

# VENTILATION UNIT

KUBEN 40AL

FTX UNIT FOR HOMES AND SMALLER PREMISES





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# GENERAL INFORMATION

The Kuben 40AL is a ventilation unit with heat recovery that is intended for ventilation in smaller premises such as apartments, small villas, kitchenettes, etc. The units, which are very energy-efficient, with counter-flow heat exchangers and energy-efficient EC fans with high efficiency, can be advantageously placed on the wall in a normally warm storage room, laundry room, WC/shower or in the room to be ventilated.

## BENEFITS

- A very economical ventilation unit with heat recovery > 80%.
- Energy-efficient EC fans with stepless setting.
- Cassette filter in the higher ISO ePM1 70% for the supply air.
- Easy and quick installation with special mounting frame.
- Turnkey with built-in steering. Just connect the power.
- Low noise level thanks to low internal pressure drops,
- good aerodynamics and technically advanced sound insulation.
- Compact unit intended to be placed indoors, within the climate screen.

## CONTROL

- Control of aggregates is done by phone via the app "APPLICA" from Carel. See instructions on page 14.



## CONNECTION POSSIBILITIES

Supply air (fresh heated air from the unit into the premises), is connected at the top with a 125 channel and drawn with ventilation ducts to so-called "clean rooms", bedrooms, living rooms, offices, etc.

Extract air (consumed warm air from the premises into the unit) is connected with 125 channel from WC, shower, kitchenette, etc. to the top of the unit.

Outside air (fresh, cold air from outside) is connected with a 125 channel from, for example, a combi device on the outside wall to the connection marked "outdoor air" on the top of the unit.

Exhaust air (consumed air, with given off heat, from the unit out into the open air) is connected on top of the unit with a 125 channel that is drawn to a combi device on the outer wall, to a roof hood on the outer roof or similar.

Other connection options with attachment stops are available as an option.



Kuben 40AL is developed with absolutely top-class technology and with a discreet and timeless, yet exclusive, design.

# TECHNICAL DATA



- Low noise level thanks to low internal pressure drops,
- good aerodynamics and technically advanced sound insulation.
- Highly efficient heat recovery. > 80%.
- Very compact unit intended to be placed indoors. Mounted on the wall.
- Easy and quick installation with special mounting frame.
- Turnkey with built-in steering. Just connect the power.
- Integrated need-based regulation (CO<sup>2</sup>) and control and management over the Internet as an option.
- Large optional equipment options.

## STANDARD EQUIPMENT

- Mounting frame for quick and easy mounting.
- Energy-efficient stepless EC fans.
- Countercurrent type heat exchanger.
- Temperature efficiency >80%.
- Supply air filter ISO ePM1 70%;.
- Extract air filter ISO ePM10 55%.
- Cassette filter with very good filter economy
- Additional pre-heating with electricity.
- Automatic defrost function.
- Stepless speed regulation.
- Supply air temperature control with setting on the panel.
- Built-in electrical and control center.

Air volume	See diagram on page 6
Additional heat Preheating electricity:	1000 W PTC element
Electricity data With preheating: Supply air fan: Extract fan:	230V, 1-fas 10 A (6,50 A) 83W, EC, 0,4A / 168W, EC, 1,4A 83W, EC, 0,4A / 168W, EC, 1,4A
Heat recovery:	Countercurrent heat exchanger Recovery > 80%
Sound level:	See sound data on page 8-9
Duct connection:	Spiro channel Ø 125 on all connections. (Options may be available as an option)
Measure:	Höjd: 700 mm Bredd: 600 mm Djup: 355 mm including door and mounting frame
Weight:	45kg

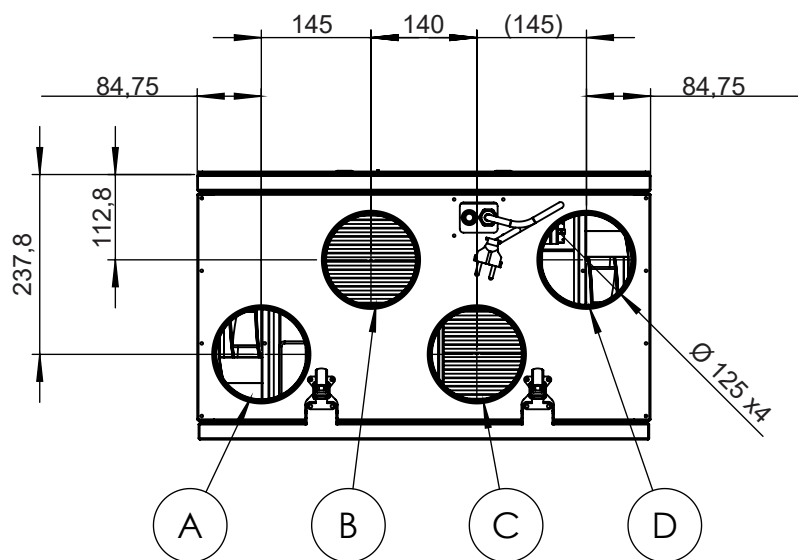
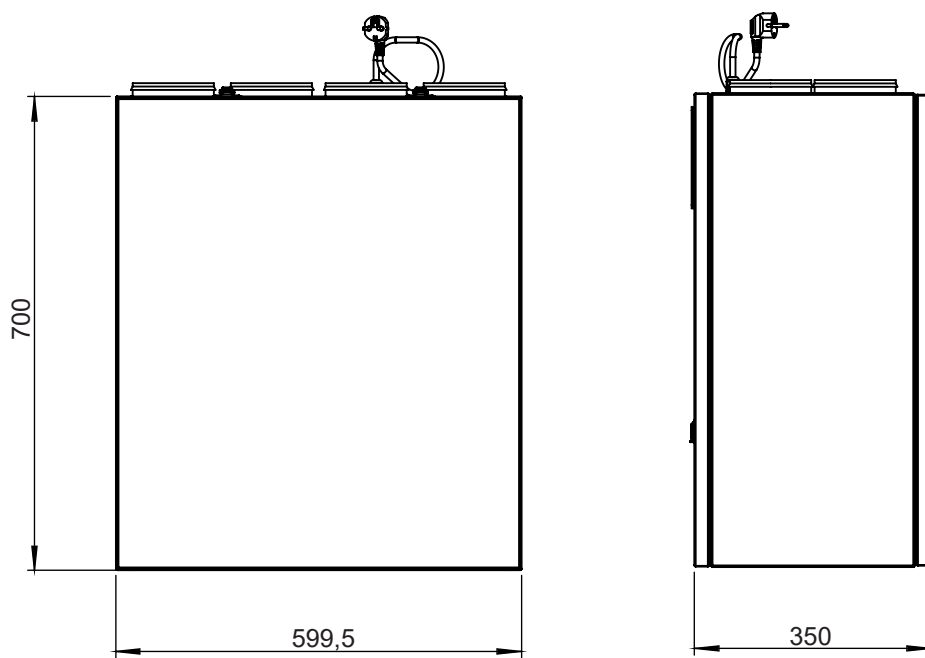
## OPTIONAL

- Right/left version.
- CO<sup>2</sup> sensor for forcing the air flow.
- Presence sensor for start and stop or forcing.
- Timer for forcing the flow or extra operating time.
- Alarm panel, for external placement. A and B alarms
- Duct kit A. Complete kit with white lacquered spiro ducts, bendable pipes and details for a complete assembly.
- Units and accessories in any colour.
- Cooker hood in glass or tin.
- Isolated sound hood that hides connected channels, see picture.



