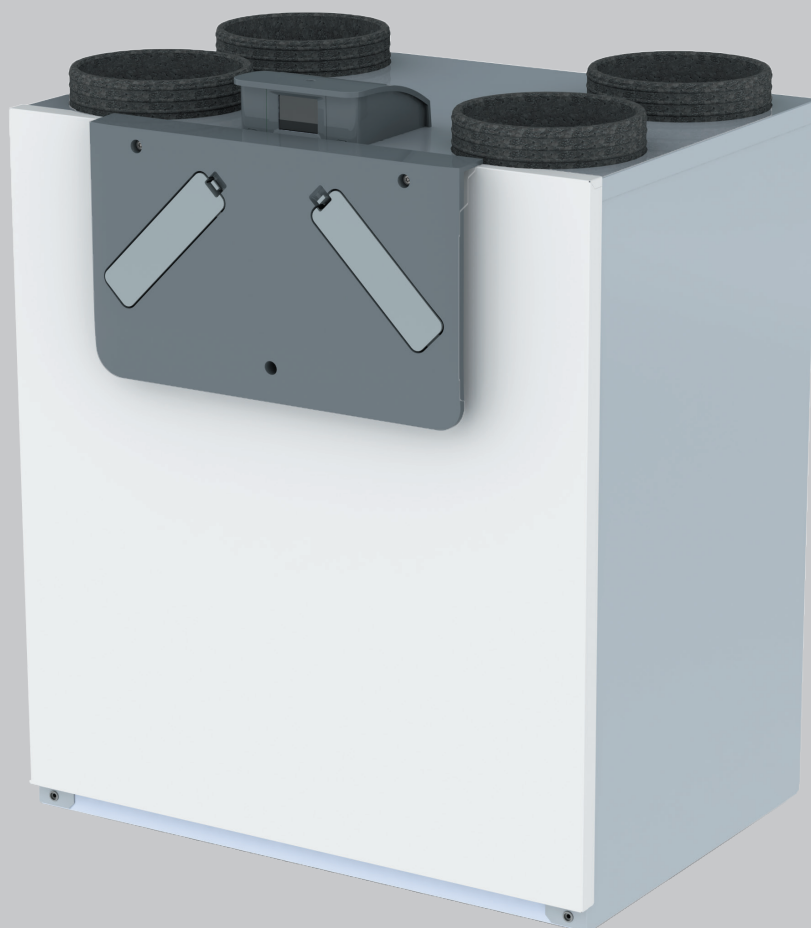


Heating

Cooling

Ventilation

Filtering






Foreword



Please read this manual carefully before operating the unit.

With the help of this manual, you can install, commission or carry out maintenance on the ComfoAir E in a safe and optimal manner. The ComfoAir E is hereinafter referred to as the “unit”. As the unit is subject to continuous development and improvement, your unit may differ slightly from the descriptions in this manual.

The following symbols are used in this manual:

Symbol	Meaning
	Point of attention.
	Risk of compromised performance or damage of the ventilation system.
	Risk of personal injury.

!/? Questions

Contact the importer if you have any questions or wish to order a new manual or new filters. The contact details are given on the back of this document.

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.

The importance of good ventilation





Clean air in the home is very important for your health. Did you know, for example, that you need 25 m³ (25,000 litres) of clean, fresh air per hour? Furthermore, the CO₂-laden stale air must also be removed from the dwelling. Good ventilation is therefore essential. Balanced ventilation controls this for you in a comfortable way.

Breathing, cooking, showering and visiting the toilet: all indoor activities generate moisture and result in a build-up of stale air. Continual adequate ventilation is essential to refresh air in the home – and thus keep it healthy and comfortable. We would otherwise very quickly start suffering from moulds, bacteria, dust mites, damp spots and unwanted odours. But that is not all. What do you think about health problems like allergies, respiratory irritation and headaches? All issues that can affect your health, concentration, functioning and performance.

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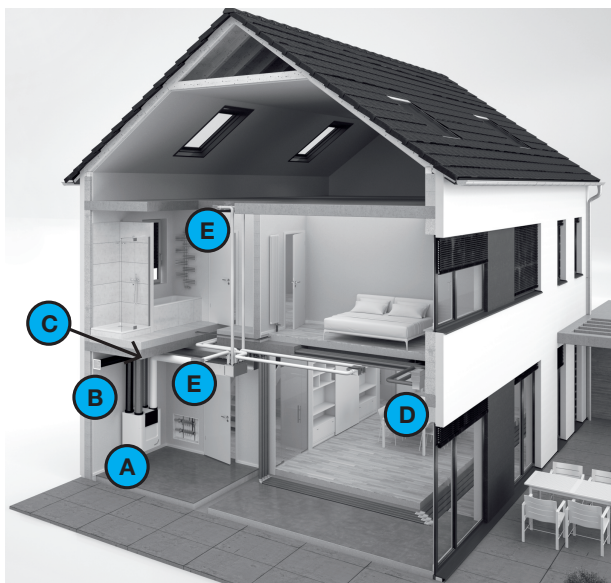
1 Introduction and safety

The unit is a balanced ventilation system with heat recovery for energy-efficient ventilation in homes. Balanced ventilation means that stale air from the kitchen, the bathroom, the toilet(s) and other wet rooms is extracted, while the same amount of fresh air is supplied to the living room, bedrooms and other dry rooms. Gaps under the doors ensure a good airflow in the dwelling.

