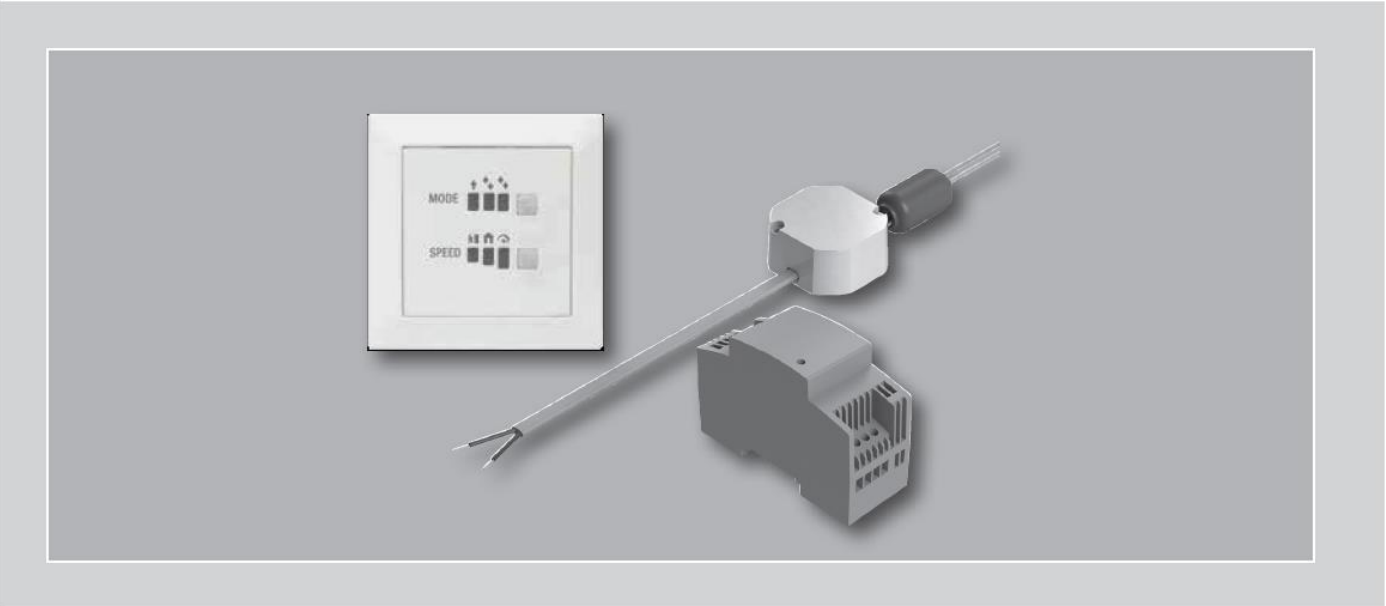
INSTALLATION AND OPERATING INSTRUCTIONS

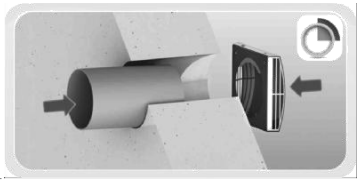


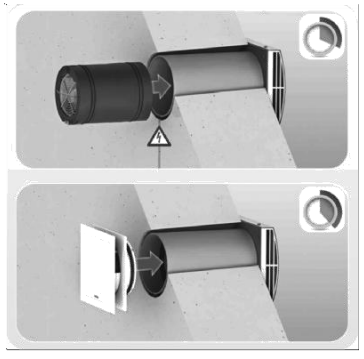
Control system kit

Unohab Controller kit with flush mounted power supply (PSF)
Unohab Controller kit with DIN-rail mounted power supply(PSD)

Unohab control system

Mounting steps:





1 **First fix kit**
Unohab Cavity wall inst. kit 500mm
Part No: 90000990
Unohab Cavity wall inst. kit 800mm
Part No: 90000991

2 **Ventilation unit**
Unohab
Part No: 90000993

Distribution box

max. 8 units
ATTENTION: additional power supply required over 6 units

Output 12 V-control line*

3 **Unohab controller** Part number: 90000992

optional

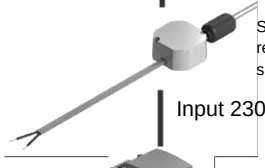
Controller kit flush mounted
Part number: 90000994
Controller kit DIN rail mounted Part number: 90000995

Output 12 V-control line*

Input 230 V~*

QuietAir

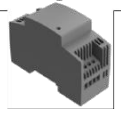
Switching power supply
Unohab PSF
Part No: 90000996



Six or more units require additional power supply

Input 230 V~*

Unohab PSD
Part No: 90000998



Four or more units require additional power supplies

Extractor fan module Unohab EXM
Part No: 90000997

* See wiring diagram p26/27

Table of contents

CHAPTER 1

SAFETY

1.0 Important information

In order to ensure complete and effective operation and for your own safety, all of the following instructions should be read carefully and observed.
This document should be regarded as part of the product and as such should be kept accessible and durable to ensure the safe operation of the fan. All product-related safety regulations must be observed.
These installation instructions cannot take all installation, operating and maintenance conditions into account.
You can obtain further information from your local dealer or the product data sheet, which can be downloaded on the Internet or reference to Airflow technical support department.

DANGER
WARNING
CAUTION

1.1 Warning instructions

The adjacent symbols are safety -relevant warning symbols. All safety regulations and/or symbols in this document must be absolutely adhered to, so that any risks of injury and dangerous situations are avoided!

DANGER

1.2 Safety instructions

Special regulations apply for use, connection and operation; consultation is required in case of doubt. Further information can be found in the relevant standards and legal texts.

! **The following points must be observed before any cleaning, maintenance and installation work:**

- Isolate device from the mains power supply and secure against being switched on again!
- After switching off, a waiting time of 5 min. must be observed, as dangerous voltages may be present after disconnection from the mains due to internal capacitors' discharge!
- Non-observance, touching live electrical parts or improper use of this power supply unit can result in death, serious injuries or significant material damage.
- All product-related safety regulations must be observed!
  Further country-specific regulations must also be observed.

1.3 Area of application

Unohab is controlled via the Unohab CTRL controller, up to eight units can be connected to one Unohab CTRL (note wiring diagrams SD-3 or SD-4).

– Normal use:
The control set and its components are only approved for fixed installation inside buildings in a flush-mounted box or in a control cabinet. The maximum permissible ambient temperature can be found on the type plate.

– Reasonably foreseeable misuse:
The units are not suitable for operation under difficult conditions, such as high levels of humidity, corrosive substances, long standby periods, heavy atmospheric contamination, excessive loads due to climatic, technical or electronic influences. The same applies for the mobile use of fans (vehicles, aircraft, ships, etc.). Usage under these conditions is only possible with approval from Airflow, as the standard version is not suitable in this case.

– Improper, prohibited use:
Any use other than the intended use is not permitted!

1.4 Personnel qualification

DANGER

DANGER!
The electrical connection and commissioning as well as installation, servicing and maintenance of the fan must only be carried out by qualified electricians with Part F and Part P certification.
Unohab individual room ventilation units can be used by children over the age of 8 as well as persons with physical, sensory, or mental disabilities or lack of experience and knowledge, if they are supervised or instructed with regard to the safe use of the unit and they understand the resulting risks. Children must not play with the unit. Cleaning or user maintenance must not be carried out by unsupervised children.

CHAPTER 2

GENERAL INSTRUCTIONS

2.0 Warranty claims – Exclusion of liability

All versions of this documentation must be observed, otherwise the warranty shall cease to apply. The same applies to liability claims against Airflow. The use of accessory parts, which are not recommended or offered by Airflow, is not permitted. Any possible damages are not covered by the warranty. Changes and modifications to the unit are not permitted and lead to a loss of conformity, and any warranty and liability shall be excluded in this case.

2.1 Certificates - Guidelines

If the product is installed correctly and used to its intended purpose, it conforms to all applicable EU guidelines at its date of manufacture.

2.2 Shipping

The control set Unohab Controller Kit is packed ex-works in such a way that it is protected against normal transport strain. Carry out the shipping carefully. It is recommended to leave the fan in the original packaging until required.

2.3 Receipt

The shipment must be checked for damage and correctness immediately upon delivery. If there is any damage, promptly report the damage with the assistance of the transport company. If complaints are not made within the agreed period, any claims could be disallowed. Please refer to terms and conditions on https://www.airflow.com/.

2.4 Storage

In case of storage over longer periods, the following measures must be taken in order to avoid damaging influences: Protection of components through dry, air and dust-proof packaging (plastic bag with desiccant and humidity indicators). Vibration-free, water-protected and constant temperature storage. In case of reshipment (above all, over longer distances; e.g. by sea), it must be checked whether the packaging is suitable for the form and route of transport. Damages due to improper transportation, storage or putting into operation are not liable for warranty.

2.5 Scope of delivery

Leave the components in the packaging until just before the respective installation step or installation in order to prevent any possible damage and contamination.