Kuben 40AL with sound hood

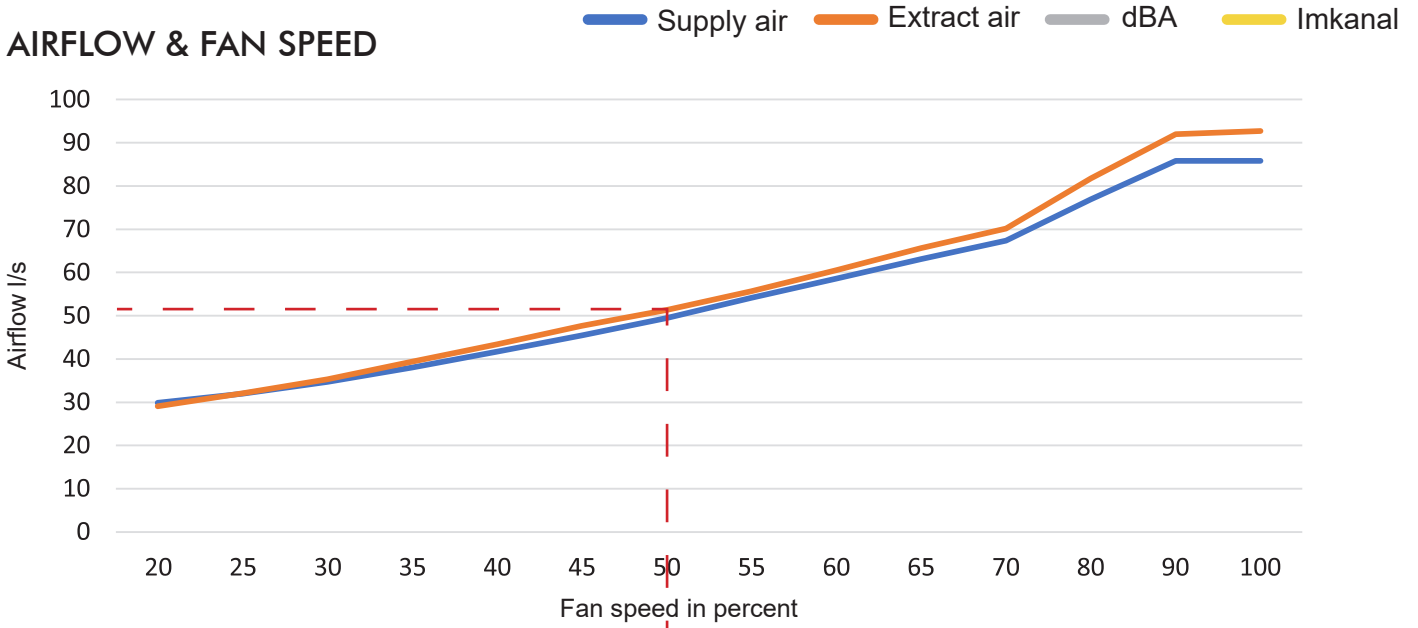
# MEASUREMENT DATA



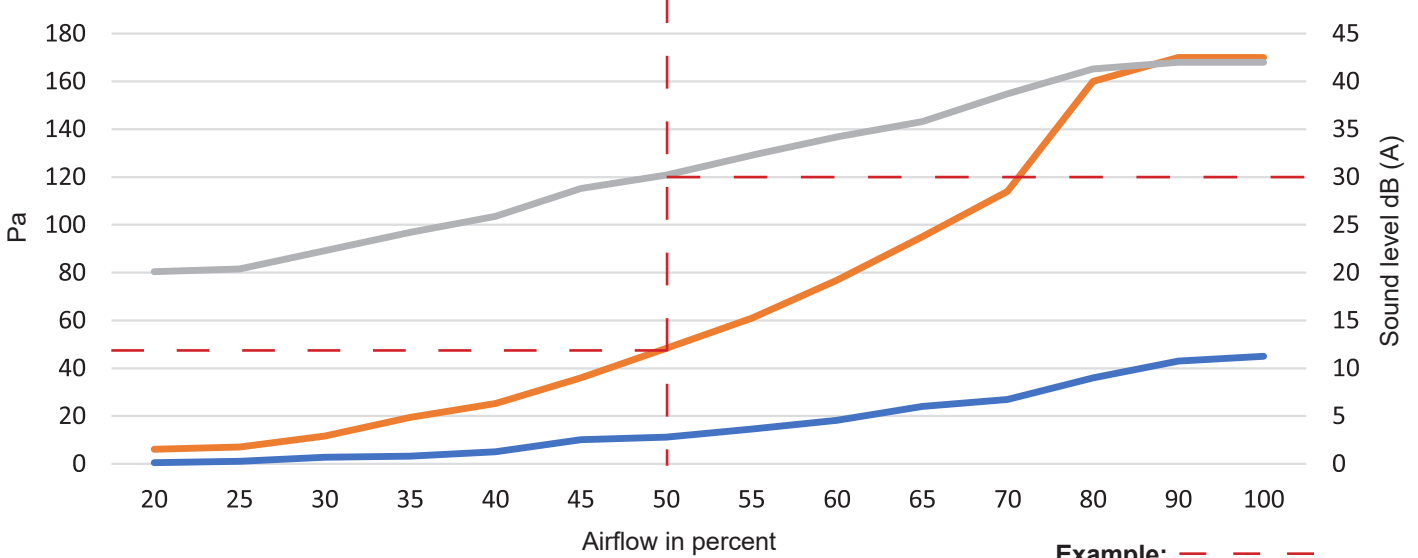
CHANNELS		
	Right version	Left version
<b>A</b>	Exhaust air	Supply air
<b>B</b>	Outdoor air	Extract air
<b>C</b>	Extract air	Outdoor air
<b>D</b>	Supply air	Exhaust air

# TECHNICAL DATA

## AIRFLOW & FAN SPEED



## PRESSURE & SOUND



**Example:** - - - -  
 Fan speed = 50%  
 Pressure = 48 Pa  
 Sound level = 30 dB(A)  
 Airflow = 50/51 l/s

# ASSEMBLY INSTRUCTIONS

## TRANSPORT

The unit is transported as far as it will go on the pallet on which the unit is delivered. This is to facilitate handling and minimize transport damage. The unit is wrapped in plastic from the factory but should not be stored outdoors before assembly.

## DELIVERY RECEPTION

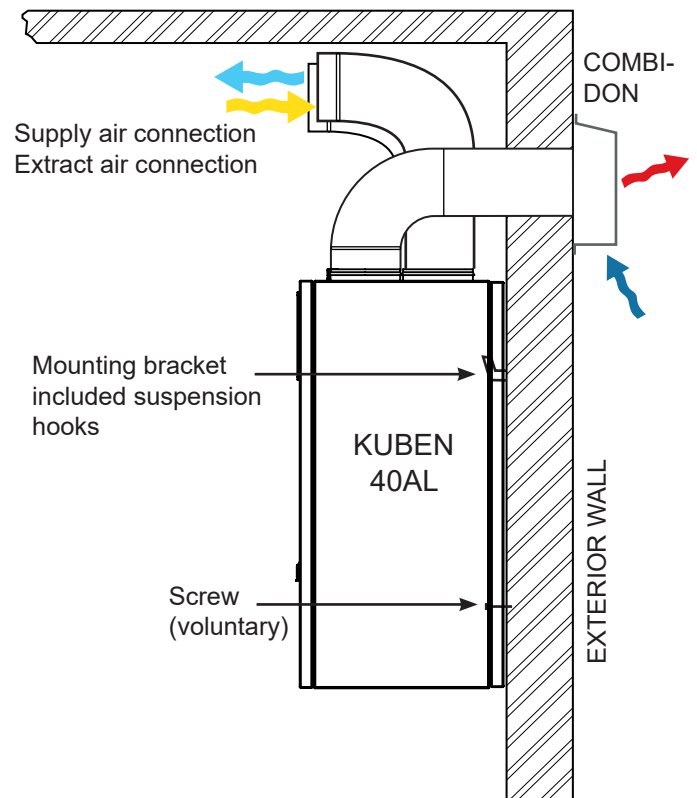
Inspect the shipment upon delivery and check for shipping damage.

## ASSEMBLY IN GENERAL

The unit is intended to ventilate an apartment, a villa, an office or similar. The unit is mounted on a supplied mounting plate which is screwed to the wall and where the unit is then hooked up.

In order to be able to connect the outdoor air and the exhaust air in a smooth way without excessively long ducts and thus higher pressure drops, it is advantageous to mount the unit on the inside of the outer wall. Then you can easily connect outside and exhaust air to a combi device on the outside of the wall.

The unit is heavy to handle and two people are ideal for mounting the unit without risk of injury.





# ASSEMBLY INSTRUCTIONS

## ASSEMBLY UNIT

**1** Measure and make the two holes for exhaust air and outside air in the outer wall. Expect that the outdoor air and exhaust air duct needs to be insulated with 9 mm condensation insulation through the outer wall, which means that the holes should be made at least 150 mm.

**2** Screw the mounting iron to the wall with mounting screws in the finished mounting holes.

Make sure that enough of the screws are attached properly in behind rules because the unit weighs 45-55.5 kg depending on the variant.

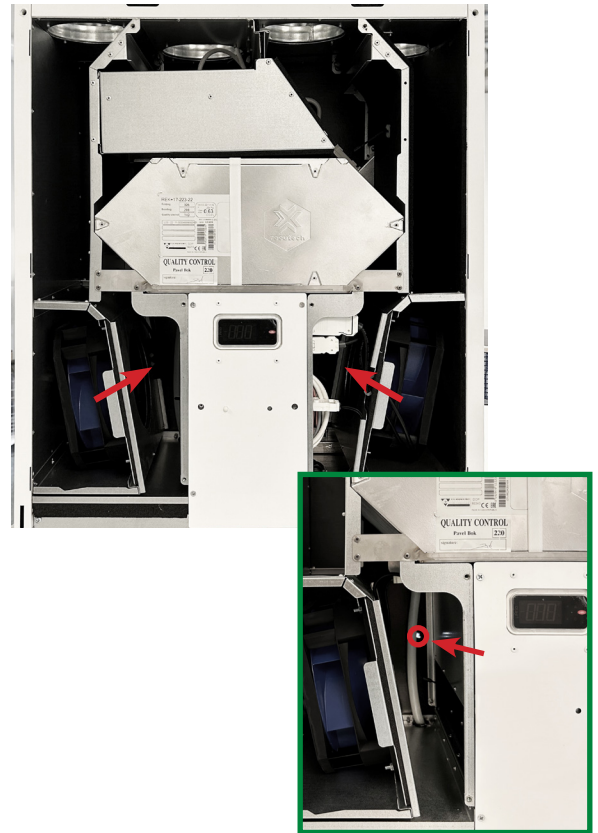
**3** Then hook the assembly onto the mounting iron's protruding suspension hooks. Make sure the unit hangs straight.

