



GEBRUIKERS HANDLEIDING
NIVA VENTILO-CONVECTOR

MANUEL D'UTILISATION
NIVA VENTILO CONVECTEUR

GEBRAUCHSANWEISUNG
NIVA GEBLÄSEKONVEKTOR

USER MANUAL
NIVA FAN COIL UNIT

MANUALE D'USO
NIVA VENTIL CONVETTORE

**INSTRUKCJA INSTALACJI,
I UŻYTKOWANIA**
NIVA KLIMAKONWEKTOR



FC75 / FC95 / FC115

NIVA FC

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CONFORMITY

This unit complies with European directives:

- Low voltage 2014/35/EU
- Electro-magnetic compatibility 2014/30/EU

SYMBOLS

The pictograms in the next chapter provide the necessary information for correct, safe use of the machine in a rapid, unmistakable way.

SAFETY PICTOGRAMS



Generic danger

Signals to the personnel that the operation described could cause physical injury if not performed according to the safety rules.



Danger of high voltage

Signals to the personnel that the operation described could cause electrocution if not performed according to the safety rules.



Danger due to heat

Signals to the personnel that the operation described could cause burns if not performed according to the safety rules.



Prohibition

Refers to prohibited actions.

1 GENERAL

ELECTRONIC PANEL

These controls make room temperature adjustment (with offset settable from the keyboard) completely autonomous through the AUTO, SILENT, NIGHT and MAX programmes by means of a probe located in the lower part of the device, ensuring anti-freeze safety even when set to stand-by. The control panel has a memory, so settings will not be lost if the appliance is switched off or in the power supply is cut.



After 20 seconds from the last action the panel brightness will be reduced for improved night-time comfort, and the room temperature will appear on the display. Press any key to restore maximum brightness. The 10 kΩ water temperature probe positioned in the device battery regulates the minimum level when heating (28°C) and the maximum level when cooling (20°C).

- A Display
- B Keys



DISPLAY

Any statuses and alarms are also shown on the display by using 8 specific symbols:

A	Automatic operation		Heating on
	Silent operation		Cooling on
	Maximum ventilation speed		Alarm indicator (solid light)
	Night-time operation		Panel off indicator

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KEY FUNCTION

The various functions are set using 8 backlit keys:

	Temp + is for increasing the set temperature		Night-time operation: limits ventilation speed to a contained level and the set temperature is adjusted automatically.
	Temp - is for decreasing the set temperature		Maximum speed operation: Allows for the maximum ventilation speed to be set
	Heating / Cooling: for changing the operation mode between heating and cooling		ON/Stand-By: for activating the device or for putting it in stand-by.
AUTO	Sets the regulation ventilation speed between a minimum and maximum value to an entirely automatic mode		Silent: limits ventilation speed to a more contained value

GENERAL ON SWITCH

In order to manage the device via the control panel, this must be connected to the mains electricity.

If a general switch is installed on the power line, this must also be switched on.





- Turn the device on by activating the general switch

ACTIVATION

To activate the device

Key	Operation	Display
	Press the ON Stand-by key	From off to on
AUTO	Select one of the 4 operating modes by pressing the relative key.	


HEATING/COOLING OPERATION MODES SETTING

Key	Operation	Display
	Keep the Heating / Cooling key pressed for approx. 2 seconds to change the mode between heating and cooling, which is indicated by the 2 symbols that appear if heating or cooling is active.	
	When heating, the symbol displays when the set point is higher than ambient temperature, both are off when the set point is lower.	
	When cooling, the symbol displays when the set point is lower than ambient temperature, both are off when the set point is higher.	

One of the two symbols flashing means that the water temperature (hot or cold) is not sufficient, and stops the fan until the temperature reaches a level suitable for reaching the required temperature.



If after switching the power on the board detects the H2 probe, start-up occurs in normal conditions with the minimum and maximum thresholds. The board also has a function when there is no H2 probe, in such cases the fan stop thresholds are ignored.

STAND BY

Key	Operation	Display
	Press and hold the ON Stand-By key for approx. 2 seconds. No illuminated signals on the display at all means that the system is in stand-by (no operation).	Off

When the control is in this operating mode, anti freezing is in any case guaranteed. If the ambient temperature drops below 5°C, the solenoid valves on the hot water output and the boiler are opened.

