ÖSTBERG

UPDATE YOUR HERU

To ensure optimal function and performance of your Heru Air Handling Unit, please download and install the latest software version

ostberg.com/updates

Other languages in digital format can be downloaded at www.ostberg.com

Shortcuts:

- **Log in Installation menu:** Enter code 1991.
- **Log in Service menu:** Enter code 1199.
- **Bluetooth pairing code:** 123456
- **Download the latest firmware version:** Firmware.
- **Download complete Modbus register:** Modbus.
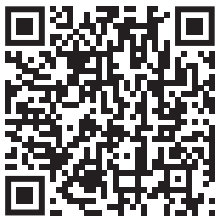
FIRMWARE   **MODBUS**

- **Download the app:** IQ Control App.

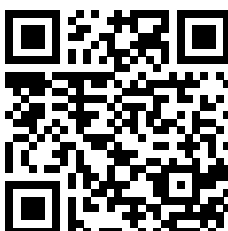**APPLE**   **GOOGLE**

- **Download wiring diagrams via the links below**

HERU S   **HERU T**
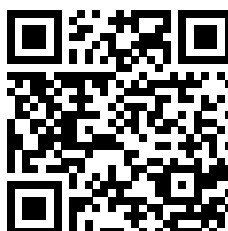
Information about the products at www.ostberg.com

1 Product overview and use

1.1 Product description

The energy recovery units HERU S and HERU T are designed for supply air and exhaust air ventilation with cooling and heat recovery.

The unit
• is equipped with an inbuilt electric after heater.
• is supplied with ePM1 filters.
• is easily controlled using the IQ Control App.
• has as a accessory, a wireless display for operation and monitoring of the unit.
• has Modbus communication via RS485.

HERU S and HERU T can be used in the home, in the office, in apartments etc., where there is a need for:
• high temperature efficiency
• high temperature efficiency
• energy saving
• low sound levels
• safe operation
• high reliability

1.2 Control functions

1.2.1 Regulating the temperature

The air temperature can be regulated for either constant supply, room or exhaust air temperature.

• To regulate room temperature, a sensor must be positioned in the room (accessory).
• The unit's inbuilt exhaust air sensor is used for exhaust air temperature.
• If the selected mode does not maintain the desired temperature, regulation moves to the next mode.
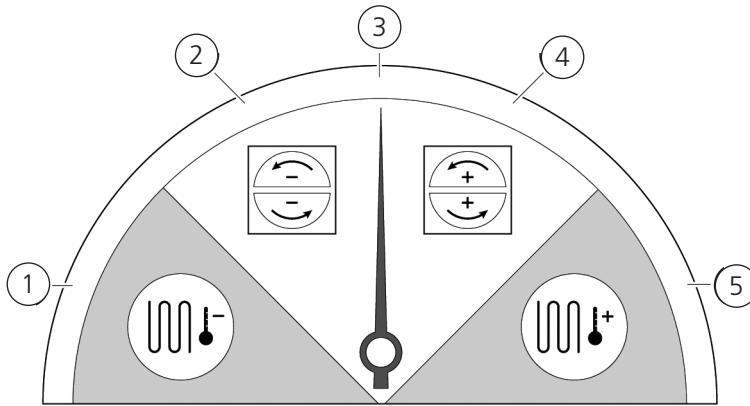
There are 5 modes for regulating temperature:

1. **Cooling recovery and/or after cooling:**
   In climate conditions where the rotating heat exchanger is not adequate to achieve the desired supply air temperature, the unit also controls a cooling battery (e.g. via geothermal heating) when the cooling recovery from the rotor is not sufficient to maintain the desired temperature. This mode can also be used if this is not possible using cooling recovery.

2. **Cooling recovery:**
   The rotating heat exchanger starts when cooling recovery is possible in order to maintain a lower supply air temperature.

3. **Outdoor temperature = desired temperature:**
   When the outdoor temperature is the same as the desired supply air temperature, the rotating heat exchanger stops.

4. **Heat recovery:**
   The rotating heat exchanger starts to recover the warm indoor temperature.

5. **Heat recovery and/or after heat:**
   In climate conditions where the rotating heat exchanger is not adequate to achieve the desired supply air temperature, the unit can also control either the inbuilt electric after heater or a heating battery.

1.2.2 Fan capacity

Minimum airflow is set to suit the minimum requirement for ventilation. The basic setting is set to essential airflow for the ventilation. Maximum airflow is the airflow that is set to obtain higher airflow, if needed.

The airflow (the fan speed) can be controlled by a program planner, which can be programmed with specific times when the fan will switch from one speed to another.

Using the program planners, different fan speeds can be programmed, such as lowest, highest or standard fan speed. The fan speed can also be regulated by a carbon dioxide (CO_2) and humidity (RH) sensor so that the unit increases the airflow as much as required in order to maintain the value once the value is exceeded.

"Night cooling" is a function that means you can use the cold outdoor temperature at night to cool the indoor temperature. The fan speed is boosted when the difference between outdoor and exhaust air temperature lies within the programmed limits.

2   Safety

2.1   Warnings

WARNING
A warning states a risk of personal injury.

CAUTION
Caution states a risk of damage to equipment.

2.2   General safety

WARNING
In accordance with IEC 60335-2-7.12, this apparatus is not intended to be used by people (including children) who have physical, sensory or psychological impairment, or lack of experience and knowledge, unless they have received guidance and instruction on how to use the apparatus by a person who is responsible for their safety. Children must be supervised to ensure that they do not play with the apparatus.

WARNING
Watch out for sharp edges and corners on the HERU unit.

WARNING
Protective gloves must be worn due to the risk of cuts or injury.

WARNING
The unit's ducts must be connected, and doors and/or cover closed and locked before the unit is started in order to avoid the risk of personal injury from rotating parts.

WARNING
The power supply to the HERU unit must be disconnected for all service and maintenance.

WARNING
The electric after heater may remain hot even after the power has been disconnected for service and maintenance.

WARNING
All changes or additions of electrical components must be performed by a qualified electrician.

WARNING
Breathing protection and protective clothing must be used due to the risk of breathing in and spreading dust when handling used air filters.

CAUTION
Always turn off the unit with the IQ Control App or the Display (accessories) before cutting the power.

CAUTION
The safety switch must not be used for normal starting and stopping of the unit.
Use the IQ Control App.

CAUTION
The safety switch must be set to mode 0 after the unit has been turned off before service can be started.

CAUTION
Do not connect an exhaust air type tumble dryer or drying cabinet to the system due to the high air humidity.

CAUTION
The unit must not be turned off for longer periods unless the duct connections for outdoor air and extract air are re-plugged due to the risk of condensation and freezing.

CAUTION
In the event of any interruption in power, the settings will be saved. Date and Time are saved for 24 hours. In longer interruptions, Date and Time must be reset.

2.3 Declaration of conformity

ÖSTBERG

EU DECLARATION OF CONFORMITY

We hereby confirm that our products comply with the requirements in the following EU-directives and harmonised standards and regulations.

Manufacturer: H. ÖSTBERG AB
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$C\epsilon$

Products: Bidirectional ventilation unit RVU: HERU® 95 T EC, HERU® 100 T EC, HERU® 160 T EC, HERU® 200 T EC, HERU® 300 T EC, HERU® 100 S EC, HERU® 160 S EC, HERU® 200 S EC HERU® 300 S EC, HERU® 70 K EC, HERU® 50 LP EC, HERU® 90 LP EC, HERU® 180 S EC 2, HERU® 250 T EC, HERU® 130 S EC, HERU® 250 S EC
Bidirectional ventilation unit NRVU: HERU® 400 T EC, HERU® 600 T EC, HERU® 800 T EC, HERU®, 1200 T EC, HERU® 400 S EC, HERU® 600 S EC, HERU® 800 S EC, HERU® 1200 S EC, HERU® Select

This EU declaration is applicable for products including our accessories for mounting and installation only if the installation is made in accordance with the enclosed installation instructions and that the product has not been modified.

Radio Equipment Directive (RED) 2014/53/EU
Harmonised standards:
- EN 300 220-2:2018 V3.1.1
- EN 303 446-1:2019 (EN 55014-1:2017, A11, EN 55014-2:2015, EN IEC 61000-3-2:2019, EN 61000-3-3:2013, A1)
- EN 301 489-3:2019

Machinery Directive (MD) 2006/42/EC
Harmonised standards:
- EN ISO 12100:2010
- EN ISO 13857:2019
- EN 60204-1:2018
- EN 60335-1:2012, AC 1, A 13 R1, A 11, A 12, A 13, A 1, A 14, A2, A15
- EN 60335-2-40:2003, A13, A2, A12, A1, A11, C1, C2
- EN 60335-2-30:2010, A11, A1, A12

Ecodesign Directive 2009/125/EC
Harmonised regulation:
- 1253/2014 Ecodesign requirements for ventilation units
- 1254/2014 Energy labeling of residential ventilation units
Standards:
- RVU: SS-EN 13141-7:2021 or NRVU: SS-EN 13053:2019

RoHS Directive 2011/65/EU
Harmonised standards:
- EN IEC 63000:2018

Avesta 2022-04-25

Mikael Östberg
Product Manager

This document is digitally signed.

ÖSTBERG

GB DECLARATION OF CONFORMITY

**We hereby confirm that our products comply with the requirements in the following
UK legislations and designated standards.**

Manufacturer: H. ÖSTBERG AB
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UKCA

Products: Bidirectional ventilation unit RVU: HERU® 95 T EC, HERU® 100 T EC, HERU® 160 T EC,
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HERU® 300 S EC, HERU® 70 K EC, HERU® 50 LP EC, HERU® 90 LP EC, HERU® 180 S EC 2,
HERU® 250 T EC, HERU® 130 S EC, HERU® 250 S EC
Bidirectional ventilation unit NRVU: HERU® 400 T EC, HERU® 600 T EC, HERU® 800 T EC,
HERU®, 1200 T EC, HERU® 400 S EC, HERU® 600 S EC, HERU® 800 S EC,
HERU® 1200 S EC, HERU® Select

This GB declaration is applicable for products including our accessories for mounting and installation only if the
installation is made in accordance with the enclosed installation instructions and that the product has not been modified.

