

Control unit Touch



CONTENTS

1.	OPERATION	2
2.	CHANGING THE BATTERY	14
3.	FAULT DIAGNOSIS CHART	14

1. OPERATION

1.1. Control unit

The control unit allows the selection and the command of various unit functions. The control unit has an integrated temperature sensor (set-point sensor) for measuring the room temperature. The display shows the various operating parameters and error messages. You can switch between displaying different menu points and make changes to your unit settings and values.

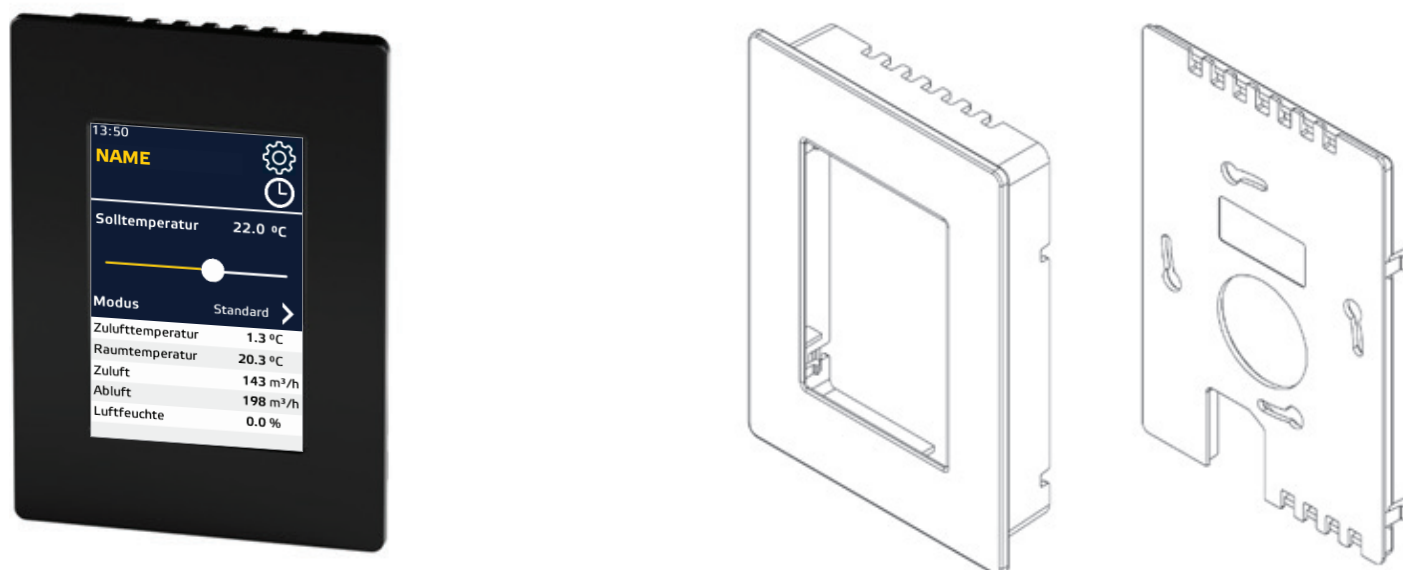
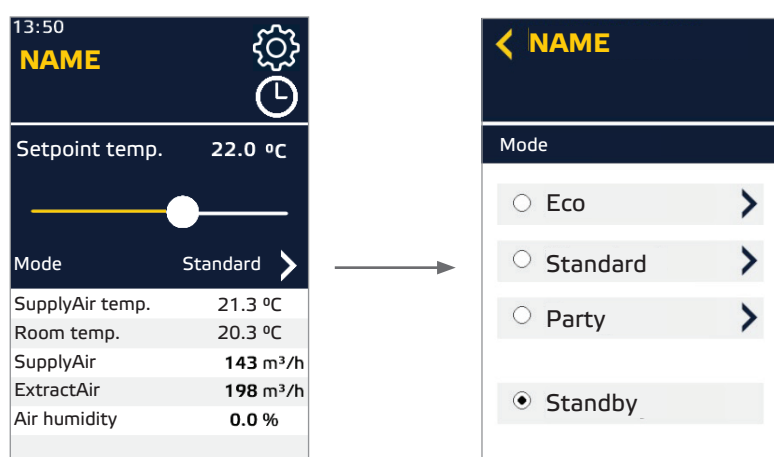


Fig. 13-1
Control unit

1.1.1. Mode selection

There are available preconfigured modes (Eco, Standard, Party) with set for flow rates, temperatures and sensor set point.

The various modes can be selected in User 2. Changes to the set parameters can only be made in User 3.



1.1.2. Adjust set point

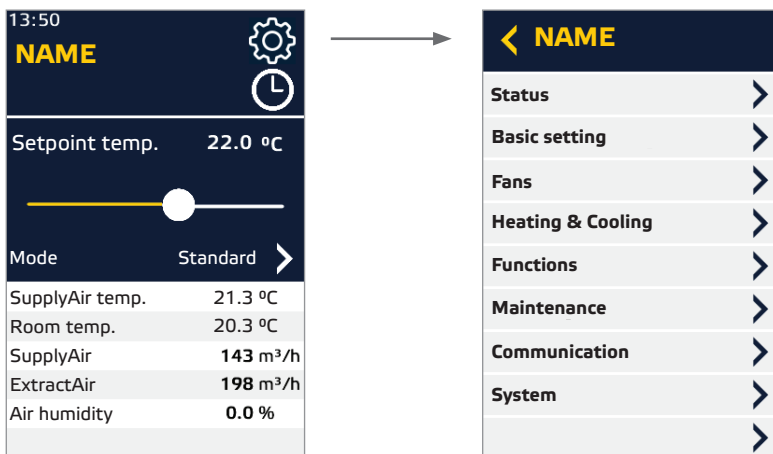
The setpoints for volume flow, temperature and demand-based control (with additional sensors) stored in the respective mode as well as permissions can be set here.