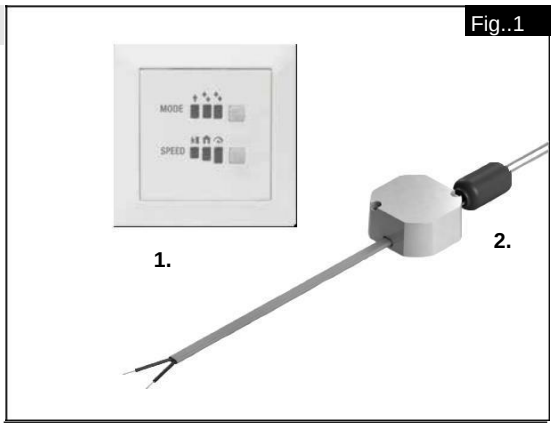
Unohab controller kit (PSF) Part No: 90000994

Consisting of:

1. **Unohab Controller**
   – White controller, with cover (55 x 55 mm)
   – Single frame

2. **Switching Power Supply Flush mounted (PSF)**
   – Switching power supply for installation in flush-mounted box

Fig..1



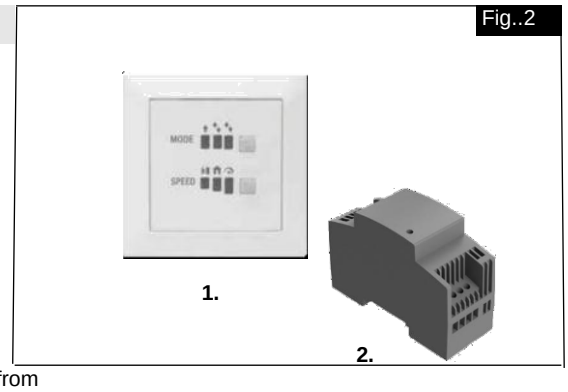
Unohab controller kit (PSD) Part No: 90000995

Consisting of:

1. **Unohab Controller**
   – White controller, with cover (55 x 55 mm)
   – Single frame

2. **Switching Power Supply DIN-rail mounted(PSD)**
   – Switching power supply for top-hat rail (2 TE)

Fig..2



DOWNLOAD

The Duplexvent Unohab software can be downloaded from www.airflow.com in the help & support / selection software section

CHAPTER 3

TECHNICAL DATA

3.0 Technical data

– Unohab CTRL Controller

Voltage/frequency	12 V / DC
Max. current	3.0 A
Ventilation modes	5
Operating modes	3
Control cable (analogue)	J-Y (ST) Y 2 x 2 x 0.8 mm
Protection category	IP20
Protection class	II
Dimensions (mm)	W 80 x H 80 x D 37
Part number	90000992

– Unohab PSF Switching Power Supply

Input voltage	230 V AC / 0.24 A	50 / 60 Hz
Operating voltage range	207-253 V AC 47-63 Hz	
Output voltage	12.0 V DC / 1.9 A	23 W
Integrated overtemperature protection		
Overload protection, current limiter	> 2..5 A	
Power loss standby	max. 0.5 W	
Short-circuit protection	output side, automatic restart	
Overvoltage protection	output side, snap-in, mains disconnection required	
Ambient temperature range	-5 °C to +40 °C bzw.	
Maximum surface temperature	+85 °C	
Relative humidity	5-95 % (non-condensing)	
Storage temperature	-40 °C to 85 °C	
Safety:		
Protection category	IP20	
Input side	Protection class II	
Output side	Protection class III Safety extra-low voltage SELV compliant	
Safety approval	according to EN60950-1 and EN60335-1	

– Unohab PSD Switching Power Supply

Input voltage	230 V AC / 0.2A	50 / 60 Hz
Operating voltage range	100-240 V AC 50-60 Hz	
Output voltage	12.0 V DC / 1.5 A	18 W
Integrated overtemperature protection	-	
Overload protection, current limiter	>2.6 A	
Power loss standby	0.4 W	
Short-circuit protection output side	Voltage reduction to $I_{max.}$ 2.6 A	
Overvoltage protection output side	Automatic restriction to max. 25 V	
Ambient temperature range	-25 °C to +70 °C	
Relative humidity	95 % (non-condensing)	
Storage temperature	-40 °C to +85 °C	
Safety:		
Protection category	IP20	
Input side	Protection class II	
Output side	Protection class III Safety extra-low voltage SELV compliant	
Safety approval	according to EN60950-1 and EN60335-1	

3.1 Accessories

Unohab CSM

Casing for surface mounting
Dimensions mm: W 83 x H 83 x D 41
Part number: 90000999

Extractor fan module

Relay switch to wire the Unohab controller with the extractor fan switch
Dimensions mm: W 41 x H 41 x D 30
Part number: 90000997

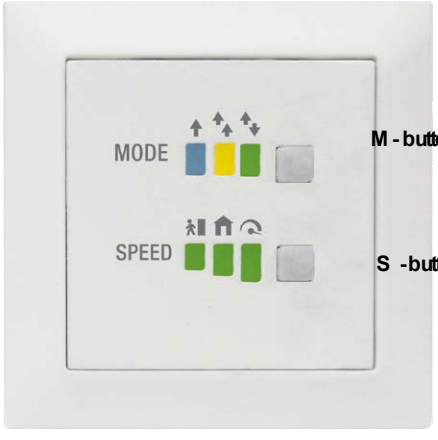
CHAPTER 4

CONTROLLER
Unohab CTRL

4.0 Operation and function

Unohab units can be controlled by the Unohab CTRL controller, there must be at least two Unohab units connected to a Unohab CTRL (see wiring diagram SD-3 or SD-4).
The controller enables 3-speed operation plus “OFF” function, and heat recovery (HR), cross ventilation (CV), extract air (EA) or supply air (SA) mode can be selected.
Additional functions can also be activated (see section 7.2) via an additional external contact on the controller.
The Unohab CTRL must be configured with the Duplexvent Unohab software.
The Duplexvent Unohab software can be downloaded from www.airflow.com in the help & support / selection software section.

Fig..3

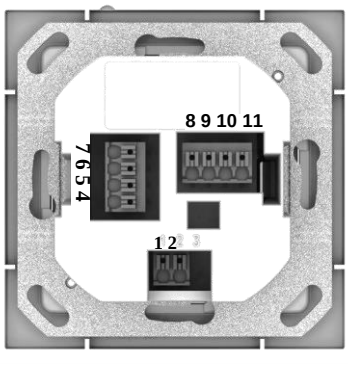


Controller – Front view
Indication of ventilation stages and operating mode via the LED display. The functions can be selected via buttons.
Operating mode button M (LED display) for:

- Supply air mode (SA)
- Extract air mode (EA)
- Cross ventilation mode (CV)
- Heat recovery mode (HR)

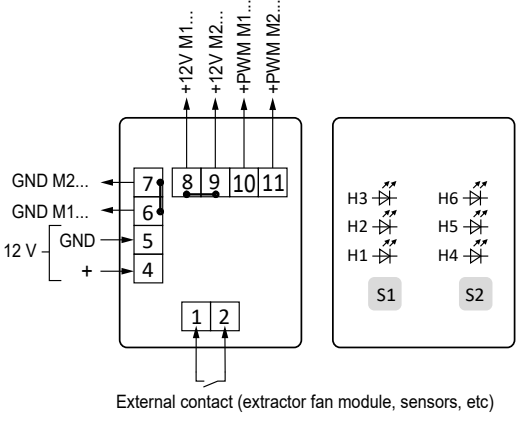
Ventilation speed button S: Three speeds + “OFF” position

Fig..4



Controller – Rear view
The connection terminals are located on the rear side of the controller. Note wiring diagrams SD-3 and SD-4.
Important:
There must always be at least two Unohab units connected. In heat recovery and cross ventilation modes, it is necessary to determine which Unohab is operated in the starting direction **Supply air** and which is operated in the starting direction **Extract air**. The assignment is determined by connection to terminals 10 or 11.

Terminal 10 >> Starting direction Supply air
Terminal 11 >> Starting direction Extract air



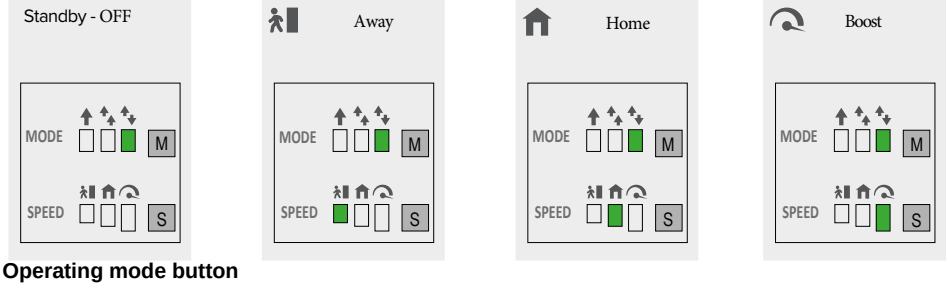
External contact (extractor fan module, sensors, etc)

4.1 Ventilation speed button

The desired ventilation speed can be selected via the “Speed” button. S
The three ventilation speeds + “OFF” can be selected by repeatedly pressing the button. The factory setting upon delivery is standby ventilation speed.

Unit	Unohab				
Fan speed	1		3		5
Air flow supply/extract rate per pair of units (2 Unohab units) [m³/h]	14		32		45
Air flow supply/extract rate per unit (1 Unohab unit) [m³/h]	7		16		22..5
Sound pressure level L_{PA} dB(A)	14		27		34
Sound insulation $D_{n,e,w}$ dB	44				
Power consumption [W]	1.6		2.8		4.5
Heat recovery efficiency	up to 88%				
Power supply	Input 230V~ 50/60Hz / Output 12VDC				
Rated current [mA]	17		27		42
Protection class	IP20				
El. supply cable power supply unit	NYM-O 2 x 1.5mm²				
El. supply cable power supply control	NYM-O 2 x 1.5mm²				
El. supply cable to the fan	J-Y (ST) Y 3x0.8mm²				
Connection according to wiring diagram no.	SD-3 / SD-4				
Weight approx. kg	4.3				
Working range temperature	-12°C up to +40°C				

The sequence of ventilation speeds is 0 (“OFF/Standby”) AWAY-HOME -BOOST and ventilation speed 0 starts again when the button is pressed again after ventilation speed BOOST. The selected ventilation speed indicated via the LEDs.

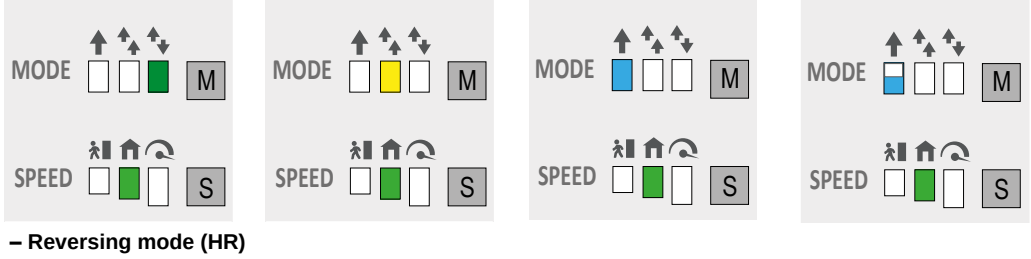


4.2 Operating mode button

There are three operating modes available “reversing mode with HR”, “cross ventilation” and “supply air mode”. An operating mode can be selected by pressing the MODE button . The sequence is reversing mode > cross ventilation mode > supply air mode. Operating mode “reversing mode” starts again when the button is pressed again during operating mode “supply air mode”.
The factory setting upon delivery is operating mode “reversing mode” (i.e. heat recovery).