Radio Equipment Regulations 2017, S.I. 2017 No. 1206
Designated standards:
- EN 300 220-2:2018 V3.1.1
- EN 303 446-1:2019 (EN 55014-1:2017, A11, EN 55014-2:2015, EN IEC 61000-3-2:2019, EN 61000-3-3:2013, A1)
- EN 301 489-3:2019

The Supply of Machinery (Safety) Regulations 2008, S.I. 2008 No. 1597
Designated standards:
- EN ISO 12100:2010
- EN ISO 13857:2019
- EN 60204-1:2018
- EN 60335-1:2012, AC 1, A 13 R1, A 11, A 12, A 13, A 1, A 14, A2, A15
- EN 60335-2-40:2003, A13/AC, A2, A12, A1, A11, AC1, AC2
Standard:
- EN 60335-2-30:2010, A11, A1, A12

**The Ecodesign for Energy-Related Products and Energy Information (Amendment) (EU Exit) Regulations 2019, S.I.
2019 No. 539**
Retained regulation:
- 1253/2014 Ecodesign requirements for ventilation units
- 1254/2014 Energy labeling of residential ventilation units
Standards:
- RVU: SS-EN 13141-7:2010 or NRVU: SS-EN 13053:2019

**Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012, S.I.
2012 No. 3032**
Designated standards:
- EN IEC 63000:2018

Avesta 2024-05-21

Mikael Östberg
Product Manager

This document is digitally signed.

3 Warranty

The warranty's validity according to the purchase agreement is calculated from the day of purchase.

3.1 Extent of the warranty

The warranty covers faults that occur during the warranty period that have been notified to the dealer or which have been verified by H.Östberg AB (underwriter) or the warranty provider's representative. Faults are defects in manufacture and materials as well secondary failures that occur due to these.
The above faults must be remedied so that the product is operational.

3.2 General limitations in the warranty

The warranty provider's liability is limited according to these warranty conditions and the warranty does not cover injury or damage to people or property. Verbal promises that are made in addition to the warranty agreement are not binding on the warranty provider.

3.3 Limitations in the warranty

The warranty applies on condition that the product is used in the normal manner or under equivalent circumstances and that the user instructions are followed.

The warranty does not cover faults that are caused by:
 • Transport of the product.

 • Unintended use or overloading of the product.

 • Failure on the part of the user to follow the instructions regarding installation, use, maintenance and care.

 • Incorrect installation or incorrect positioning of the product.

 • Conditions that are not the responsibility of the warranty provider, e.g. excessive variations in voltage, lightning strike, fire and other accidents.

 • Repairs, maintenance and changes that are performed by unauthorised parties.

The warranty does not cover:
 • Faults that do not affect operation, for example scratches to the surfaces.

 • Parts that are exposed to greater risk of fault than normal due to handling or normal wear and tear, for example lamps, glass, ceramics, paper or plastic parts, filters and fuses.

 • Settings, information on use, care, service or cleaning that are typically described in the user instructions, or damage that is caused by the user failing to observe warnings or installation instructions, or inspection of such.

The warranty provider is only responsible for the operation if approved accessories are used. The warranty does not cover product faults that are caused by other manufacturers' accessories or equipment.

The unit's current settings must be recorded in the installation and assembly instructions at installation in order to avoid costs in the event of fault. The warranty provider is not responsible for costs such as adjustment costs when changing fans and mainboards in the unit.

3.4 Service conditions during the warranty period

The conditions apply according to the agreement with the local dealer.

3.5 Corrective measures in the event of detected faults

If a fault is detected, the customer must notify this to the dealer.

Shipping damage must be notified to the shipping agent upon delivery. State which product applies (part and serial number as per the name plate) and describe the fault and how this has occurred as accurately as possible.

In order for warranty repair to be performed, the customer must demonstrate that the warranty is valid by presenting a purchase receipt. Once the warranty period has expired, claims that were not made in writing before expiry of the warranty period will not be valid. In other regards, this shall occur in accordance with the sales conditions.

4   Operation

For information on active view in the IQ Control App, press the **i**-button in the App's status bar.

> ⚠️ **WARNING**
> The unit's duct connections must be duct connected, and doors/cover closed and locked before the unit is started in order to avoid the risk of personal injury from rotating parts.

> ⚠️ **CAUTION**
> The unit must be run constantly and only be stopped for maintenance.

> ⚠️ **CAUTION**
> The safety switch must not be used for normal starting and stopping of the unit.
> Use the IQ Control App.

> ⚠️ **CAUTION**
> In the event of interruption in power, the settings will be stored. Date and Time are saved for 24 hours. After that, Date and Time must be reset. Make sure the unit is started up.

The airflow is regulated in the mode using the IQ Control App. Normal mode is the preset base mode.

Accessible modes:

Away   Reduced air flow, can be used when no one is home.

Normal   Adjusted at installation, must not be changed.

Boost   A higher airflow than normal, medium/max can be selected. This alternative should be used when there is need for a higher airflow, for example when cooking food, drying laundry or taking a sauna.

Overpressure Pressure compensation in the event of supplementary heating, for example, when using an open cooker or stove.

Certain settings are protected by a code so they cannot be changed unintentionally.

NOTE!
If a mode is activated manually, the programmed or previous settings are overwritten.

4.1   Installing the IQ Control App

The free **IQ Control App** allows the user to control the unit's functions.

Preparations:
**Optional**. Make any settings in the home network to guarantee the HERU unit's continuous connection to the internet / Cloud.

1. **Optional**. Connect the HERU unit to the internet-based Cloud service by connecting the internet connection via the port marked LAN.

2. Download the **IQ Control App** to your smartphone from your app store.

3. Create an **HERU IQ** account and log into the app.

4.2   Pairing units

1. Make sure the phone's Bluetooth is turned on.

2. On the HERU Bluetooth gateway (1), take a pointed object and briefly press the button inside the hole (2) (the larger hole furthest away from the socket).

3. You have one minute to pair the app with the HERU Bluetooth gateway .

4. Open the IQ Control App, in the app's list of devices, tap the name to pair.

5. The phone will ask if you want to pair (pair and connect).

6. Enter PIN 123456 then OK.

7. If the app is paired with the gateway, the field is highlighted, and the text. Disconnect is displayed.

8. (Optional) Connect your HERU to the internet using a network cable. Use the guide in the IQ Control App to connect the HERU unit to Cloud. Now you have unlimited remote access to your HERU unit.
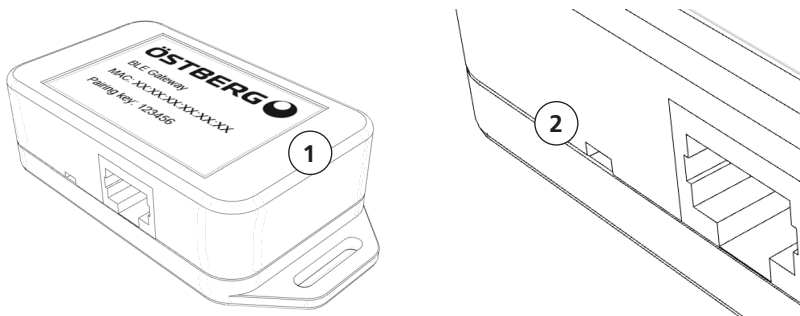
In case of problems when pairing the IQ Control App to the HERU Bluetooth gateway, try the following steps:

A. In the phone's Bluetooth settings, unpair the bluetooth device. To clear all devices from the HERU Bluetooth gateway, take a pointed object and press and hold the button (see step 2 above) until the led turns off. Then try to pair again.

B. Turn off Bluetooth on all other phones that are already paired with the HERU unit.

C. If the Bluetooth connection is lost (Home screen is not available in the app), disconnect the network cable to the HERU Bluetooth gateway and reconnect it again. If still not working, disconnect the power supply to the HERU unit and then connect it again.

4.3   Entering the basic settings

1. Open the Home screen, select **Settings**.

2. Select **General**.

3. Select **Language** from the list.

4. Enter **Time**.

5. Select **Measurement system** from the list.

6. Select **Time format** from the list.

7. Select **Time zone** from the list.

4.4 IQ Control App

4.4.1 Home screen
Shows the status and hotkeys of the Home screen.
The following symbols can be displayed in the status bar:

1. Home screen

2. Information about the active view

3. Status row – shows available functions

- Status cloud connection

- Bluetooth connection

RH - Air quality compensation for high level of a sensor

- Night cooling active

- Cooler active

- Heater active

- Away mode

W5 - Active program, program no. 5

- Alarm active

Hotkeys to activate or deactivate functions for the modes

4. Temperature

5. Away mode

6. Overpressure

7. Boost
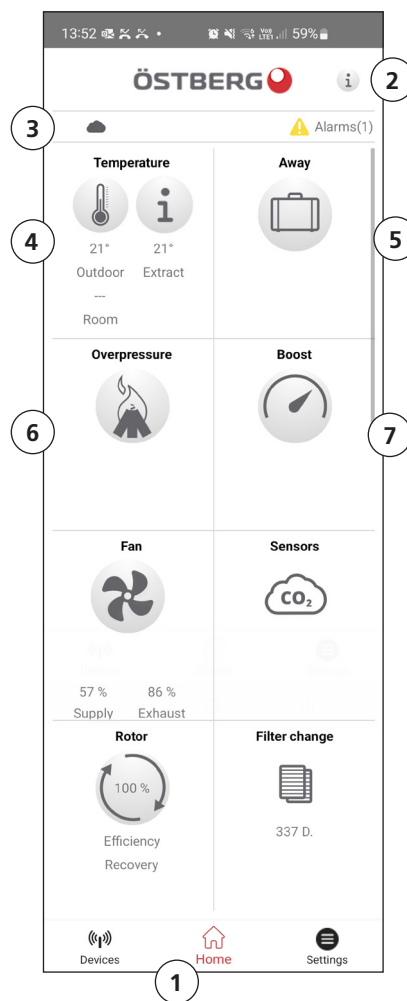
4.5 Temperature regulation

1. Press on the thermometer icon.

2. Set desired temperature. Use the buttons **-** and **+**.
NOTE!
If the economy temperature is activated (**Activate eco. reference value** is on),
you can set both **comfort** temperature and **economy** temperature.