Can only be changed at user level „User 3“ or higher.



1.1.3. Main menu overview

Overview page with all relevant settings. This is opened by clicking on the cogwheel symbol.

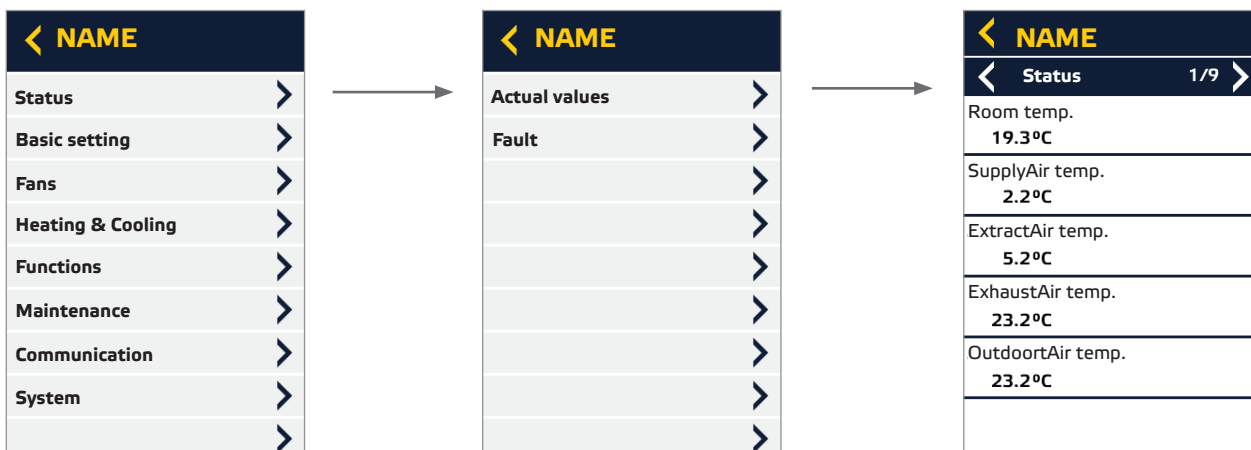


1.1.4. Status display actual values / Malfunctions

All measured values and status of the inputs/outputs can be viewed under Settings/Status.

Display of the currently measured sensor values of the ventilation unit, as well as display of faults.

Visible for all user levels.

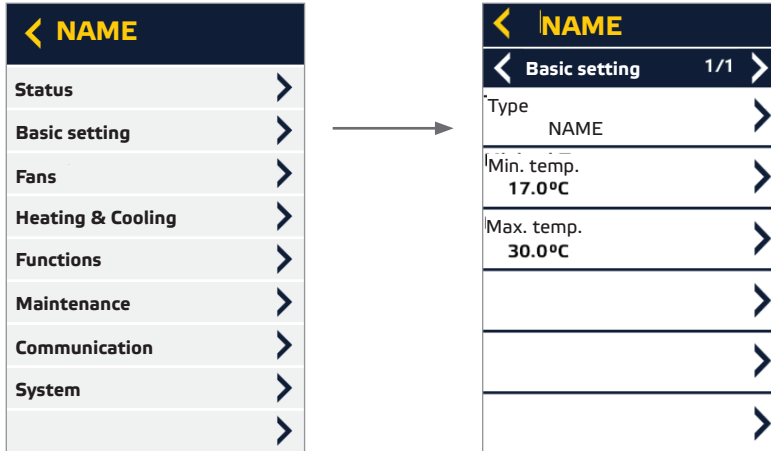


1.1.5. Basic settings

Under Settings/ Basic settings, the most important basic parameters such as unit type and minimum or maximum setpoints can be set.

Can only be changed at user level „Service“ or higher.

Individual unit parameters can only be set by the factory customer service.

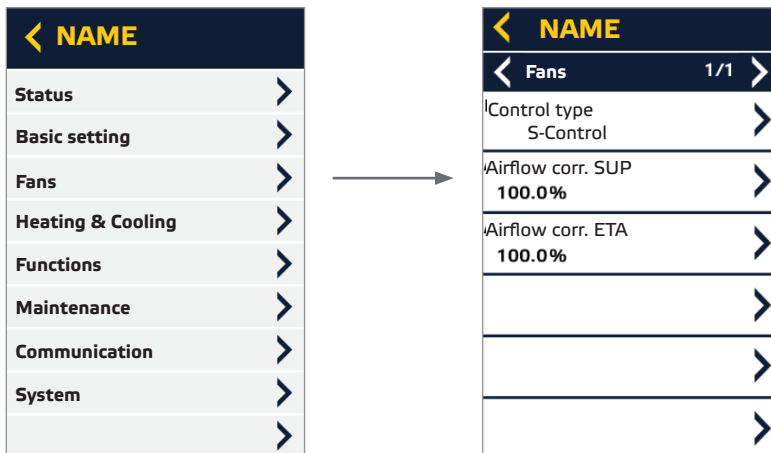


1.1.6. Fan settings

All parameters concerning the fans, such as control mode or correction factors, can be set here.

Can only be changed at user level „Service“ or higher.

Individual unit parameters can only be set by the factory customer service.



1.1.7. Heating & Cooling

Type of temperature control, heating/cooling mode and related control parameters can be set.

Can only be changed at user level „Service“ or higher.

Individual unit parameters can only be set by the factory customer service.

