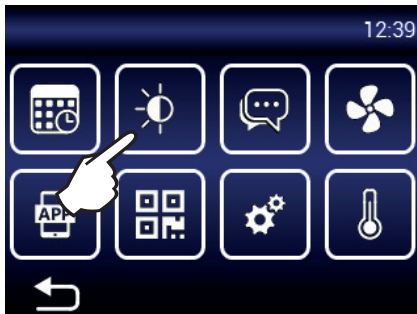
In manual mode it is possible to set the desired temperature and fan power.
In automatic mode only the desired temperature may be set. Fan power is driven using AQS.

⚠ When the time interval ends, the unit goes into stand-by mode.

LANGUAGE SETTINGS



DISPLAY SETTINGS



AirGENIO App



QR code for downloading the AirGENIO application for smart devices

Pairing mobile device with unit using QR code.

Pairing smart device with recuperation unit:

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

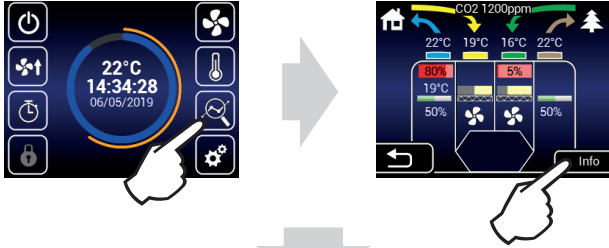
1. Pairing using QR code:



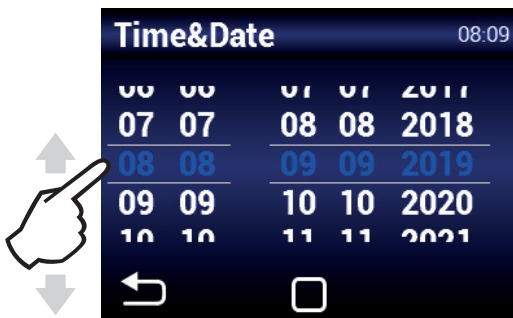
After scanning QR code from the controller press "Save" for saving the unit to the app.



2. Manual pairing:

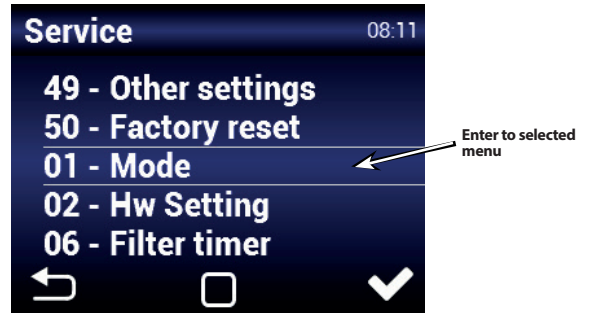


TIME AND DATE SETTINGS



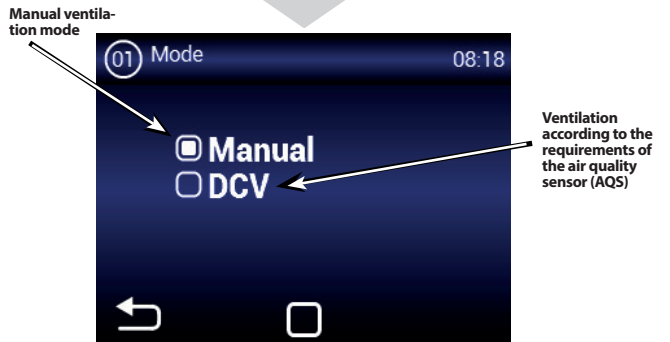
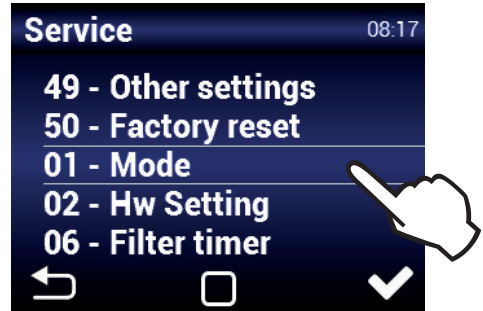
SERVICE MENU

- ⚠ Use code **1616** to access the service MENU
- This MENU is intended primarily for service technicians or users who have experience with HVAC units. Changes in this MENU can lead to improper operation of the unit. If you are uncertain, first contact your supplier for more information.



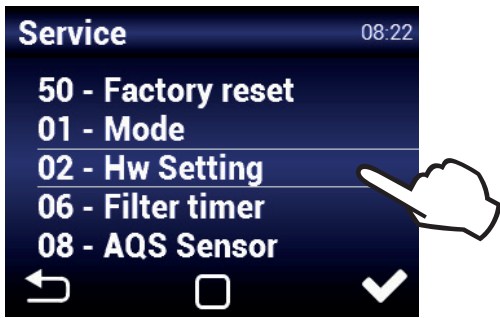
Scroll up/down to select menu

MENU 01 - MODE

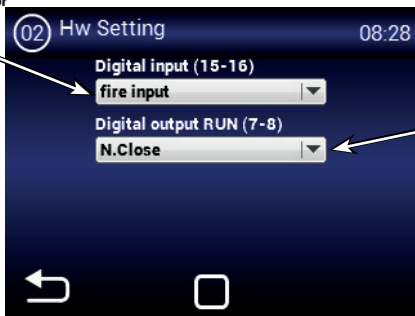


- MANUAL:**
- Unit ventilates at the selected power independent of the AQS
 - DCV (pouze s připojeným čidlem kvality vzduchu):**
 - Unit ventilates at the air quality sensor (AQS) requirements, e.g. CO2, RH (sensor control signal must range from 0-10V).

