

Quick Guide Zehnder ComfoAir E

Consult the full manual for detailed information. This manual is available at www.international.zehnder-systems.com.

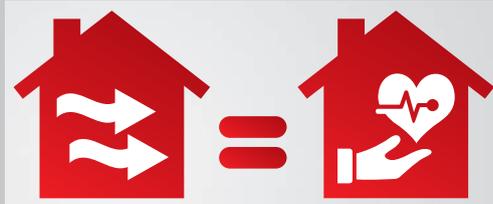


zehnder

always the best climate

Healthy and comfortable ventilation

Your house has a balanced ventilation system with heat recovery that supplies the rooms with fresh air. Effective ventilation is essential for a healthy and comfortable indoor climate.



Optimal air control



Unplug in case of calamities and maintenance



Maintenance

⚠ Do not remove the plug from the socket unless indicated by the manual of the device. This can lead to a build-up of moisture and mould.

Have the entire system checked and cleaned by a (service) engineer at least once every two years.

Carry out maintenance work at least every 6 months according to the instructions in the user manual.

Unlock child lock

If you do not use the display on the unit for 15 minutes, it will automatically return to the main screen and the child lock will be activated. As long as the child lock is activated, the  symbol is displayed on the main screen. To unlock the child lock, press and hold the unit's display for 4 seconds until the symbol is no longer displayed.

Comfort temperature

In summer, the unit uses outdoor air to ensure the indoor temperature remains as comfortable as possible. This is similar to opening a window on a cool summer evening. The unit operates fully automatically based on the set comfort temperature.

If the indoor air is warmer and the outdoor air cooler than the set comfort temperature, the cooler outdoor air is blown into the house without heat recovery.

👉 It is best to set the comfort temperature to the highest temperature of the thermostat (of the central heating system). This ensures that the heating and the ventilation system are well matched. The default value is 21 °C.

In winter, the unit never blows outside air directly into the home without heat recovery. Based on the outside temperature, the device automatically determines whether it is summer or winter.

Installation

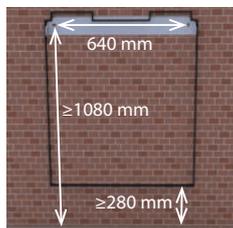
Safety instructions

- Always comply with the safety regulations in this document. Failure to comply with the safety regulations, instructions, warnings and comments may lead to personal injury or damage to the unit.
- Always observe the local building, safety and installation guidelines of the municipality, utility companies or other authorities;
- Always connect air ducts with a minimum length of 900 mm to the unit before connecting the power supply to prevent contact with the rotating fans.
- After installation, all parts that could lead to personal injury are safely out of reach behind the casing. The ComfoAir cannot be opened without using tools.
- It is not permitted to modify the unit or any of the specifications contained in this document. This may result in personal injury or reduced ventilation system performance.
- Installation, commissioning and maintenance must be carried out by a certified person or company, unless stated otherwise. If this work is carried out by unauthorised persons, it may result in personal injury or reduced performance of the ventilation system.
- Always unplug the power cord before starting any work on the unit. Using the unit with the casing open may result in personal injury. In this case, make sure that no conductive or rotating parts can be touched.
- Static charge can damage the electronics. When working with electronics, always take protective measures to prevent electrostatic discharge, such as wearing an antistatic wristband.
- If the power cord is damaged, it must be replaced by the manufacturer, the service engineer or a qualified person to avoid risks.

Use of the unit

- The unit may only be used once it has been properly installed according to the instructions and guidelines given in the installer manual of the unit;
- Do not open the casing. The installer makes sure that all components that can cause personal injury are safely located behind the casing;
- The unit may be used by: children of 8 years and older; persons with reduced physical capabilities; persons with reduced sensory capabilities; persons with reduced mental capabilities and persons with lack of experience and knowledge, as long as they are under supervision or have received instruction about the safe use of the unit and are aware of the hazards involved;
- Children must not play with the unit;
- Children must not clean and maintain the unit unsupervised.