< NAME		< NAME
Status >		< Heating & Cooling 1/1 >
Basic setting >		Control type > SupplyAir temp.
Fans >		Function > Heating
Heating & Cooling >	→	P-share > 10
Functions >		Hysteresis Max > 10
Maintenance >		I-share > 0.0°C
Communication >		Correction room >
System >		

1.1.8. Functions

Under Settings/ Functions all parameters for further functionality, such as air quality control with external sensor, overrun or automatic restart are accessible.

Can only be changed at user level „Service“ or higher.

Individual unit parameters can only be set by the factory customer service.

< NAME		< NAME
Status >		< Functions 1/1 >
Basic setting >		Sensor type > CO2
Fans >		Air quality > 1200PPM
Heating & Cooling >		Minimum value 0V > 0PPM
Functions >	→	Maximum value 10V > 2000PPM
Maintenance >		Run-On time > 300sec
Communication >		Autorestart > Off
System >		

Autorestart:

If Autorestart is activated, the unit switches back on automatically after a voltage drop.

< NAME	
< Functions 1/1 >	
Sensor type CO2	>
Air quality 1200PPM	>
Minimum value 0V 0PPM	>
Maximum value 10V 2000PPM	>
Run-On time 300sec	>
Autorestart Off	>

Demand-led control according to air quality or humidity:

Activation of an air quality sensor (CO2, VOC) or humidity sensor and setting of the measuring range.

< NAME	
< Functions 1/1 >	
Sensor type CO2	>
Air quality 1200PPM	>
Minimum value 0V 0PPM	>
Maximum value 10V 2000PPM	>
Run-On time 300sec	>
Autorestart Off	>

Party Input:

The unit switches to „Party“ mode after closing the external „Motion detector“ input X15:6,7. If the contact is opened again, the unit switches back to the previously set mode after the overrun time has elapsed. Function is only active when the unit is switched on.

< NAME	
< Functions 1/1 >	
Sensor type CO2	>
Air quality 1200PPM	>
Minimum value 0V 0PPM	>
Maximum value 10V 2000PPM	>
Run-On time 300sec	>
Autorestart Off	>

External control:

When external control is activated, the setpoint for the volume flow is specified via an external 0-10V signal at input X15:3.9.

Can be set in the Functions menu via the „Sensor type“ parameter.

1.1.9. Maintenance

All settings concerning the maintenance of the device can be made here.

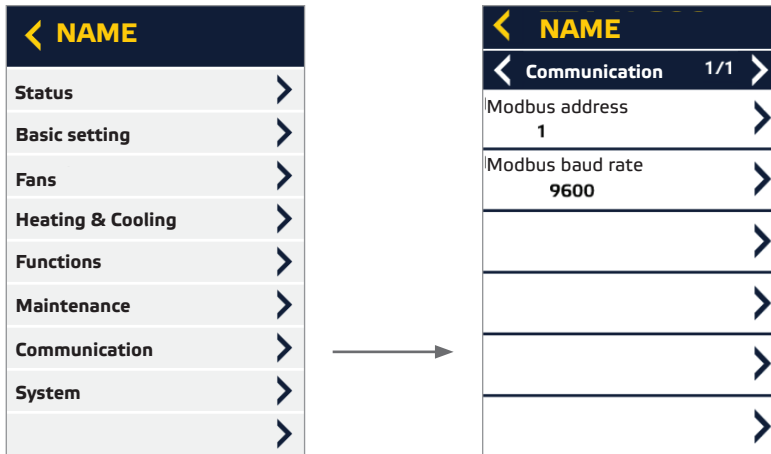
Can only be changed at user level „Service“ or higher.

< NAME	
< Functions 1/1 >	
Pres.Sup.AirFilter1 100PA	>
Pres.Extr.AirFilter1 100PA	>
Filter calibration Off	>
	>
	>
	>

1.1.10. Communication

Modbus communication parameters can be set here.

Can only be changed at user level „Service“ or higher.



Register address	Protocol address	Parameter name	Value range	Data type	Authority
40031	30	Follow-up time motion detector	60 - 3600 sec	integer	R/W
40032	31	Target temperature	Minimum - maximum target temperature in 1/10 degree	integer	R/W
40033	32	Switch mode	0 = Device Off 1 = Eco 2 = Standard 3 = Party	integer	R/W
40034	33	Status and control word	See Table below	integer	R/W
40035	34	Reserved		integer	R/W
40036	35	Save parameters	12439 Value change after saving under 0	integer	R/W

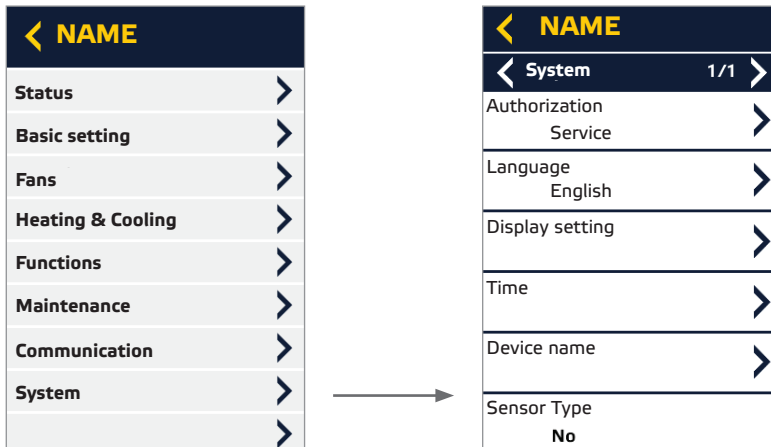
ATTENTION: ON/OFF switching not via protocol address 33, but via protocol address 32!

1.1.11. System settings

Permissions, language settings, display settings, time and unit name can be set.

Can only be changed at user level „Service“ or higher.

Individual unit parameters can only be set by the factory customer service.



