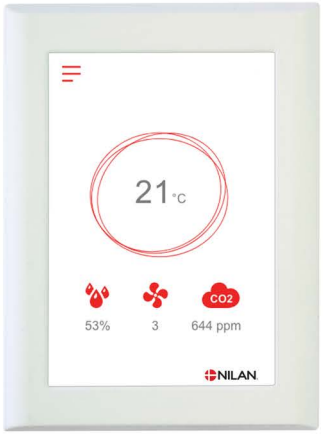
USER MANUAL

CTS602 LIGHT BY NILAN



Comfort 350 Top / Comfort 350 Top Polar

Version 5.00 - 29.10.2021
B24 Comfort 350 Top GB

NILAN®
OUTSTANDING INDOOR CLIMATE

Table of contents

General information

Safety

Power supply

CAUTION
Always disconnect the power supply to the unit if an error occurs that cannot be rectified via the control panel.

CAUTION
If an error occurs on electrically conductive parts of the unit, alway contact an authorised electrician to rectify the error.

CAUTION
Always disconnect the power to supply to the unit before opening the unit doors, for instance for installation, inspection, cleaning and filter change.

Introduction

Documentation

The following documents will be supplied with the unit:

- Quick guide
- Wiring diagram

In the Quick guide you will find important information regarding installation and start-up of the unit. If you require further information regarding, for instance, installation of accessories or additional settings in the software, or if you need an extended user manual, the following documents can be downloaded from the Nilan website:

- Installation instructions
- Software instructions
- User Manual
- Wiring diagram

The instructions can be downloaded from www.nilan.dk.

If you have questions regarding installation and operation of the unit after having read the instructions, please contact your nearest Nilan dealer. A list of Nilan dealers is available on www.nilan.dk.

ATTENTION
The unit must be started up immediately after installation and connection to the duct system.

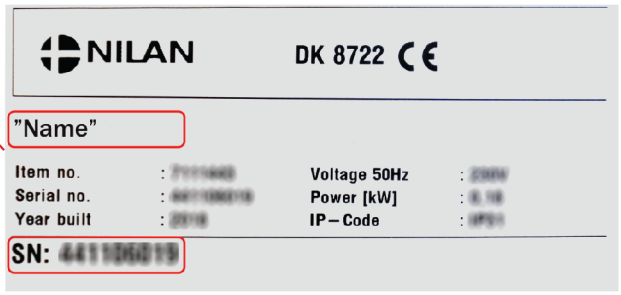
When the ventilation unit is not in operation, humidity from the rooms will enter the duct system and create condensate water that can run out of the valves and cause damage to floors and furniture. Condensation may also form in the ventilation unit, which can damage its electronics and fans.

From factory, the unit has been tested and is ready for operation.

Data plate

Nilan's data plate is situated behind the upper door. Loosen the toggle case catch latches and lift out the door.

1. You may have to pull out the filter to the right in order to read the data plate
2. The data plate is situated on the plate underneath the filter



1

2

ATTENTION

When contacting Nilan with questions about the product, it is important to have the unit name and serial no. (SN) ready. From this information, the service department can find all information about the unit in question and thus help with information and answer questions about what the unit
consists of/contains, and what software is used.

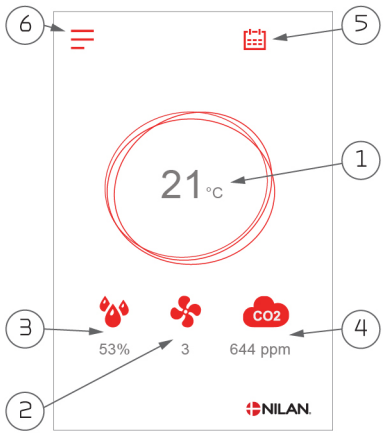
The type of the ventilation unit can also be found in the user panel menu under "Show data".

Control panel

Functions in the control panel

Main screen elements

The main screen of the HMI user panel contains the settings options and the information that an operator mostly uses.



1. Shows the current room temperature in the house, measured via the extract air
2. Shows the current fan speed level
3. Shows the current air humidity in the extract air
4. Shows the current CO_2 level in the extract air
   (Does not appear if sensor is not installed)
5. Shows operation ikon (see below)
6. Access to the settings menu, where there are several options.

Icon User programe active

Icon Ventilation unit has stopped

Icon Week programe active

Icon Active alarm or warning

Main screen settings options

The settings options that are necessary in daily life can all be set on the main screen of the panel.

If you press current fan speed level, the set fan speed level will be displayed.