– Identification

Mode HR (Heat Recovery) Green | Mode CV (Cross Ventilation) Yellow | Mode SA (Supply Air) Blue | Mode EA (Extract Air) Flashing Blue



– Reversing mode (HR)

The “reversing mode” function enables maximum heat recovery. In reversing mode, the Unohab units change between supply air and extract air mode. The heat accumulator integrated in the Unohab unit absorbs the heat from the passing air in extract air mode and emits this heat into the incoming outside air in supply air mode. Thus, up to 88% of the extract air heat is emitted into the outside air. The reversing mode (change of fan direction) activates every 60 seconds.

– Cross ventilation mode (CV)

The “cross ventilation” function enables ventilation without heat recovery. For this purpose, the Unohab unit, which is connected to terminal 10, is switched to supply air mode. The Unohab unit, which is connected to terminal 11, is switched to extract air mode.

– Supply air mode (SA)

The “supply air mode” function enables the combination with an extract air fan (QuietAir) fitted to wet rooms as per A.D. Part F. The Unohab unit, which is connected to terminal 10, is switched to supply air mode. You can also set whether the units, which are connected to 11, also change to supply air mode or standby mode via the programme mode.

– Extract air mode (EA)

The "extract air mode" function enables the combination with a supply air element. The Unohab unit, which is connected to terminal 11, is switched to extract air mode. The units connected to terminal 10 can also change to extract air mode via the programme mode.

4.3 Overview of adjustable function

The programme mode enables the individual adjustment of the ventilation system, numerous functions can be configured:

Configuration	Description
Filter change	Setting the interval times for the filter change display. Four filter intervals can be selected (3, 6, 9 ,12 months).
Function External contact	The external contact is assigned a function, which is activated when the contact is closed. a) Cross ventilation The ventilation units run continuously in supply air or extract air mode corresponding to their configuration as a supply air unit (terminal 10) or extract air unit (terminal 11). (no heat recovery) b) Supply air mode The units selected when setting the supply air mode unit assignment run continuously in supply air mode. c) Extract air mode The units selected when setting the extract air mode unit assignment run continuously in extract air mode. d) Unit standby All ventilation units are in standby mode (fan off). e) Max. ventilation stage All ventilation units are operated at max. speed in current mode.
Unit assignment Supply air mode	a) Only supply air units (terminal 10): When the operating mode supply air is selected or when supply air mode is activated by the external contact, only the supply air units will operate in supply air mode. The extract air units will be switched off. b) All units: When the operating mode supply air is manually selected or when supply air mode is activated by the external contact, all units will operate in supply air mode.
Minimum ventilation speed	If the “Unit standby” function is selected, the fans can be deactivated via the ventilation speed button. With regard to “Ventilation speed 1”, the deactivation of the fans is not possible.
Distribution ratio	Distribution ratio (number of supply air units: extract air units) Definition: Units connected to terminal 10 start in supply air mode. Units connected to terminal 11 start in extract air mode. In order to ensure a balanced air volume flow through the ventilation units with an uneven number of units, the volume flow of the extract air units are reduced corresponding to the distribution ratio. This adjustment applies equally for all ventilation speeds. a) 1:1 (2:2, 3:3, 4:4) The volume flows of the (individual) extract air units and supply air units are the same. b) 1:2 (2:4) The volume flows of the (individual) extract air units and supply air units are in the ratio 1:2, i.e. an extract air unit removes 50 % of the volume flow of a supply air unit. c) 2:3 The volume flows of the (individual) extract air units and supply air units are in the ratio 2:3, i.e. an extract air unit removes 66.6 % of the volume flow of a supply air unit. d) 3:4 The volume flows of the (individual) extract air units and supply air units are in the ratio 3:4, i.e. an extract air unit removes 75 % of the volume flow of a supply air unit. e) 3:5 The volume flows of the (individual) extract air units and supply air units are in the ratio 3:5, i.e. an extract air unit removes 60 % of the volume flow of a supply air unit.

Configuration	Description
Function **Operating mode setting**	Function Operating mode setting **a) Operating mode optional** Each operating mode can be activated by pressing the operating mode button. **b) Heat recovery** All units run continuously in reversing mode. A change of operating mode by button is not possible. **c) Cross ventilation** The ventilation units run continuously in supply air or extract air mode corresponding to their configuration as a supply air unit (terminal 10) or extract air unit (terminal 11). This operating mode involves permanent cross ventilation and there is no heat recovery. A change of operating mode by button is not possible. **d) Supply air** The units selected when setting the supply air mode unit assignment run continuously in supply air mode. In this operating mode, extract air is not removed by the ventilation units. A change of operating mode by button is not possible.
LED display **brightness**	The brightness of the LEDs can be adjusted in three stages.
LED display **light time/contin. operation**	The light time of the LED display can be activated for a set period or for continuous operation.
LED display **light time limit**	After the button is pressed, the LED display will continue to operate for the set time (adjustment range 5 - 60 s). Factory setting: 15 s If continuous operation is activated, the LED display will stay on.
Party mode	The party mode function activates boost mode for a limited time, which can be configured using the Unohab commissioning software or the controller.
Sleep mode	The party mode function activates boost mode for a limited time, which can be configured using the Unohab commissioning software or the controller.

4.4 Programming

The Unohab can be programmed via the Duplexvent Unohab software or the two buttons on the Unohab CTRL controller.

“SPEED (S)” button
– Selection / setting the ventilation speed

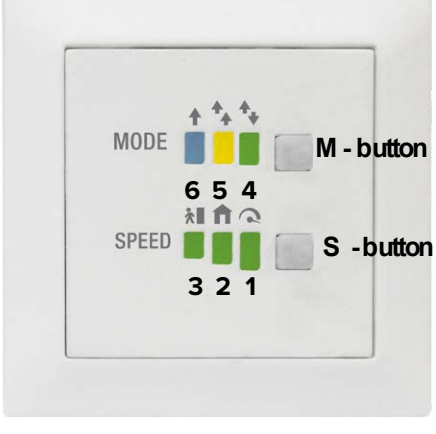
“MODE (M)” button
– Adjustment / setting the operating mode

In order to start programme mode, hold down both controller buttons S+M for 8 seconds. If the programming mode is active, the LEDs 1 and 5 flash. For configuration, S and M must be pressed until the corresponding LEDs are on or flashing (slow or fast). The filter maintenance is indicated by flashing LEDs (see following pages).

⚠ NOTE **NOTE: The programme mode is deactivated automatically if no buttons are pressed within 30 seconds.**

Setting ventilation mode
S-Press 1 x => Off (0) => LEDs 3, 2, 1 are off (factory setting)
S-Press 2 x => operation in Away mode (Level 1) => LED 3 is on
S-Press 3 x => operation in Home mode (Level 2) => LED 2 is on
S-Press 4 x => Boosted operation (Level 3) => LED 1 is on
Afterwards, the setting will repeat in a continuous loop.

Setting operating mode
M-Press 1 x => Heat recovery => LED 4 is on (default)
M-Press 2 x => Cross ventilation => LED 5 ls on
M-Press 3 x => Supply air => LED 6 is on
Afterwards, the setting repeated as in an endless loop.



4.5 Commissioning the Unohab system Unohab control configuration options:

4.5.1 Commissioning via Unohab controller device without PC

4.5.2 Commissioning via PC, by using the Unohab commissioning software

⚠ NOTE

NOTE

The commissioning can be carried out by a qualified person.

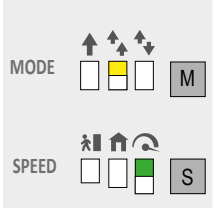
Commissioning via Unohab controller device without PC

The ventilation system can be commissioned via the controller by pressing down the S and M buttons.

1. Activate the configuration mode

   → Press S and M buttons simultaneously 8s long. The device must be powered by the USB connection.

   LED turns yellow LED turns green

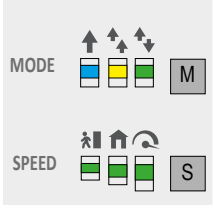


2. Selecting functions

   → S button (following chapter) 1 to 12 x selections, until the corresponding LEDs 1, 2, 3 light up;

3. Set the parameters of the selected function

→ M (button following chapter) 1 to 6 x selections, up to the corresponding LEDs 4, 5, 6.



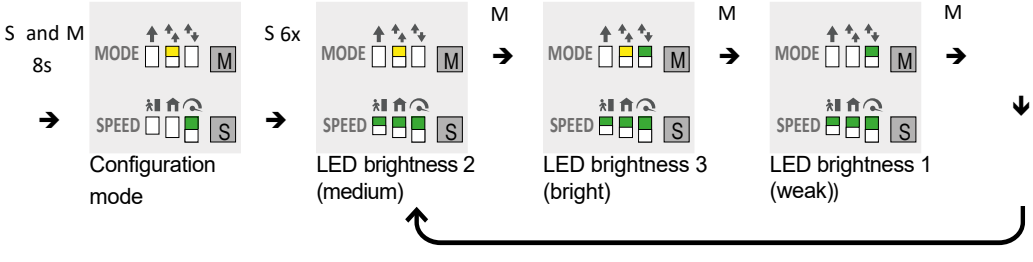
4. Save the configuration

→ Press S button only, turn all LEDs flashing fast (4 Hz), then press M button.

Example of changing the LED brightness on the Unohab controller

1. Start configuration mode by simultaneously pressing the S and M buttons for 8 s.
The programming mode is active LED 1 (green) and LED 5 (yellow) flashing.
2. To activate the "LED brightness" function, press the S button 6 times.
LED 1, LED 2 and LED 3 flash green "LED brightness" function is active.
3. The following parameters can now be set using the M button - in the delivery state, LED 5 flashes yellow (figure below):

- Press the M button once LEDs 4 + 5 (green / yellow) flash LED brightness level 3 (bright)
- Press the M button twice LED 4 (green) flashes LED brightness level 1 (weak)
- Press the M button 3 times LED 5 (yellow) flashes LED brightness level 2 (medium)



4. Save the configuration.
Press S until all LEDs (1, 2, 3, 4, 5, 6) flash quickly (4 Hz) Press M 1x.

CHAPTER 5

SOFTWARE INSTALLATION

5.0 Software installation

5.1 System requirements

The Duplexvent Unohab software can be downloaded from www.airflow.com in the help & support / selection software section.