MENU 02 - HW SETTINGS



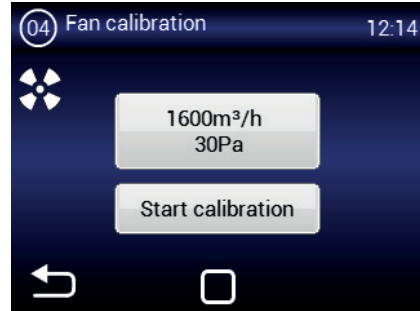
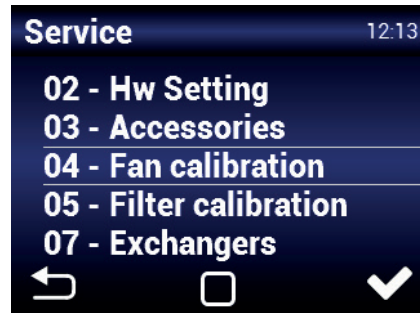
Option to select function of switching motion sensor or fire contact



Possibility to choose the logic of the run contact (N.Close / N.Open)

- This menu sets the logic used by input 15-16 and RUN output.
- Input (15-16) – Lets you choose to control the unit with the movement sensor or as a fire contact. In case of fire, the behavior of the unit can be set (settings in service menu no. 13).
- Output (7-8) – Lets you set the logic of the RUN contact switch as follows: N.close (normally closed) or N.Open (normally open)

MENU 04 - Fan calibration

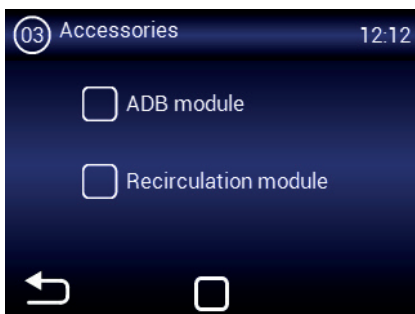
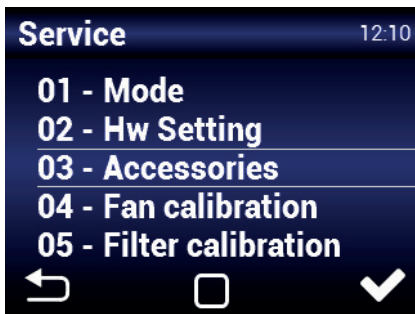


The calibration takes several minutes. Do not disconnect the unit, wait until it's completed. During the calibration the unit determines the maximum pressure loss, when the fan runs at full rate.



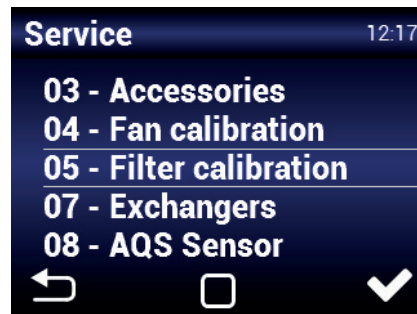
READ CAREFULLY! The unit will not work properly if, during calibration, the distribution network is not complete, the flaps or valves are not closed, etc.

MENU 03 - Accesories



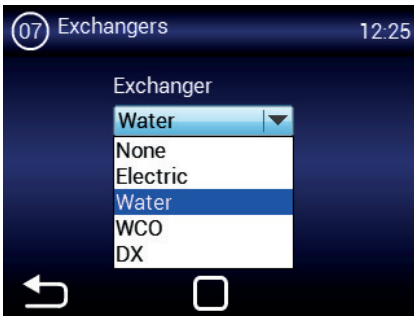
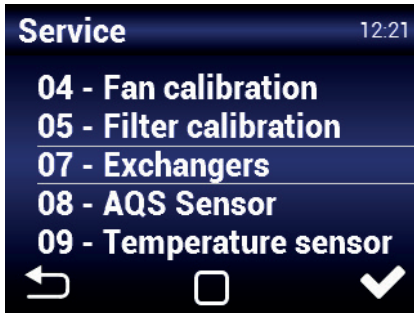
Select optional accessories

MENU 05 - Filter calibration



Filter calibration has to be carried out during the first commissioning and after a filter change.

MENU 07 - EXCHANGERS



Preheating:
(not for HR85)
No
Electric
Water

Postheater:
Without
Electric
Water
WCO
DX

- ⚠ a Software reset (menu 48) must be performed to save the changes

MENU 08 - AQS SENSOR

AQS = Air Quality Sensor



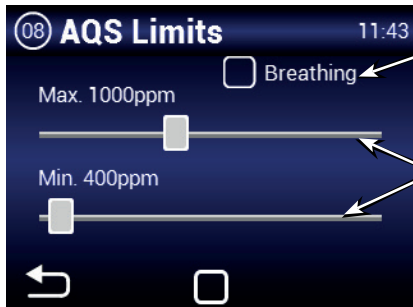
Select air quality sensor



Set the limit of the selected air quality sensor

Max. 1000ppm
Min. 400ppm

AQS Limits



Activation of the mode in which the unit performs test air intake if AQS channel is used