**4** Unscrew the cover plates on the sides behind the door, according to the red ones the markings



See red marking

**5** Secure the assembly with two screws. According to the pictures below.

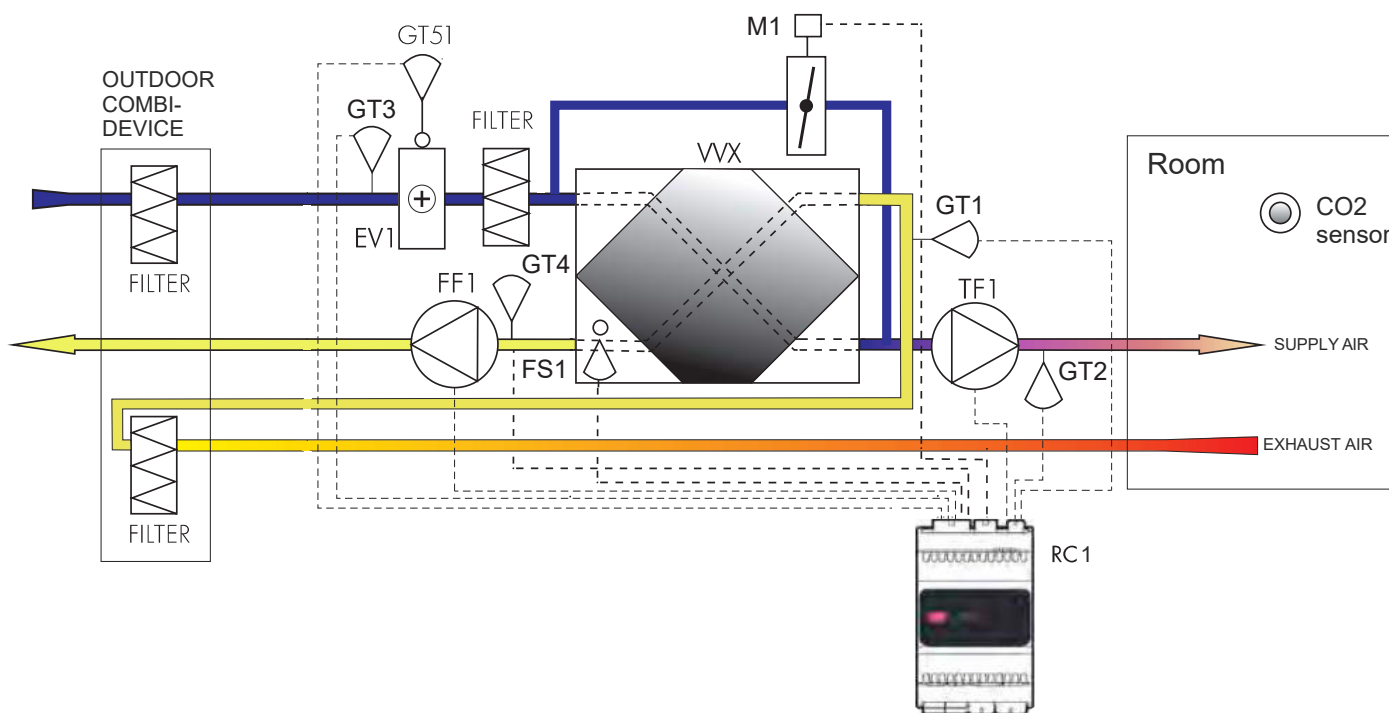


**6** All duct connections are made on top of the unit. The outdoor air and exhaust ducts are drawn through the outer wall to a combi unit on the outer wall. Drive/seal around the ducts. Placing the combi to the north and east is preferable if possible as the temperature of the outside air on these sides is colder in the summer and can help to cool the premises somewhat.

**7** The combination device is mounted outside on the outer wall. Screw into the outer wall with mounting screws in the fastening holes in the back of the device. To access these, the front plate needs to be unscrewed. Against the wall, in some cases, an extra rain seal is needed at the holes formed at the outer wall batten. Alternatively, the batten can be cut to fit the outer wall hood.

# FUNCTIONAL DESCRIPTION

## FLOW CHART, CONTROL FUNCTIONS



### FUNCTION

The unit is connected via a plug to an electrical outlet. The plug also functions as a work switch/service switch. The door switch breaks all functions, but not the regulation. The control center RC1 has battery backup for power reserve. As preheating, there is an electric battery in the outdoor air EV1. The unit is equipped with a bypass damper SP1 which regulates in sequence with the heat regulation using control center RC1. When the heating demand is reduced, the heating control closes and only the heat exchanger heats the outside air. In the next sequence, if the heat demand is further reduced, the bypass damper opens past the heat exchanger.

Temperature sensor GT1, supply air temperature, controls via the control center the RC bypass damper and the electric heater to maintain the set supply air temperature according to the temperature setting.

The unit is equipped with speed control of the fans. Control center RC1 controls the fans in four stages: normal and three forced speeds. Each step's fan speed and thus the air flow is continuously set as a percentage in the control center by an authorized person.

### SECURITY FEATURES

In the event of overheating on the heating battery, the overheating protection GT51 triggers and shuts off the fans and the electricity supply to the battery. The reset of the manual overheating protection takes place directly on the electric battery.

When the unit's door is opened, the unit stops.

Built-in condensation evaporator that boils off any condensation water and supplies the condensation steam back into the supply air. When humidity sensor GH1 indicates moisture in the condensation tank, the condensation evaporator starts and stops automatically when the tank is dry.

### OPTIONAL

When the CO<sup>2</sup> sensor (CO<sub>2</sub>) indicates a high CO<sup>2</sup> content, the unit turns the fans up to the set high speed. When the CO<sup>2</sup> content drops, the speed is automatically reduced.

The presence sensor NG01 controls the unit from normal speed to forcing speed 1,2 or 3 when indicating movement in the premises. Alternatively, the unit is controlled from off to normal speed.

A more detailed functional description regarding functions that can be affected in RC1 can be found further back in the compendium.

# OPERATING INSTRUCTIONS

## AIR FLOW MEASUREMENT

The total air flow for supply air and extract air can be adjusted continuously in three speeds.

A measuring probe for dynamic pressure can be used to measure pressure in the supply air and exhaust air ducts on the top of the unit and then the air flow for the supply air and exhaust air is calculated according to

$$Q = 4.04 \times \sqrt{PD \times 3600 \times A}$$

Q = Air flow in m<sup>3</sup>/h

Pd = Dynamic pressure in mmvp

A = Duct area in m<sup>2</sup>

(125 mm duct = 0.012 m<sup>2</sup>)

The speed of the fans and thus the air flow can be adjusted individually for the supply air and exhaust air.

On delivery, the fans' speed is factory-set with a standard setting that can later be individually adapted to the respective installation.

## THE OVERHEATING PROTECTION

The heating battery is equipped with automatic overheating protection. If the electric battery were to overheat, the overheat protection triggers and cuts off the power to the regulation and the unit is stopped.

Pre-heating battery is of PTC type and placed before the heat exchanger.

## MAIN SWITCH

The unit is equipped with a plug that functions as a work switch and main switch. The main switch starts the control circuit.

## DOOR SWITCH

On the edge around the instrument panel is a door switch. It closes all functions (except the timer) when the doors are opened. This is to ensure that you do not injure yourself on the rotating fans.

**ATTENTION!** Always wait a little while after opening the doors so that the fans have time to stop properly before taking measures in the unit.

## START

In order to start the unit, the following is required:

That power is present in the unit. Check that the external plug is connected to a socket (usually on the wall above the unit).

That the unit is switched on in the app.

And that the door switch is pressed.

## START CONTROL

In order to check that the unit starts even though the doors are kept open, the door switch can be pushed in by hand as quickly as possible while observing great caution. Then, after a few seconds, both fans should start to rev up. Normally, the door switch is held down by the closed door.

## FAN SPEED

The speed of the fans is regulated in the app. See next page. The speed and thus the air flow for each speed are set during the adjustment of the system.