1.1.12. User levels

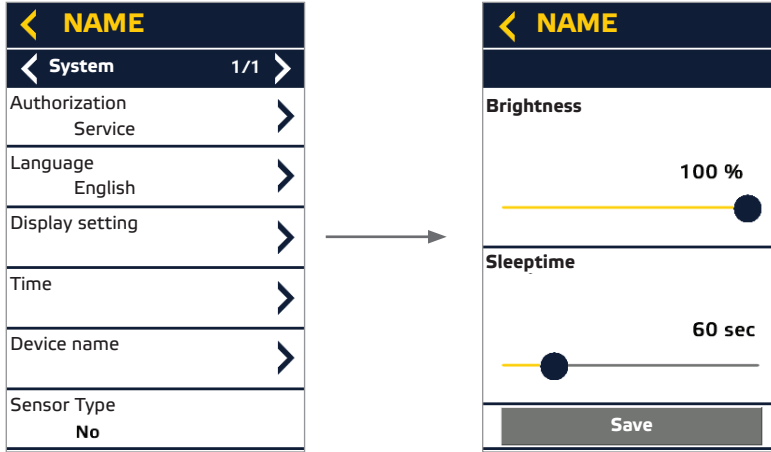
Four different user levels available (default user 3).

Authorization	Password	Explanation
User 1	1111 or any other number	■ Settings are possible only in the timer. ■ Cannot make settings in the mode or in the settings menu. Cannot change the set mode.
User 2	2222	■ Settings are possible only in the timer. ■ Cannot make settings in the mode or in the settings menu. Can change the set mode.
User 3	3692	■ Can make settings in the timer and mode. ■ Can change the set mode. ■ Cannot make settings in the settings menu.
Service	4826	■ Can make settings in the timer and mode. ■ Can change the set mode. ■ Can make settings in the settings menu.

1.1.13. Language selection

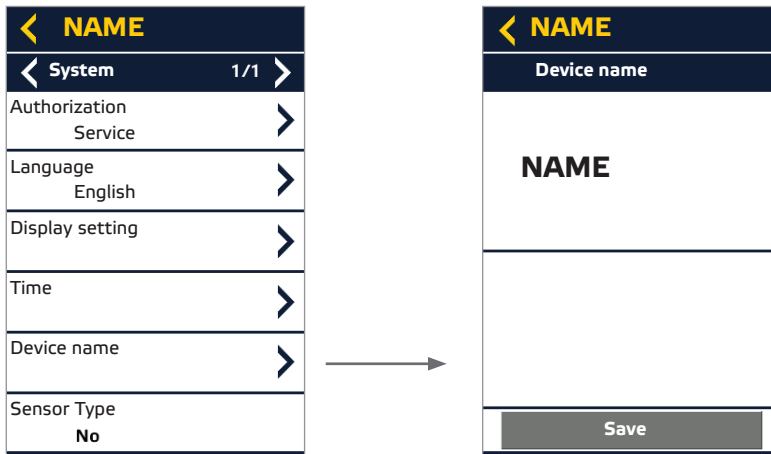
1.1.14. Display setting

Display brightness and stand-by time can be set.



1.1.15. Device name

Device name can be set.

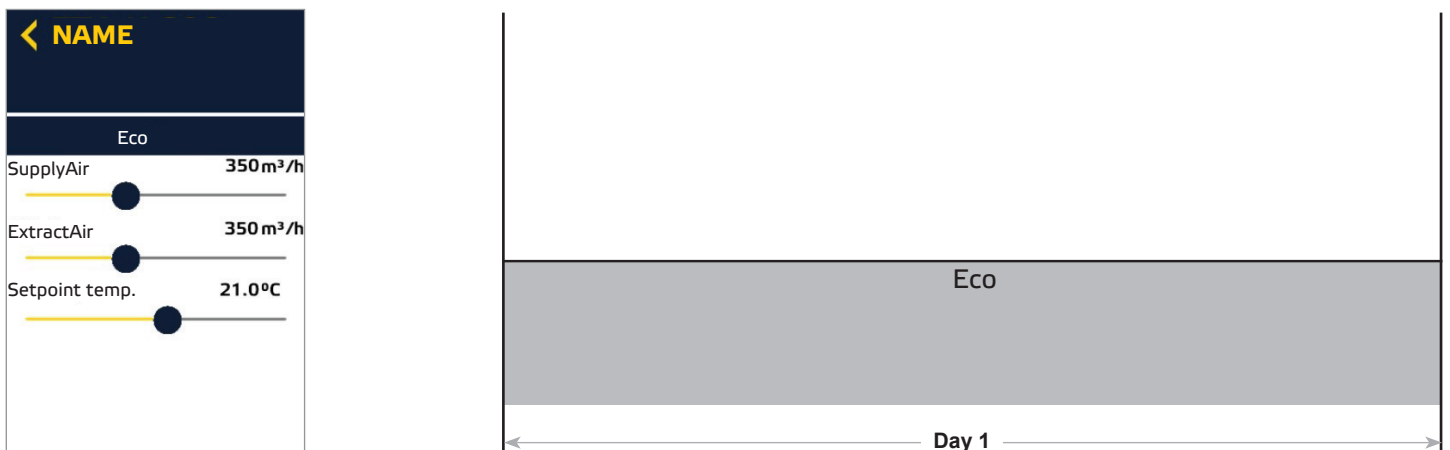


1.2. Fan control types

The fan control mode can be changed in the main menu under Fans. The following types of control are possible.

Constant volume flow control (S-Control)

If time schedules are not used, a constant volume flow can be set - separately for supply and extract air. This control mode is preset for the unit in the delivery state.