Wall mounting



Power cable scheme



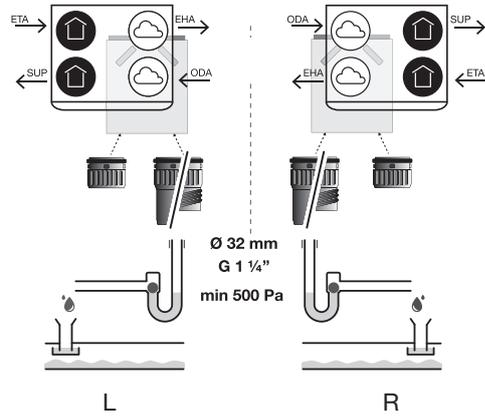
* Disconnect these poles prior to maintenance

Mounting of the air ducts and the siphon (according to DIN 12056)



Legend:

R	Supply and exhaust air on the right-hand side
L	Supply and exhaust air on the left-hand side
ODA	Outdoor Air
SUP	Supply Air
ETA	Extract Air
EHA	Exhaust Air



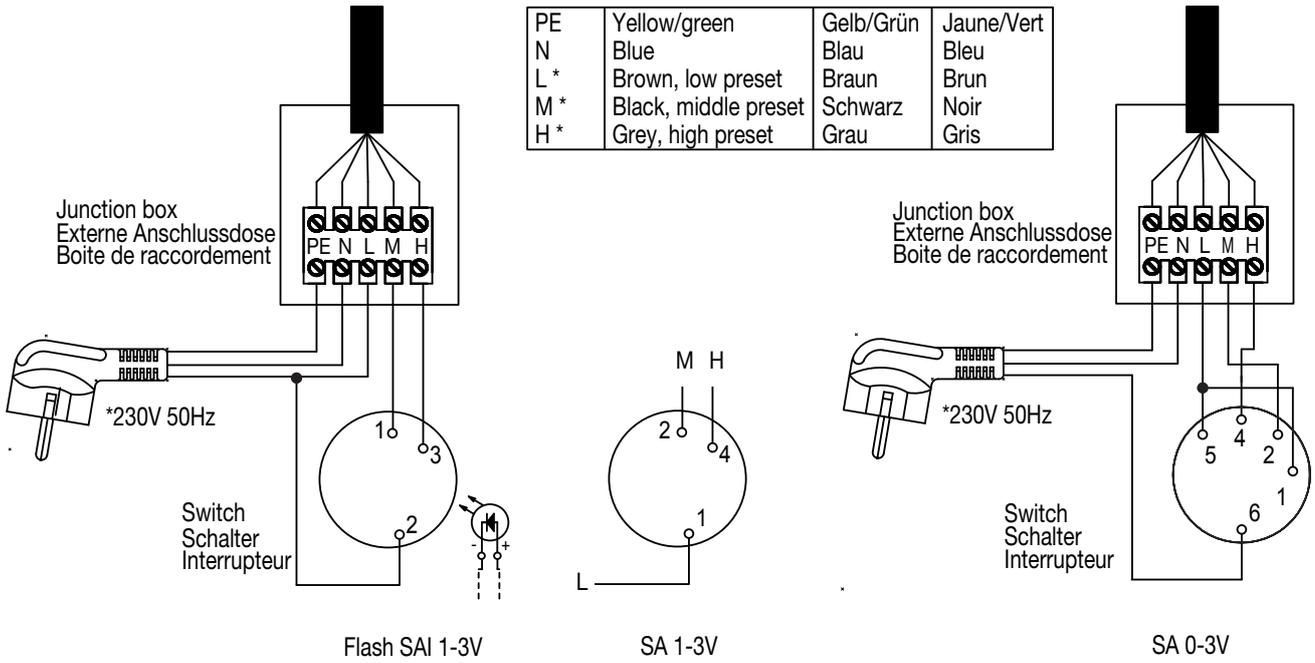
Programming air specifications

<p>1</p>	<p>2</p>	<p>3</p>
<p>Close all windows and doors. Open all valves connected to the ventilation system via the ducts.</p>	<p>Connect the device to the mains. Select a language and confirm that the siphon is mounted correctly. Check the above illustration for more information about the installation of the siphon.</p>	<p>Go to the settings for the installer. (MENU > Login; Login code= 4210)</p>
<p>4</p>	<p>5</p> <p>The fans will automatically start rotating to the set position. The unit is in the commissioning mode for one hour.</p>	<p>6</p>
<p>Set the required total air flow to the maximum flow rate. (MENU>Login>VENTILATION SETTINGS>HIGH SETTING)</p> <p> = Air flow almost at limit value</p> <p> = Air flow insufficient</p> <p>If the limit value is lower than the desired air flow, a further system test must be carried out. (MENU>Login>SYSTEM TEST) For more information, see the fitter's manual.</p>	<p>Press to switch the commissioning mode off again directly without saving the value entered.</p> <p>Press to save the value entered.</p> <p>REPEAT THESE STEPS FOR THE MEDIUM AND LOW SETTINGS</p>	<p>Measure the air flow at each opened valve using a flow meter. Write down the air flow for these valves. Adjust the opened valves to the required air flow per room. Measure the air flow again at each opened valve using a flow meter. Check that the air flow complies with the standard for each opened valve.</p>
<p>7</p>	<p>8</p>	<p>9</p>
<p>If the air flow is fine everywhere: Press to exit the commissioning mode. Complete an installation/test report. An example can be found in the back of the user manual.</p>	<p>The unit's installation height must be specified in the "ALTITUDE" menu. (MENU>Login>ALTITUDE>)</p>	<p>In the menu BALANCE SETTING an unbalance between supply and exhaust air can be set. (MENU>Login>BALANCE SETTING>BALANCE FINE TUNE)</p> <p>BALANCE SETTING selection: '+'= more exhaust air; '-'= less exhaust air. With the FIREPLACE MODE setting activated, only less exhaust air (= '-') is possible.</p> <p>FROST PROTECTION selection (without pre-heater): (BALANCE SETTING>FIREPLACE MODE)</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> FIREPLACE MODE active? YES: (Default) Exhaust and supply air remain in balance at all times. As a result, the unit switches off faster in frost mode than in inactive fireplace mode. <input checked="" type="checkbox"/> FIREPLACE MODE active? NO: There is more supply air than exhaust air. So in frost mode, ventilation is maintained longer.