The Duplexvent Unohab software is supported by the following operating systems:

- Windows XP SP3 (32 Bit System)
- Windows 7 (32 Bit and 64 Bit System)
- Windows 8 (32 Bit and 64 Bit System)
- Windows 10 (32 Bit and 64 Bit System)

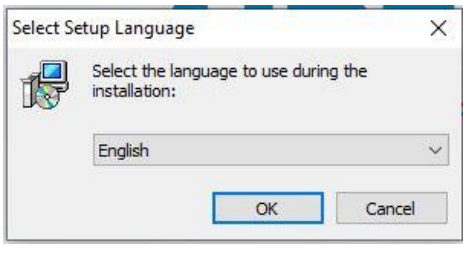
5.2 Software installation – Duplexvent Unohab

1. Firstly, install the software on the PC.
2. Then connect the controller to the PC.

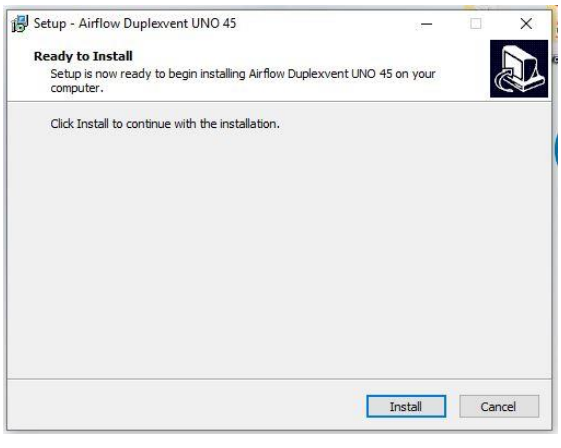
The driver for the USB connection is installed automatically.

Perform software installation:

1. Execute the installation routine via: Airflow Duplexvent Unohab 45 Setup v1.08.exe
2. Select “Setup language” and confirm by clicking “OK”.



3. Confirm “setup” by clicking “Install”..



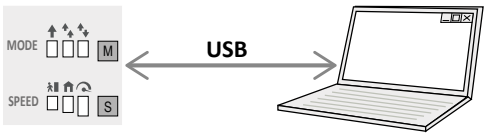
4. Select “Destination folder” on the hard disk and confirm by clicking “Continue”.
5. Define “Start menu folder” and confirm by clicking “Continue”.
6. Click “Install” to start installation.
7. Click “Finish” after installation.

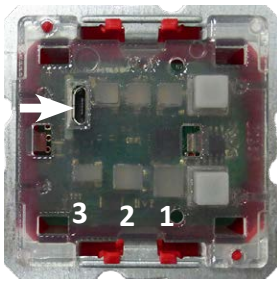
5.3 USB connection and software start-up

A connection can be established to a PC / Notebook via the USB interface. The USB port is located under the controller front cover. Once the controller has been connected to the PC the followings can be seen on the controller's user interface:

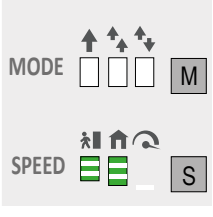
LED 3 flashes green as soon as the USB cable is connected.

LED 2 flashes green and LED 3 flashes green as soon as communication with Unohab software is established.

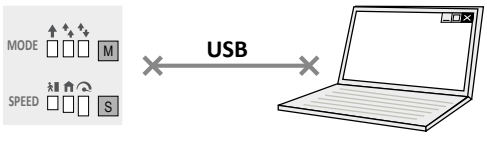




Load the current settings from controller into the PC. To do this, click on the button (figure below) - then the LEDs + flash. If the LEDs are not displayed correspondingly, either the USB connection is not correctly established or the access protection is activated.
The current configuration of the control element is displayed in the software.
Select the parameter under the relevant function (example below shows the selection of the device ratio)



Change other settings if necessary.
Save the changed user settings in a file on the computer so that the configuration can be restored in the event of a fault. To do this, click the button (figure below).
Load the changed user settings into the controller. To do this, click the button (figure below).
Close the Unohab commissioning software.
Unplug the USB connection between the controller and the PC.
The ventilation units only start with the new configuration after the USB connection has been disconnected.



CHAPTER 6

SOFTWARE CONFIGURATION

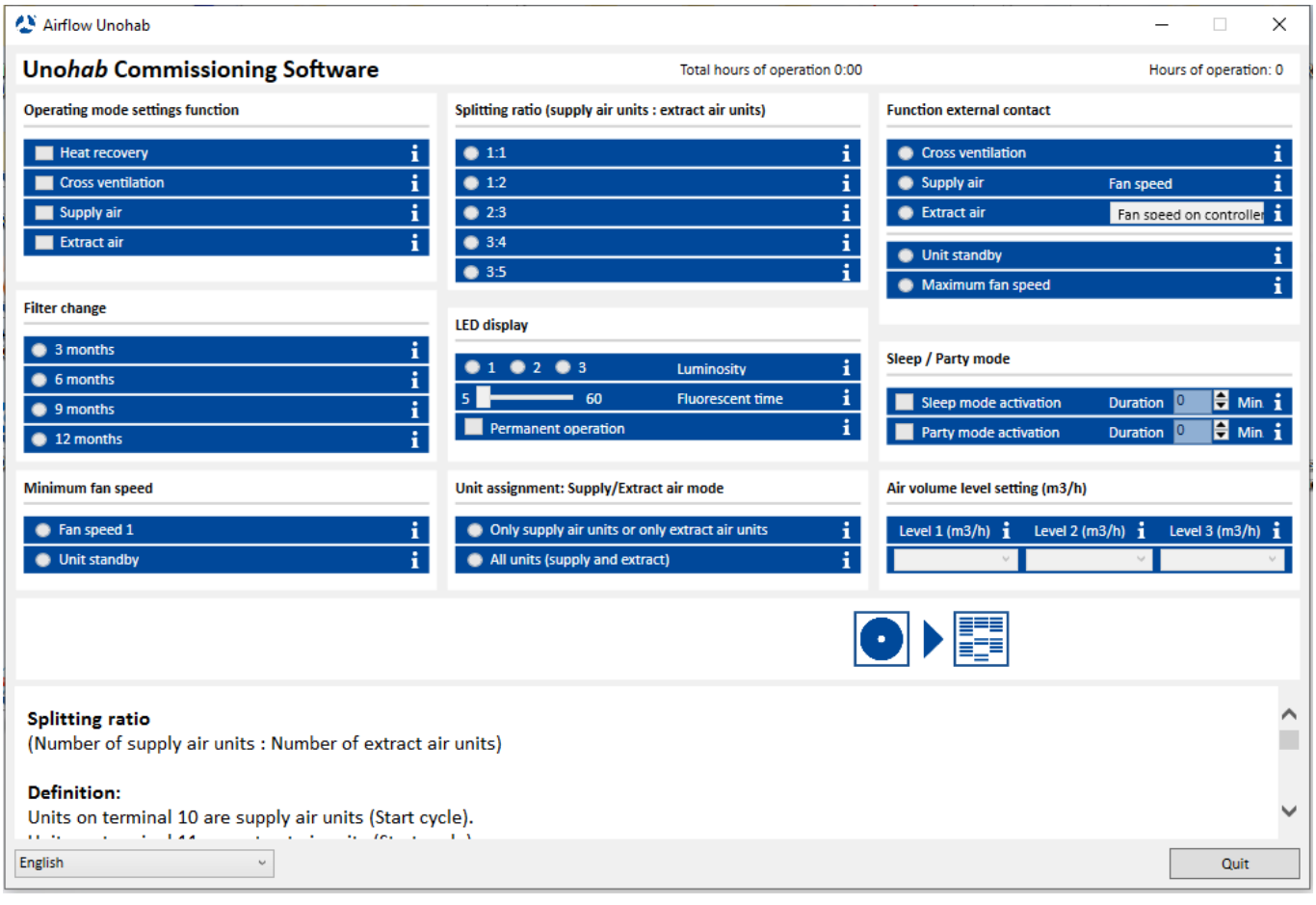
6.0 Duplexvent Unohab software overview

Double-click on the Duplexvent Unohab (*1) desktop icon

- or click on the start menu entry under Start/All programmes/Airflow/Duplexvent_Unohab (*2).
- or double-click on the file “Duplexvent Unohab.exe” in the installation directory.

(*) The shortcuts 1) and 2) both link to the executable file. This can be found in the installation directory which was selected before the software installation.

The Duplexvent Unohab software can be used for the configuration or as a management tool. You can read out the Unohab CTRL, save the configuration and edit the Unohab CTRL settings or read out the operating hours.



NOTE

NOTE:
Each preset value (from the factory) is marked with an asterisk *.

You can display further tips via the information area. Click on or move the mouse over the respective area for information on the respective function.

In the Unohab commissioning software, the ventilation units and the control element can be configured very easily by clicking on the desired parameter.

The symbols in the Save / Load area have the following meanings:

Access protection

Unohab controller

Unohab Software

Store on PC, USB memory stick, etc.

6.1 Locking/Unlocking option

Access protection can be set up for the control element in the Unohab software.

1. Click the PIN button.
The Lock / Unlock window is displayed.
2. To activate the access protection, enter a four-digit number in the lines PIN and PIN repeat.
3. Confirm your entry with the Lock button.

Remove access protection / unlock controller:

1. Click the PIN button.
The Lock / Unlock window is displayed.
2. To deactivate access protection, enter the four-digit number in the PIN line.
3. Confirm your entry with the Unlock button.

⚠ NOTE

NOTE
The access protection is completely removed after unlocking - if necessary, the access protection can be activated again before disconnecting the control element.