3. Press [i] for extend informastion about temperatures.

4. Return to the home screen, by pressing Home.

4.6 Boost – used for temporarily increased ventilation needs

4.6.1 Boosting the unit

1. Press on the **Boost** icon. Operation in boost mode is shown with a green circle around
   the icon. Deactivate by clicking on the icon again.

NOTE! The preset time for boost operation is 30 minutes.

4.6.2 Change operating time for boost

1. Choose **Settings.**

2. Select **Service**.

3. Log in. Enter code **1199**.

4. Scroll down to **Boost** and change the operating time.

4.7 Overpressure – is used to facilitate the lighting of a fireplace

4.7.1 Activate overpressure

1. Press on the **Overpressure** icon. Operation in overpressure mode is stated with a green circle
   around the icon. Deactivate by clicking on the icon again.

NOTE! The preset time for overpressure operation is 15 minutes.

4.7.2 Change operating time and compensation for overpressure function

1. Choose **Settings.**

2. Select **Service**.

3. Log in. Enter code **1199**.

4. Scroll down to **Overpressure** and change the operating time.

5. State desired **Offset** value.
   Offset is the difference between supply and exhaust air. Increased to the supply
   air fan first. If the supply air fan reaches the limit for maximum fan speed, the exhaust air fan is reduced
   until the difference between the fans corresponds to the offset value.

4.8   Activate Away mode

1. Press on the **Away** icon. Operation in away mode is stated with a green circle around the icon.
   The away mode is active until it is manually deactivated by pressing on the icon again.

NOTE!

The away mode is prioritised and overrides the program planner if both are active simultaneously.

4.9   Scheduling

There are two types of schedules: **Scheduler** for programming the intervals for weekdays and **Holiday scheduler** for programming per date. **Holiday scheduler** overrides **Scheduler** for weekdays. If the different schedules coincide with each other, the schedule with the lowest number overrides the other.

The **Scheduler** can be used in both **comfort** and **economy** mode, if the economy temperature is activated.

1. Choose **Settings.**

2. Select **Scheduler.**

3. Select type of schedule.
   The upper icon automatically activates when one or more program is activated.
   When you deactivate this icon, all programs are deactivated.

4. Select **Program 1** by clicking on it.

5. Enter the selected value.

6. Select **Fan speed**. Select **Min, Std, Max** or **Energy saving mode** from the dropdown list.

7. If economy temperature is activated, select **Temp.mode**. Select **Comfort** or **Economy** from the dropdown list.

8. Click on the button **Save**. The program has activated. In order to deactivate a program, deactivate the icon to its right.

9. To set several different programs, repeat steps 1 – 7 as required.

4.10   Activate night cooling

Night cooling is a temperature regulated boost without heat recovery, where the unit is cooled with cold outdoor air as needed.

Night cooling is activated when the Extract air temperature is higher than the set Extract air high value and the out-door temperature is lower than Extract air temperature – (minus) set **In/Out diff.**

Night cooling is deactivated when the Extract air temperature is lower than the set Extract air low or the out-door air temperature is higher than the Extract air temperature – (minus) set **In/Out diff.**

Temp.evaluation Rest mode must be activated if the unit is in standby mode and night cooling is requested. **Temp.evaluation Rest mode** checks whether the criteria for activating night cooling has been fulfilled within the set time intervals.

1. Choose **Settings**

2. Select **Service**..

3. Log in. Enter code **1199**.

4. Press **OK**.

5. Select **Setup**.

6. Scroll down to **Night cooling**. Press the **Activate** icon.

7. Enter the selected value.

8. If the unit is in standby and night cooling has been requested, activate **Temp.evaluation Rest mode**.

9. Enter the selected value.

4.11   Activate Heater

The **Heater** is a mounted internal heating element, it helps to achive the adjusted indoor temperature.

Aftercooling is a function to cool the **Heater** when the unit is stopped, for example when changing the filter. If **Aftercooling** is activated, the fans continue to run for two minutes after the unit is switched off. We recommend always having **Aftercooling** enabled to prevent the thermal protection from trip and then have to be reset.

1. Choose **Settings**

2. Select **Service**..

3. Log in. Enter code **1199**.

4. Press **OK**.

5. Select **Setup**.

6. Scroll down to **Heater**. Under **Type –** choose **Electric**.

7. If you can't find the **Heater**, activate it in the App under;
   Installation > Peripherals > Afterheater > **Type** – choose **Electric**.

4.12   Turn the unit off and on

1. Starting the unit. Connect plug/turn on the safety switch.
   Start the IQ Control App or Press on the display and click on **OK** to the question **Start unit?**.

2. Turning off the unit. Open the main menu, scroll down and select **Turn off unit.**

4.13   Use the Alarm menu

1. Choose **Settings**, select **Alarms**.

2. Select **Active alarms** to see all active alarms.

3. After managing an active alarm, the active message for the alarm is cleared.
   • Click on the alarm to reset it. In the dialogue box displayed, select **Reset**.
   • In order to reset all active alarms, click on **Reset all** at the bottom in the middle,
     in **Active alarms**.

4. Select **Alarm history** to see all previous alarms.

5. Return to the home screen.

4.14   Change settings

For all available options, see **1270478 – IQC Manual.**.

1. Choose **Settings**, select the desired alternative to be changed.

2. Change the parameters to the desired value.

3. Return to the home screen.

4.15   Update firmware in the ventilation unit

The firmware can be updated from:
   1. The IQ Control App – Android via Bluetooth

   2. A PC/MAC computer via Bluetooth.

   3. An IQC Display (accessory).

Follow the the instructions in the IQ Control App if a notification about an
updated firmware is displayed.

5 Maintenance

> **WARNING**
> In accordance with IEC 60335-2-7.12, this apparatus is not intended to be used by people (including children) who have physical, sensory or psychological impairment, or lack of experience and knowledge, unless they have received guidance and instruction on how to use the apparatus by a person who is responsible for their safety. Children must be supervised to ensure that they do not play with the apparatus..

> **CAUTION**
> Always turn off the unit with the IQ Control App before disconnecting the power.

> **WARNING**
> The power supply to the unit must turned off before service or maintenance is started.

> **WARNING**
> The electric after heater may still be hot after the power has been disconnected for maintenance.

The user may perform maintenance according to the user manual in accordance with IEC 6-335–2–40.

Follow the routines for returning and disposing of replaced parts and packaging material.

5.1 Maintenance schedule

Maintenance inspections must be performed according to the schedule below.

The unit must not be repaired directly by the user. Contact the dealer in the event of any fault and if interruptions to operation are noticed.

Operation	Every six months	Every year
Inspect the function for supply and exhaust air	X	
Clean fans and change filter		X

5.2 Maintenance

5.2.1 Maintenance every six months

Inspect the function for supply air and exhaust air.

No preparations are required.
   1. Inspect the function visually to check that supply air and exhaust air function correctly.

5.2.2 Maintenance every year

Clean fans and change filter.

5.3   Preparations

Tools
• Torx T25 screwdriver
• Flat-blade screwdriver/13 mm socket (HERU S)
• Flat-blade screwdriver (HERU T)

Disposable items
• Protective gloves
• Breathing protection (minimum class FFP2 as per standard EN149+A1:2009 or equivalent)
• Protective clothing

5.4   Open doors and lid

1. Turning off the unit. Cut the power supply and ensure that it cannot be turned on by mistake.

2. Open the unit's cover/doors.

HERU S:

1. Remove the four corner covers.

2. Loosen the four screws.

3. Lift off the lid.
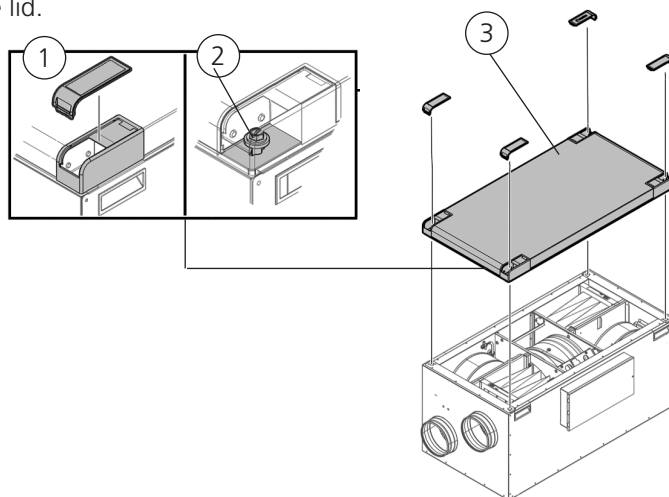
HERU T:

1. Use a flathead screwdriver to open the lock on the door, Min 10x1.5 mm and Max 15x2 mm tip. The slot is 16x2.3 mm

2. Open the doors .
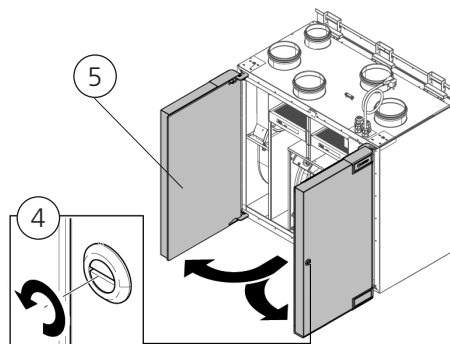
> **WARNING**
> Watch out for sharp edges and corners on the unit.

> **WARNING**
> Protective gloves must be worn due to the risk of cuts or injury.

5.5   Remove filters and fans.

> **WARNING**
> Breathing protection and protective clothing must be used due to the risk of breathing in and spreading dust when handling a used filter.