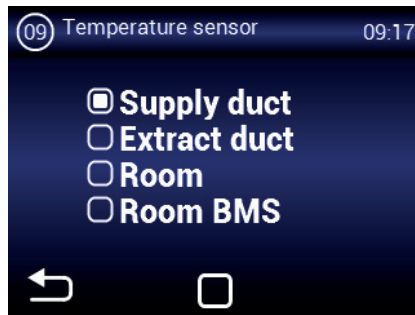
Required limits setting

BREATHING

- with the breathing mode enabled, the unit shuts down after reaching the minimum concentration and then inhales every 15 minutes for 2 minutes at minimum fan power. If the concentration exceeds the maximum value, ventilation is reactivated. If the max. Limit is not exceeded, the unit switches off again until the next inhalation.

- ⚠ a Software reset (menu 48) must be performed to save the changes

MENU 09 - TEMPERATURE SENSOR



A temperature sensor can be selected to control the air temperature. The values from the selected sensor will be used for temperature control and will be displayed on the main controller screen.

- ⚠ a Software reset (menu 48) must be performed to save the changes

Supply duct:

The unit will be controlled by the supply air temperature sensor to the object. Suitable for installations where the same supply air temperature is required to the rooms and in individual rooms is further adjusted as required. There is no local overheating. Suitable for multi-zone ventilation. The unit will respond quickly to temperature changes at this setting. ATTENTION: With this setting, the MAX and MIN channel limit values cannot be defined. The maximum limit in the channel is the desired temperature. The minimum temperature is set to 15 ° C. (for its adjustment it is possible to go to the sensor of the outlet channel, adjust the limit and change the sensor to the supply - the MIN value will be respected according to the settings).

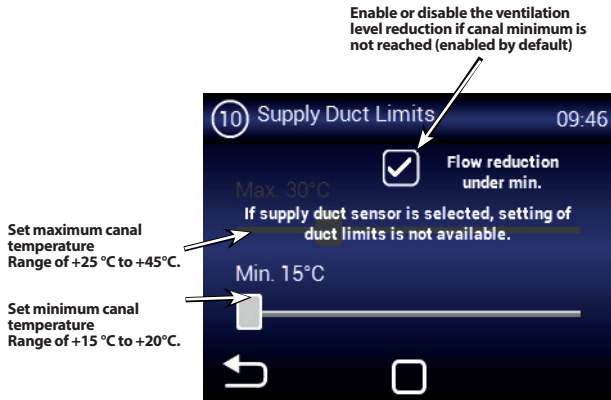
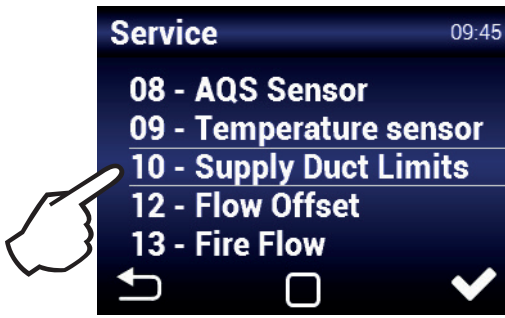
Extract duct:

The unit will be controlled by the extract air temperature sensor from the object. Suitable for installations where it is necessary to monitor the average exhaust air temperature and adjust the supply air temperature to achieve comfort in the building. Suitable for mono-zone ventilation where supply air affects one room. The unit will respond more slowly to the temperature change at this setting. The supply air temperature is between the minimum and maximum supply air temperature.

Room:

The unit will follow the temperature sensor installed in the room. Suitable for installations where it is necessary to monitor the local room temperature and adjust the supply air temperature to achieve room comfort. Suitable for monozone ventilation, where the supply air affects one space. The supply air temperature is between the minimum and maximum supply air temperature. According to the setting in the menu 10 - SUPPLY DUCT LIMITS.

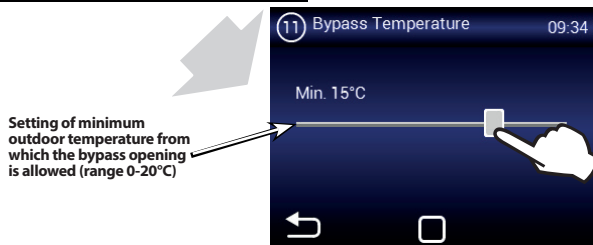
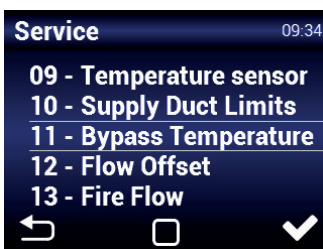
MENU 10 - SUPPLY DUCT LIMITS



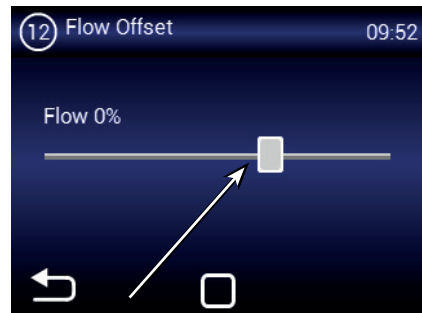
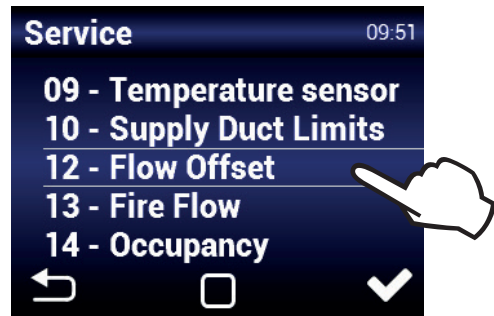
- Due to possible condensation on the surface of the ventilation ductwork, it is recommended to leave enabled the reduction of flow if canal minimum is not reached.
- ⚠ • Selecting the sensor in the supply ductwork disables the maximum temperature setting in the ductwork.