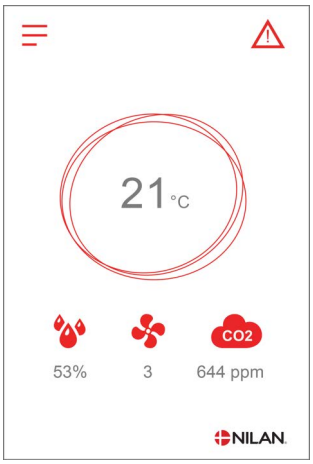
You can change the fan speed level by using the up-and-down arrows followed by the confirm icon (bottom right) or the cancel icon (bottom left).

There may be a difference between set fan speed level and the actual fan speed level as the control system will override the set level, for instance, at high/low air humidity or during cooker hood operation.

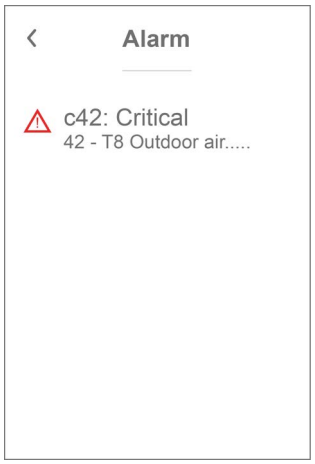
If you press current room temperature, the set room temperature will be displayed.

You can change the room temperature by using the up-and-down arrows followed by the confirm icon (bottom right) or the cancel icon (bottom left).

Warnings and alarms



If the ventilation unit is faulty or an error occurs, there will be either a warning or an alarm. The icon will appear in the top right hand corner in the menu bar.



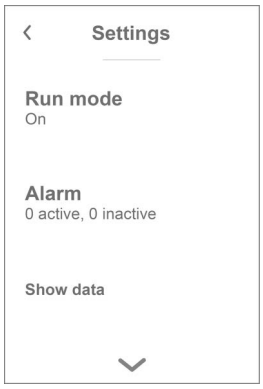
If you press the symbol, a brief description of the warning or the alarm will be displayed.

You will find more detailed descriptions in the "Alarm List" section of this document.

When the problem has been solved, you can reset the warning or alarm by pressing "Clear Alarm".

Settings menu overview

The settings menu is constructed to make it easy to navigate through.



You navigate through the settings menu by pressing the arrow below or above.

If you want to access a menu, tap the text for that menu and it will open.

Service and maintenance

General information

A ventilation unit from Nilan can last for many years if it is properly serviced and maintained. Ventilation units are often hidden away, and they are therefore rarely given attention in everyday life. But just as you maintain your car, your ventilation unit will need servicing regularly to keep it functioning properly.

If appropriate service and maintenance are not carried out, the ventilation unit may get damaged. It can also result in increased energy consumption and a poorer indoor climate. Less air will run through the unit even if the fans are running faster. But the ventilation unit does not operate well with dirty filters, a clogged up heat exchanger and dusty fans.

You can set an alarm in your calendar on your phone that will notify you when your ventilation unit is due a service. Alternatively, you can make a service appointment with your local Nilan dealer or service company.

Regular maintenance

Filters

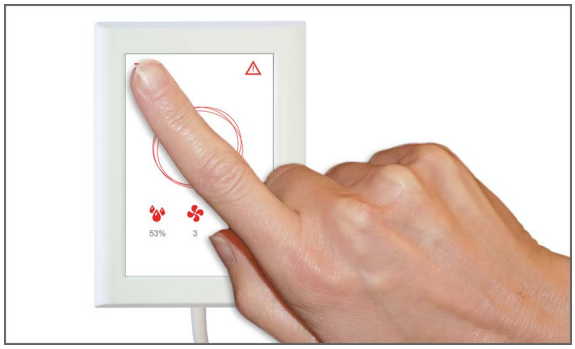
The primary purpose of the filters is to protect the ventilation unit and especially the heat exchanger and the fans that could otherwise become damaged by dust and dirt.

Dirty filters result in a poorer indoor climate and a higher energy consumption. Dirty filters must therefore be replaced. Dirty filters can also affect the humidity control system in the ventilation unit so it no longer works as intended.

The factory setting of the control system is set to 90 days, which will suit most installations. But if you live in a city close to a heavily congested road, you may need to replace the filters more often. Conversely, if you live in a rural setting, you may not need to replace filters quite as often.

The standard filters in the ventilation unit are ISO Coarse > 90% (G4). If you install a pollen filter ISO ePM1 50-65% (F7), you will not need to replace the pollen filter as often, as its filter area is larger. It may then only be necessary to replace the pollen filter every second or third time, depending on its condition.