## TEMPERATURE

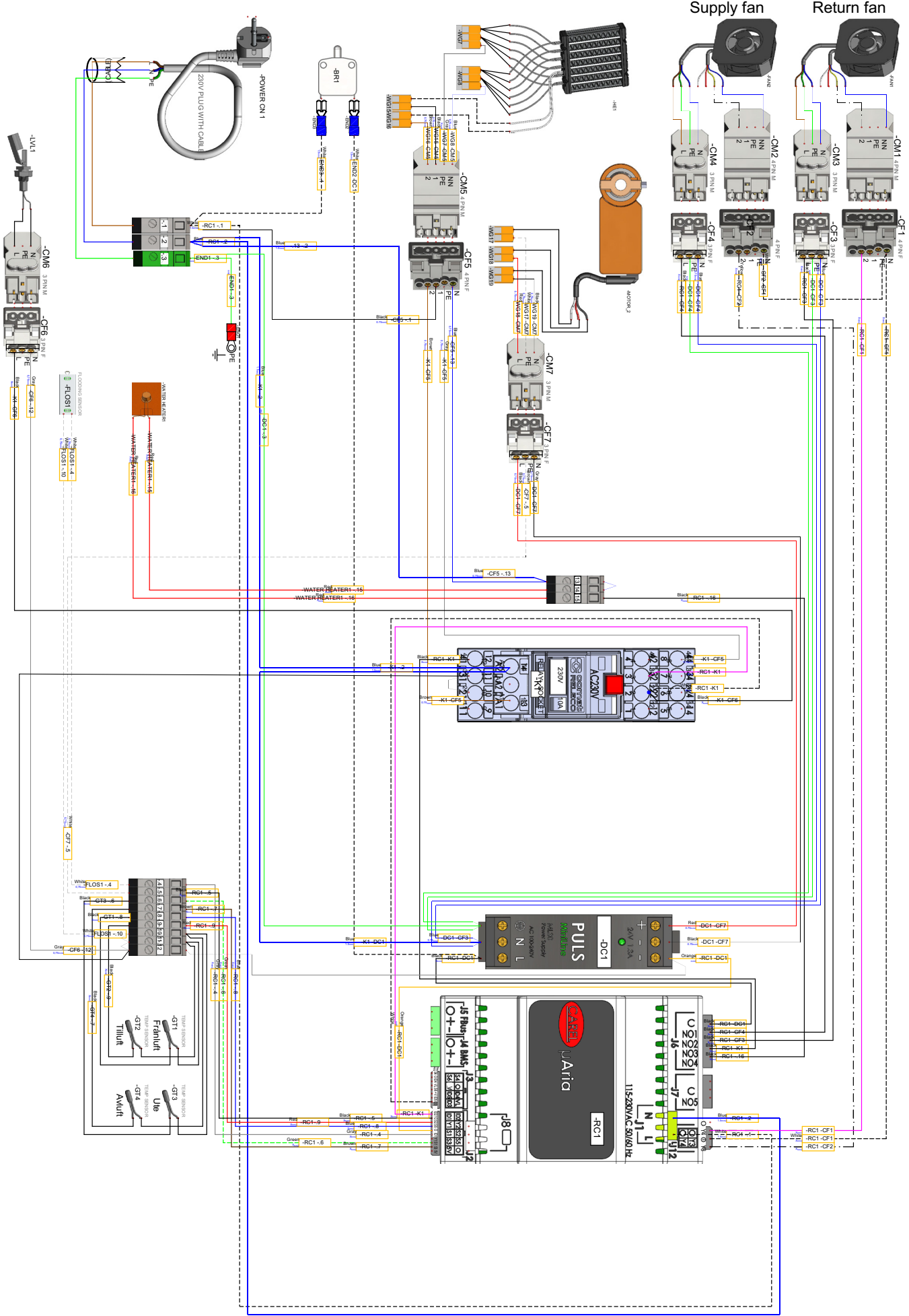
The supply temperature (supply air temperature) is set in the app. See page 16.

Suitable temperature setting is +18°C.

Other functions in the control center can be seen from the instructions on the next page.

# CONTROL EQUIPMENT

## ELECTRICAL DIAGRAM



# ELECTRONIC COMPONENTS

## PARTS LIST ELECTRONICS

Pos.	Art.	Qy	Name	Description/type designation	Supplier/make
EV1	400294	1	Preheating battery	2450206	DBK
EV2	400308	1	Condensation evaporator Mat	2265021	OEM
TF1	130013	1	Supply air fan	K3G190RC0503	EBM
FF1	130013	1	Exhaust fan	K3G190RC0503	EBM
K1	100079	1	Contactora	C7A20230A	RELECO
DC1	130095	1	Pulses	ML15.241	PULS
RC1	110136	1	Control center	ACUD5YH	CAREL
GT1	110157	1	Extract air temperature sensor	NTC030HP00	CAREL
GT2	110157	1	Supply air temperature sensor	NTC030HP00	CAREL
GT3	110157	1	Outside air temperature sensor	NTC030HP00	CAREL
GT4	110157	1	Exhaust air temperature sensor	NTC030HP00	CAREL
FS1	110142	1	Moisture sensor	FLOS000000	CAREL
NB1	110042	1	Level switch	FCH 21 PDD	OEM
BR1	100072	1	Door switch	13583022	ELFA
M1	110132	1	Damper motor	UM24X-SR	BELIMO

# INSTRUCTION CONTROL VIA APP

## DOWNLOAD THE APP "APPLICA" FROM CAREL



Appen finns på Google play och App Store.



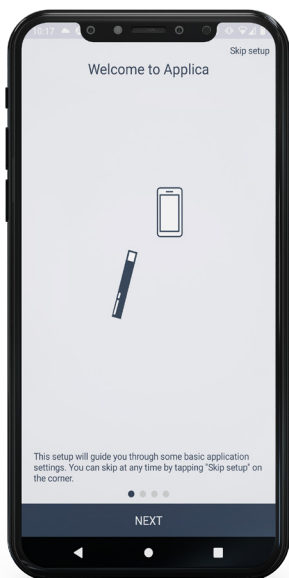
QR code to download from the App Store



QR code to download from Google play

## SETTINGS

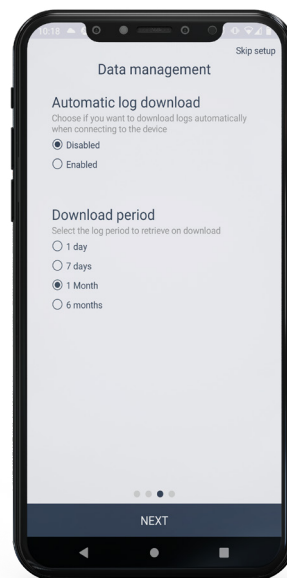
Start by making basic settings for the app.



Choose whether you want to download the log of the unit's operation automatically.

- "Disabled" for no.
- "Enabled" for yes.

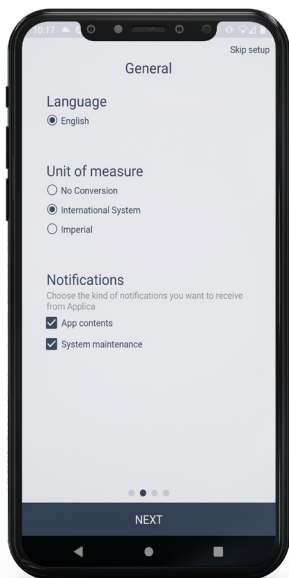
If you selected "Enabled" in the field above, select how far back in time you want the log to go.



- Select language
- Choose which devices to display in the app.

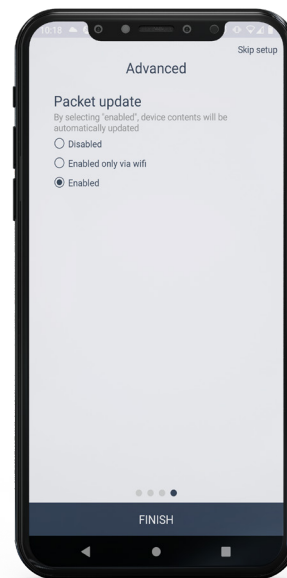
*In Sweden we use International System (°C, meters etc).*

- Choose the type of notifications you want to receive from the app.
  - App related content?
  - System maintenance?



Choose whether you want the software in the unit to be updated automatically.

- "Disabled" for no.
- "Enabled only via wifi" for yes, only via wifi.
- "Enabled" for yes.



# INSTRUCTION CONTROL VIA APP

## 1. LOGIN & CONNECTION

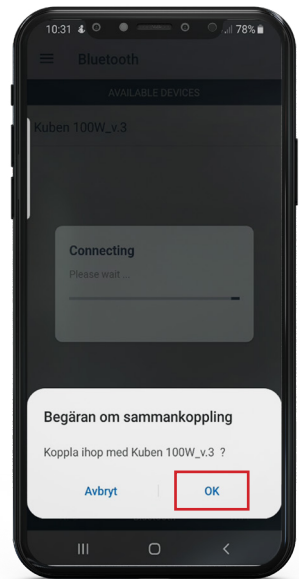
**1.1** The unit is equipped with Bluetooth as standard and this is the connection we recommend.

The Bluetooth signal has a range of 5–10 meters.

- Tap the Bluetooth symbol at the bottom center.