MENU 11 - BYPASS-TEMPERATURE

(not for HR85)



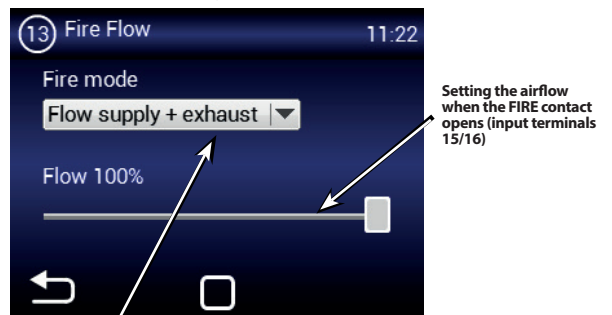
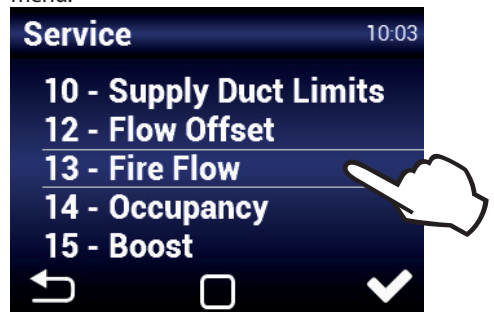
MENU 12 - FLOW OFFSET



0% - equal pressure, positive value - overpressure, negative value - underpressure

MENU 13 - FIRE FLOW

- ⚠ The NIGHT VENTILATION and PERSONS PRESENT modes cannot be used at the same time. ONLY one of these modes may be selected in the HW SETTINGS menu.



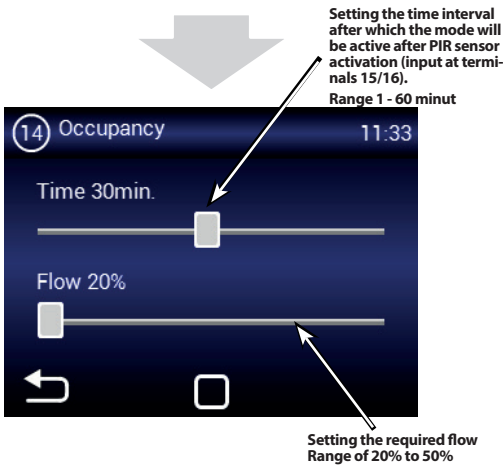
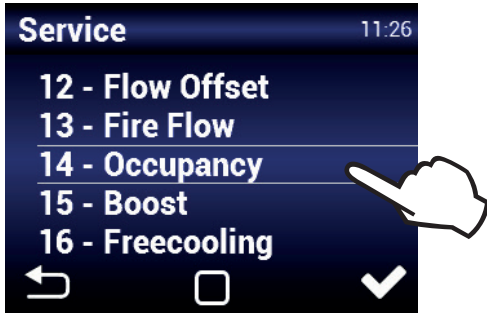
Settings for how the unit in this mode should maintain:

- Without flow** - both motors deactivated
- Flow intake + exhaust** - both motors activated
- Intake only flow** - only the motor for the intake branch will be activated
- Exhaust only flow** - only the motor for the exhaust branch will be activated

- ⚠ FIRE VENTILATION input has highest priority (it deactivates all other modes, including anti-frost protection).

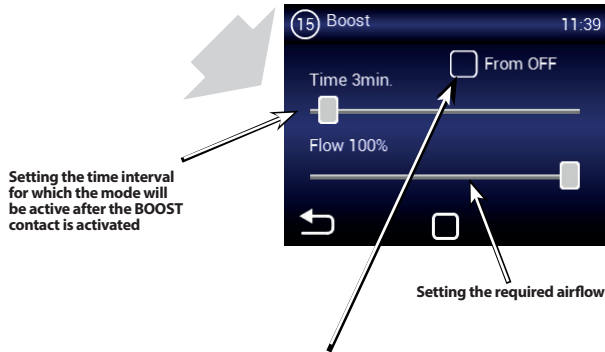
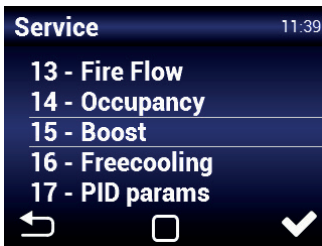
MENU 14 - OCCUPANCY

The NIGHT VENTILATION and PERSONS PRESENT modes cannot be used at the same time. ONLY one of these modes may be selected in the HW SETTINGS menu.