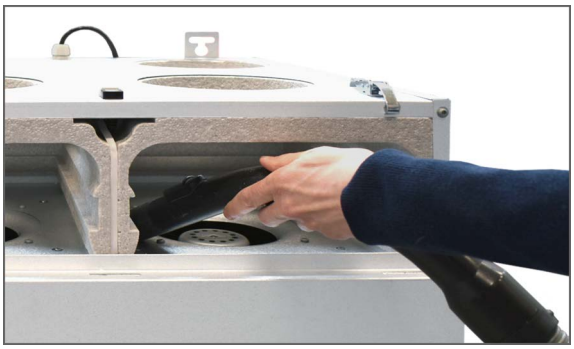
Illustration of filter change



1.Before opening the door, switch off the unit on the control panel under OPERATION.

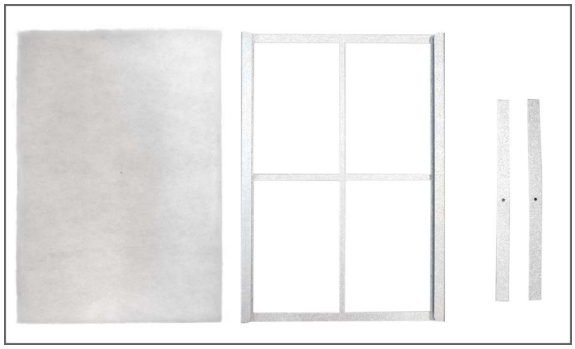
2. The toggle case catch latch at the top opens and the door is lifted out.

3. Remove the two filters from the unit.



4. It is advisable that you vacuum the filter chambers for potential dirt and dust.

5. Remove the filter sheet from the filter frame.



6. Keeping the smooth side facing downwards, place the new filter sheet in the filter frame.

7. Press the filter sheet firmly in place and carefully push it to the sides of the filter frame.
Place the filter in the unit with the filter sheet facing upwards.

8. Turn on the unit and press the ALARM icon to reset the warning.

Annual maintenance

General cleaning

The ventilation unit should be cleaned on the inside once a year. Dust can slip through the filters and mix with dampness from the extract air.

WARNING

Stop the ventilation unit on the control panel and switch off the power supply for the unit before opening its front door.

You may want to remove dust with a vacuum cleaner before wiping the ventilation unit inside. For this, use a slightly damp cloth with a mild soap solution. Be careful around potentially sharp edges. Be careful not to get water into the electrical control system.

The ventilation unit should also be cleaned on the outside using a slightly damp cloth and a mild soap solution.

The ceiling valves

Over time a ring may develop round the inlet valves. This is a natural process and is due to dust in the room air, not to defective filters or failure to change filters.

As very few painted ceilings are washable, you are recommended to vacuum round the valve and then wipe the area with a damp cloth.

It is a good idea to dismantle and clean the valves when necessary. The valves have been set by the installer for a specific airflow, so it is important not to rotate them, as this will change the setting and unbalance the ventilation system.

Water trap

During cold periods when the ventilation unit operates with high efficiency heat recovery, the extract air creates condensation. It is important that this water can drain freely from the condensate tray. If it cannot drain properly, it will eventually leak out of the unit door and, potentially, cause water damage.

ATTENTION

If you have not installed a water trap with ball, you must check the condensate drain every autumn before the weather turns cold. (Condensation typically forms when the outdoor temperature < 10°C)

Water trap with ball

1. Pour water into the condensate tray and check that it drains away
2. If the water drains away, everything is in order
3. If the water does not drain away, you should check the water trap and the drain to locate any blockages

Water trap without ball

1. Pour water into the condensate tray
2. Close the door of the ventilation unit
3. Start the ventilation unit and let it run for 10 minutes
4. Open the door of the ventilation unit and check that the water has drained away and that it has not run back into the condensate tray
5. If the water has drained away, everything is in order
6. If the water has not drained away, you should check the water trap and the drain to locate any blockages

Heat exchanger

The counterflow heat exchanger is a central part of the ventilation unit. It heats up the cold outdoor air with energy from the warm extract air. To maintain a high level of heat recovery, it is important that the heat exchanger is not clogged with dirt.

Experience indicates that it should not be necessary to lift out and clean the heat exchanger every year. However, if it appears to be dirty, you should lift it out and clean it.

The easiest way to clean the counterflow heat exchanger is in the shower. Use lukewarm water and rinse it well from both sides. Allow it to drip off before remounting it in the ventilation unit.

Check the air intake and discharge

It is important for operation of the unit that air can freely move through the air intake and discharge.

If roof stacks have been fitted to the air intake and outlet, check that they are not blocked with birds' nests, leaves or other dirt which can hamper air passage.