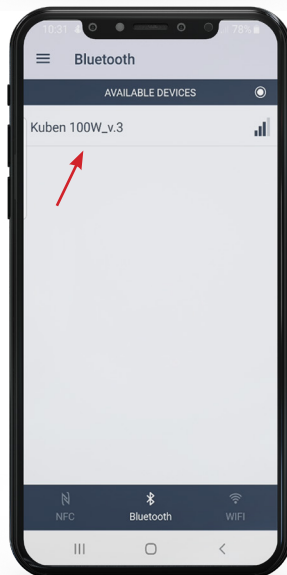


**1.4** If your mobile phone or mobile device asks if you want to connect to the unit, select OK or YES to continue.



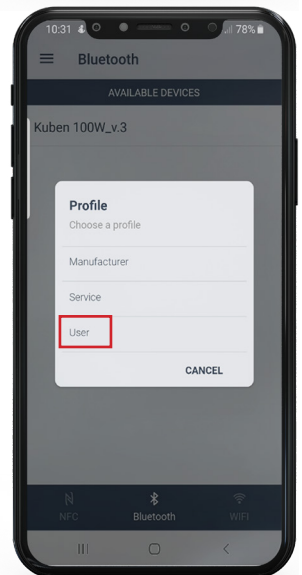
**1.2** When you press the Bluetooth symbol, your unit appears in the list.

- Click on your unit to connect.

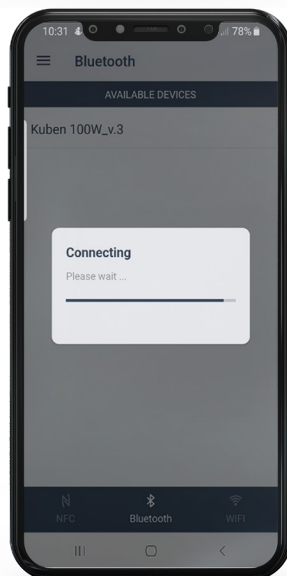


**1.5** All aggregates are locked with a password to prevent unauthorized access to the aggregate.

- Click the user profile "User" to continue.



**1.3** You are connected to the unit...

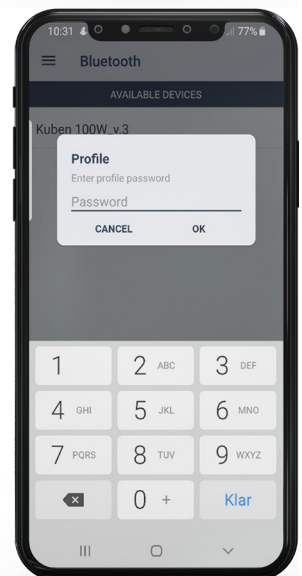


**1.6** Enter your password for the user profile "User".

Your password is 100

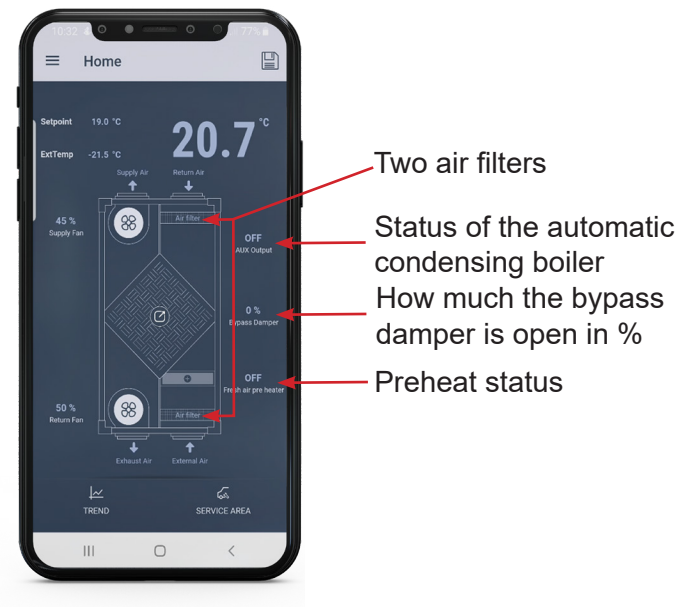
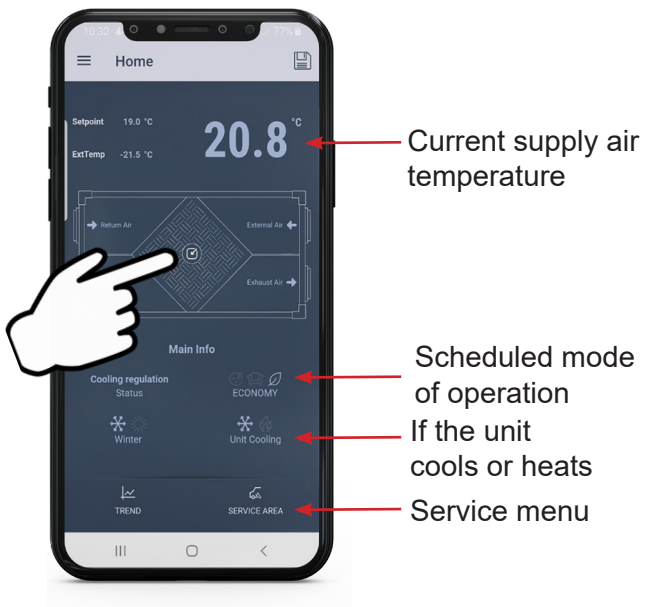
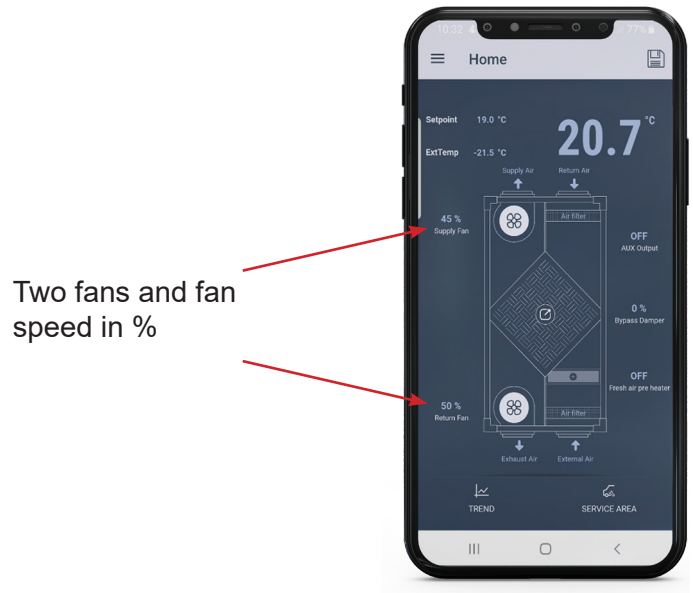
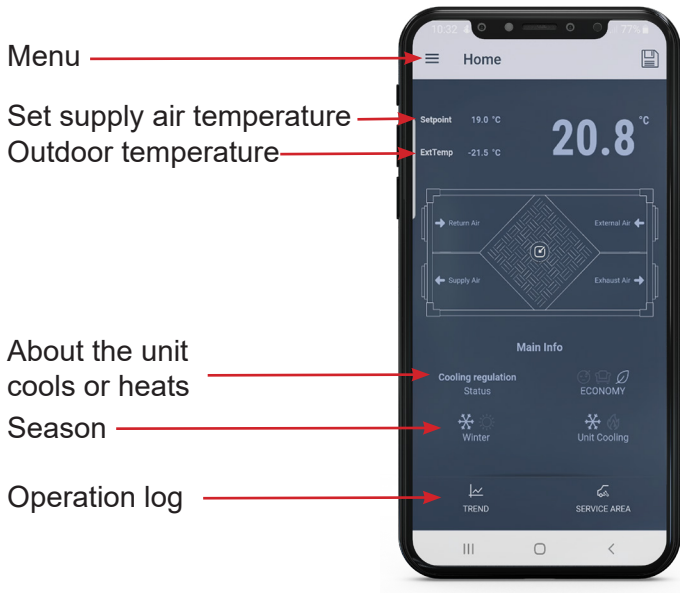
You can also find the password on a sticker on the unit. Usually behind the door/hatch.

After logging in, you get to the "Home view" where an overview of the unit is displayed. See next page.



# INSTRUCTION CONTROL VIA APP

## 2. CONTROL "HOME"



If you press in the center of the unit in the picture, you get another overview view, see the next picture



# INSTRUCTION CONTROL VIA APP

## 3. TEMPERATURE

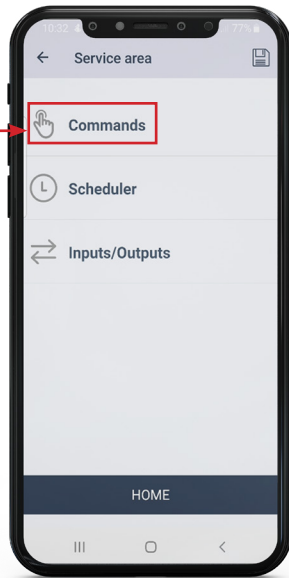
**3.1** You are now in the "Home view" and an overview of the unit is displayed here.