CO₂-guided air volume control

CO₂-guided air quality control is possible via a room or duct sensor with 0-10V output. If the measured CO₂ content is below the setpoint, the unit runs with the minimum set air volume. If the measured CO₂ content rises above the setpoint, the air volume is increased by the control system to reduce the CO₂ content in the building back to the setpoint. This type of control is particularly suitable for meeting rooms, restaurants, schools and kindergartens.

For the CO₂ control to be active, the Standard mode must be set. If the unit is switched to Eco mode manually or via the timer, the unit runs with the volume flows set under Eco. The motion detector input is still active and switches to party mode when the input is closed.

Humidity-guided volume flow control

For humidity-guided control, an external humidity sensor is mounted in the extract air duct or in the room. If the measured humidity is below the setpoint, the unit runs with the minimum set air volume. If the measured humidity rises above the setpoint, the air volume is increased by the control to lower the humidity in the room back to the setpoint. The humidity sensor built into the control unit cannot currently be used for control.

For the humidity control to be active, the Standard mode must be set. If the unit is switched to Eco mode manually or via the timer, the unit runs with the volume flows set under Eco. The motion detector input is still active and switches to party mode when the input is closed.

External volume flow control

With external volume flow control, the air volume is controlled by an external 0-10V signal. The preset volume flow is changed proportionally to the external signal. At 2 V control voltage, the set minimum volume flow is supplied, at 10 V the maximum volume flow. If the control voltage is less than 1.5 V, the unit is switched off.

Constant pressure control P (P-Control)

The constant pressure control P-Control is designed for operation of the ventilation unit with variable air flow rates through individual volume flow controllers. The desired pressure setpoint for supply air and extract air can be set on the control unit. Two SEN P pressure sensors are required as accessories for this operating mode. The air volume balance of the supply air and extract air strings is not balanced by the control. For the P-Control operation mode, the use of a heating coil is recommended.

Constant pressure control PV (PV-Control SUP)

The constant pressure control PV is a pressure control with balanced air volume. This is especially designed for airtight low-energy buildings with variable air performance through individual volume flow controllers. The control of the ventilation unit automatically balances the air volume when areas are switched on or off. When the PV-Control SUP control mode is set, the supply air pressure is specified and the extract air volume flow is adjusted. One SEN P pressure sensor is required as an accessory for this operating mode. Feedback from volume flow controllers to the unit is not required.

The diagram illustrates the navigation process between two control unit screens. On the left is the 'NAME' screen, which has a header with a back arrow and the title 'NAME'. Below the header is a status bar showing '< Fans 1/1 >'. The main content area lists several settings, each with a right-pointing arrow: 'Control type S-Control', 'Airflow corr. SUP 100.0%', 'Airflow corr. ETA 100.0%', and three empty rows. An arrow points from the 'Control type S-Control' entry to the right-hand screen. The right-hand screen is the 'Control type' selection screen, also with a back arrow and 'NAME' header. It features a list of control options, each preceded by a radio button: 'S-Control' (selected), 'P-Control', 'PV-Control SUP', and four empty options. At the bottom of this screen is a 'Save' button.

1.3. Temperature control modes (supply air, extract air or room temperature control).

The temperature measured at the sensors is compared with the setpoint temperature. The deviation between the setpoint and actual temperature causes an increased or reduced heating power. The desired control mode can be selected in the Heating & Cooling menu via the „Control mode“ parameter.

Supply air temperature control

External heat occurring in the room is not taken into account in the supply air temperature control. The supply air temperature is fixed.

Extract air temperature control

External heat occurring in the room is compensated by correcting the supply air temperature.

Room temperature control

External heat occurring in the room is compensated by correcting the supply air temperature. The temperature sensor is integrated in the remote control unit.

The diagram illustrates the navigation process for selecting a temperature control mode. It shows two screens connected by a right-pointing arrow.

Left Screen (Heating & Cooling 1/1):

< NAME >	
< Heating & Cooling 1/1 >	
Control type	SupplyAir temp. >
Function	Heating >
P-share	10 >
I-share	10 >
Correction room	0.0°C >
	>

Right Screen (Control type):

< NAME >	
Control type	
☐	Room temp.
☒	SupplyAir temp.
☐	ExtractAir temp.
☐	
☐	
☐	
☐	
☐	
Save	

1.4. Time and schedules

The time can be set and is maintained even in the event of an interruption in the input voltage.

< **NAME**

< System 1/1 >

Authorization Service >

Language English >

Display setting >

Time >

Device name >

Sensor Type No

→

< **NAME**

Time

Day dd . mm . yyyy
11 . 10 . 2022

+1 +1 +1
-1 -1 -1

Time hh : mm
10 : 54

+1 +1
-1 -1

Save

Schedules with up to 6 changes of mode per day - individually for 7 days of the week.