If, instead of roof stacks, grilles have been mounted in facades or eaves, check that they are not clogged with leaves or dirt. Grilles are particularly likely to become clogged.

Check ventilation ducts

It is important for operation of the unit that there is free air passage through the ventilation ducts.

After some years of operation, dirt will attach itself to ventilation ducts or tubes, and accumulations may lead to higher pressure drop in the ducts, leading to higher power consumption. It is therefore important to clean out the ducts when too much dirt has collected.

After attending to the inlet and outlet valves, it will be advisable to have them adjusted again, to ensure optimum operation of the ventilation system.

However, it will not be necessary to clean ducts more than every few years.

User settings

Setting the ventilation unit

Turn off the ventilation unit

If it is necessary to open the doors while servicing the ventilation unit, for instance when changing filters, the unit must be turned off. This is done under the menu Operation.

When the unit is turned off, this icon appears on the main screen.

ATTENTION

It is important that the power is turned off, if you want to work with the electrical components in the ventilation unit.

ATTENTION

It is important that the ventilation unit is not turned off for long periods, as this could cause condensation problems in the duct system.

> Unit on/off

> Unit on/off	Settings: Description:	Off / On The ventilation unit must be turned off before the doors are opened during service.

Alarm

In the "Alarm" menu item you can see warnings and alarms. This is also where you reset them once the problem has been solved.

If an alarm or a warning is active, the alarm icon will be displayed in the upper righthand corner of the control panel.

> Alarm

> Alarm number and name	Description:	Press the alarm to display a list of: • Alarm ID-number • Type of alarm • Critical alarm or warning (The alarm list will tell you how to proceed).

ATTENTION

As long as the problem has not been solved, the alarm or warning will remain active. When the problem has been solved, you will be able to reset the alarm or warning by pressing "Clear alarm"

Show data

You can access current operational data for the ventilation unit. This will allow you to check that the unit operates satisfactorily and to identify the cause of potential alarms.

>Show data

> Operating state	Description:	Shows the operating setting in which the unit is running.
> Bypass	Description:	Shows whether the bypass damper is open or closed.
> T2 Supply air	Description:	Show the supply air tempereture, if an after-heating element is not installed.
> T3 Extract air	Description:	Shows the room temperature as an average of the entire house.
> T4 Discharge	Description:	Shows the discharge air temperature.
> T7 Supply air	Description:	Shows the supply air temperature provided an after-heating element has been installed.
> T8 Outdoor air	Description:	Shows the outdoor temperature before reaching the pre-heating element, if installed.
> T9 Water after heat	Description:	Shows the temperature in the water after-heating element.
> Air humidity	Description:	Shows the current air humidity in the house.
> CO_2 level	Description:	Shows the current CO_2 level in the house (only if installed).
> Supply air fan	Description:	Shows the level at which the supply air fan is operating.
> Extract air fan	Description:	Shows the level at which the extract air fan is operating.
> Unit information	Description:	Select "Unit information" for more information.
> Unit type	Description:	Shows the name of the unit.
> Software version	Description:	Shows the installed software version.
> Panel software	Description:	Shows installed software version on the panel.

Date/Time

It is important to set date and time correctly. It makes it easier to localise errors indicated in an error report. When logging data, it is important to be able to follow the history. The time is shown under "Date / Time" in the display.

> Date / Time

> Year	Description:	Select "Year" in the panel and then select the correct year.
> Month	Description:	Select "Month" in the panel and then select the correct month.
> Day	Description:	Select "Day" in the panel and then select the correct day.
> Hour	Description:	Select "Hour" in the panel and then select the correct hour.
> Minute	Description:	Select "Minute" in the panel and then select the correct amount of minutes.

Week program

You can program the ventilation unit to run in accordance with specific settings at fixed times during the day and week via a week program.

On the main screen in the top right side an icon will be displayed when the week program is active

> Week program

> Select Week program	Settings: Standard setting: Description:	Off / 1 / 2 / 3 Off The control allows you to set 3 programs for different situations e.g.: • Normal operation • Holliday operation
> Edit program	Description:	The selected week program is now active and can be edited.
> Monday	Settings:	Here weekday is selected.
>Function 1	Settings:	Here you select the function you want to edit.
> Start time	Settings: Standard setting: Description:	Hours and minutes 6:00 Set the time for the program to start. The program will run until the next change in the week program.
> Ventilation	Settings: Standard setting: Description:	Level 1 / Level 2 / Level 3 / Level 4 / Off Level 3 Select the desired fan speed level here.
> Temperature	Settings: Standard setting: Description:	5 – 40 °C 22 °C Set the desired room temperature here.
> Copy for next day	Description:	Once the values for the Monday program have been set, it is possible to copy these to the next day.
The same settings are made for all functions.		
> Reset program	Settings:	You can reset the program by selecting the "Approve" icon.