⚠ NOTE

NOTE
Initial commissioning (with factory settings) is assumed for the following operating sequences. The MODE settings correspond to the preset values (from the factory).
The following functions are available:

- Restricting access of the operating mode selection
- Maintenance interval / filter change indicator
- Minimum ventilation level
- Relationship between supply and exhaust air devices
- Device assignment for supply air / extract air mode
- External contact function
- External contact function - set ventilation level
- Sleep mode / party mode
- Configuration of the LEDs
- Setting the brightness of the LEDs
- Setting the light mode of the LEDs
- Setting the duration of the LEDs
- Setting the ventilation level
- Save / transfer configuration
- Loading files
- Resetting the operating hours
- Restore factory settings

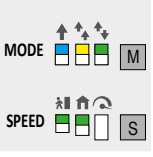
7.0 Unohab operating modes

CHAPTER 7

UNOHAB CONTROLLER OPTIONS

Unohab controller	Unohab software

Free operation - all operating modes can be selected (factory setting)



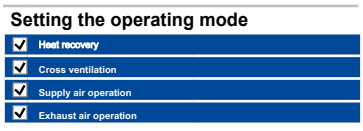
S-Press 5 x times Operating mode function active

Start Free operation mode selected

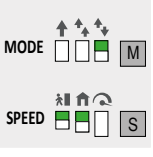
LEDs flash blue green + yellow

LEDs flash green

Click on "All fields":



Heat recovery mode



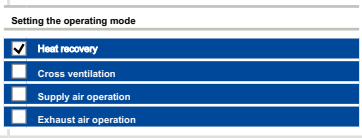
Press the S button 5 times Operating mode function active

Press the M button once Heat recovery selected

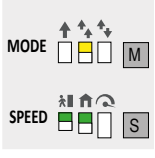
LED flashes yellow

LEDs + flash green

Click Heat recovery:



Cross ventilation only - Devices connected on terminal 10 work as supply air devices and devices on terminal 11 as extract air devices - no heat recovery



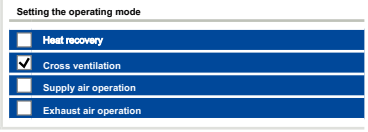
Press the S button 5 times Operating mode function active

Press the M button twice Cross ventilation selected

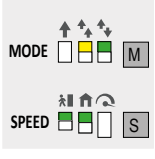
LED flashes yellow

LEDs + flash green

Click Cross ventilation:



Normal operation and cross ventilation possible

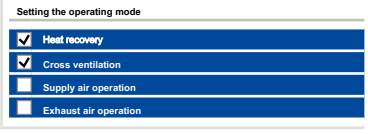


Press the S button 5 times Operating mode function active Press the M button 3 times. Normal operation and Cross ventilation selected.

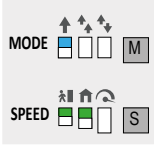
LEDs blink green + yellow

LEDs + flash green

Click Heat recovery and Cross ventilation



Supply air operation function enables a combination with an additional extract air fan or cooker hood extractor.
Exhaust air mode - All devices defined as extract air device (terminal 10/11) - no heat recovery.
The extract air operation function enables a combination with an additional supply air fan.



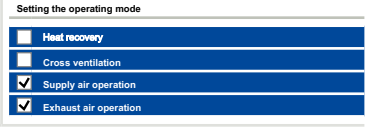
Press the S button 5 times Operating mode function active

Press the M button 4xtimes. Click on the parameters Supply air operation selected.

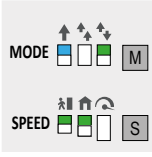
LED flashes blue

LEDs + flash green

Supply air mode and Extract air



Heat recovery, supply air operation and exhaust air operation possible

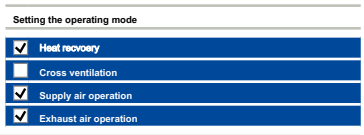


Press the S button 5 times Operating mode function active
Press the M button 5 times No operation, Supply air operation and Extract air operation parameters selected

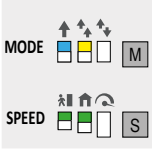
LED flashes blue

LEDs + flashes green

Heat recovery, supply air and extract air selected



Cross ventilation, supply air operation and exhaust air operation possible

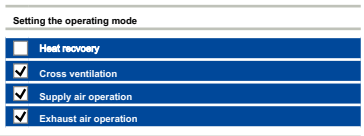


Press the S button 5 times O "Operating mode" function active.
Press the M button 6 times O Parameters "cross ventilation",
"supply air operation "and" exhaust air operation "selected

LED flashes blue

LEDs + flashes green

Cross ventilation, supply air and extract air selected



7.1 Maintenance interval / filter change indicator

This function can be used to define the maintenance interval (3, 6, 9, 12 months) for changing the filter. After the set interval has expired - depending on the set ventilation level - the flashing LEDs 1, 2, 3 indicate that the filter must be changed.

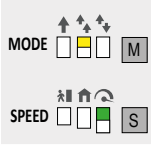
NOTE

NOTE

Resetting the filter display: Press the S button and M button simultaneously for 2 seconds. Start configuration: Press the S button and M button for 8 seconds

Unohab controller	Unohab software

6 months (Factory setting)



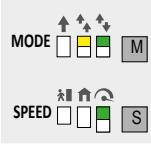
Start configuration Maintenance interval function active
6 months parameter selected

LED flashes yellow

LED flashes green

Click on "6 months"

9 months



Start configuration Maintenance interval function active

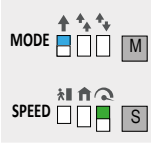
Press the M button once Parameter “9 months” selected

LEDs blink green + yellow

LED flashes green

Click on “9 months”

12 months



Start configuration Maintenance interval function active

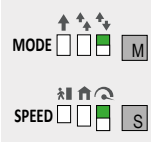
Press the M button twice 12 months parameter selected

LED flashes blue

LED flashes green

Click on "12 months"

3 months



Start configuration Maintenance interval function active

Press the M button 3 times 3 months parameter selected

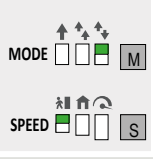
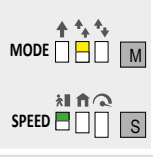
LED flashes green

LED flashes green

Click on "3 months":

7.2 Minimum ventilation level

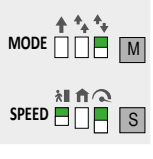
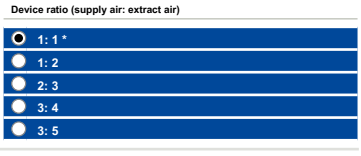
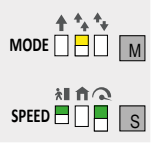
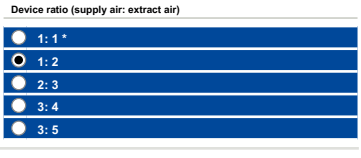
Minimum ventilation level (de) activated (**Away =** Minimum ventilation active). If Away mode is active, the ventilation devices can be switched off.

Unohab controller	Unohab software
Away (Factory setting) - the fans can be switched off using the fan level button.	
 Press the S button 3 times Minimum ventilation function active Unit standy parameter selected LED flashes green LED flashes green	Click on Unit standby: 
Absent - the minimum ventilation for moisture protection is activated - it is not possible to switch off the fans.	
 Press the S button 3 times Minimum ventilation function active. Press the M button once Fan speed 1 parameter selected LED flashes yellow LED flashes green	Click on Fan speed 1: 

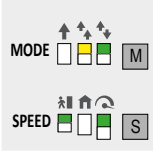
7.3 Splitting ratio

The ratio of supply and exhaust air devices can be set here.

All devices on terminal 10 start in supply air mode = "supply air device". All devices at terminal 11 start in extract air mode = "extract air device".
If the number of devices is uneven (eg 5 devices), the volume flow of the "extract air devices" must be reduced by the device control in accordance with the ratio in order to maintain a balanced volume flow. This adjustment is then carried out in all ventilation levels according to the set device ratio.

Unohab controller	Unohab software
1: 1 (2: 2/3: 3/4: 4) Same ratio of "supply air devices": "extract air devices" (factory setting)	
 Press the S button four times Device ratio function active Parameter 1: 1 selected LED flashes green LEDs + flashes green	Click on 1: 1: 
1: 2 (2: 4) Ratio 1: 2 for "supply air devices" and "extract air devices" an "extract air device" supplies 50% of the volume flow of a "supply air device"	
 Press the S button four times Device ratio function active Press the M button once Parameter 1: 2 selected LED flashes yellow LEDs + flashes green	Click on 1: 2: 

Ratio 2: 3 for supply air devices and exhaust air devices
an exhaust air device supplies 66% of the volume flow of a supply air device



Press the S button four times Device ratio function active

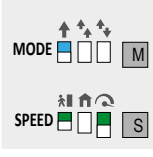
Press the M button twice Parameter 2: 3 selected

LEDs flashes green + yellow

LEDs + green

Click on 2:3 :

Ratio 3: 4 for supply air devices and exhaust air devices
an exhaust air device supplies 75% of the volume flow of a supply air device



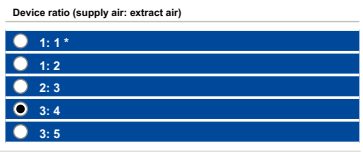
Press the S button four times Device ratio function active

Press the M button 3 times O Parameter "3: 4" selected

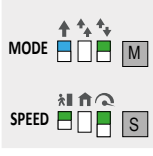
LED flashes blue

LEDs + flashes green

Click on 3:4 :



Ratio 3: 5 for supply air devices and exhaust air devices
an exhaust air device supplies 60% of the volume flow of a supply air device



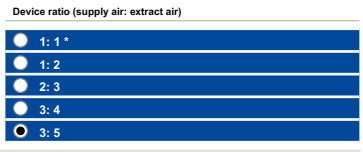
Press the S button four times Device ratio function active

Press the M button four times Parameter 3: 5 selected

LEDs light up green + blue

LEDs + flashes green

Click on 3:5 :



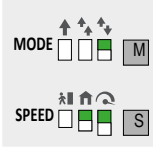
Device assignment for supply air / extract air operation

Here the **Device assignment in supply air mode** or. **Extract air operation** can be set.