1. Pull the filters straight out.

2. Remove the fans' quick connectors.

3. Unscrew the Torx T25 screws.

4. Carefully draw/lift out the fans from the unit.

5. Unscrew the outer screws from the motor plate.

6. Lift out the motor and fan wheel.

HERU S:
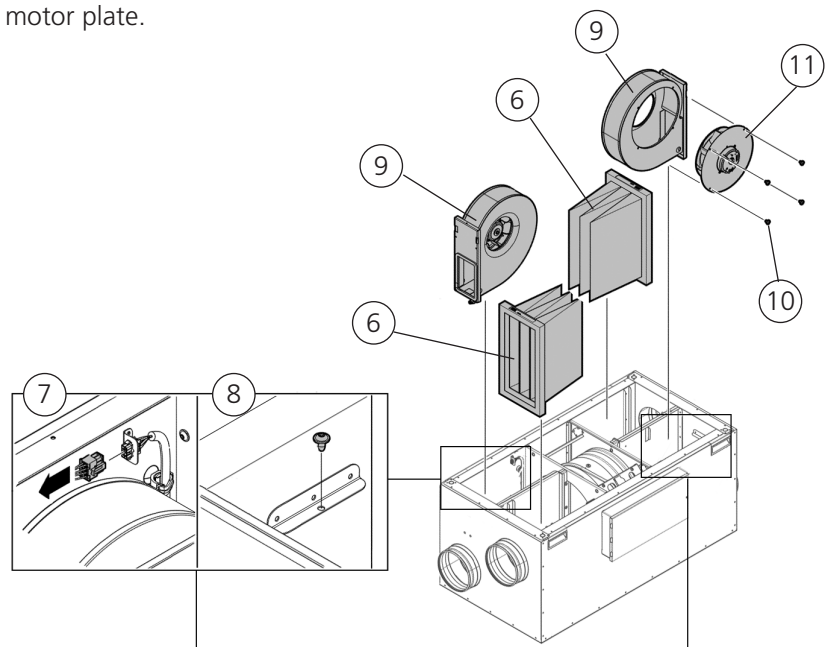
HERU T:
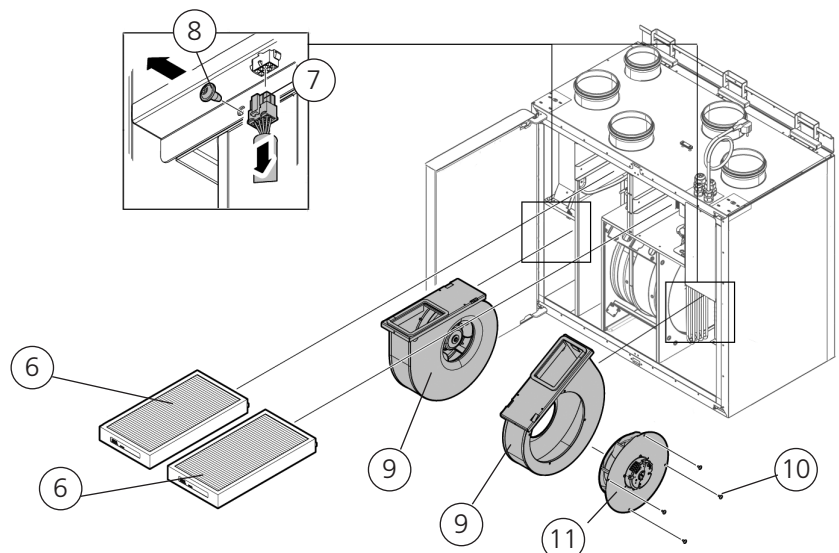
7. Inspect the fan wheel and fan housing, and check that it is clean. Wipe with a damp cloth if needed. Wipe the inside of the fan housing if needed.

8. Refit the motor with the fan wheel into the fan housing and tighten the outer screws.

9. Refit the fans in the unit.

10. Tighten the Torx T25 screws.

11. Connect the fans' quick connectors.

12. Fit the new filters.

13. HERU S: Close and lock the cover with the four screws. Install the corner covers.
    HERU T: Close the doors and lock them with the espagnolette bolt.

14. Connect the power supply.

15. If a filter timer is used, this must be reset.

    1. Open the main menu, select **Service**.
    2. Log in. Enter code **1199**.
    3. Press **OK**.
    4. Select **Setup**.
    5. Under **Filter measurement**, click **Reset**.
    6. In the dialogue box displayed, select **Reset**.
    7. Return to the home screen.

5.6   Accessories and spare parts

For a complete list of accessories and spare parts for each model, see www.ostberg.com or contact your nearest HERU dealer.

Function is only guaranteed with accessories from H. Östberg's range.

6   Technical data

For current technical data, please see www.ostberg.com.

7 Troubleshooting

7.1 Alarm

There are two types of alarms: Alarm A and Alarm B. Alarm A is a critical alarm that turns off the unit. Alarm B is an alarm that can affect operation but that does not cause damage to the unit.

When an alarm is activated, a dialogue box opens and a notification of an active alarm is shown in the upper right corner of the IQ Control App. Click on the alarm symbol to see all active alarms.

Alarm	Cause	Operation
Filter	The filters are dirty.	Change the filters.
Filter timer	The set time for filter measurement has been reached.	
Sensor open	The connection to the relay card has been broken. The sensor is broken.	Check which sensor is activated. Check the connection to the relay card and also the connection to the sensor inside the HERU unit. If the fault remains, change the broken sensor.
	The settings for heater and control mode are incorrect.	Adjust the settings for heater and control mode.
Sensor shorted	The connection to the relay card has been broken. The sensor is broken.	Check which sensor is activated. Check the connection to the relay card and also the connection to the sensor inside the HERU unit. If the fault remains, change the broken sensor.
Rotor stop	Rotor, rotor motor, rotor sensor or rotor belt are broken.	Check that the rotor, rotor motor, rotor sensor and rotor belt are intact. Change the broken part if needed.
Overheating	The overheating protection in the electric after heater has triggered.	Check if the manual overheating protection in the electric after heater has triggered. Reset the manual overheating protection and reset the alarm.
Supply air low	The filters are dirty.	Change the filters.
	Rotor belt slips.	Replace the rotor belt.
	The electric after heater does not working.	Ensure that the electric after heater working before start-up. If not, check that the connections are faultless. If the connections are faultless, change the electric after heater.
	The flow direction is not correctly set.	Adjust the settings for flow direction.
Rotor temperature low	The filters are dirty.	Change the filters.
	Rotor belt slips.	Replace the rotor belt.
	The rotor has stuck.	Ensure that the rotor can rotate freely.
Fire alarm	The access to the fire alarm has been activated. Alarm signal from external alarm units.	Check that the correct input function has been selected. Ensure that the external alarm units working as they should before start-up.
Freeze protection	There is not enough heat capacity in the heating coil.	Ensure that the heating coil working before start-up.
	The valve actuator does not open as it should.	Ensure that the valve actuator working before start-up.
Motor failure	No power or signal to the fans and the quick connectors.	Check that the fan is working, otherwise change the broken fan before start-up. Check that the fan has been connected in the right way.
	The fan wheel is blocked.	Ensure that the fan wheel turns freely before start-up.

7.2   Other malfunctions

Hardware failure	Cause	Operation
Nothing is displayed on the wireless display.	The batteries are discharged.	Connect the charger.
The display does not react to contact.	The screen lock is activated.	Press on the screen and hold for 3 seconds.
The unit does not start.	The unit receives no power.	Check the fuse, residual current device and connections.
	The activate mode is "Off".	Change the mode to "On".
	The unit is not correctly connected.	Connect the unit correctly.
	Other active alarm.	See **7.1 Larm**.
The unit has stopped.	The unit receives no power.	Check the fuse and the safety switch.
	There is an active alarm.	Check the cause of the alarm. Once the fault has been resolved, reset the alarm. See **7.1 Larm**.
	The flow direction is not correctly set.	Adjust the settings for flow direction.
When the unit starts, the IQ COntrol App or the wireless display shows the wrong temperature or the alarm for low temperature.	The unit is not correctly installed.	All electrical installations must be performed by a qualified electrician. Order reinstallation if needed.
The supply air or exhaust air flow is low and or the output is too high.	Grille at air intake is obstructed.	Clean the grille.
	The filters for supply air and exhaust air are dirty.	Change the filters.
The unit's output appears too low.	The filters are dirty.	Change the filters.
	The exhaust air temperature is low.	Find the cause of the low temperature. Check the duct insulation. Check the flow speed in the ducts.
The electric after heater is not hot.	The after heater is not activated. Operation is not permitted.	Activate the after heater in the service menu. Check the installation.

If there are malfunctions that cannot be solved with the aid of this information, contact your electrician or dealer.

For a complete list of accessories and spare parts for each model, see www.ostberg.com or contact your nearest HERU dealer.

7.3 Troubleshooting chart

Start

Select Category

Display / Alarm / Message

Do you receive Alarm / Message?

Is there a key displayed in the upper left corner? — Yes

Keylock is activated. Touch the screen and hold for 3 seconds to disable.

It's difficult to see details on the screen? The display does not respond of touch. — No

The screen is blank or does not respond of touch despite loaded battery. — Yes

Display defect! Contact your Installer/dealer. — Yes

— Alarm — Which alarm is displayed?

— Message — Is "Turn on unit" displayed?

Is "No communication!" displayed?