Supply air heating

You will only have this menu item if an after-heating element has been installed and it has been activated in "Service settings".

ATTENTION

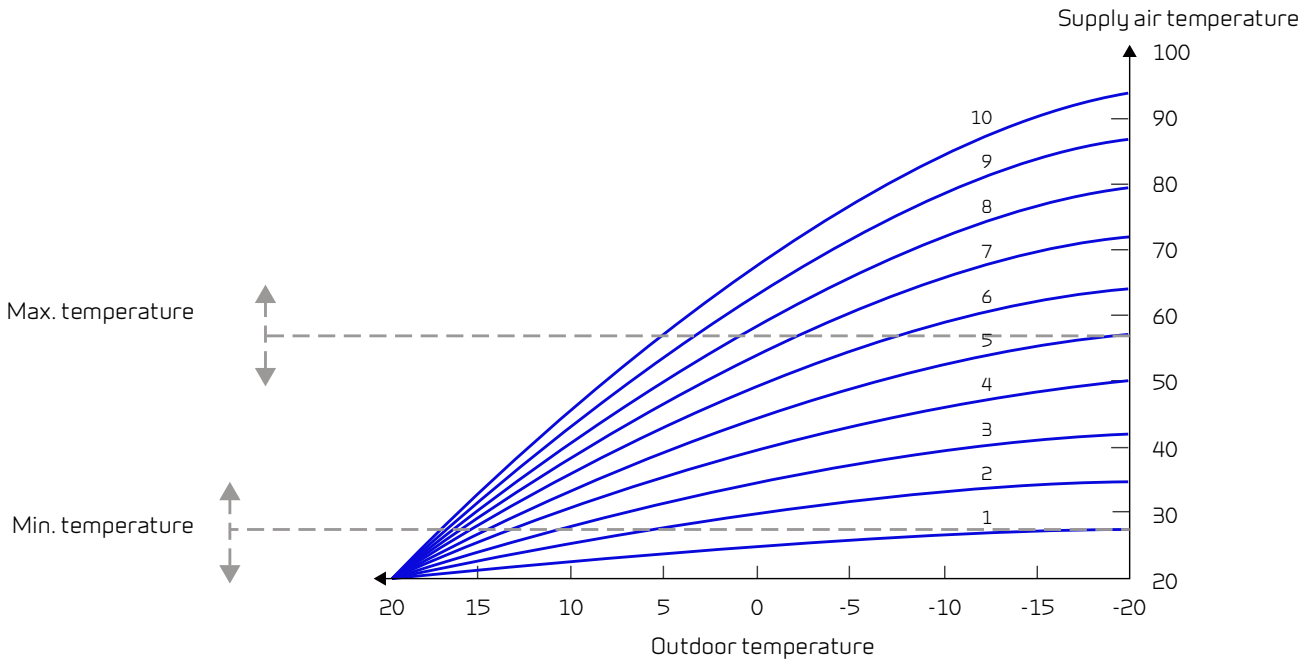
An after-heating element is not included as standard. However, you can order it as an additional extra, and it can also be retrofitted.

When the room temperature (measured in the extract air) falls below the desired room temperature that has been set in the display, the heat pump and the after-heating element start heating the supply air.

> Supply air heating

> Outdoor temp. compensation	Settings: Standard setting: Description:	Off / 1– 10 Off Off: The heating of the supply air is off.
> 1	Description:	You have selected curve controlled heating of the supply air. The supply air temperature is then controlled by the outdoor temperature and not by the current room temperature.
> Offset curve	Settings: Standard setting: Description:	-15 – 10 °C 0 °C You can shift the curve to better meet the heating require-ments of the dwelling.
> Min. supply air tempera-ture	Settings: Standard setting: Description:	5 – 40 °C 20 °C Minimum supply air temperature
> Max. supply air tempera-ture	Settings: Standard setting: Description:	20 – 85 °C 40 °C Maximum supply air temperature
> Room temperature	Description:	Shows the current room temperature.
The same settings apply to all curve levels		

Heating curve



After heating element

This menu item is only visible if an electric or water after heating element is installed and activated under Service settings.

ATTENTION

An after heating element is not standard, but can be purchased as an accessory, and can also be retrofitted if desired.

If it is desired to control the supply air temperature it is necessary to install an after heating element. That allow you to control the supply air temperature independently of the outdoor temperature. The after heating element can also contribute to heating the home.

An electric or water heating element can be ordered for installation in the supply air duct.