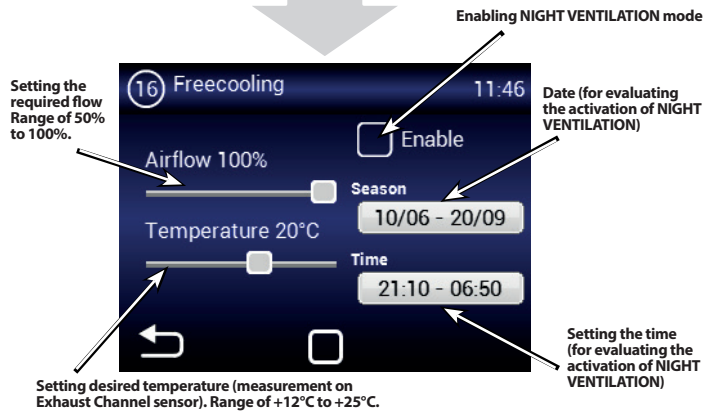
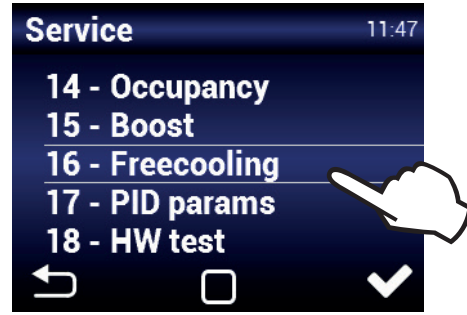
MENU 15 - BOOST MODE

Boost can be activated with the button connected to the input 13/14, or with the Boost button (Fig. Boost) on main screen



Enabling BOOST mode activation from Standby state of the unit. Activation can be achieved solely using an external button. The unit is automatically engaged at the set time and power after activating the button.
CAUTION: After this mode is over, the unit does not switch back into Standby mode but will remain active. The unit will work at the value set prior to its transition into Standby mode.

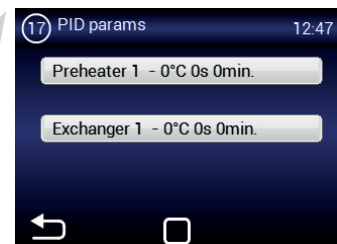
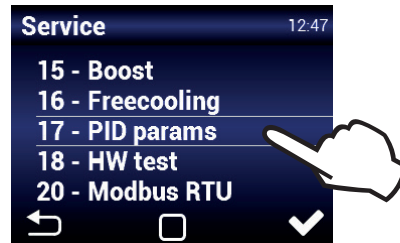
MENU 16 - NIGHT VENTILATION



NIGHT VENTILATION mode is suitable for night ventilation in summer. If the mode is enabled and all selected conditions are met: **VENUS** - the exhaust fan is switched off. The supply fan switches to night ventilation capacity (pressurized ventilation without recuperation). For efficient overpressure night ventilation, it is necessary to ensure sufficient leakage in the ventilated building (eg open microventilation of windows) to prevent air flow through the recuperator in the exhaust system air duct.
DAPHNE - this results in the complete opening of the bypass for directing cooler air into the structure (recuperation does not take place).

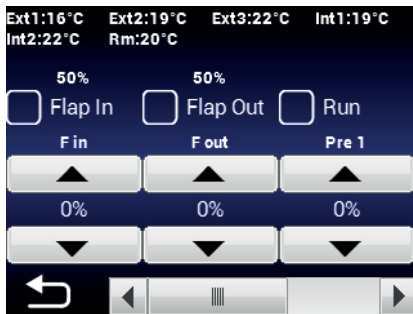
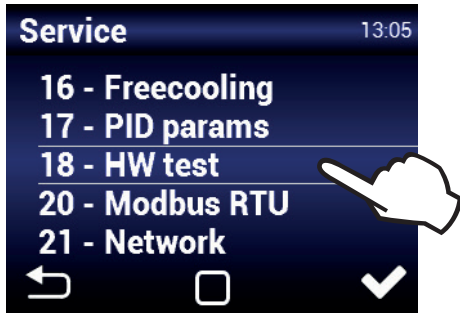
- NIGHT VENTILATION is evaluated even if the unit is in Standby mode (at the selected date and time the unit activates and evaluates where night ventilation can be activated - Prefreecooling)
- NIGHT VENTILATION does not replace an air conditioning unit. The primary purpose of the unit is to ventilate, not to cool.**

MENU 17 - PID PARAMETERS



Setting the regulation characteristics If regulation is variable or inconsistent. **This setting may be carried out solely following consultation with the manufacturer.**

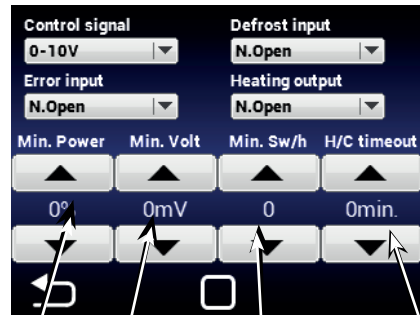
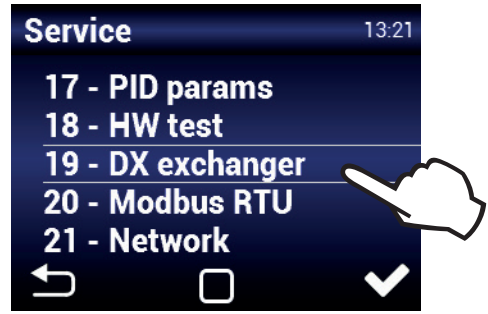
MENU 18 - HW TEST



The HWTEST menu is used to test all the connected components and accessories. These parameters are not saved.