Activation of the mode "supply air mode" or "extract air mode" (manually or via switch on the external contact):

Unohab controller	Unohab software

Only supply air units or only extract air units (Factory setting) - Only supply air devices on terminal 10 or only extract air devices on terminal 11 run continuously



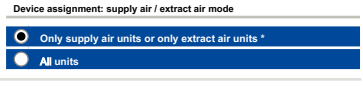
Press the S button twice Device assignment function active

Only supply air / extract air units parameter

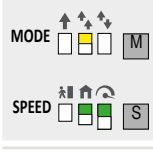
LED flashes green

LEDs + flashes green

Click on Only supply air units or only extract air units



All devices run in supply air mode



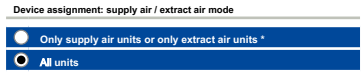
Press the S button twice Device assignment function active

Press the M button once All devices parameter selected

LED flashes yellow

LEDs + flashes green

Click on All devices:



CHAPTER 7

IMPORTANT UNIT INFORMATION

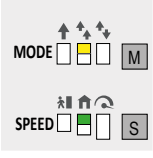
7.4 External contact function

An external contact can be connected via terminals 1 and 2. This one **external contact can have a function** be assigned. This function always has priority over the selection on the control element and is then activated as soon as this contact is closed.

When the extractor fan is switched on (e.g. QuiterAir QT100HT in the bathroom), the external contact is closed and the operating mode or ventilation level assigned here is started - the corresponding LED lights up. If the M button on the control element is pressed, the LED flashes to indicate that the operating mode **Supply air operation** is active via the external contact.

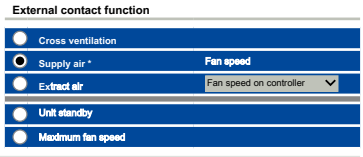
Unohab controller	Unohab software

Supply air - permanent supply air operation (factory setting), according to device assignment "supply air operation";

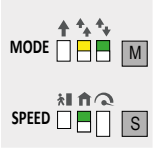


Press the S button once External contact function active
Supply air operation parameter selected
LED flashes yellow
LED flashes green

Click on Supply air:

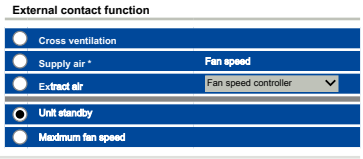


Unit standby- All fans are switched off - the devices are in standby mode (0)

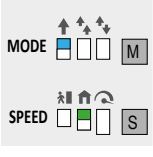


Press the S button once External contact function active
Press the M button once Unit standby parameter selected
LEDs blink green + yellow
LED flashes green

Click Unit standby:

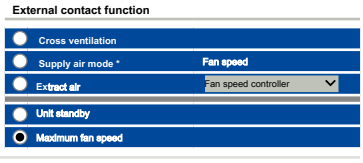


Maximum fan speed - All devices are operated with maximum ventilation level (intensive ventilation).

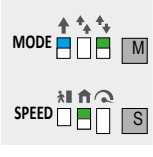


Press the S button once External contact function active
Press the M button twice Maximum fan speed parameter selected
LED flashes blue
LED flashes green

Click on Maximum fan speed:

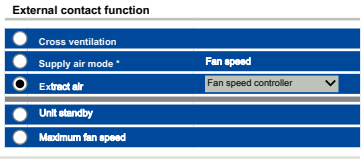


Extract air - permanent exhaust air operation, according to device assignment "exhaust air operation"

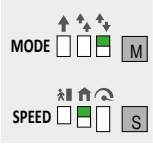


Press the S button once External contact function active
Press the M button 3 times Extract air parameter selected
LEDs flash green + blue
LED flashes green

Click on Extract air:

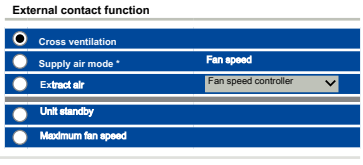


Cross ventilation - without heat recovery: units on terminal 10 work continuously in supply air mode and units on terminal 11 work continuously in extract air mode



Press the S button once External contact function active
Press the M button four times Cross ventilation parameter selected
LED flashes green
LED flashes green

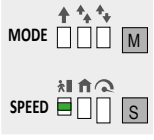
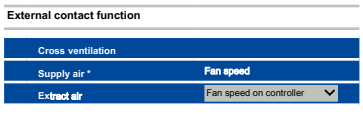
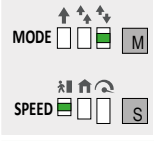
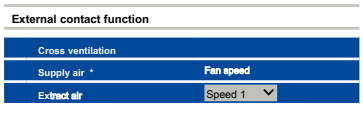
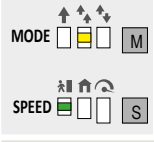
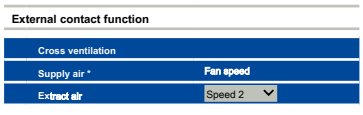
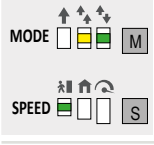
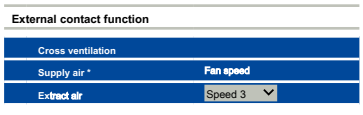
Click on Cross ventilation:



External contact function - set fan speed

The **Fan speed** option means that the current set ventilation level of the **controller** will be triggered via the external contact. In addition, the user can still change the ventilation level on the control element. However, if the ventilation level is set to "Unit standby" on the control element, the Unohab ventilation units remain deactivated/off.

The **Fan speed 1 - 3** cannot be changed when triggered via the external contact.

Unohab controller	Unohab software
Fan speed for cross ventilation, supply air operation or exhaust air operation	
 Press the S button 10 times External contact function active Fan speed parameter selected LEDs ↑ ↕ + ↑ off LED flashes green quickly	Select Fan speed: 
Fan speed 1 for cross ventilation, supply air operation or extract air operation	
 Press the S button 10 times External contact function active Press the M button once Speed 1 parameter selected LED ↕ flashes green quickly LED flashes green quickly	Select Speed 1: 
Fan speed 2 for cross ventilation, supply air operation or extract air operation	
 Press the S button 10 times External contact function active Press the M button twice Speed 2 parameter selected LED ↑↑ flashes yellow quickly LED flashes green quickly	Select Speed 2: 
Fan speed 3 for cross ventilation, supply air operation or extract air operation	
 Press the S button 10 times External contact function active Press the M button 3 times Speed 3 parameter selected LEDs flash quickly ↕ green + ↑ yellow LED flashes green quickly	Select Speed 3: 

7.5 Sleep mode / Party mode

The two operating modes are executed for a limited time and then operation is continued on the previously set parameters. Both operating modes can only be activated on the controller if the functions are enabled.

The **Sleep mode** is activated on the controller by pressing the button **M** for 2 seconds.

The fans are are running at a minimum speed for the set period - the LEDs 4/5/6 flash.

The **Party operation** is activated on the controller by pressing the button **S** for 2 seconds.

The fans run on boost for the set period of time - the LEDs 1/2/3 light up.

Press any button on the controller to deactivate Sleep/Party mode.

NOTE

NOTE

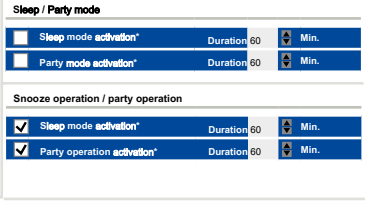
The configuration for sleep mode and party mode can only be done via the software. From the factory settings, both operating modes can be activated for a duration of 60 minutes.

Sleep mode and Party mode - blocked options

The sleep and party function cannot be activated on the controller.
The field **Duration** is not relevant in this case.

Sleep mode and party mode - unblocked options

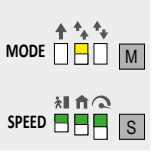
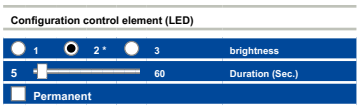
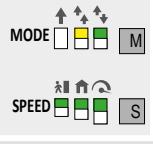
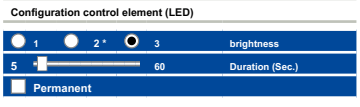
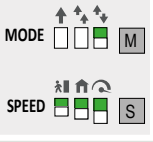
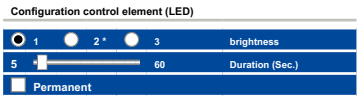
The sleep and party function can be activated on the controller if the corresponding check boxes are ticked. In addition, in the field Duration click on the time limit in a bar: range from 15 to 180 minutes can be defined.



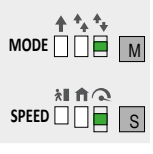
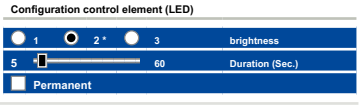
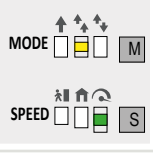
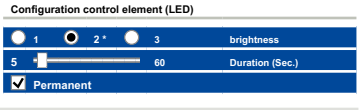
7.6 Configuration of the LEDs

7.6.1 Adjust the brightness of the LEDs

The brightness (3 levels) and the light duration (time-controlled or permanent) of the LEDs on the control element can be configured.

Unohab controller	Unohab software
Brightness 2  Press the S button 6 times LED brightness function active Brightness 2 parameter selected LED flashes yellow LEDs + + flashes green	Click on 2: 
Brightness 3  Press the S button 6 times LED brightness function active Press the M button once Brightness 3 parameter selected LEDs flash green + yellow LEDs + + flash green	Click on 3: 
Brightness 1  Press the S button 6 times LED brightness function active Press the M button twice Brightness 1 parameter selected LED flashes green LEDs + + flash green	Click on 1: 

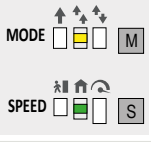
7.6.2 Set the light mode of the LEDs

Unohab controller	Unohab software
LED flashes on a preset time  Press the S button 7 times Light mode function active Time mode" parameter selected LED flashes green quickly LED flashes green quickly	Slider is active, "Permanent "is not selected: 
LED flashes continuously (factory setting)  Press the S button 7 times Light mode function active Press the M button once Permanent parameter selected LED flashes yellow rapidly LED flashes green quickly	Permanent is selected: 

7.6.3 Set the duration of the LEDs

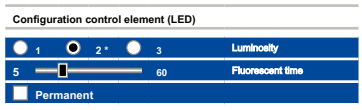
Unohab controller	Unohab software

LEDs light up for 15 seconds (Factory setting)

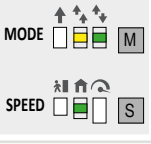


Press the S button 8 times LED display function active
Parameter "15 seconds" selected
LED flashes yellow rapidly
LED flashes green quickly

Slider at 15 seconds:

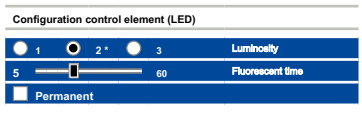


LEDs light up for 25 seconds

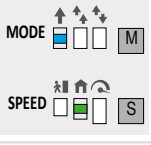


Press the S button 8 times LED display function active
Press the M button once Parameter 25 seconds selected
LEDs flash quickly green + yellow
LED flashes green quickly

Slider at 25 seconds:

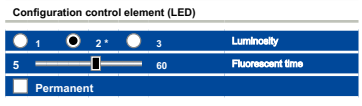


LEDs light up for 35 seconds

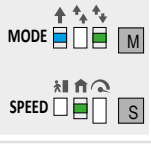


Press the S button 8 times LED display function active
Press the M button twice Parameter 35 seconds selected
LED flashes blue quickly
LED flashes green quickly

Slider at 35 seconds:

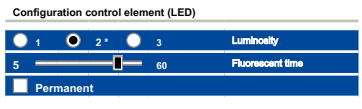


LEDs light up for 45 seconds

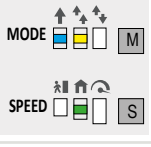


Press the S button 8 times LED display function active
Press the M button 3 times Parameter 45 seconds selected
LEDs flash quickly green + blue
LED flashes green quickly

Slider at 45 seconds:

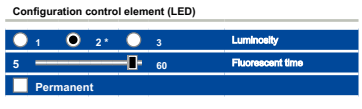


LEDs light up for 55 seconds

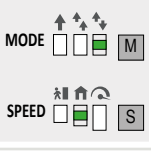


Press the S button 8 times O function "Burn time" active
Press the M button four times O Parameter "55 seconds" selected
LEDs flash rapidly blue + yellow
LED flashes green quickly

Slider at 55 seconds:

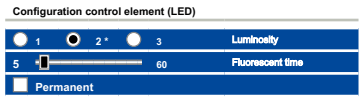


LEDs light up for 5 seconds



Press the S button 8 times LED display function active
Press the M button 5 times Parameter 5 seconds selected
LED flashes green quickly
LED flashes green quickly

Slider at 5 seconds:

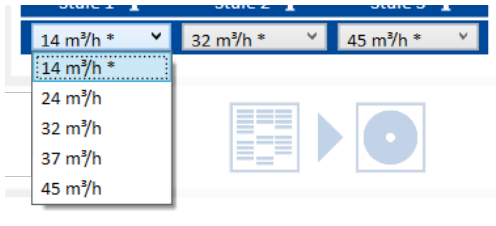


7.7 Set the air volume level (m3/h)

Pre-configured air volumes can be assigned to the individual ventilation levels.

		Unoha software

The following volume flows for fan speed 1, 2 and 3 can be selected via a drop-down list:



14 m³ / h (standard for speed 1 - away)

24 m³ / h

32 m³ / h (standard for speed 2 - home)

37 m³ / h

45 m³ / h (standard for speed 3 - boost ventilation)

7.7.1 Save / transfer configuration file

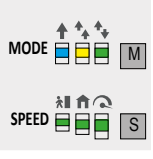
The configuration file / settings can be saved or transferred through the following methods:

From a controller to another controller

From the commissioning software to the computer
From the commissioning software to the controller

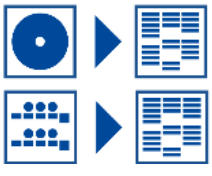
If you press the S button one more time, the LEDs will flash quickly **10 Hz rhythm,** then all settings would be on that **default settings** reset!

Then press the S button several times until all LEDs flash in a 2 Hz rhythm.

Unohab controller	Unohab software
Save settings - all LEDs on the controller flash (2 Hz)	
 Press the S button untill all LEDs are in a 2 Hz rhythm flash. Press the M button once LEDs flash green + yellow + blue LEDs + + flash green	Save file on the computer:  Transfer the file to the controller: 

7.7.2 Load files

After starting the commissioning software are no preset parameters. These must first be loaded (from a file or from the controller). To load the configuration data from the controller, the controller must be connected to the computer using a USB cable.



Load file from the computer to the software interface

Load file from the controller to the software interface

7.7.3 Reset operating hours

You can check the current **Reset operating hours.** The controller must be connected to the computer via USB.

This option can be used, for example, after maintenance (filter change) in order to record the service life of the filters.

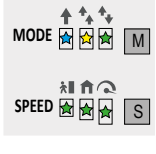
NOTE

NOTE

You can only reset the **Operating hours**. The **Total operating hours** can not be reset.

7.7.4 Restore factory settings

By choosing this option -Restoring the factory settings, all existing configuration data is deleted and the original delivered configuration is restored! The "Save configuration" function has a similar LED code - except that the LEDs do not flash at 10 Hz, but flash at 4 Hz. The factory settings can be restored as it follows:

Unohab controller	Unohab software
Restore factory settings	
 Press the S button repeatedly until all LEDs flash(10 Hz) Press the M button once LEDs flash green + yellow + blue LEDs + + flash green	By clicking the button **Load Factory settings** within the Unohab software, the factory settings will be restored.

CHAPTER 8

FAULT CAUSES

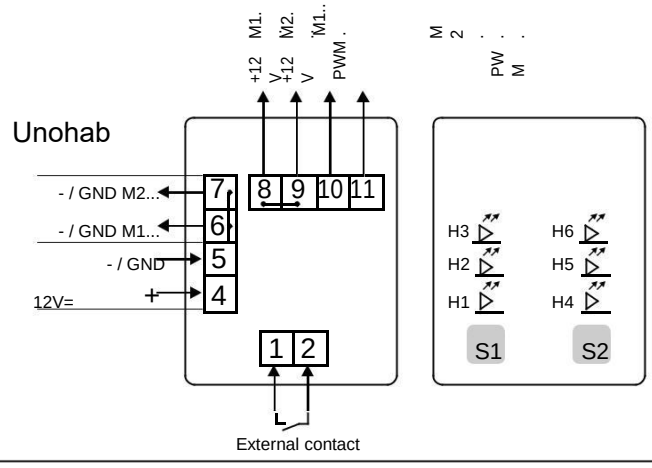
8.0 Fault causes

Fault	Causes	Solution
Unohab does not start **or** **impeller does not turn** **(no longer turns)**	– Mains power supply failure 230 V	Check mains power supply Check connections according to wiring diagram
	– Control voltage failure 12 V DC	Replace switching power supply PSF / PSD
	– Operating mode Supply air active	Change operating mode (target function no fault)
	– Plug not connected to Unohab or cable break	Check plug and control cable for cable break if necessary
	– Ventilation stage 0 activated	Change operating stage Note external contact
	– Impeller blocked	Clear blockade, clean if necessary Contact Airflow customer services
	– Motor defective	Contact Airflow customer services
	– Controller defective	Check connections according to wiring diagram Contact Airflow customer services
Vibrations	– Contamination of impellers	Clean
	– Bearing damage	Replace fan Contact Airflow customer services
Abnormal noises	– Grinding impeller	Clean impeller, replace fan if necessary Contact Airflow customer services
	– Bearing damage	Replace fan Contact Airflow customer services
	– Mechanical damage	Replace defective components Contact Airflow customer services
Unohab no longer supplies the capacity	– G3 - Filter and/or protection guard contaminated	Check G3 -filter and protection guard for contamination and replace G3 - filter or clean protection guard
	– Design-inner panel is closed	Open design–inner panel
	– Ventilation stage not selected	Increase ventilation stage
	– Bearing damage	Replace fan Contact Airflow customer services
	– Heat accumulator contaminated	Clean