> Heating element

> Activate	Settings: Standard setting: Description:	Off / On Off You can turn the after-heating on or off here.

Humidity control

The primary purpose of ventilation is to extract humidity from the house so it does not damage the building, and to achieve a good indoor climate. During long periods with sub-zero temperatures, air humidity in the house may fall to a level that is critical for the building and for the indoor climate. Wooden floors, furniture and walls can be damaged by very dry air, which also whirls up dust, resulting in a poor indoor climate.

This is rectified by an integrated humidity control system that maintains good, relative air humidity. When the average air humidity in the house falls below a set level (default set at 30%), ventilation may be reduced. It will typically only be for a short period of time. This will help avoid further reduction of the air humidity in the house.

The humidity control system also has a function that allows increased ventilation, should the air humidity increase, for instance when having a bath. The risk of mould growth in the bathroom is reduced, and the bathroom mirror will rarely steam up.

The humidity control system follows the average air humidity level measured over the previous 24 hours. In this way the system automatically adapts to summer and winter conditions.

> Humidity control

> Vent.low humidity	Settings: Standard setting: Description:	Level 1 / Level 2 / Level 3 / Off Level 1 When the current humidity drops below the low humidity level, the ventilation unit switches to the set ventilation level. Off means that the ventation at low humidity is de-activated.
> Low humidity level	Settings: Standard setting: Description:	15 – 45% 30% When current humidity below this value falls, the ventilation level set above is activated.
> Vent.high humidity	Settings: Standard setting: Description:	Level 2 / Level 3 / Level 4 / Off Level 3 At high humidity levels, for instance when having a bath, the unit changes to the set fan speed level. Off means that the function Ventilation at high humidity is de-activaded.
> Max time high humidity	Settings: Standard setting: Description:	1 – 180 min. / Off 60 min. The function "High humidity" stops when actual humidity falls below 3% above the average air humidity. However, this time limit will stop operation if it fails within the set time period. Off means that the function Max. time at high humidity is de-activated.

CO_2 Control

This menu is only displayed if a CO_2-sensor has been installed, and the function has been chosen under Service settings.

ATTENTION

A CO_2 sensor is not a standard part of all ventilation units, but may be purchased as an accessory.

If the number of people using a building varies considerably, controlling ventilation through the CO_2 level in the extract air may be a good solution. This function is often used in offices and schools where use varies greatly during the day and during the week.

> CO2 control

> Vent.high CO2	Settings: Standard setting: Description:	Level 2 / Level 3 / Level 4 / Off Level 3 Here you set the fan speed level at which the unit is to operate at high CO_2 level. Off means the this function is de-activated.
> High CO2 level	Settings: Standard setting: Description:	650 – 2500 ppm 800 ppm Here you set the CO_2 level at which the unit is to switch to high fan speed level.
> Normal CO2 level	Settings: Standard setting: Description:	400 – 700 ppm 600 ppm Here you set the CO_2 level at which the unit is to switch to normal fan speed level.

Air exchange

Low humidity in the dwelling can be prevented by reducing ventilation at low outdoor temperatures. This function can be used in countries with regular sub-zero temperatures and at high altitudes where the outdoor air is very dry.

> Air exchange

> Winter low vent.	Settings: Standard setting: Description:	Level 1 / Level 2 / Level 3 / Off Off Here you set the fan speed level at which the unit is to operate at low outdoor temperatures. Off means that this function is de-activated.
> Temp winter low	Settings: Standard setting: Description:	-20 – 40 °C 0 °C Here you set the outdoor temperature at which operation is to change to "Winter low".

Filter alarm

ATTENTION

It is important to change the filters regularly and when needed. Dirty filters reduce the efficiency of the ventilation unit and result in a poorer indoor climate and higher power consumption.

From factory, the filter alarm has been set to signal filter replacement every 90 days. You can set the timer to fit the level of pollution in the area where the ventilation unit has been installed.

If someone in the household has pollen allergies, it is recommended that you install a pollen filter in the outdoor air intake.

> Filter alarm

> Days to change	Settings: Standard setting: Description:	None /30 / 60 / 90 / 180 / 360 90 days The number of days between filter changes can be set as required.

Temperature control

If you have not installed an after-heating element, use the settings to control the bypass damper.

It is necessary to install an after-heating element if you want to control the supply air temperature and for it to contribute towards the heating of the dwelling. An after-heating element allows you to control the supply air temperature, regardless of the outdoor temperature.

You can install an external electrical or water after-heating element in the supply air duct.

ATTENTION

During periods when heating is not required in the dwelling, the supply air temperature may fall below the minimum temperature.