Malfuctions on the preheater or bypass can only be reset after the system test has been carried out again.

Recommended wiring diagram



⚠ * Unplug the unit from the wall outlet to disconnect it from the power supply.
 If the unit does not have a plug, use a switch according to EN 60335-1 (with switch-off of all poles and 3 mm overvoltage category III).

🔧 A control panel must always be connected to operate the unit!

Information requirement for RVUs as per EU Regulation No. 1254/2014												
Heat recovery unit Zehnder ComfoAir E 350												
Supplier's name or trade mark	Zehnder Group			Zehnder Group			Zehnder Group			Zehnder Group		
Supplier's model identifier	ComfoAir E 350			ComfoAir E 350			ComfoAir E 350			ComfoAir E 350		
SEC [kWh/(m³a)] specific energy consumption (cold, average, warm)	-79,1	-40,4	-15,5	-79,8	-40,9	-16,0	-81,4	-42,3	-17,2	-84,2	-44,4	-19,1
SEC Class	A+	A	E	A+	A	E	A+	A+	E	A+	A+	E
Type of ventilation unit	Bidirectional RVU			Bidirectional RVU			Bidirectional RVU			Bidirectional RVU		
Type of drive installed	Multi-speed drive			Multi-speed drive			Variable speed drive			Variable speed drive		
Type of heat recovery system	Recuporative			Recuporative			Recuporative			Recuporative		
Thermal efficiency [%]	91			91			91			91		
Maximum flow rate [m³/h]	350			350			350			350		
Electric power input [W]	131			131			131			131		
Sound power level [dB(A)]	40			40			40			40		
Reference flow rate [m³/h]	245			245			245			245		
Reference pressure difference [Pa]	50			50			50			50		
SPI [W/(m³/h)]	0,17			0,17			0,17			0,17		
Control factor and typology	Manual control			Clock-controlled			Central demand control			Local demand control		
	1			0,95			0,85			0,65		
Declared maximum internal and external leakage rates [%]	Internal: 0,8			Internal: 0,8			Internal: 0,8			Internal: 0,8		
	External: 1,1			External: 1,1			External: 1,1			External: 1,1		
Mixing rate	-			-			-			-		
Position and description of visual filter warning	Warning on the display of the unit or room controller			Warning on the display of the unit or room controller			Warning on the display of the unit or room controller			Warning on the display of the unit or room controller		
	www.international.zehnder-systems.com			www.international.zehnder-systems.com			www.international.zehnder-systems.com			www.international.zehnder-systems.com		
Airflow sensitivity to pressure variations [%]	-			-			-			-		
	Indoor/outdoor air tightness [m³/h]			Indoor/outdoor air tightness [m³/h]			Indoor/outdoor air tightness [m³/h]			Indoor/outdoor air tightness [m³/h]		
AEC [kWh/a] annual electricity consumption (cold, average, warm)	795	258	213	779	242	197	736	199	154	672	135	90
	AHS [kWh/a] annual heating energy saved (cold, average, warm)											
9026	4614	2086	9054	4628	2093	9110	4657	2106	9222	4714	2132	

Release data: 14/03/2019