TEMPERATURE SELECTION

Key	Operation	Display
	Set the required room temperature using the two increase/decrease keys to set the temperature value on the 3-digit display.	20.5
		



The adjustment range is from 16 to 28°C in intervals of 0.5°C, but out-of-range values are also accepted, from 5°C to 40°C (unless in auto mode). Only set these values for brief periods, and then set a intermediate value. The controller is very precise - set it to the required value and wait for the controller to regulate itself according to the actual room temperature detected.

**AUTOMATIC
OPERATION**

Key	Operation	Display
AUTO	Press and hold the AUTO key. The function being activated is indicated by the relevant symbol appearing on the display.	A


Ventilation speed adjustment is carried out automatically between the minimum and maximum values, according to the distance of the actual room temperature from the set point, according to a PI-type algorithm.

SILENT OPERATION

Key	Operation	Display
	Press and hold the Silent key. The function being activated is indicated by the relevant symbol appearing on the display.	

Ventilation speed is limited to a contained maximum value.



**NIGHT-TIME
OPERATION**

Key	Operation	Display
	Press and hold the Night-time operation key. The function being activated is indicated by the relevant symbol appearing on the display.	

By selecting this mode, ventilation speed is limited to a very contained level and the set temperature is adjusted automatically, as follows:

- decreases by 1°C after one hour and by another degree after two hours in heating mode;
- increases by 1°C after one hour and by another degree after two hours in cooling mode;

**OPERATION
AT MAXIMUM
VENTILATION SPEED**

Key	Operation	Display
	Press and hold the Max Operation key. The function being activated is indicated by the relevant symbol appearing on the display.	

In this operation mode, the maximum possible power level is activated whether heating or cooling.

Once the desired room temperature is reached, we recommend selecting one of the other 3 operation modes for increased comfort and sound levels.

KEY LOCK

Key	Operation	Display
+	By pressing both the + and - keys for 3 seconds, all keys are locked locally, and this is indicated by "bL" appearing on the display.	bL
-	All actions are disabled to the user and whenever any key is pressed, "LOC" will appear. To unlock the keys, repeat the sequence.	

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REDUCE BRIGHTNESS TO MINIMUM

After 20 seconds from the last action, the panel brightness will be reduced for improved night-time comfort, and the room temperature will appear on the display.

If this brightness is still disturbing, the display can be switched off completely.

Key	Operation	Display
+	With the display off, press and hold the + key for 5 seconds until "01" is displayed. Use the - key to change the value to 00 and wait 20 seconds to check the setting has been accepted.	00

ROOM TEMPERATURE PROBE REGULATION OFFSET

As the detection probe is towards the bottom of the device, the temperature detected may at times differ from the actual room temperature. By using this function, the value displayed can be adjusted in a range from -9/+12 K in intervals of 0.1°C. Use this adjustment with care, and only after having actually detected a discrepancy compared with the actual room temperature using a reliable device!

Key	Operation	Display
-	With the display off, press and hold the - key for 5 seconds to access the menu which allows adjustment (using the + and - keys) of the AIR probe offset displayed, from -9 to +12 K in 0.1 K intervals. After 20 seconds from the last action, the panel switches off and the setting is stored.	00.0

SWITCHING OFF FOR LONG PERIODS





When switching off for a season or for holidays, proceed as follows:

- Deactivate the device
- Turn the general unit switch to off.



The antifreeze function is not active.

ERROR SIGNALS

Error	Display
Faulty room temperature (AIR) probe.	 E1
Problem with fan motor (e.g. blockage caused by foreign objects, faulty rotation sensor).	 E2
Water temperature probe fault for 2-tube versions (H2). In this case, ensure that the probe installed is 10 k Ω .	 E3
Engaging of grille microswitch S1 due to filter cleaning operation	 Gr

2 MAINTENANCE

EXTERNAL CLEANING

Disconnect the unit from the power supply before each cleaning and maintenance intervention by setting the main power supply switch to off.