> Temp. regulation

> Min. supply air summer	Settings: Standard setting: Description:	5 – 16 °C 14 °C Here you set the supply air temperature that you want the ventilation unit to be able to provide, as a minimum, during summer, when the unit is in heating mode.
> Min. supply air winter	Settings: Standard setting: Description:	14 – 30°C 16 °C Here you set the supply air temperature that you want the ventilation unit to be able to provide, as a minimum, during winter, when the unit is in heating mode. NB: Only possible if an after-heating element has been installed.
> Max. supply air summer	Settings: Standard setting: Description:	16 – 30°C 30 °C Here you set the supply air temperature that you want the ventilation unit to be able to provide, as a maximum, when heating is required. NB: This option is only shown if an after-heating element has been installed and activated.
> Max. supply air winter	Settings: Standard setting: Description:	30 – 50 °C 30°C Here you set the supply air temperature that you want the unit to be able to provide, as a maximum, during winter. NB: This option is only shown if an after-heating element has been installed and activated.
> Summer/vinter shift	Settings: Standard setting: Description:	5 – 30 °C 12 °C Here you set the temperature for the shift between summer and winter operation. • If the outdoor temperature is higher, the unit will operate in summer mode • If the outdoor temperature is lower, the unit will operate in winter mode

Language

The ventilation unit is factory set to Danish language. You can change the texts to other languages.

>Language (DK - Sprog)

> Danish	Description:	Select the desired language in the user panel.

Alarm list

Comfort

Alarm list

The following list applies to Comfort ventilation units with the CTS602Light control. The events are divided into the following categories:

 Warning — Operation continues, but an incident has occurred that should be kept in mind.

 Alarm — Operation is partially or completely stopped as it is a critical fault that needs immediate attention.

ID	Type	Display text	Description / cause	Troubleshooting
1		Hardware error	Error in the hardware of the control system.	Note alarm and reset it. If the alarm does not disappear contact service.
2		Alarm timeout	A warning alarm has become a critical alarm.	Note alarm and reset it. If the alarm does not disappear contact service.
3		Fire alarm activated	The ventilation unit is stopped due to the fire thermostat being activated.	If there is no fire, check the connection to the fire thermostat. If okay, contact service.
7		Frost in after-heating element	Units with a T9 sensor: Water heating element could not reach 20°C within 6 min. Units without a T9 sensor: Frost thermostat in water heating element triggered.	Check for adequate insulation around the water heating element and its connections. Reset alarm.
8		Frost thermo-stat triggered	Only on units with a T9 sensor: Frost thermo-stat in water heating element triggered.	Check for adequate insulation around the water heating element and its connections. Reset alarm.
10		Overheating of electrical after-heating	The electrical heating element has over-heated. Lack of airflow due to, for instance, blocked filters, blocked air intake or defect supply air fan.	Make sure that air is blown into the house. Make sure the filters are clean. Check that the outdoor air intakes is not blocked. Reset alarm. Contact service if the above does not solve the problem.
11		Low flow over the electrical heating ele-ment	Lack of airflow in supply air.	See alarm code 10.
15		The room temperature is too low	When the room temperature is below 10°C, the unit will stop in order to prevent further cool-ing of the house. This may, for instance, be during a period when the house is unoccupied and the heating system is off.	Heat up the house and reset the alarm.

16	⚠	Software error	Fault in the ventilation unit software	Contact service.
17	⚠	Watchdog warning	Fault in the ventilation unit software	Contact service.
18	⚠	Content of database changed	Parts of the program setting have been lost. This may be due to a prolonged power cut or a lightning strike. The unit will continue to operate with standard settings.	Reset alarm. Contact service if the unit does not operate to your satisfaction/ as before, as some subprograms may have been lost. (Subprogram is only available for service).
19	⚠	Change filter	The filter monitor has been set at X amount of days for check-up/change of filter.	Clean/change filter. Reset alarm.
21	⚠	Check date and time	Is displayed during power cuts.	Set the date and time. Reset alarm.
22	⚠	Error supply air temperature	The desired heating of the supply air is not possible. (applies only with after heating element)	Set a lower supply air temperature. Reset alarm.
71	⚠	Error de-icing heat exchanger	Max. de-icing time exceeded for counterflow heat exchanger. This may be due to the unit being exposed to very low temperatures.	If resetting the alarm does not help, contact service. Register the current operating temperatures from the "SHOW DATA" menu in order to ease the service process.
91	⚠	Missing expansion PCB	Expansion PCB is missing.	Contact service.
92	⚠	Backup error	Error writing or reading installer settings	Contact service.
96	⚠	Error in damper test	Damper (open / closed) not fulfilled.	Reset alarm. If it does not help contact service.