- F in** - Intake fan speed configuration
- F out** - Exhaust fan speed configuration
- Pre 1** - Electric preheating power configuration (intake fan automatically activated)
- Ext1** - Intake air temperature sensor (fresh air supply)
- Ext3** - Air intake temperature sensor (inlet to room)
- Int1** - Exhaust air temperature sensor (exhaust before core)
- Int2** - Anti-freeze sensor of the heat exchanger (exhaust behind core)

MENU 19 - DX EXCHANGER

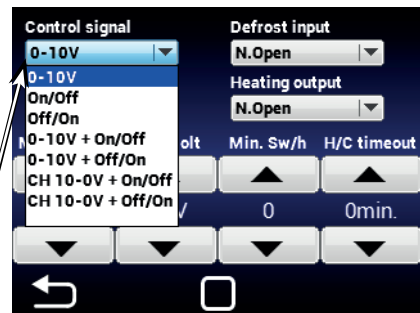


HEAT/COOL delay in output switching, range 1 - 20 minutes, default 3 = minutes

Max. number of activations of the condensing unit in ON/OFF mode per hour, range 3 - 60, default = 6

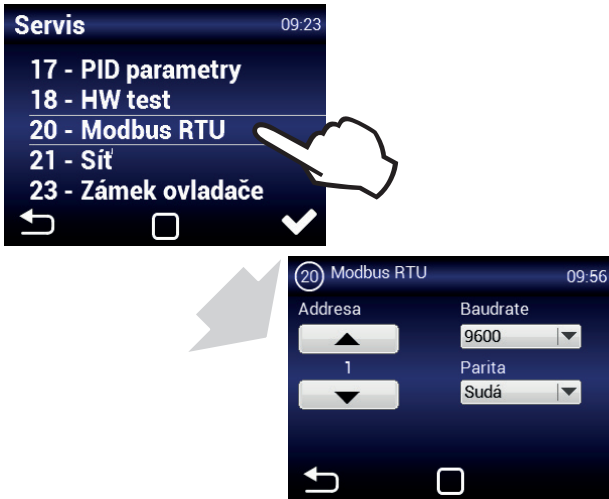
Upper output limit 0-10V of HEATER/COOLER output for requirement state of 0% capacity of the condensing unit, default = 1V

Min. power for switching the heat pump



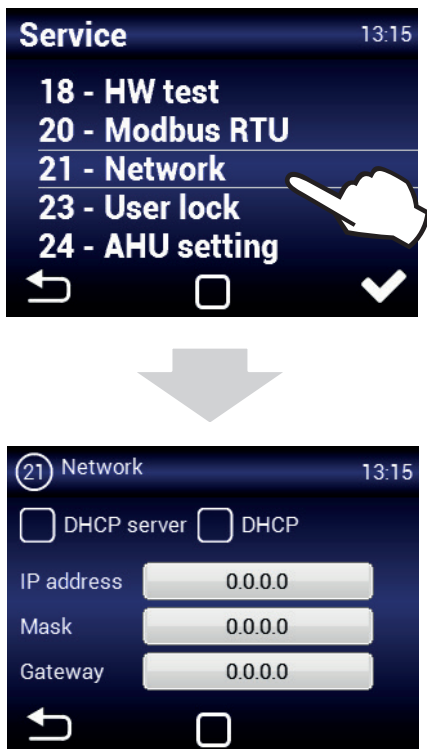
- Control signal options:**
- 0-10V** - 0-10V signal control
 - On/Off** - On/Off switching
 - Off/On** - Off/On switching
 - 0-10V + On/Off** - On/Off switching + 0-10V signal control
 - 0-10V + Off/On** - Off/On switching + 0-10V signal control
 - CH 10-0V + On/Off** - On/Off switching + 0-10V signal control cooling, heating 10-0V
 - CH 10-0V Off/On** - Off/On switching + 0-10V signal control cooling, heating 10-0V

MENU 20 - Modbus RTU



The MODBUS menu is used to set the Modbus communication.

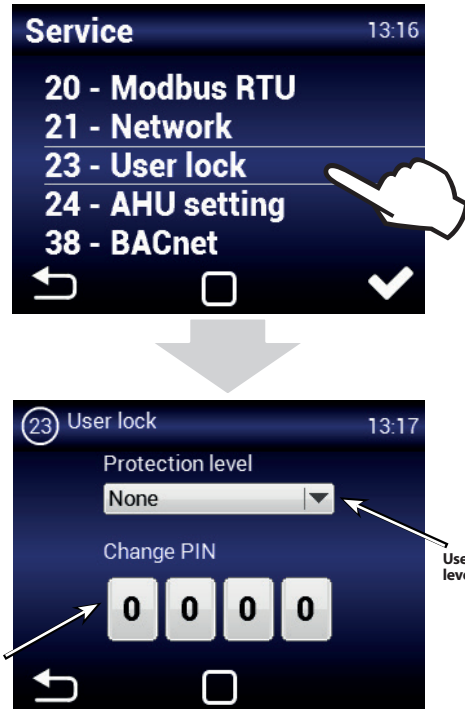
MENU 21 - NETWORK



The NETWORK menu serves for setting the network communications of the unit (TCP Modbus).