The unit is initialized. After booting, the unit switch to normal operation. — Yes

Losing communication with main unit. Please go closer. — Yes

Does the unit respond to any form of control from the Display such as on/off or change of fan speed? Temperatures and the rotor status is updated? — No

Does the unit get current? — No

Check fuse, RCD and wiring. — Yes

Bad reception conditions. Check antenna and its location. — Yes

Is the remote control synchronized with the unit? — Yes

Synchronization between the remote control and unit fails? — Yes

Synchronize remote control with unit. — No

Temp. sensor give abnormal value.
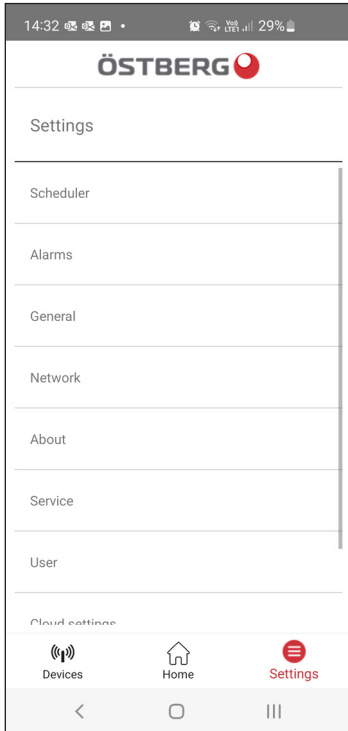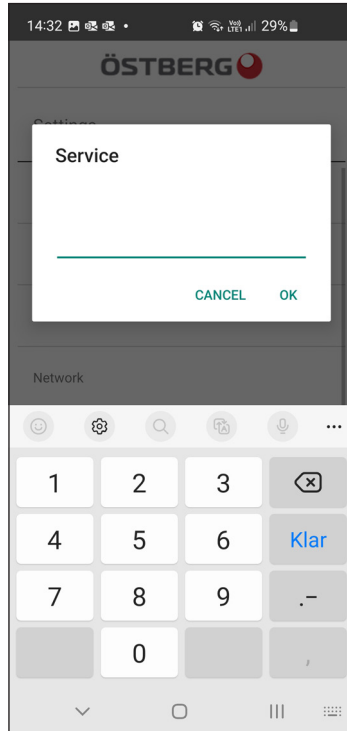
Which sensor give alarm?

1- 4, 7   5, 6, 8

Check the connection/function of the faulty sensor.

The problem persists? — Yes / No

UNIT

Is it possible to start the unit with the Display? — No

Is correct temperature values dispalyed when the unit is operating? — No — Has the unit stopped and alarm is displayed? — Yes

Yes / No

Check placement of the ducts and isolation. Check the selected flow direction.

The temperature in the ventilation system has not stabilized yet. Wait for 30 min.

This is normal when the unit don't need to recover more heat for desired temperature. — Yes

Has the unit just been started? — No — Check air flow on supply side. Check filter.

Is a low efficiency displayed? E.g. 23%? — No — Is a high efficiency displayed? E.g. 95-100%? — No — The unit display gradually lower efficiency? — No — The alarm "Rotor failure" is displayed? — Yes / No

Check what is causing the error. Make sure that the rotor moves freely. — No — Can the problem be localized to the rotor shaft? — Yes — Rotor defect! Contact your Installer / Dealer.

Clean rotor, belt and pulley. Replacement of belt may be necessary. — Yes — Is the rotor stuck somewhere? — No

Is it bad grip between the belt and pulley? — No — Rotor sensor defect! Contact your Installer / Dealer. — Yes

The alarm "Rotor failure" is displayed but the rotor is operating good? — No

HEAT EXCHANGER

AIRFLOW

Replace the filters. Check the value of the filter pressure switches. — Yes

FAN MOTORS

The unit provides gradually lower air flow? — No — Are the fan speeds adjusted in the remote control? — Yes — Is correct flow given at maximum (100%) (10V), see pressure/flow chart? — No — Voltage range should be adjusted. Contact your installer / dealer.

Adjust each speed. — No

What type of fans?   AC

EC

Change flow direction. — No

Is the correct flow direction selected? — Yes — Is the alarm "Fan failure" displayed? — Yes — Is control cable for the exhaust fan connected to the correct terminal on the relay card? — Yes — Is the power for the exhaust fan connected at correct terminal on the relay card?

Does the supply fan start first? — No

Fans and control cables connected the wrong channel on relay card.

Does the exhaust fan start first? — No — Are both motors stopped and appears in the display? — Yes — "No communication!" is displayed? — No — Basic settings incorrect! Contact your installer / dealer.

The unit initiates. — Yes

Please see Display Alarms/Messages — Yes

Connect cable to the correct terminal. — No

Is the fuse on the relay card intact? — No / Yes

ELECTRIC HEATER

Sensor shorted

Rotor failure

Supply temp. low

Fan failure

Fire alarm

Temp. sensor provides no value.

Sensor open

Rotor temp. low

Is supply sensor GT7 installed correctly? (HERU S only)

Is alarm triggered at the same time e.g. in away-mode or pressure compensation?

Is correct fire sensor type selected?

No

Disable water heating coil function — Yes — Is the water heating coil function enabled?

Is the alarm "Rotor failure" also displayed?

Install GT7 According to assembly instructions. (HERU S only)

Increase the minimum speed.

Check the fire sensor type.

No — Yes

No

Yes

Yes

See fan motors.

Reset of external alarm is required before starting the unit.

Is "Room regulation" type selected? — No — Is a water heating coil installed?

Is correct flow direction selected? — No — Change flow direction.

Yes

Yes

Yes

Change filter! Resetting the timer starts a new period. — Filter timer

Is room sensor T8 installed? — No — Is anti-freezing sensor T5 installed?

Has the supply air a very low temperature when unit alarms? — Yes — Insufficient heat recovery. Check filter and heater if fitted.

Install Sensor

Yes

Yes

No

Has the exhaust air low temperature? — Yes — Insufficient heat recovery. Check the insulation on exhaust air duct.

Overheating

Freeze protection

Temperature sensor defective! Contact your Installer / Dealer.

No

Has thermal protection on electric heater tripped?

Is sensor mounted on the return pipe from the heating coil?

Does the displayed temperature differ significantly from real?

No

Yes — No

Yes

Reset thermal protection.

Check the temperature on the supply pipe to the heating coil.

No

The shaft on rotor motor hangs / jams? — Yes — Rotor motor defect! Contact your installer / dealer.

Is the air flows adjusted? — Yes

Overheating alarm is displayed?

Yes — No

No

No

Adjust the air flows.

For internal after heater; Is jumper connected to Aux and 07 on the relay card? — No — Connect jumper to Aux and 0 on the relay card. See wiring diagram.

Mount the sensor on the return pipe from the heating coil.

Is there voltage to rotor motor when exchange function is active? — No — Check the quick connectors and wiring.

Yes

Yes

Connect also the negative pressure output to fresh air duct. — No

For external after heater; Is the pressure in the duct enough to activate pressure switch?

No need for supplementary heat is required.

Overheating alarm is displayed, but after the heater regulates the correct temperature?

Yes

Is the rotor motor weak/ powerless?

Yes

No

Yes — No

Connect pressure switch positive pressure output to supply air duct. Connect pressure switch terminal 2 & 3 to relay card terminal 07 & AUX. See wiring diagram. — No

For external after heater; Is external pressure switch plugged in and connected correctly?

Is week timer enabled and running schedule?

After heater is active all the time and the overheating alarm is displayed?

No

No

Yes

No

Yes

Yes

Heating symbol is displayed?

Specific temperature criteria apply for after heater function.

Pulser defect! Contact your installer/dealer.

Yes

After heater is enabled in service menu but not active? — No — Activate after heater in the service menu.

Open circuit! Check circuit and connections for after heater.

No

Connect after heat control cable to the correct terminals.

Yes

No

Connect after heater to specific terminal block. See wiring diagram.

Replace the fuse.

Fan motor defect! Contact your installer / dealer.

After heater is active though turned off in the service menu? — Yes — Is after heat control cable connected to the correct terminals?

No

Is after heater connected on specific terminal block?

No

● The problem could not be solved. Contact your Installer/dealer.

○ No fault could be identified. For other questions, please contact your Installer/dealer.

Check the quick connectors at the fans! — Could the problem be identified in quick connector? — Yes — Does the motor start?

No

Yes

No   Yes

● ○

Warning!
Work on the unit and its peripherals must be performed by a qualified Electrician / Installer. Observe that rotating, hot and electrical parts can cause severe injury upon contact. See section "Installation and safety" in operation manual.

Appendix 1   IQ Control App – Setup Wizard

The Setup Wizard is a easy setup tool for your HERU air handling unit. Follow the steps.

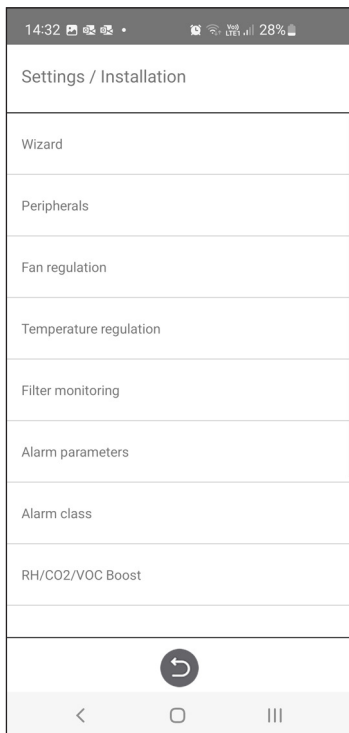You find it under: Settings > Service > code 1991 > Setup Wizard.
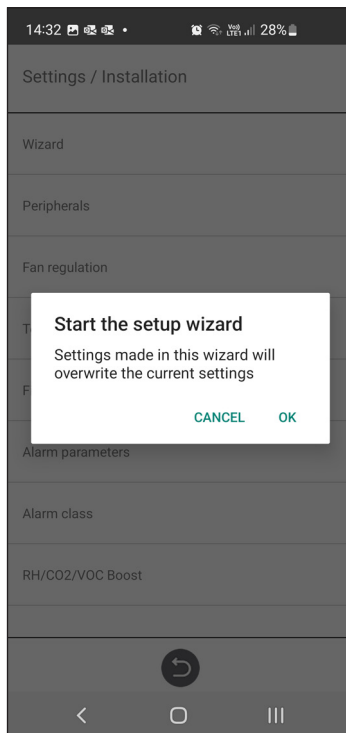