Product data

EU/EC Declaration of Conformity

EU/EC Declaration of Conformity

For the CE-marking inside the European Union

Nilan A/S

We declare that the ventilation systems

Comfort CT150, Comfort CT200, Comfort 200TOP, Comfort 250TOP, Comfort 252TOP, Comfort 302TOP, Comfort 350TOP, Comfort CT300, Comfort CT500 Comfort 300LR, Comfort 450, Comfort 600

Confirm to the following EU/EC Directives, providing the products are used in accordance with the ordinary use.

EU-Directives:

- Directive on harmonization of the laws of the Member States relating to electrical equipment to be used within certain voltage limits (the low voltage directive) 2014/35/EU
- Directive on harmonization of the laws of the Member States relating to electromagnetic compatibility (EMC directive) 2014/30/EU
- Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS directive) 2011/65/EU
- Directive of Energy Related Products in a framework which primarily focuses on environmental care of requirements for energy-related products (ECODESIGN) 2009/125/EU

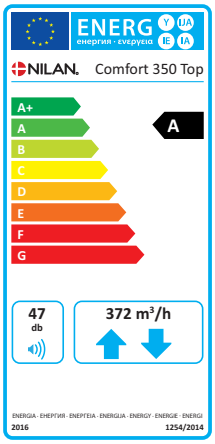
Harmonized standards applied and EU regulations, in particular:

EN 60335-1	EN 60730-1	EN13141-7	EN 1886
EN 60335-2-80	EN 50581	EN9614-2	EN 5136
(EU) 1253/2014			

Hedensted: 2021-09-30

Henry Yndgaard Sørensen
Product Development Manager

Ecodesign data Comfort 350 Top



SEC* average climate	-40,0kWh/(m^2.a)
SEC cold climate	-77,6 kWh/(m^2.a)
SEC warm climate	-15,8 kWh/(m^2.a)
SEC-Class	A
Type	Two-way ventilation unit for residential
Type of drive	Variable speed drive
Type of heat recovery system	Recuperative (counterflow heat exchanger)
Thermal efficiency of heat recovery	85 %
Maximum flow rate	372 m^3/h (100 Pa)
Electric power input of fan drive, including any motor control equipment at maximum flow rate	169 W
Sound power level (LWA)	47 dB(A)
Reference flow rate	0.073 m^3/s (262 m^3/h)
Reference pressure difference	50 Pa
SEL	0.20 W/(m^3/h)
Central demand control	0.85
Maximum internal leakage	0.4%
Maximum external leakage	0.2%
Visual filter warning	An alarm on the user panel appears when filters need changing. To maintain the performance and energy efficiency of the unit it is very important to change filters regularly.
Disassembly instructions	www.nilan.dk

* Specific energy consumption

AEC - annual electricity consumption	226 kWh/year (100 m^2)
AHS** average climate	4494 kWh (100 m^2)
AHS cold climate	8792 kWh (100 m^2)
AHS warm climate	2032 kWh (100 m^2)

** Annual heating saved

Disposal

The environment - part of the solution

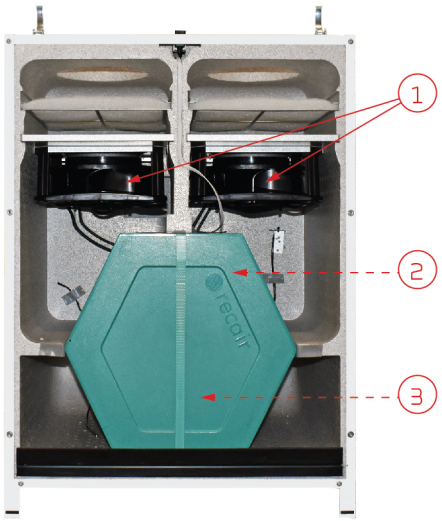
At Nilan A/S we recognize our responsibility in minimizing the environmental impact of our products. We consider the impact on the environment in all aspects of production, operation and subsequent disposal. We recognize our responsibility in minimizing consumption of resources. We work continuously to improve our products and the production process in order to limit our impact on the environment.

Ventilation unit

Nilan units consist mainly of recyclable materials. They must, therefore, not be mixed with household waste, but must be delivered to your local recycling center for disposal.

The only tools required are Torx20 and Torx25 screwdrivers and perhaps some side-cutting pliers for cutting wires.

1. Remove the fans and dispose of them as electronic waste
2. Demount the orange bypass motor and dispose of it as electronic waste
3. The circuit board and the electronics are situated behind the green counterflow heat exchanger. These too should be disposed of as electronic waste.



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