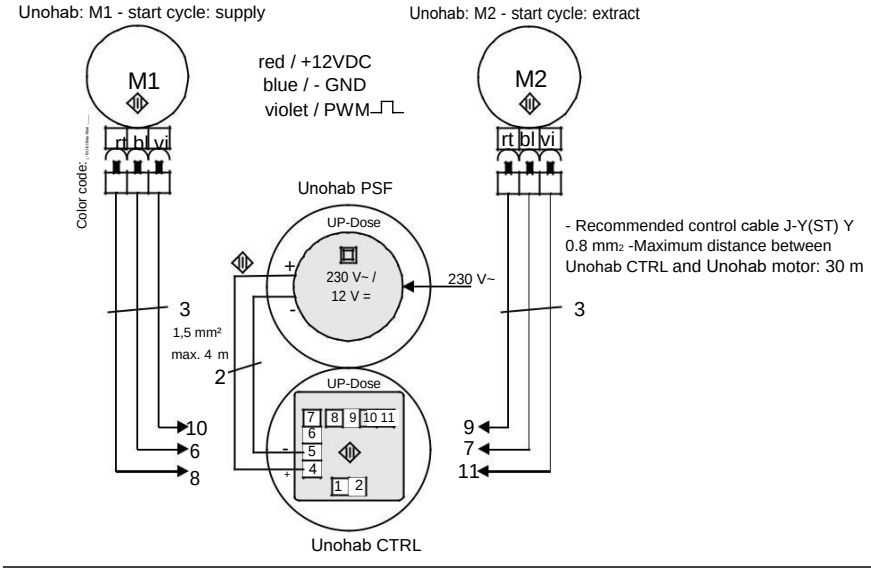
CHAPTER 9

WIRING DIAGRAM OVERVIEW

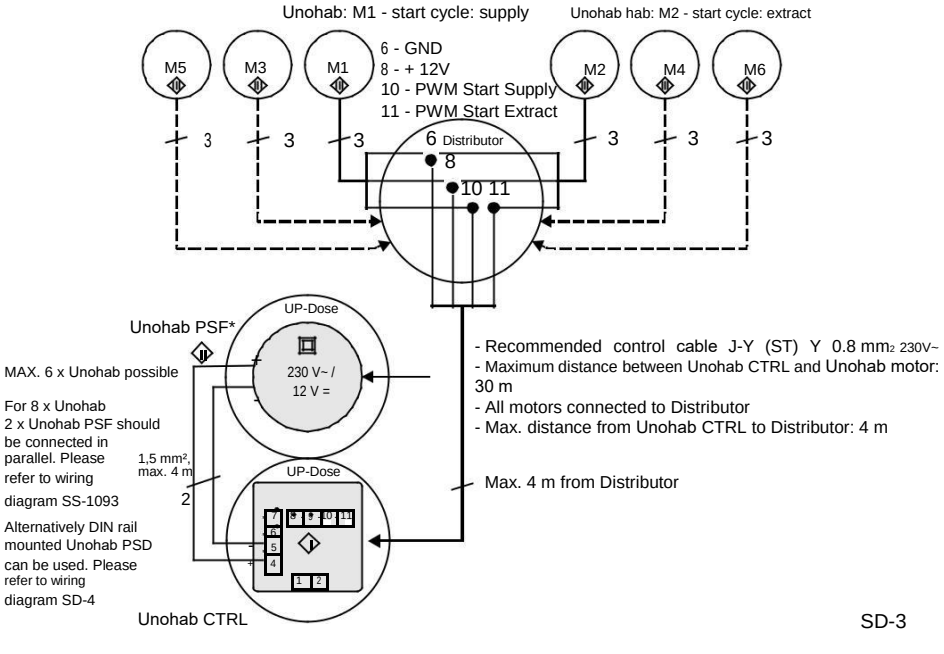
9.0 Wiring diagram SD-3



Operation with 2 x Unohab and 1 x Unohab PSF

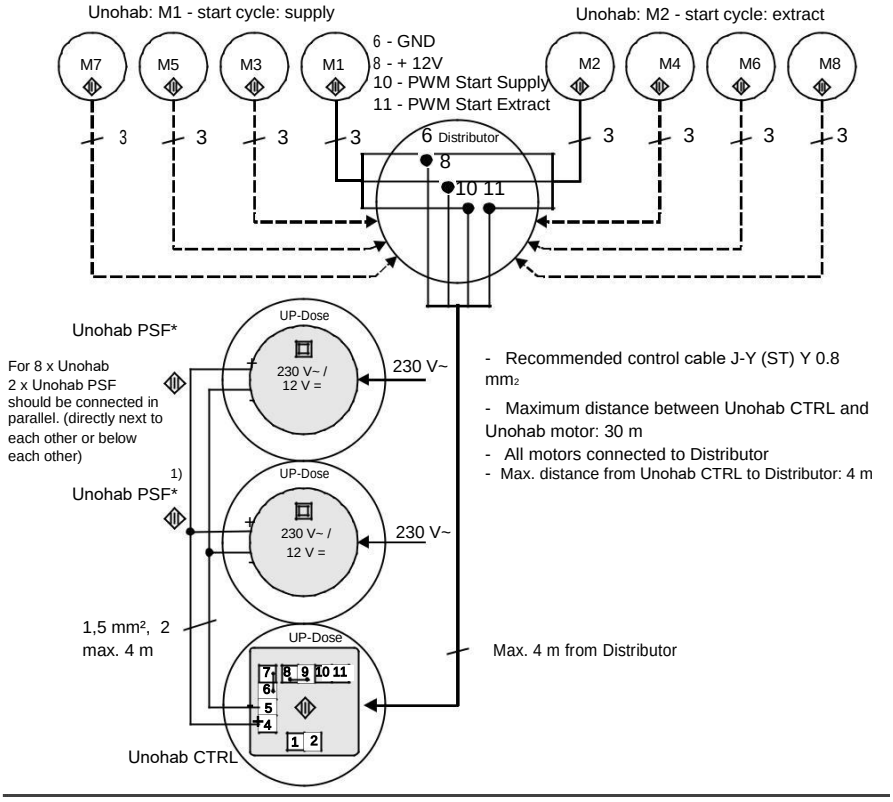


Operation with up to 6 x Unohab and 1 x Unohab PSF

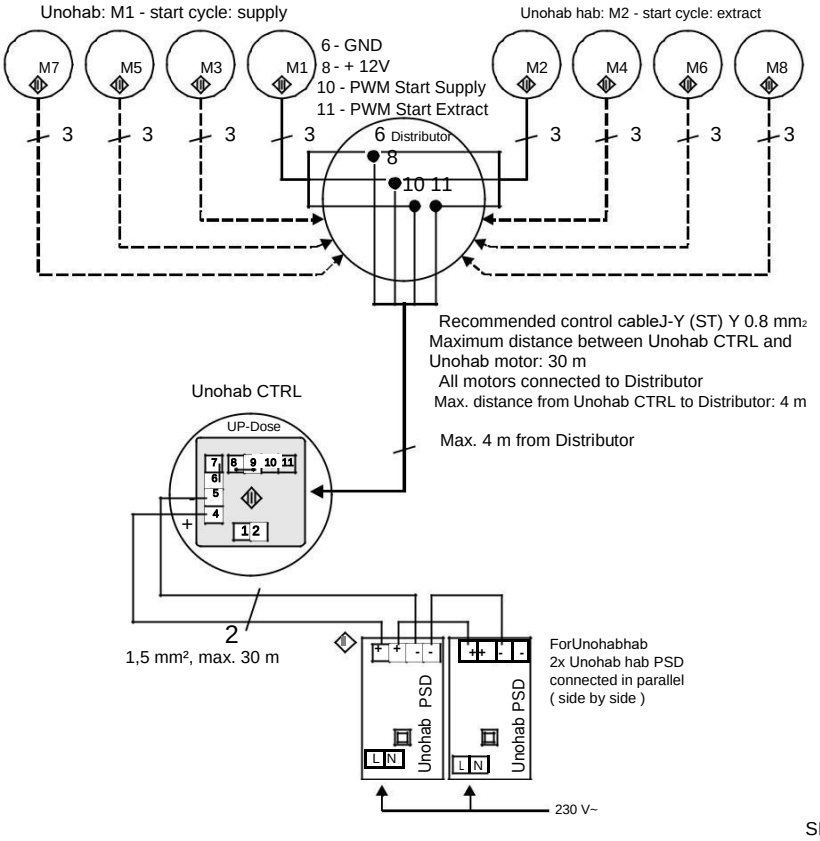


9.1 Wiring diagram SD-4

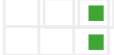
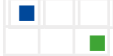
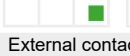
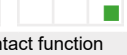
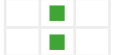
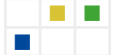
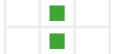
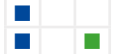
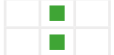
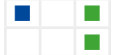
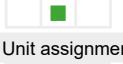
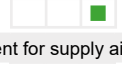
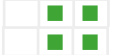
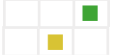
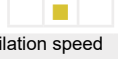
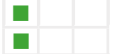
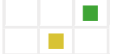
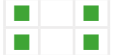
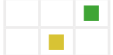
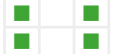
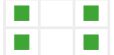
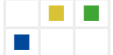
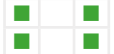
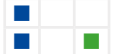
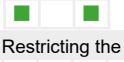
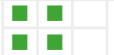
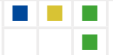
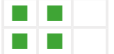
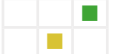
Operation with 8 x Unohab and 2 x Unohab PSF connected in parallel



Operation with 4x Unohab and 1 x Unohab PSD or
Operation with 8 x Unohab and 2 x Unohab PSD connected in parallel



SD-4

Buttons		SPEED LED	MODE LED	Flashing rhythm function	Description Factory setting = *
Maintenance interval / filter change indicator					
MODE + SPEED for 8s				slow (2Hz)	6 months *
	MODE 1x				9 months
	MODE 2x				12 months
	MODE 3x				3 months
External contact function					
SPEED 1x				slow (2Hz)	Supply air *
	MODE 1x				Unit standby
	MODE 2x				Maximum fan speed
	MODE 3x				Extract air
	MODE 4x				Cross ventilation
Unit assignment for supply air / extract air mode					
SPEED 2x				slow (2Hz)	Only devices on terminal 10 in supply air or extract air mode *
	MODE 1x				All units (supply and extract)
Minimum ventilation speed					
SPEED 3x				slow (2Hz) off	Fan speed 1
	MODE 1x				Unit standby
Relationship between supply and exhaust air devices"					
SPEED 4x				slow (2Hz)	1: 1 (2: 2/3: 3/4: 4) Same ratio of supply air: extract air *
	MODE 1x				1: 2 (2: 4)
	MODE 2x				2: 3
	MODE 3x				3: 4
	MODE 4x				3: 5
Restricting the selection of the operating mode					
SPEED 5x				slow (2Hz)	All operating modes can be activated on the controller*
	MODE 1x				Heat recovery only
	MODE 2x				Cross ventilation only
	MODE 3x				Heat recovery and cross ventilation
	MODE 4x				Supply air and extract air
	MODE 5x				Heat recovery, supply air and extract air
	MODE 6x				Cross ventilation, supply air and extract air
Setting the brightness of the LEDs					
SPEED 6x				slow (2Hz)	LED brightness "medium" *
	MODE 1x				LED brightness "bright"
	MODE 2x				LED brightness "low"
Setting the light operation mode of the LEDs					
SPEED 7x				fast (4 Hz)	LED switched on preset time *
	MODE 1x				LED switched on permanently
Setting the light duration of the LEDs					
SPEED 8x				fast (4 Hz)	LEDs switched on for 15 seconds *
	MODE 1x				25 seconds
	MODE 2x				35 seconds
	MODE 3x				45 seconds
	MODE 4x				55 seconds
	MODE 5x				5 seconds
USB data connection					
SPEED 9x				fast (4 Hz)	Do not change standard settings*
	MODE 1x				Do not use
	MODE 2x				Do not use
External contact function - set ventilation speed					
SPEED 10x				fast (4 Hz)	Ventilation fan speed = Ventilation controller speed*
	MODE 1x				Ventilation speed 1 - cannot be changed
	MODE 2x				Ventilation speed 2 - cannot be changed
	MODE 3x				Ventilation speed 3 - cannot be changed
Save / transfer configuration					
SPEED 11x				fast (4 Hz)	Confirm with MODE button
Restore factory settings					
SPEED 12x				flashes(10Hz)	Confirm with MODE button

Pressing the SPEED button again repeats the process as shown above.

UK CA CE

Call: 01494 525252 **Visit: airflow.com**

80000778 - Issue 2 01/21

AIRFLOW®

Airflow Developments Limited
Aidelle House, Lancaster Road,
Cressex Business Park,
High Wycombe, Buckinghamshire,
United Kingdom, HP12 3QP

E-mail: info@airflow.com
Telephone: +44 (0) 1494 525252

airflow.com

Certificate No. EMS 569454 BS EN ISO 14001 : 2015
Certificate No. FM 00152 BS EN ISO 9001 : 2015