Choose Settings

Choose Service

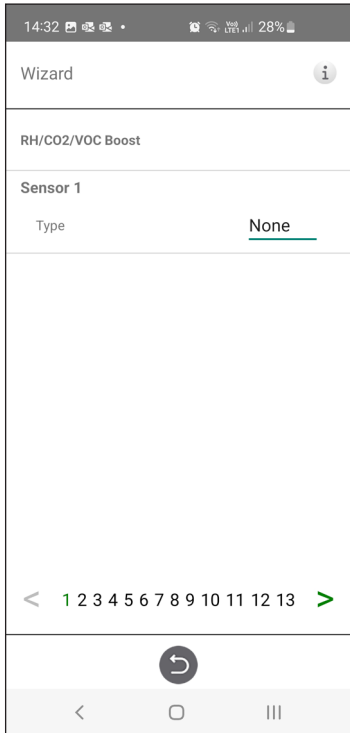

Write 1991

Choose Setup Wizard
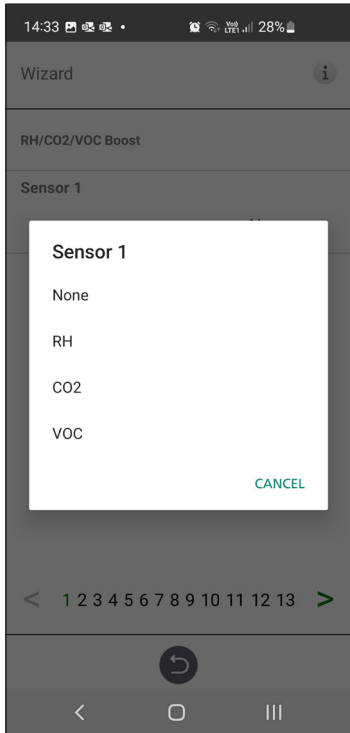

Setup Wizard start

1.1 Step 1 – RH/CO2/VOC Boost

Sensor type

Select the type of sensor and set the limit value for when fan compensation will activate.

If the limit value is exceeded, the supply and exhaust air flow will be increased steplessly.

When using more than one sensor, the value that is greatest is prioritized.

Setup Wizard –1 – RH/CO2/VOC Boost

Setup Wizard –1 – RH/CO2/VOC Boost – choices

1.2 Step 2 – Heating and cooling

After Heater

Selection of which type of after heater that is installed. For electric heater, after-cooling function can also be set. For water, freeze protection parameters can be set:

- Hold temperature: When the plant is switched off, the water coil is kept warm so that the return water temperature is the same as the holding temperature set point.

- Limit B: Temperature limit value where heat valve is forced to full open.

- Limit A: Temperature limit where also the plant is stopped if it is in operation.

Pre-heater

Selection of which type of pre heater that is installed. Temperature set point is set to when pre heater is to start support heat the cold fresh air.

The pre-heater is controlled against the temperature at the outdoor air filter and is activated when the temperature in the outdoor air falls below the set point.

Cooling

Selection of which type of cooling device that is installed.
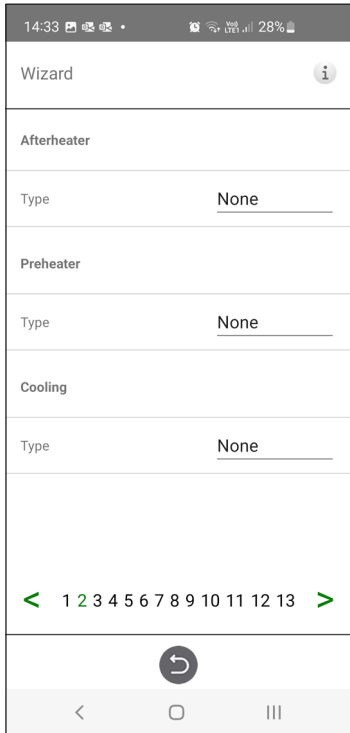
Setup Wizard – 2 – After heater
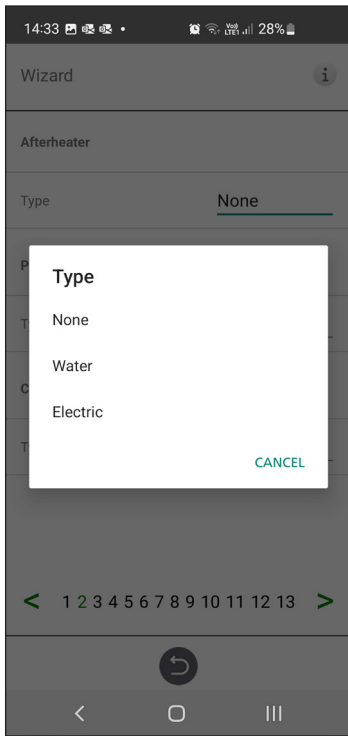
Setup Wizard – 2 – After heater – choices
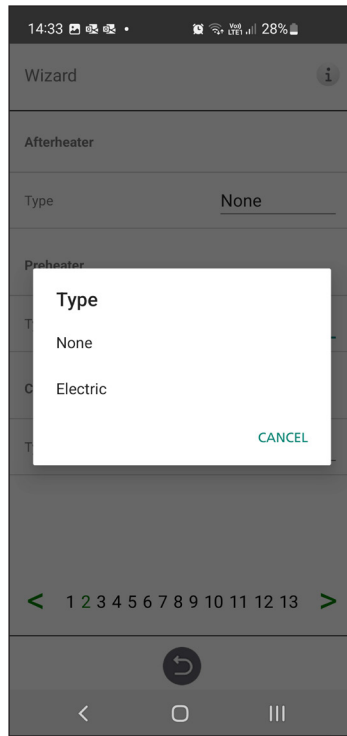
Setup Wizard – 2 – Pre heater– choices
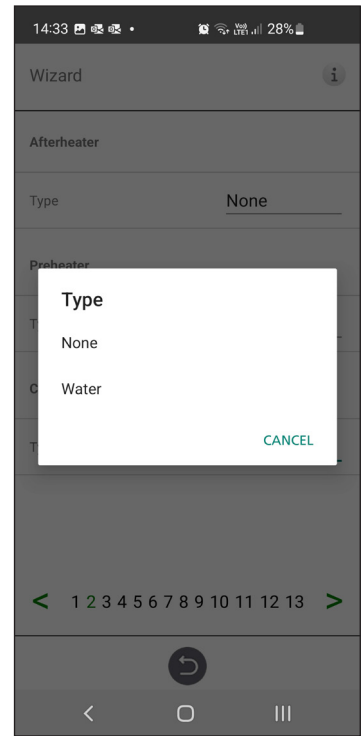
Setup Wizard – 2 – Cooling – choices

1.3   Step 3 – Temp regulation

Regulation Type

- Supply compare the temperature set point against the temperature in the supply air.

- Exhaust air compare the set point against the temperature in the extract air and regulates the temperature in the supply air between the set Min/Max limits.

- Room compare the set point against temperature from the room sensor and regulates the temperature in the supply air between set Min/Max limits.

Exhaust S/W and Room S/W enable automatic changeover of control type to supply air regulation in wintertime.

Changeover can be made on temperature criterion, date or via external input.

When Exhaust S/W or Room S/W is selected, a temperature offset factor can be set. This factor only affects supply air regulation in winter.
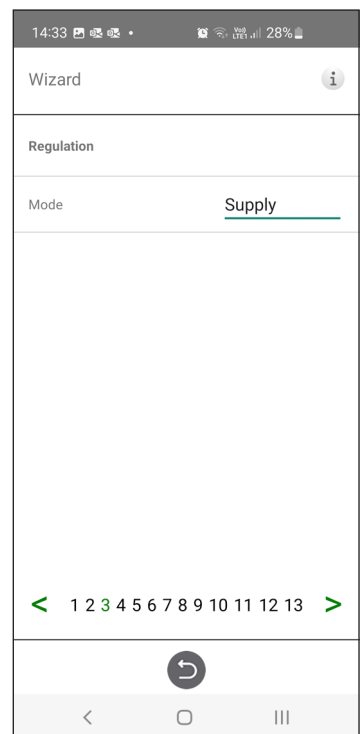
Setup Wizard – 3 – Temp regulation / Supply
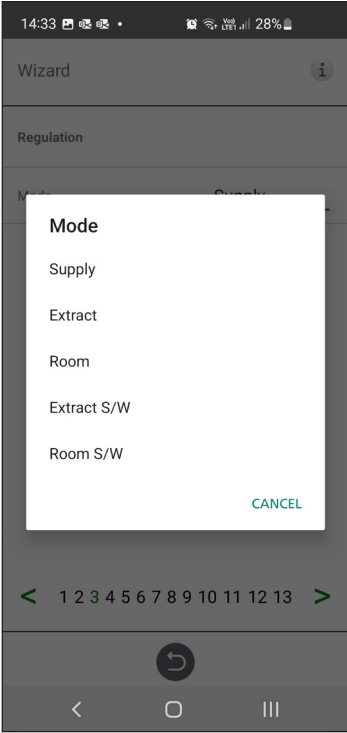
Setup Wizard – 3 – Temp regulation – choices

1.4 Step 4 – Temp set point & Supply temp low

Set point Max limit:
Set a maximum limit on the temperature set point setting.

Extra economy temperature set point can be activated, which allows for two temperature set points in the scheduler.

Supply air temperature Low:

- Limit A:
  Temperature limit when alarms for low supply air temperature will be given.

- Limit B:
  At which temperature limit the fan reduction will be activated.