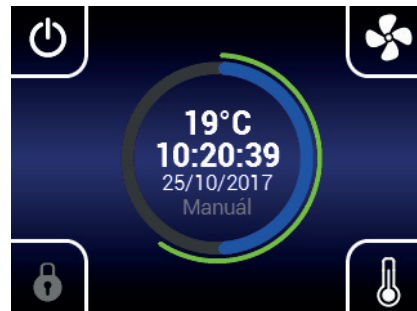
⚠ • a Software reset (menu 48) must be performed to save the changes

MENU 23 - USER LOCK



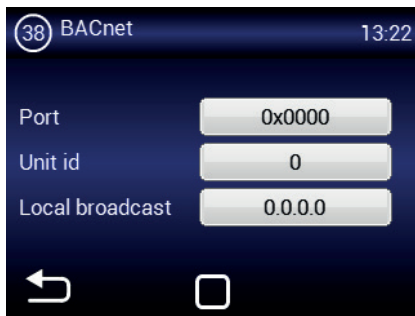
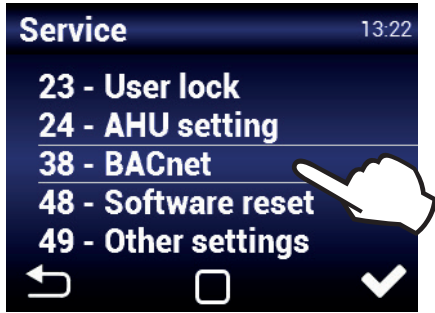
Several security levels can be chosen for possible password-free operation:

- Activate/Deactivate** - Enables activation and deactivation of the unit without password
- Activate/Deactivate, Temperature, Flow** - Enables activation and deactivation of the unit, setting required temperature, and ventilation power without password
- Temperature, Flow** - Enables setting the desired temperature and ventilation power without password
- Full** - Does not enable any settings without entering password
- User mode** - Enables the unit to be operated per the following screen:



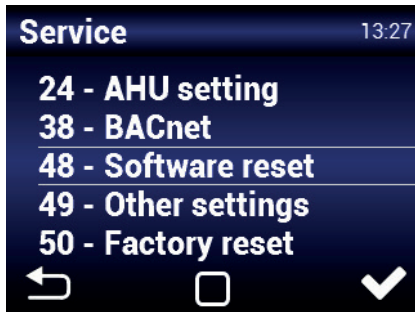
⚠ After entering the password, the unit can be fully operated and set

MENU 38 - BACnet



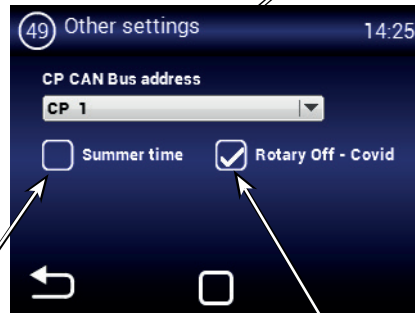
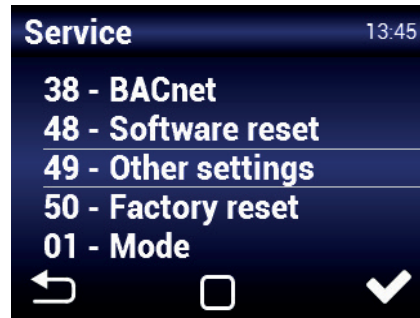
The BACnet menu is used to set the unit's network communication (ModBus TCP).

MENU 48 - Software reset



Power reset

MENU 49 - OTHER SETTINGS



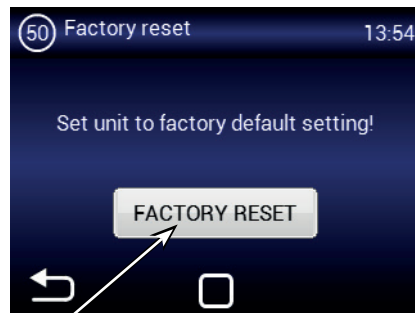
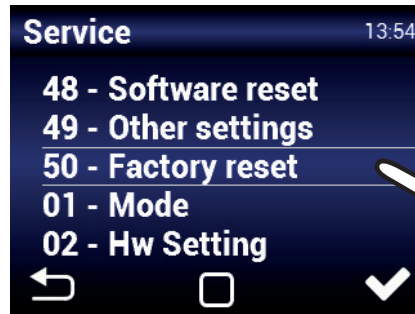
Controller address - only if two controllers connected. This setting is saved in each controller separately.

CP1 - Address 1, CP2 - Address 2

Summer time enabled/disabled

Switch off the rotary heat exchanger (no recuperation) For HR85 only

MENU 50 - FACTORY RESET



Pressing FACTORY RESET resets the unit to its factory settings



does not change

- the configuration AQS
- ventilation mode
- HW settings
- temperature settings
- Modbus settings

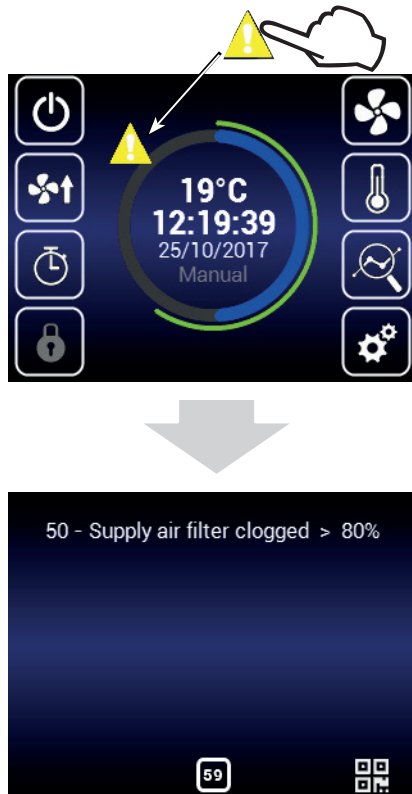
2. MAINTENANCE

FILTER CHANGE

After the time-out limit set for filter check. This means that is necessary to check and replace the filters.