Enter the service menu "Service area"

**3.2** The following is displayed in the service menu:

Go to Commands (Direct command)

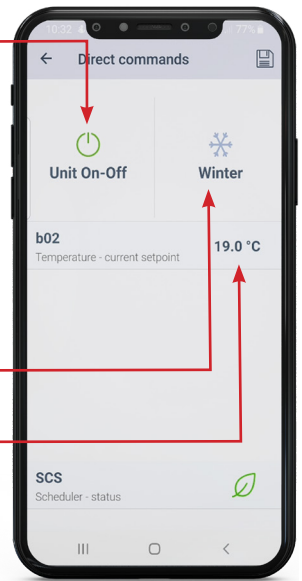


**3.3** Here you can start and turn off the unit

**ATTENTION!** There is still power in the unit's cables and electrical components! Always pull out the unit's plug from the wall socket to de-energize the unit.

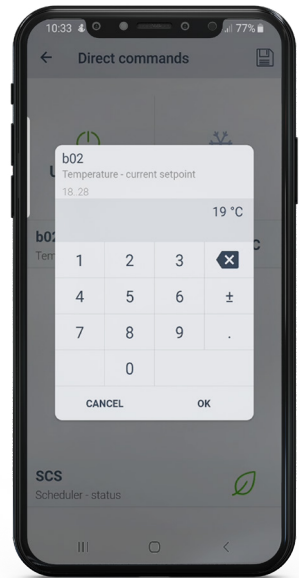
The season is shown here

Here you set the supply air temperature you want



**3.4** Touch the temperature to change the value.

Delete the old value and write the new one. Then press **OK**.



# INSTRUCTION CONTROL VIA APP

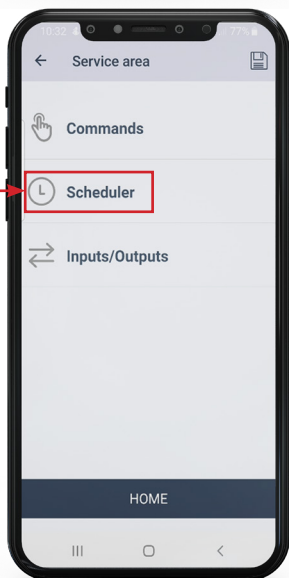
## 4. SCHEDULE

4.1 "Home view" here shows an overview of the unit.



Enter the service menu "Service area"

4.2 The following is displayed in the service menu:

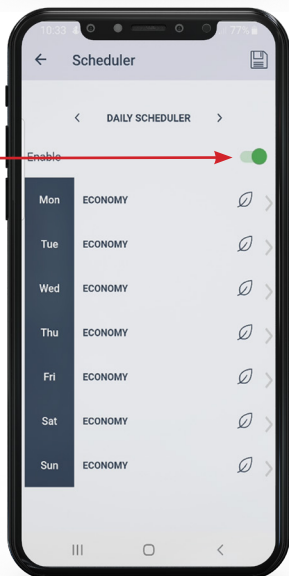


Go to Scheduler

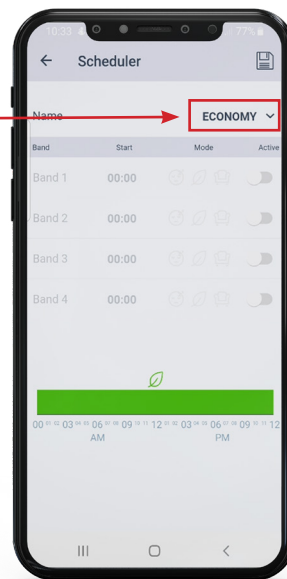
4.3 Operating schedule for Monday to Sunday.

Here you choose again the unit must run according to the operating schedule or not.

To change the schedule, click on the current day.



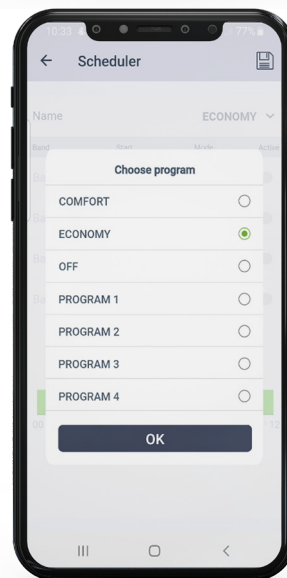
4.4 After you have clicked on the day you want to change, click on the default program



4.5 If it should apply to the whole day, choose one of the following programs:

- Comfort
- Economy
- Of

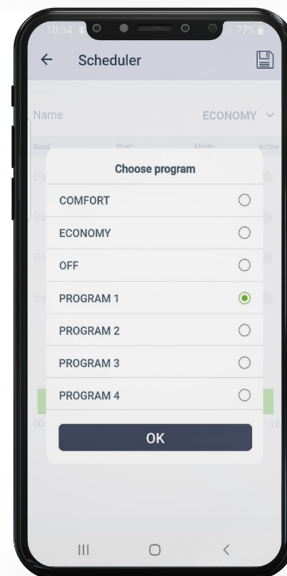
*\*The unit can, as a suggestion, be switched off on weekends at an empty workplace.*



4.6 If there are to be different operating modes for the same day, select one of the following programs:

- Program 1
- Program 2
- Program 3
- Program 4

In each program you can create your own different customized schedules



# INSTRUCTION CONTROL VIA APP

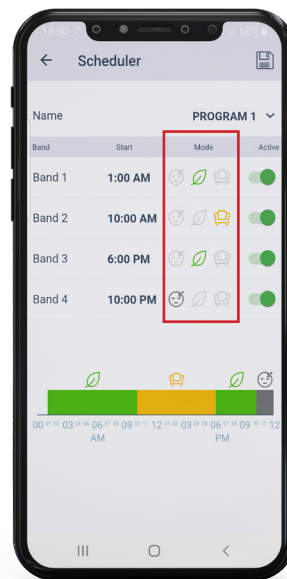
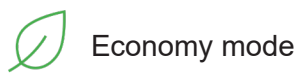
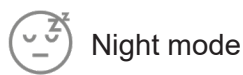
**4.7** You have the option of choosing 4 different operating modes during the same day.

Choose what time an operating mode should start by clicking on the time.

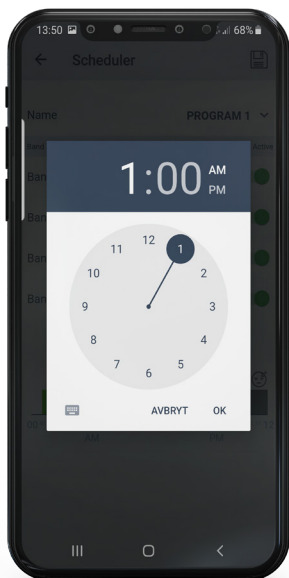
\* Also click on the time in the next box that appears.



**4.9** Click on the symbol for the type of operation it should be at the current time. These three exist:



**4.8** Change the time by turning the clock until you get the time you want. Then press **OK**

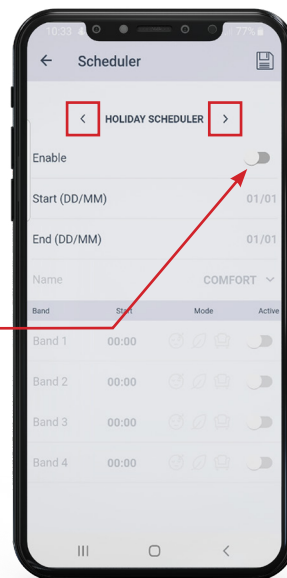


**4.10** Operating schedule for holidays/holidays. With the arrows, you can click through to the mode where you can add the operating schedule for holidays/holidays.

Here you choose again operating schedule for holidays/holidays must be active or notj

Then choose which start day and end day.

Adjustment is made in the same way as shown before

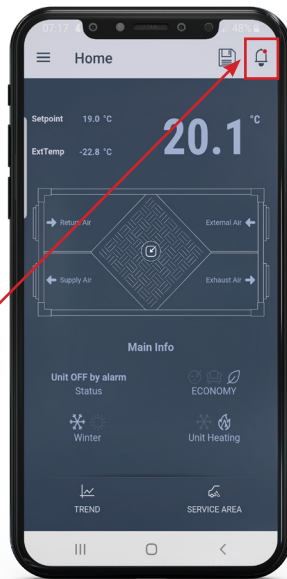


# INSTRUCTION CONTROL VIA APP

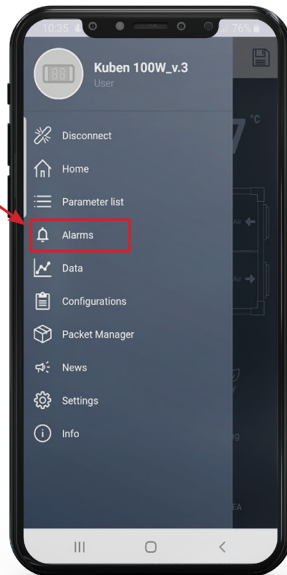
## 6. ALARM

**6.1** Some alarms reset themselves and other serious alarms cause the unit to stay.

If there are active alarms, the alarm symbol appears at the top right of the clock.