- Fan reduction:
  Reduction of supply air fan. Min 10%, Max % diff. between Max and Min speed.
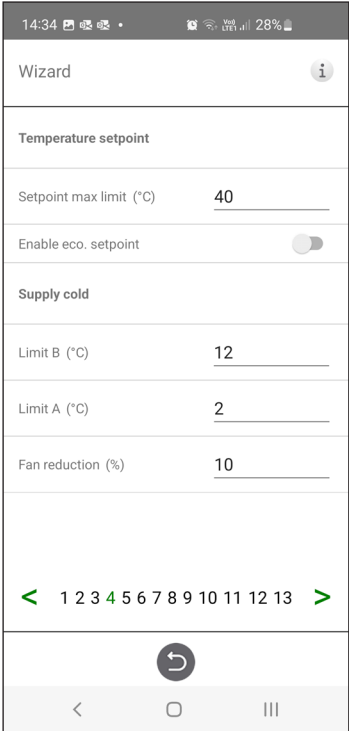
Setup Wizard – 4 – Temp set point

1.5 Step 5 – Switches

External inputs – Contact function:

Choice of contact function from external equipment.

NO: Normally open,
NC: Normally closed.

- Fire alarm:

- Fire mode: Function of fans in case of fire alarm.

- Forced speed: If fan is forced into operation, the % output signal will be used.

Automatic reset allows the unit to return to normal operation automatically when the external fire alarm is reset.

Emergency Stop / Service switch:

Possibility to use Emergency Stop / Service switch via input D6. If Expansion card is activated, the function is activated via input DI9.

External inputs - Signal type:

Choice of signal type from external equipment.

- "Pulse" is used for instant contact function.

- "Switch" is used for sustained contact function.
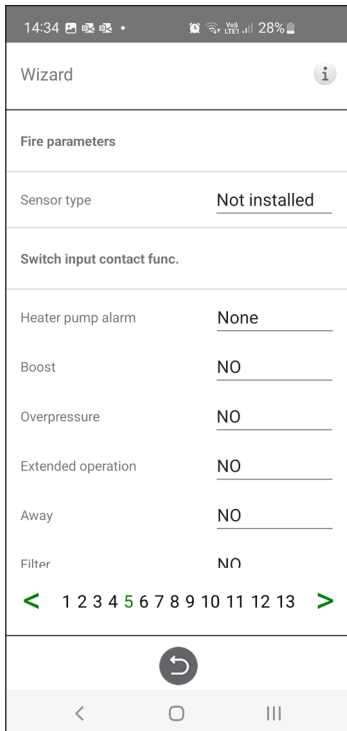
Setup Wizard – 5 – Switches
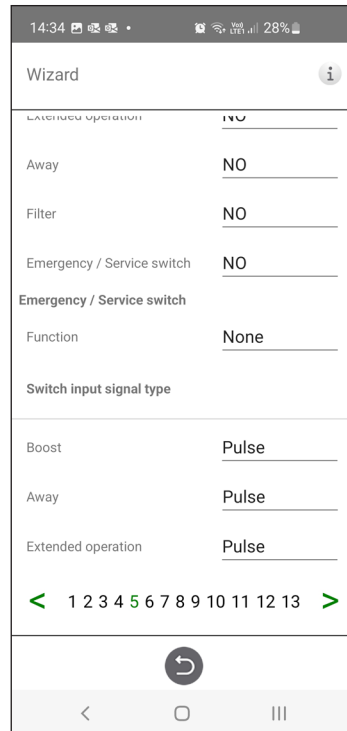
Setup Wizard – 5 – Switches
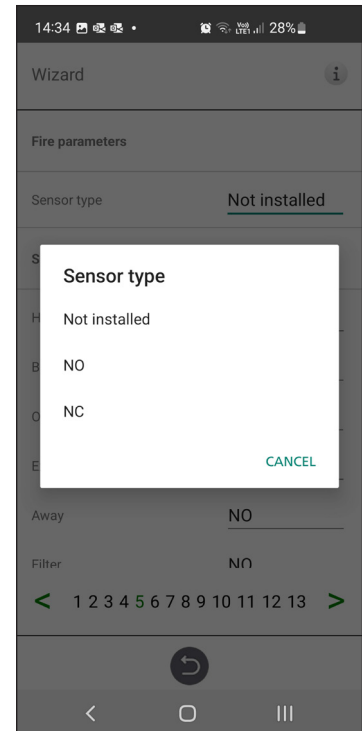
Setup Wizard – 5 – Switches – sensor type choice
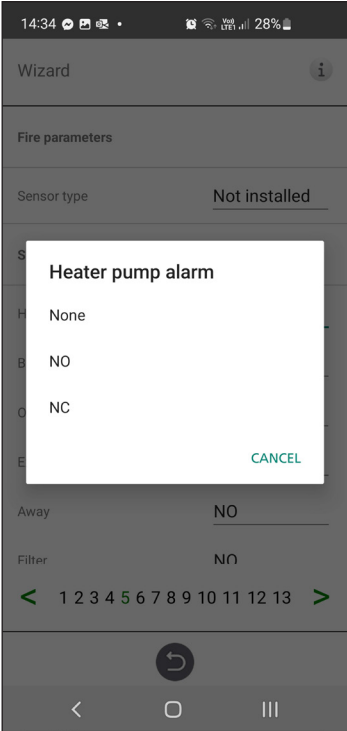
Setup Wizard – 5 – Switches – heater pump alarm choice
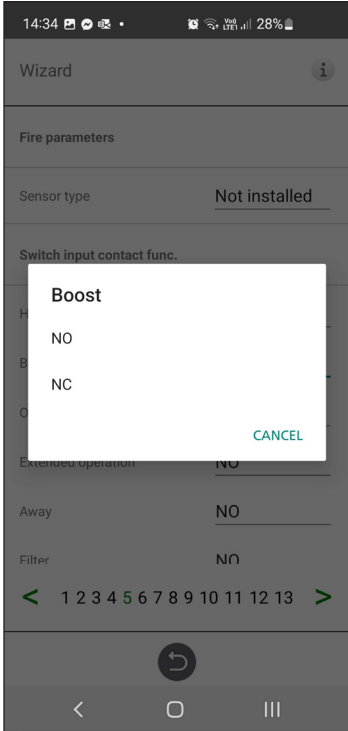
Setup Wizard – 5 – Switches – boost choice
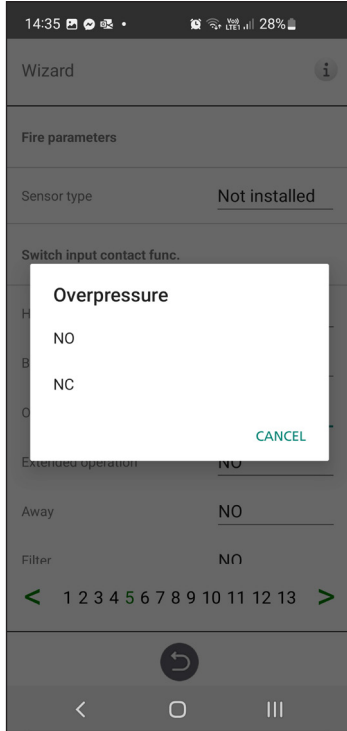
Setup Wizard – 5 – Switches – overpressure choice
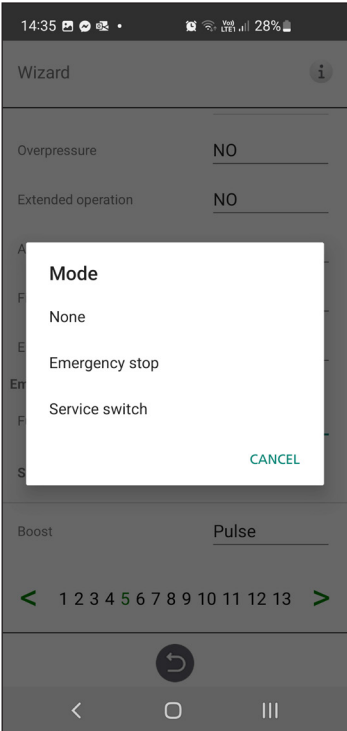
Setup Wizard – 5 – Switches – mode choice
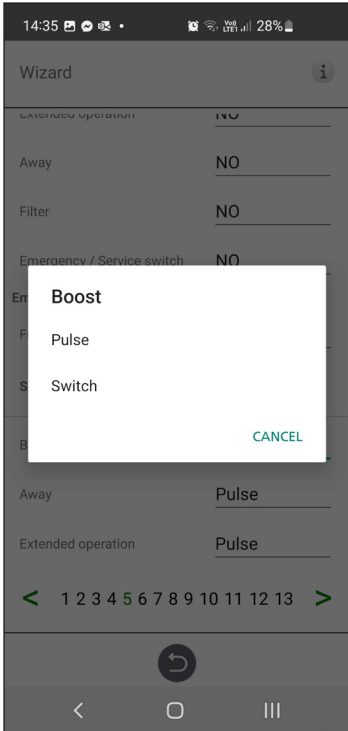
Setup Wizard – 5 – Switches – Boost choice
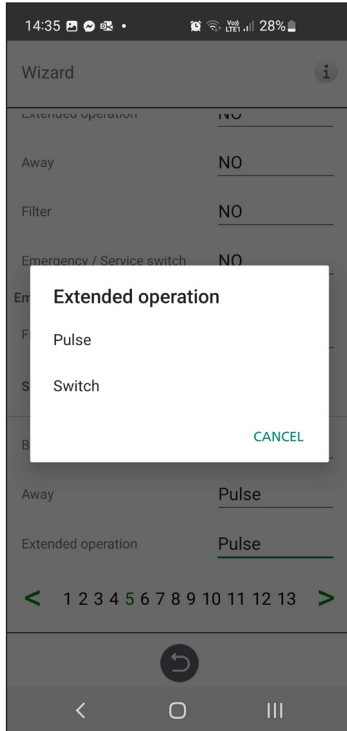
Setup Wizard – 5 – Switches – Ext. Operation choice

1.6 Step 6 – Alarm class

Settings of which alarm class that respective alarm should have.

Two levels can be selected:

- A-alarm: A critical alarm that will stop the ventilation unit.

- B-alarm: A non-critical alarm that keeps the ventilation unit in operation.

Alarm outputs:

- A-relay state: Contact function during normal operation.

- B-relay state: Contact function during normal operation.

- Run-relay state: Contact function during normal operation.