ATTENTION

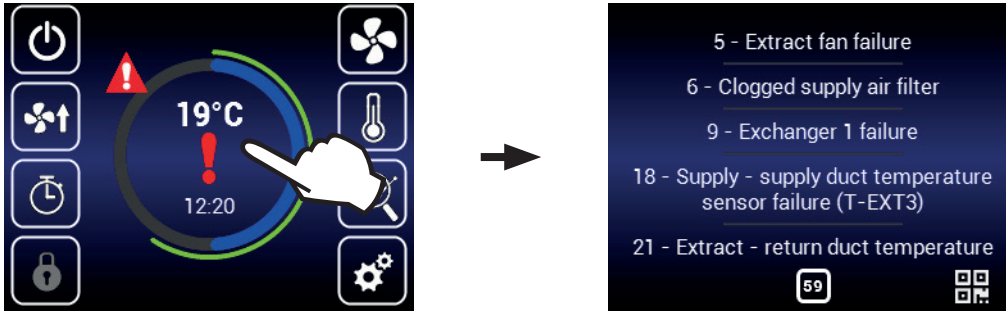
In case that filters will not be replaced properly, functionality of the unit may be reduced the preheater can overheat and ventilator can be damaged.



After checking or replacing filters, the fouled filter control must be restarted; see the chapter MENU FILTER TIMER.

3. TROUBLESHOOTING

The unit error is indicated with a red exclamation mark in the middle of the control display
Pressing the exclamation mark shows the information on the error, see table below.



Reports on the display	Unit's behaviour	Likely problem	SOLUTION
1 – Exchanger 1 overheated	unit is ventilating	Preheated electric exchanger or damaged sensor	Check that the air is flowing freely through the unit, that the electric exchanger cools down sufficiently, or that the safety thermostat of the el. reheating isn't damaged.
3 – Overheated preheating	unit is ventilating	Preheated electric preheater or damaged sensor	Check that the air is flowing freely through the unit, that the electric exchanger cools down sufficiently, or that the safety thermostat of the el. reheating isn't damaged.
4 – Supply fan error	Unit is not working	Overheated fan or defect on thermal contact of inlet fan	Determine the cause of the overheating: defective bearing, short-circuit...
5 – Exhaust fan error	Unit is not working	Overheated fan or defect on thermal contact of inlet fan	Determine the cause of the overheating: defective bearing, short-circuit...
6 – Inlet filter clogged	unit is ventilating	Check clogged filter	If the filter has been replaced or if it does not need to be replaced, reset the filter clogging
7 – Exhaust filter clogged	unit is ventilating	Check clogged filter	If the filter has been replaced or if it does not need to be replaced, reset the filter clogging
12 – CO2 sensor failure	unit is ventilating	Defective air quality sensor	Control the air quality sensor and its connection to the unit
16 – Inlet – External temperature sensor failure (T-EXT1)	unit is ventilating	Defective contact or sensor	Control the connection of the sensor and replace if needed (professional service)
17 – Inlet – Failure of the temperature sensor behind the exchanger (T-EXT2)	unit is ventilating	Defective contact or sensor	Control the connection of the sensor and replace if needed (professional service)
18 – Inlet – Temperature sensor failure in the supply canal (T-EXT3)	unit is ventilating	Defective contact or sensor	Control the connection of the sensor and replace if needed (professional service)
21 – Exhaust – Temperature sensor failure in the exhaust canal (T-INT1)	unit is ventilating	Defective contact or sensor	Control the connection of the sensor and replace if needed (professional service)
22 – Exhaust – Failure of the temperature sensor of the exchanger's anti-freeze protection (T-INT2)	unit is ventilating	Defective contact or sensor	Control the connection of the sensor and replace if needed (professional service)
25 – Room temperature sensor failure (T_Room)	unit is ventilating	Defective contact or sensor	Control the connection of the sensor and replace if needed
74 – Flow reduction, minimum temperature in the canal not reached	Limited operation of the unit	The minimum temperature in the canal was not reached	The temperature of the inlet and exhaust air is too low. Risk of undercooling of the building or condensation in the ventilation ductwork Possible failure of temperature sensor T-EXT3
Condensation fault	Unit is working	High level of condensate in the unit	Check if the sink is connected to the outlet of the condensate tank, the condition of the connection, and whether the sink is full of water. Check the flow of the ducts and whether the position of the unit allows runoff.
The unit ventilates insufficiently or is noisy	Unit is working	Clogged filter or ductwork.	Check the filters and whether the ductwork is not clogged

4. CONCLUSION



Once the it has been installed, read carefully the safe operation manual of the unit. That manual includes examples of possible problems and recommended solutions. In case of any requests or inquiries, contact our sales or technical department.

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