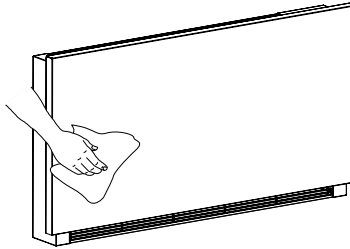
Wait for the components to cool down in order to avoid any burns.



Do not use abrasive sponges or abrasive or corrosive detergents as you might damage the painted surfaces.



When necessary, clean the external surfaces of the fan coil with a soft damp cloth.



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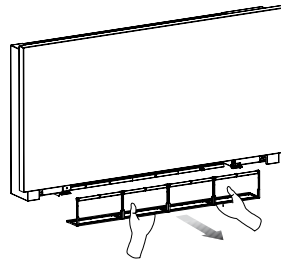
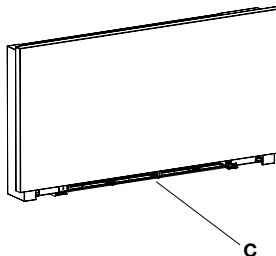
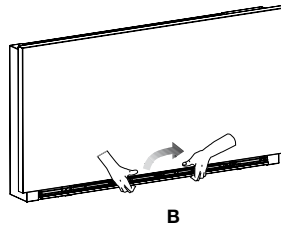
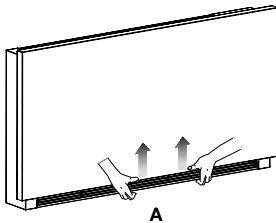
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AIR SUCTION FILTER CLEANING

Clean the air filter after a period of continuous use and according to the concentration of impurities in the air; or when you wish to start-up the appliance after a period of inactivity, proceed as described.

REMOVAL OF FILTERING CELLS

- extract the filter by pulling outwards horizontally.



CLEANING THE FILTERS

- Remove dust from the filter with a vacuum cleaner
- Wash the filter under running water without using detergents or solvents, and leave to dry.
- Replace the filter on the fan coil, paying particular attention to insert the lower edge in its housing.



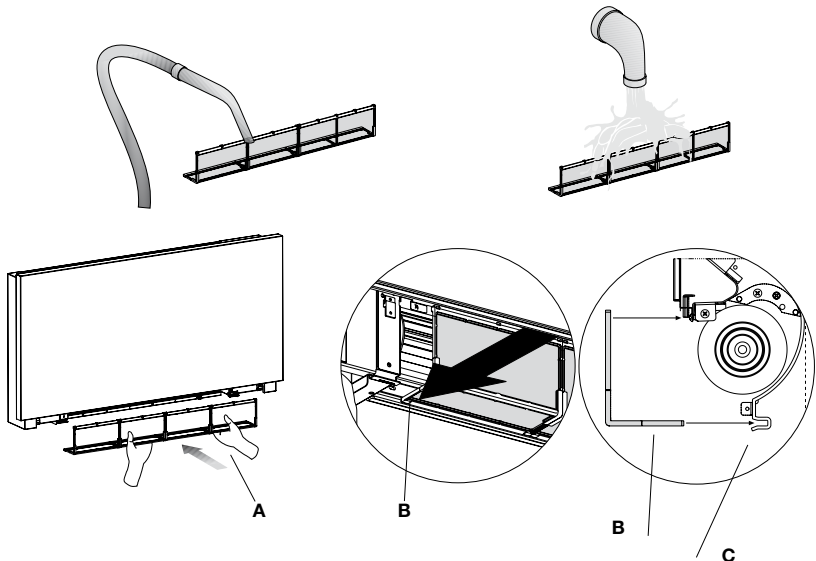
Do not use the device without the mesh filter.



The device is fitted with a safety switch that prevents fan operation without the mobile panel in place.



After filter cleaning, check that the panel is properly mounted.



- A** filter
- B** lower edge
- C** filter housing

SUGGESTIONS FOR POWER SAVING

- Ensure filters are constantly clean;
- Keep doors and windows closed as far as possible in rooms to be conditioned;
- In summer, limit direct sunlight as far as possible in rooms to be conditioned (with curtains, shutters, etc.).

3 TROUBLESHOOTING

TROUBLESHOOTING

In the event of water leaks or anomalous operation, disconnect mains power immediately and close all water taps.