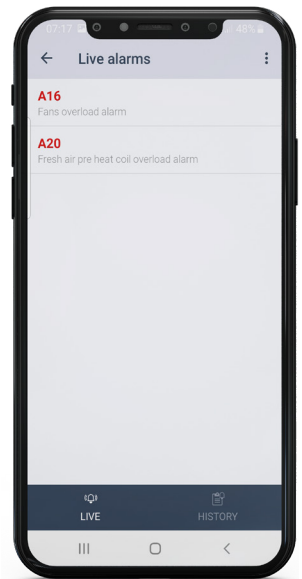
Click on the clock in the right corner or enter the menu on the left to see active alarms or alarm history.



**6.2** Active alarms are visible at once.

To see the alarm history, click on "History" at the bottom right of the screen.

*In the example here has the unit's pre-heating battery has overheated, the fans have blown and cooled the unit for 2 minutes and the unit has then stopped.*



**6.3 HOW TO STEP BY STEP HANDLE THE ALARMS:**

1. Open the unit's door/hatch and see if you see any obvious faults.

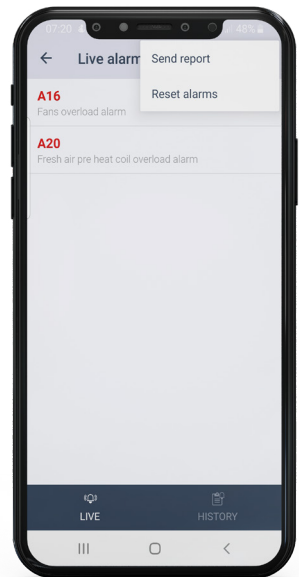
If no obvious errors are found, proceed to point 2.

If obvious errors are found, contact a service technician at Kuben Ventilation.

2. Click on the three dots in the upper right corner of the screen and then on "Reset alarm" to reset the alarms. If the alarms cannot be reset, continue to point 3.

3. Unplug the unit from the wall outlet and leave the unit without power for at least one minute. Refit the plug and connect your mobile phone to the unit again.

If the alarms are gone, you can use the unit as usual. If the alarms persist, contact a service technician at Kuben Ventilation.



*\*Om samma larm återkommer flera gånger på kort tid ska du kontakta en servicetekniker på Kuben Ventilation.*

# INSTRUCTION CONTROL VIA APP

## ALARM LIST

Code	Description (SV)	Description (ENG)
<b>A01</b>	Givarfel - Tilluftstemperatur	Supply temperature probe alarm
<b>A02</b>	Givarfel - Luftfuktighet tilluft	Supply humidity probe alarm
<b>A03</b>	Givarfel - Frånluftstemperatur	Return temperature probe alarm
<b>A04</b>	Givarfel - Luftfuktighet frånluft	Return humidity probe alarm
<b>A05</b>	Givarfel - Rumstemperatur	Room temperature probe alarm
<b>A06</b>	Givarfel - Luftfuktighet rum	Room humidity probe alarm
<b>A07</b>	Givarfel - Uteluftstemperatur	Outside temperature probe alarm
<b>A08</b>	Givarfel - Avluftstemperatur	Exhaust temperature probe alarm
<b>A09</b>	Givarfel - Frysskydd	Antifreeze temperature probe alarm
<b>A10</b>	Givarfel - Tilluftstryck	Supply pressure probe alarm
<b>A11</b>	Givarfel - Frånluftstryck	Return pressure probe alarm
<b>A12</b>	Givarfel - CO2-givare	Probe CO2 alarm
<b>A13</b>	Givarfel - Luftkvalitetsgivare VOC	VOC probe alarm
<b>A14</b>	Givarfel - Extragivare	Auxiliary probe alarm
<b>A16</b>	Fläktfel - Fläktarna har stannat	Fan overload alarm
<b>A17</b>	Fläktfel - Tilluftsfläkten har stannat	Supply fan overload alarm
<b>A18</b>	Fläktfel - Frånluftsfläkten har stannat	Return fan overload alarm
<b>A19</b>	Överhettning - Eftervärme	Main coil overload alarm
<b>A20</b>	Överhettning - Förvärme	Fresh air pre-heater coil overload alarm
<b>A21</b>	Värmeväxlare/Bypass fel	Heat recovery overload alarm
<b>A22</b>	Flödeslarm - Fläkt	Fan flow alarm
<b>A23</b>	Flödeslarm - Tilluftsfläkt	Supply fan flow alarm
<b>A24</b>	Flödeslarm - Frånluftsfläkt	Return fan flow alarm
<b>A25</b>	Låg tilluftstemperatur	Low supply temperature alarm
<b>A26</b>	Hög tilluftstemperatur	High supply temperature alarm
<b>A27</b>	Hög luftfuktighet	High humidity alarm
<b>A28</b>	Höga halter - CO2	High CO2 level alarm

# INSTRUCTION CONTROL VIA APP

## ALARM LIST

Code	Description (SV)	Description (ENG)
<b>A29</b>	Höga halter - Luftkvalitetsgivare VOC	High VOC level alarm
<b>A31</b>	Varning - Aggregatet behöver service/underhåll	Warning - Unit maintenance required
<b>A32</b>	Varning - Aggregatet behöver filterbyte	Warning - Filter maintenance required
<b>A33</b>	Varning - Tilluftsfläkten behöver service/underhåll	Warning - Supply fan maintenance required
<b>A34</b>	Varning - Frånluftsfläkten behöver service/underhåll	Warning - Return fan maintenance required
<b>A35</b>	Varning - Roterande värmeväxlare behöver service/underhåll	Warning - Thermal wheel maintenance required
<b>A36</b>	Varning - Eftervärmern behöver service/underhåll	Warning - Main coil maintenance required
<b>A37</b>	Varning - Förvärmern behöver service/underhåll	Warning - Fresh air pre-heater maintenance required
<b>A38</b>	Varning - Extrafunktion/extraenhet behöver service/underhåll	Warning - Auxiliary device maintenance required
<b>A39</b>	Allvarligt larm/Nivåvakt	Serious alarm from digital input
<b>A40</b>	Frostskyddslarm	Frost protection alarm
<b>A41</b>	Filterlarm	Filter alarm from digital input
<b>A42</b>	Larm - Internminne styrsystem	Retain memory writes alarm
<b>A43</b>	Kommunikationsfel/avstängd - Rumsterminal/Rumsdisplay	Room terminal offline alarm
<b>A44</b>	Fel tid - Rumsterminal/Rumsdisplay	Room terminal clock alarm
<b>A45</b>	Kommunikationsfel/avstängd - BMS	BMS offline
<b>A46</b>	Datumfel styrsystem	Invalid RTC date/time alarm

# CARE INSTRUCTIONS

## GENERALLY

The Kuben 40AL ventilation unit does not require any special care, apart from changing the filter at regular intervals. If this does not happen, the filters become clogged and the air volumes are reduced. New filters can be ordered via our website: [kubventilation.se/bestall-filter](http://kubventilation.se/bestall-filter)

By maintaining the filters routinely, the entire ventilation unit will be kept clean, which greatly affects the good indoor climate. Operational reliability increases and the service life becomes longer with relatively small efforts.

## FILTER

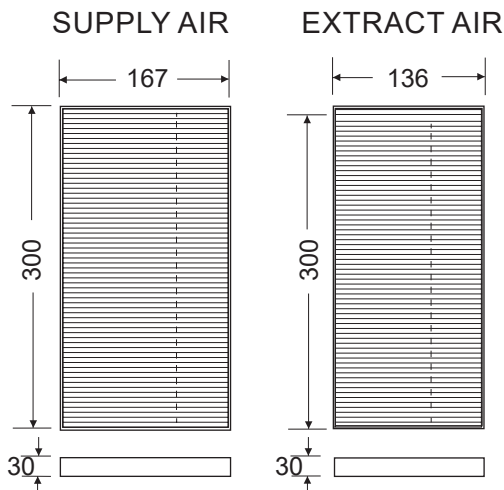
In this unit, the filters are placed in the combi device on the outside of the building.

The filters are changed at regular intervals, at least twice a year. If the exhaust air is dirty, the extract air filter may need to be changed more often. The replacement interval is determined after checking the soiling the first time.

## FILTER SPECIFICATION

Supply air filter: F7/ISO ePM1 70%;

Extract air filter: M5/ISO ePM10 55%;



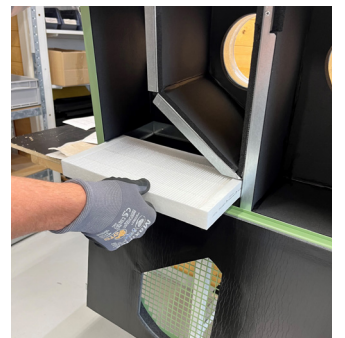
## OPENING OF COMBI DEVICE

1. Unlock the door
2. Open the hatch by let go the locks on the sides of the combi. The hatch hangs on 2 pcs hinge at the bottom.