13:50

NAME

Setpoint temp. 22.0 °C

Mode Standard >

SupplyAir temp. 21.3 °C

Room temp. 20.3 °C

SupplyAir 143 m³/h

ExtractAir 198 m³/h

Air humidity 0.0 %

→

< **NAME**

Daytime timer >

☐ Active

→

< **NAME**

< Monday >

SP 1 Not Set >

SP 2 Not Set >

SP 3 Not Set >

SP 4 Not Set >

SP 5 Not Set >

SP 6 Not Set >

→

< **NAME**

Switching point

Party Not Set

Standby

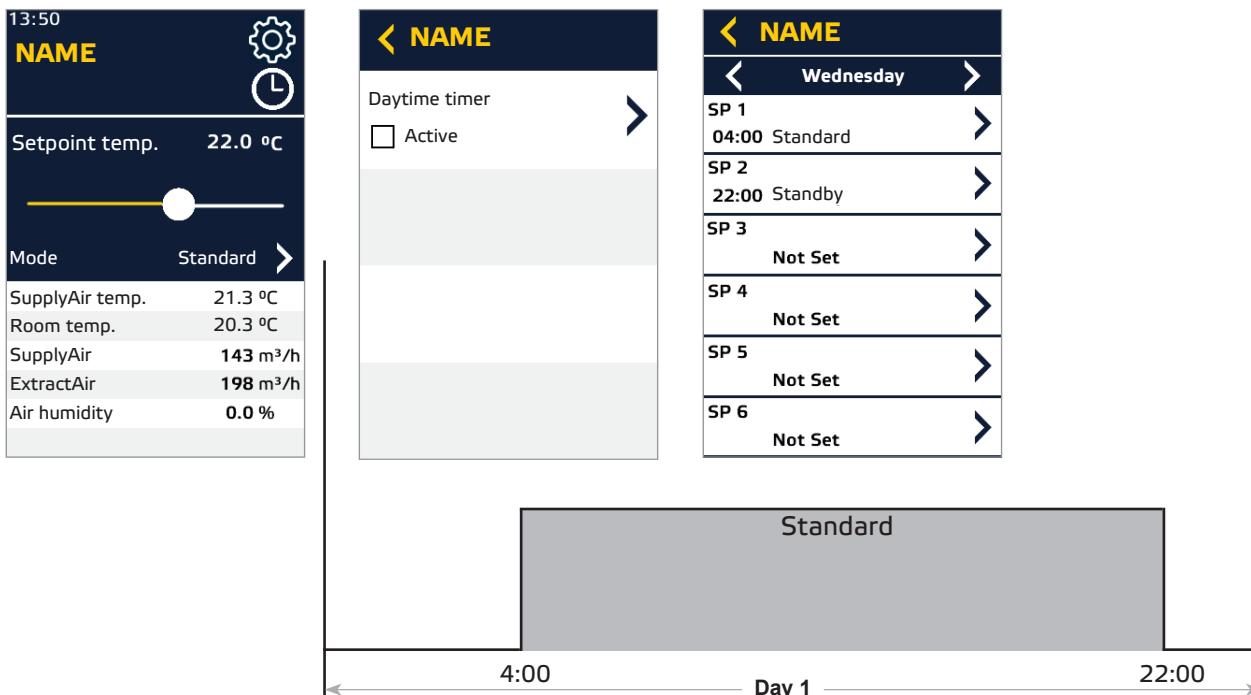
00 : 00

+1 +5
-1 -5

Save

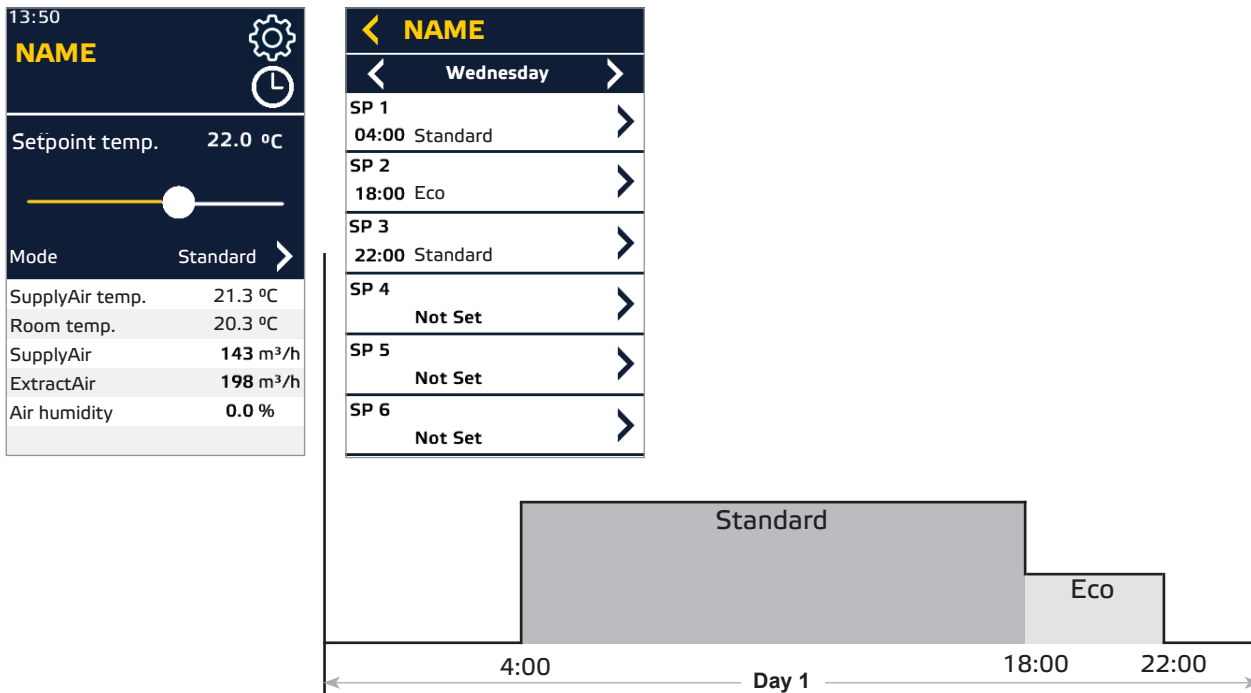
1.4.1. Switch on/off with schedule

Schedules can be used to switch the ventilation unit on and off at specific times.