If one of the following anomalies should occur, contact an authorised service centre or qualified personnel, do not try to repair yourself.

- Ventilation does not start even if there is hot or cold water in the hydraulic circuit.
- The device leaks water when heating.
- The device leaks water only when cooling.
- The device makes excessive noise.
- Rust is forming on the front panel.

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TROUBLESHOOTING TABLE

EFFECT	CAUSE	SOLUTION
Ventilation takes a long time to start when new temperature settings or anew mode is activated.	The circuit valve needs time to open and to let cold or hot water circulate.	Wait 2 or 3 minutes for the circuit valve to open.
The device doesn't start ventilating.	No hot or cold water in the system.	Check that the boiler or the water cooler are working.
Ventilation does not start even if there is hot or cold water in the hydraulic circuit.	The hydraulic valve stays closed.	Disassemble the valve body and check and restore water circulation.
	The fan motor is blocked or burned out.	Check that the valve is working by powering it up separately from a 230V supply. If it starts working, the problem may be with the electronic controller.
	The microswitch that stops ventilation when opening the filter grill doesn't close properly.	Check the motor windings and that the fan can turn freely.
	Electrical connections are incorrect.	Check that closing the grill closes the contact on the microswitch.
		Check the electrical connections.
The device leaks water when heating.	Water leakage from the system plumbing.	Check for leaks and tighten all connections.
	Leaks from the valve group.	Check the seals
Rust is forming on the front panel.	Thermal isolators detached.	Check that the thermal sound isolators are positioned correctly, paying particular attention to the one positioned at the front above the winged battery.
Water droplets are forming on the grill and the air outlet.	In situations of high humidity (>60%) condensation could form, especially at the minimum ventilation speeds.	As soon as relative humidity decreases, the problem will disappear. In any case, should some water droplets fall inside the units, it does not mean that there is a malfunction.
The device leaks water only when cooling.	The condensation tank is blocked.	Slowly pour a bottle of water in the lower part of the battery to check drainage; if required, clean the tank and/or improve the incline of the drain tube.
	The condensation drain does not have sufficient incline to drain.	
	The connection pipes and valve group are not well isolated.	Check pipe insulation.
The device makes excessive noise.	The fan touches the structure.	Check for dirt in filters and if necessary, clean them.
	The fan is unbalanced.	An unbalanced fan causes excessive vibrations in the machine: replace the fan.
	Check for dirt in filters and if necessary, clean them.	Clean the filters.

4 WARRANTY CONDITIONS

Vasco hereby declares to guarantee the Vasco Niva FC for two years from the date of purchase. The invoice date of the installation company is proof of the purchase date. If there is no invoice available, the production date will be the purchase date. The warranty consists only of replacing spare parts, the fan and electronic printed board. There is no additional warranty period for spare parts.

The warranty does not entail:

- Assembly and disassembly costs
- Defects, which, in our opinion, are the result of improper handling, negligence or accidents
- Defects that are the result of handling or repairs by third parties without our permission
- Defects that are the result of irregular and/or unprofessional maintenance
- Defects that are the result of using the unit in a non-suitable environment

The warranty is void if the FCU is used under the aforementioned conditions. The installer should contact Vasco for return shipment of defective components. The installer will receive a warranty return number. The defective components must be dispatched to Vasco stating this return number.

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MANUFACTURER'S DECLARATION

Vasco declares that the FCU carries the CE label and is designed, manufactured and commercialized in compliance with the following EEC Standards:

LV Directive 2014/35/EU with following technical standards:

EN 60335-2-40:2003 + A11:2004 + A12:2005 + A1:2006 + EC:2006
+ A2:2009 + A13:2012 + A13/EC:2013, EN 60335-1:2002 + A11:2004
+ A1:2004 + A12:2006 + A2:2006 + A1/EC:2007 + A13:2008 + EC:2009
+ EC:2010 + A14:2010 + A15:2011

EMC Directive 2014/30/EU with following technical standards:

EN 60335-1:2012, EN 55014-1:2006 + A1:2009 + A2:2011,
EN 61000-3-2:2006 + A1:2009 + A2:2009, EN 61000-3-3:2013,
EN 55014-2:1997 + A1:2001 + A2:2008

RoHS Directive 2011/65/EU

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