## REPLACING THE SUPPLY AIR FILTER

1. Pull the supply air cassette straight out. Be prepared for dirt on the top of the filter.
2. Push back a new supply air filter



Supply air filter

## REPLACING THE EXTRACT AIR FILTER

1. Pull the extract air filter straight out. Be prepared for a dirty exterior.
2. Remove the dirty filter carefully to avoid dirt spreading. The filter may be very dusty.
3. The filter needs to be changed when it is clogged or at the latest every 4 months.
4. Fit a new filter back into the filter rails



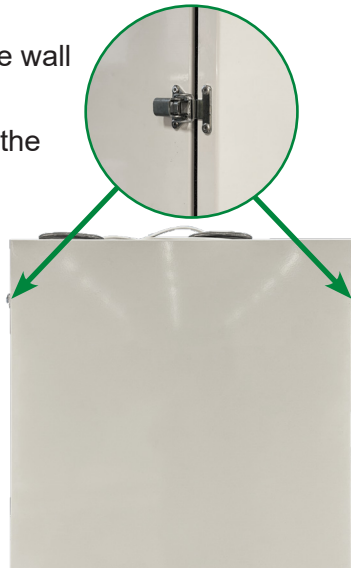
Extract air filter

# CARE INSTRUCTIONS

## OPENING OF UNIT

The front of the unit consists of a hatch. Behind it is the pull-out heat exchanger cassette and the two fans.

1. Pull out the plug on the wall outside the unit.
2. Wait a little while until the fans have stopped.
3. Open the door by releasing the latches on the sides of the unit. The hatch hangs on 2 hooks at the bottom.
4. Lift the door outwards - upwards.



Opening the hatch

## CLEANING OF FANS

1. Loosen the fan's electrical connector with its quick release.
2. Then pull the fans straight out.
3. Clean the fans with a soft brush if they are dusty. In case of greasy coating on the fan wheels, they can be cleaned with a cloth and a suitable solvent.
4. Reassemble in reverse order..

## THE HEAT EXCHANGER UNIT

If the filters are changed before they become so dirty that they start to let dirt through, the heat exchanger package will stay clean for a long time and heat transfer will be maximized.

The clogging of the heat exchanger should still be checked once a year in connection with any filter replacement. If it is dirty, it should be cleaned for best economy.

1. Pull out the bypass and the preheater package.
2. Lift the heat exchanger about 1-2 cm and pull it straight out



3. Rinse with warm water if the filter is dusty.
4. If the exchanger package is very dirty or greasy, it should be soaked in warm water with washing-up liquid for about 15 minutes.
5. Rinse clean with water.
6. Reassemble in reverse order.

## STARTING THE UNIT AND CLOSING THE DOOR

1. Insert the plug into the socket next to the unit.
2. Start the unit in the app if it is switched off.
3. Lock the unit door with the jumper locks on the sides of the unit. A safety contact at the door ensures that the unit does not start until the door is closed.





# WARRANTY CERTIFICATE

We provide a warranty on the following products according to the warranty regulations stated below. The warranty certificate is a document of value to be attached to any warranty service/claims.

Customer's name

.....

Customer's address

.....

The Warranty refers to:

Product warranty...1... year

Function warranty...2... year

Article/model/drawing el. dyl.

Make/type

Ventilation unit

Kuben 40AL

Sale date

Point of sale

Price

.....

## Warranty provisions

### Produktgaranti

1. The warranty covers all faults occurring on the above-mentioned products, which can be attributed to manufacturing. The warranty only applies to products, thus not damage that a faulty product may have caused. The warranty does not cover damage caused by incorrect or careless handling, by unauthorized intervention or by accident.
2. The warranty means that the product is repaired at no cost to the buyer. In case of warranty, the product must be sent to us or, where applicable, the point of sale. Any shipping costs are paid by the customer.
3. The customer must also bear the costs for dismantling the defective part and fitting a new or repaired part when these measures can be carried out without special expertise, i.e. when a visit by a fitter is not necessary. If the seller's installers are called in this situation, the costs for the unnecessary installer visit will be borne by the customer. The cost is also charged if the fitter is called without a fault having occurred.
4. In the event that the product needs to be repaired on site for logistical reasons or at the customer's place, the customer must contact Kuben to receive a form for reporting a fault and, after returning it, a confirmation of how the warranty work will be carried out. Kuben Ventilation solves the warranty measures with its own service staff where applicable, but can under certain circumstances agree with the customer that the latter will take care of the warranty work against compensation from Kuben Ventilation AB. The fault report must then be completed and the customer must have received a service order from Kuben before the warranty work begins. Warranty work carried out by the customer without the customer contacting them Kuben Ventilation AB for order numbers as above will not be reimbursed.

### Funktionsgaranti

1. The warranty covers malfunctions occurring on the specified drawing/drawing part, which can be attributed to drawing errors, construction errors or adjustment/commissioning errors at the factory. The guarantee applies even if the standards applicable at the time of construction have not been taken into account.
2. The warranty does not apply to parts that have been exposed to impact, damage or careless treatment or through unauthorized intervention. The warranty does not apply to necessary readjustments of factory settings for air flow, temperatures, etc. The warranty does not apply if the unit is rebuilt or parts are replaced and assumes that service, filter changes, cleaning etc. takes place according to the prescribed service interval.
3. The guarantee means that the facility is redesigned, adjusted and remedied, at no cost to the customer, in order to regain the correct function according to settlement, practice or standards applicable at the time of construction.
4. In the event that the product needs to be repaired at the customer's location for logistical reasons, the customer must contact Kuben to receive a form for reporting a fault and then a confirmation of how the warranty work will be carried out. Kuben Ventilation solves the warranty measures with its own service staff where applicable, but can under certain circumstances agree with the customer that the customer will take care of the warranty work against compensation from Kuben Ventilation AB. The fault report must then be completed and a service order for the warranty work from Kuben must have reached the customer before the service work begins. Warranty work carried out by the customer without the customer contacting Kuben Ventilation AB for the order number as above will not be reimbursed.

# CE - DECLARATION



Declaration of conformity with the EU directives listed below

Manufacturer: KUBEN VENTILATION AB  
Vassbo 64  
791 93 FALUN  
Tfn: 0243-22 31 15

We hereby assure that the Kuben 40AL heating and ventilation unit with article number 850173.

Machinery Directive MD 2006/42/EC.  
Low voltage directive LVD 2014/35/EC  
Electromagnetic Compatibility Directive EMC 2014/30/EC

Assembly, installation and commissioning must take place in accordance with the unit's operating instructions. Operation and maintenance must take place according to the unit's operation & maintenance instructions.

We have a manufacturing control which guarantees that the manufactured product complies with the technical documentation. As a manufacturer, we assure that the specified equipment complies with the requirements of the directives as stated above.

Falun den 21/10 2020

Kuben Ventilation  
Tekniska avdelningen



# OPERATING DISTURBANCES

In the event of a malfunction, the points below must first be checked. When these points have been checked, and if the error still persists, file an error report on the website:

[www.kubenventilation.se/service](http://www.kubenventilation.se/service)

OPERATIONAL DISRUPTION	CHECK THAT
The unit does not start	<ul style="list-style-type: none"><li>• The fuses in the power station have not tripped. Fuse 230V, 10A.</li><li>• The earth-fault circuit breaker has not tripped.</li><li>• Power is available in the unit.</li><li>• Check that the plug is in the socket</li><li>• (usually placed on the wall next to the unit).</li><li>• The overheating protection has not tripped.</li></ul>
The wind is too cold or too hot	<ul style="list-style-type: none"><li>• The setpoint for the room temperature is set correctly.</li><li>• The fans run at the correct speed</li></ul>
The ventilation is too poor	<ul style="list-style-type: none"><li>• The fan speeds are set correctly.</li><li>• The filters are not clogged.</li><li>• The heat exchanger is clean.</li></ul>
The unit sounds an alarm	<ul style="list-style-type: none"><li>• See page 20-21 how to handle alarms.</li></ul>



## ERROR REPORTING

For easier handling of fault reports and complaints, a visit to Kuben's website [www.kubenventilation.se/service](http://www.kubenventilation.se/service) is recommended, submit your fault report.

[kundservice@kubenventilation.se](mailto:kundservice@kubenventilation.se)

## OTHER MATTERS

The name, direct number and email of the people responsible for each area can be found on Kuben's website [www.kubenventilation.se/personal](http://www.kubenventilation.se/personal). Otherwise, contact the exchange:

Exchange: 0243-223115  
[info@kubenventilation.se](mailto:info@kubenventilation.se)



KUBEN VENTILATION AB  
Vassbo 64 SE-791 93 Falun  
Tel: 0243-22 31 15  
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www.kubenventilation.se