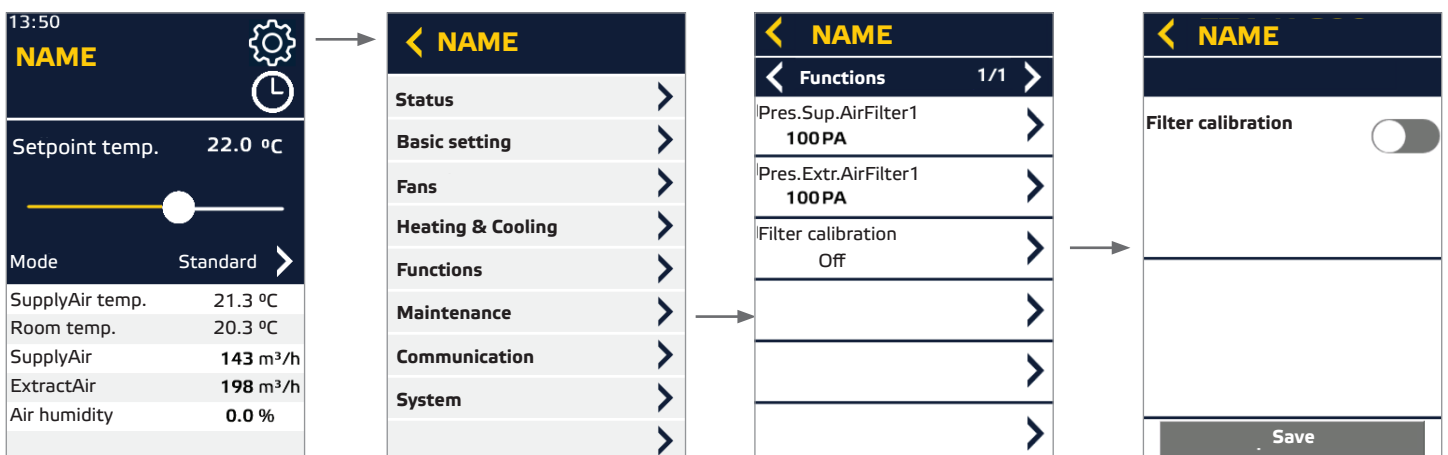
1.4.2. Night setback

For the night setback function, the „Eco“ mode can be selected in the schedules. In this, the volume flow for basic ventilation is set as the default setting. The volume flows for supply air and extract air can basically be lowered or increased. In addition, the setpoint temperature can be adjusted if required. The night cooling function is particularly suitable for energy-saving operation of the ventilation unit with reduced volume flow, or for free cooling with increased volume flow in the summer months.



1.5. Calibrate filter

The differential pressure increases as one of the air filters becomes more clogged. When the pressure reaches the value set on the corresponding pressure sensor, this can be seen on the status display. The filter must be changed when the level of clogging reaches 100%. The device must be recalibrated under the menu item Maintenance/ Calibrate filter.

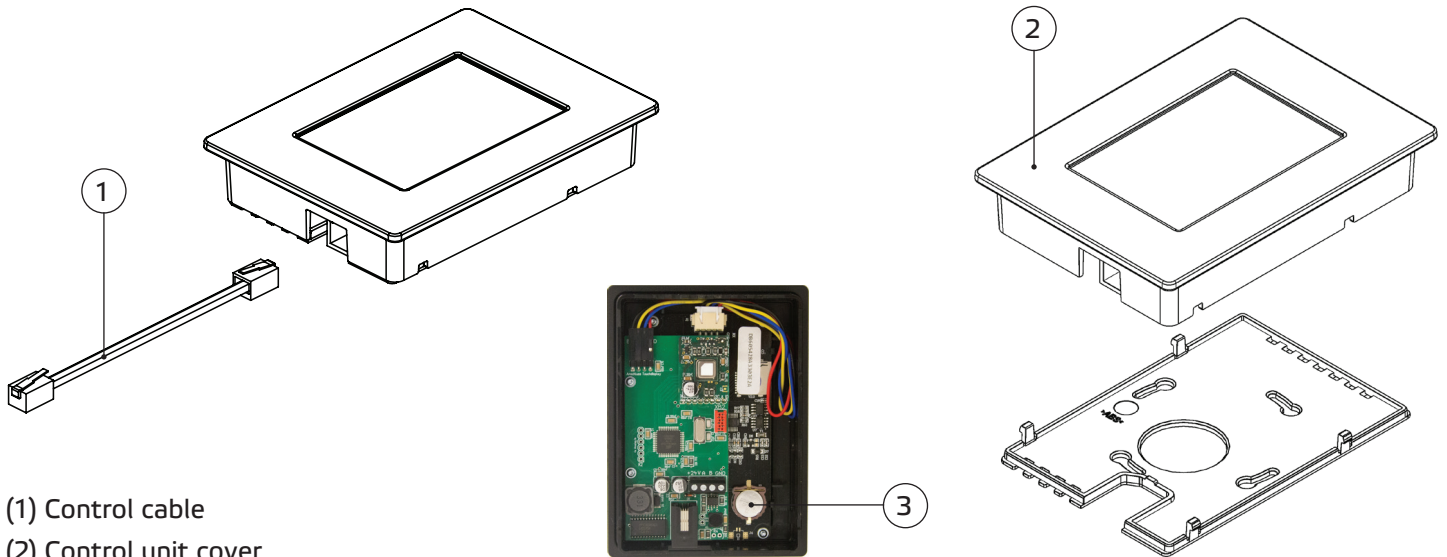


2. CHANGING THE BATTERY

Change the battery as follows:

- Remove the control cable (1) from the control unit.
- Open the control unit by removing the cover (2).
- The holder (3) for the battery is on the board. Take the battery out and replace it with a new one, as shown in the image.
- The control unit can now be closed again and the control cable connected again.
- You only have to reset the current time. The battery symbol disappears from the status display. Your control unit is fully functional again.

Note: requires a 3 V lithium CR 1220 button cell battery.