Alarm relay alerts:

Which alarms that will affect alarm output. Depending on the alarm class, the A-relay or the B-relay is affected.
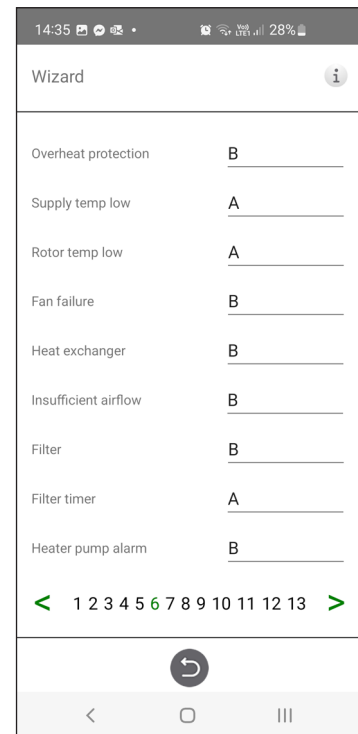
Setup Wizard – 6 – Alarm class

1.7 Step 7 – Filter measurement

Filter Measurement:

Type of filter control.

- Period: Selected by default. Gives an alarm when the service period has expired. Reset starts new service period.

- Diff. switch: Scheduled filter measurement at selected day & time (requires accessories).

- Diff. sensor: Scheduled filter measurement at selected day & time. Compare measured value against set final pressure drop (requires accessories).

- Speed increase: In CPC control of fans, the output signal of the fans can be used as a reference when measuring filter clogging. The limit value for filter alarms is the saved reference value of the fans increased by the set value for speed increase. Speed increase means keeping a constant pressure in the duct by increasing the fans' output signal to compensate for clogged filters (requires accessories).
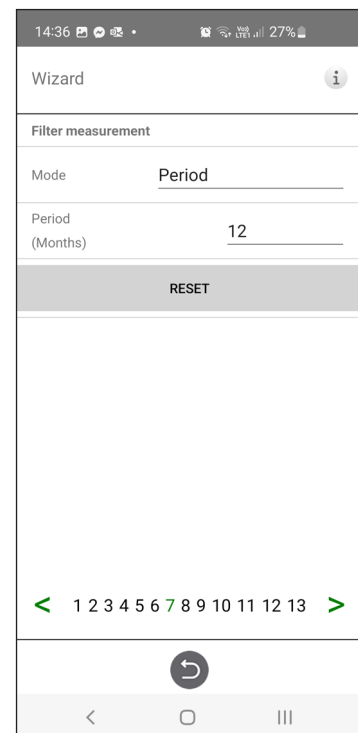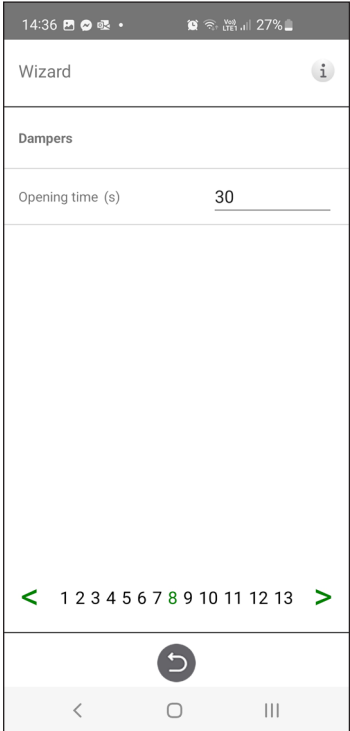
Setup Wizard – 7 – Filter measurement – Period

1.8   Step 8 – Dampers

Damper:

Opening time setting for dampers. Acts as start-up delay of the extract air fan to allow time for dampers to open.

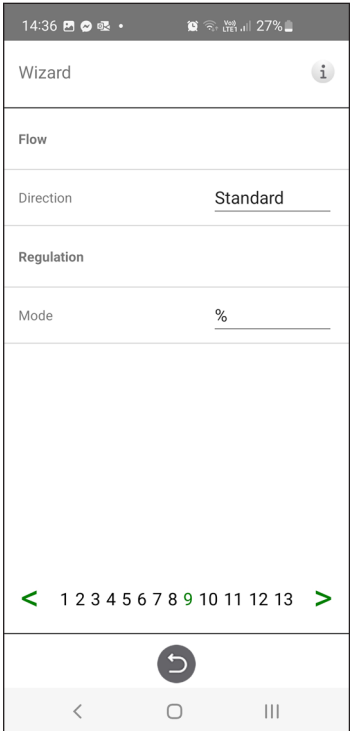For opening times, see separate data sheet for damper motor.

Setup Wizard – 8 – Dampers
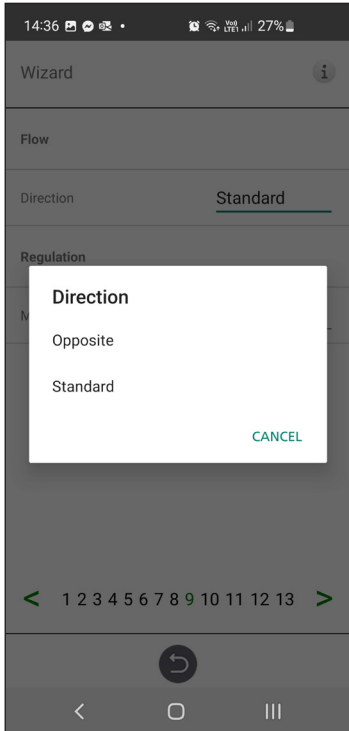
1.9   Step 9 – Flow and regulation

Flow direction:

Can be set Standard or Opposite.

The "Opposite" setting is only used on ventilation units that have a design that allows the flow direction to be changed. See manual for more details.

Setup Wizard – 9 – Flow and regulation

Setup Wizard – 9 – Flow and regulation – direction

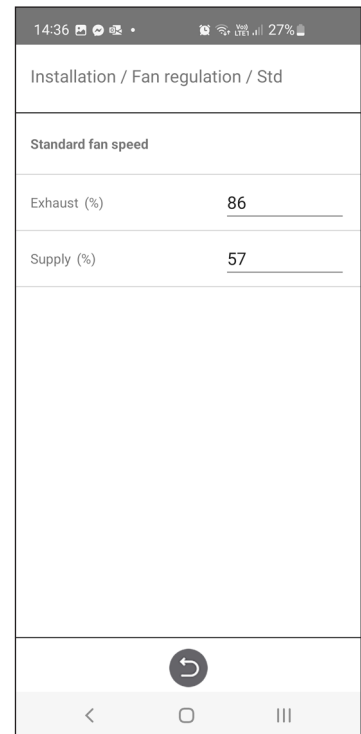## 1.10 Step 10 – Standard fan speed

Standard fan speed:

When entering the setup page, all program parameters that affect the flow of the fans are temporarily deactivated and the program is entering adjustment mode.

When leaving the setup page, the unit returns to normal operation.

The standard fan speed is the position where adjustment of the ventilation system shall be made. The supply and exhaust air flow can be adjusted individually.

Setup Wizard – 10 – Standard fan speed

Setup Wizard – 10 – Std fan speed settings

1.11 Step 11 – Min fan speed

Min Speed:

When entering the setup page, all program parameters that affect the flow of the fans are temporarily deactivated and the program is entering adjustment mode. When leaving the setup page, the unit returns to normal operation.

The exhaust air flow can be adjusted. The supply air flow is calculated automatically based on the ratio in Standard fan speed. In the case of VAV regulation with static offset, the supply and exhaust air flow can be set individually.

Setup Wizard – 11 – Mix fan speed

Setup Wizard – 11 – Min fan speed settings
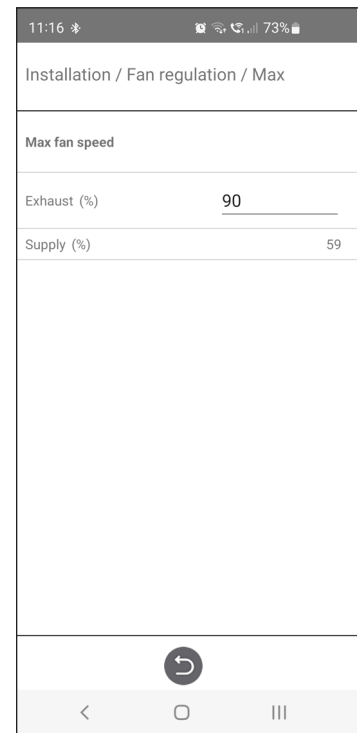
1.12 Step 12 – Max fan speed

Max Speed:

When entering the setup page, all program parameters that affect the flow of the fans are temporarily deactivated and the program is entering adjustment mode. When leaving the setup page, the unit returns to normal operation.

The exhaust air flow can be adjusted. The supply air flow is calculated automatically based on the ratio in Standard fan speed. In the case of VAV regulation with static offset, the supply and exhaust air flow can be set individually.
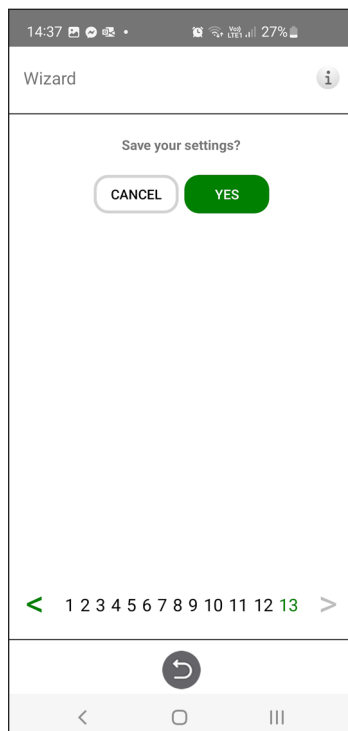

Setup Wizard – 12 – Max fan speed

Setup Wizard – 12 – Max fan speed settings

1.13 Step 13 – Save settings

Press Yes to save all settings made in the wizard. Previously set values will be overwritten.

Press Cancel to discard all settings made in the wizard and return to the previous menu.

Setup Wizard – 13 – Save settings

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