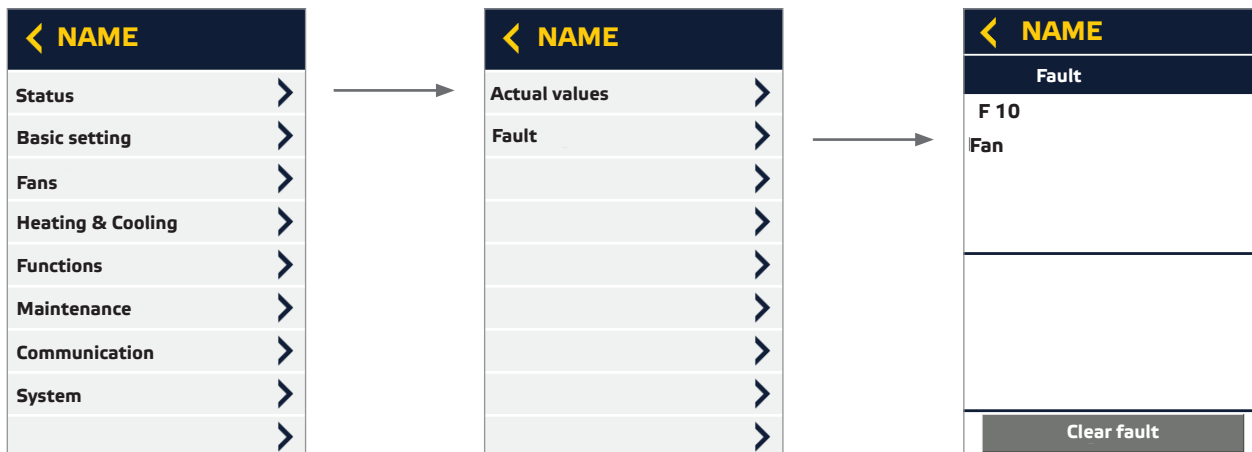


- (1) Control cable
(2) Control unit cover
(3) Battery holder

Fig. 14-3
Battery change remote control unit

3. FAULT DIAGNOSIS CHART

If a fault occurs on the unit, one or more fault messages will appear on the display. The error is acknowledged with the „OK“ button. It is not possible to use the control unit until all of the faults have been removed and acknowledged. Depending on the priority of the fault, the installation will either switch off or continue working with the last settings. The following faults might be shown on the display:



Error message Type of fault and repair

	ERROR » The control unit has no connection. » Check the connection or replace the cable if necessary.
F 1	Supply air temperature sensor fault » The supply air temperature sensor is defective or the cable is broken. » Replace the defective temperature sensor or replace the broken cable if necessary. » After the failure reason is remedied, the failure must be confirmed with „OK“.
F 2	Room temperature sensor fault. » The room temperature sensor malfunctions. » Replace the remote control unit. » After the failure reason is remedied, the failure must be confirmed with „OK“.
F 3	Exhaust air temperature sensor fault. » The exhaust air temperature sensor is defective or the cable is broken. » Replace the defective temperature sensor or replace the broken cable if necessary. » After the failure reason is remedied, the failure must be confirmed with „OK“.
F 4	Outside air temperature sensor fault. » The outside air temperature sensor is defective or the cable is broken. » Replace the defective temperature sensor or replace the broken cable if necessary. » After the failure reason is remedied, the failure must be confirmed with „OK“.
F 5	Extracted air temperature sensor fault. » The extracted air temperature sensor is defective or the cable is broken. » Replace the defective temperature sensor or replace the broken cable if necessary. » After the failure reason is remedied, the failure must be confirmed with „OK“.
F 7	Error frost protection » The air temperature has fallen below the value set on the antifreeze thermostat. The fans will be switched off, the air flaps closed, the heating valve fully opened and the circulating pump switched on. » Check fuse F2. » After the failure reason is remedied, the failure must be confirmed with „OK“.
F 8	Fault in the safety thermostat - electric heating element temperature monitoring » The housing temperature is higher than 75 °C. The control circuit is broken, the electric heater is switched off. Possible cause: defective supply air valve, fan has failed, etc. » Repair supply air valve, check fuses F2. » After the failure reason is remedied, the reset button of the safety thermostat has to be reset manually, and the failure has to be confirmed at the control unit with „OK“.
F 9	Fault, fan thermal contact » The thermal contact has been tripped, device will be switched off. Possible cause: motor overheating or defective. » The power supply must be switched off at the main switch for at least 20 s. Check fuse F2, replace the motor if necessary. » After the failure reason is remedied, the failure must be confirmed with „OK“.
F 10	Error fan » A signalling relays of a fan has been tripped. » Switch the unit off, check wiring and fans and if needed, replace damaged fan. » After the failure reason is remedied, the failure must be confirmed with „OK“.
F 14	Fire protection signal » The fire protection contact is open. The fire detector has tripped. » After the fire detection has been remedied, you have to confirm with „OK“.
F 17	Untertemperatur Zuluft » The maximum set supply air temperature (12 °C) was undershot longer than 30 minutes. » After the failure reason is remedied, the failure must be confirmed with „OK“.
F 18	Insufficient temperature of supply air » The maximum supply air temperature of 80 °C was exceeded longer than 10 sec. or the cable of the air supply temperature sensor is broken. » Switch off the device, check fans. » After the failure reason is remedied, the failure must be confirmed with „OK“.
	No release » The release contact is not closed. » Close the release contact. The unit can then be started.
	Device is off and cannot be switched on » SENSORTYP stands at EXT. REG. (external controls) » Check the setting SENSOR TYPE in the operating parameters.
F 20	Rotating heat exchanger fault » The rotating heat exchanger is not turning because of a defective drive belt, insufficient tension, etc. » Replace the defective belt, remedy the insufficient tension, etc. » After the failure reason is remedied, the failure must be confirmed with „OK“.

Information updated
print 03.12.2025
mysb_bdt_pb_02c_k00000_en

We reserve the right to make changes

Language:
English