⚠ Ensure that the gaps under or near doors are never obstructed. For example by furniture, draught excluders or deep-pile carpet.

A balanced ventilation system consists of:

- The unit (A);
- Duct system for fresh and exhaust air (B);
- Duct system for supply and extract air (C);
- Supply valves in the living areas, bedrooms and any other dry rooms (D);
- Return valves in the kitchen, bathroom, toilet and any other wet rooms (E).



Use during calamities

If you have to close windows and doors during a calamity, you must also switch off the unit. This can be done in the following ways:

- Switch off the fuse to which the unit is connected in the meter cupboard;
- Remove the plug from the socket to which the unit is connected.

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.

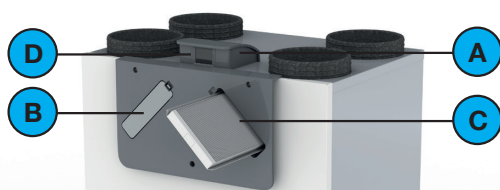
2 Operation

A number of important conditions must be met to ensure the unit functions properly:

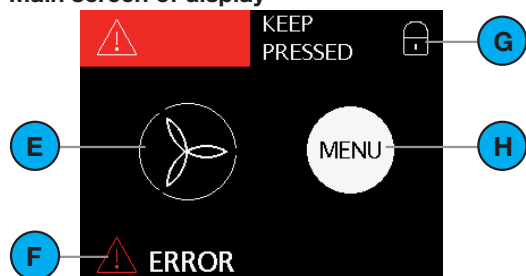
- Ensure that there is no condensation drier placed in the same room as the unit. A condensation drier could cause higher ambient humidity levels than the unit is designed for.
- Ensure that the gaps under the doors are not blocked by, for instance, furniture, rubber draught excluders or long-pile carpets. These ensure a good airflow in the dwelling.
- Ensure that there is no extractor hood connected to the system.

2.1 Overview of the unit and display

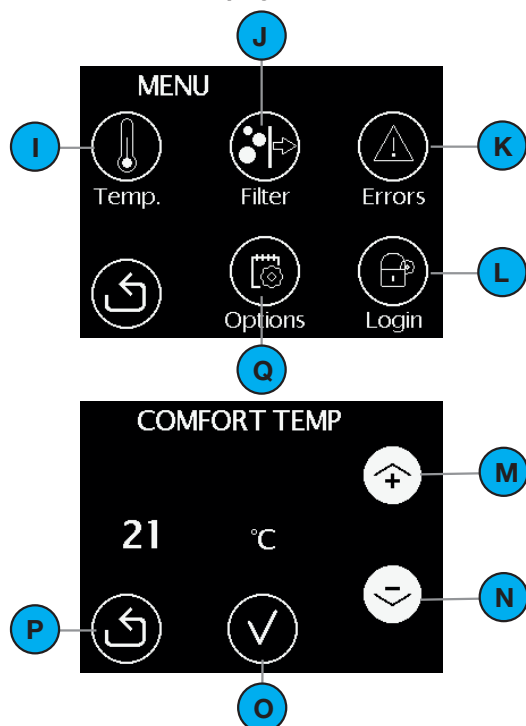
Unit



Main screen of display



Menu screen of display



#	Explanation
A	Identification plate with all important details of the unit (not shown).
B	2 Filter caps for easy access to the filters.
C	2 Filters for air filtering.
D	Touchscreen display for readout and programming of the unit.
E	Current airflow: <ul style="list-style-type: none"> ■ No icon = No ventilation ■ = LOW SETTING 1 ■ = MEDIUM SETTING 2 ■ = HIGH SETTING 3
F	Current status: <ul style="list-style-type: none"> ■ Green = The unit is operating correctly; ■ Yellow = Replace filters; ■ Red = Malfunction.
G	Child lock is engaged.
H	Icon for activating the menu screen.
I	Icon for activating the comfort temperature menu.
J	Icon for activating the filter replacement menu.
K	Icon for activating the error readout menu.
L	Icon for activating the installer/service menu.
M	Arrow up: <ul style="list-style-type: none"> ■ Increase value; ■ To previous error alert.
N	Arrow down: <ul style="list-style-type: none"> ■ Decrease value; ■ To next error alert.
O	Selection check box for activating the text shown. Any changes are saved.
P	Arrow to return to the previous screen. Any changes are NOT saved.
Q	Icon for activating the options menu


2.2 Disengage child lock

If after 15 minutes the display on the unit has not been operated, it will automatically return to the main screen and engage the child lock. As long as the child lock is engaged, the symbol will be visible on the main screen. Disengage the child lock by pressing the display of the unit for about 4 seconds until the symbol disappears.


2.3 Setting comfort temperature

In summer, the unit uses outdoor air to ensure the indoor temperature remains as comfortable as possible. This is comparable to opening a window on a cool summer's evening. The unit does this fully automatically based on the programmed comfort temperature.

If the room temperature is higher and the outdoor air temperature lower than the programmed comfort temperature, the cooler outdoor air is brought into the living areas, bypassing heat recovery.


 **It is best to set the comfort temperature to the highest temperature of the room thermostat (of the central heating system). This guarantees that the heating and ventilation systems work together properly. This is set to 21°C as standard.**

In winter, the unit never blows outdoor air directly into the dwelling without heat recovery. The unit determines fully automatically whether it is summer or winter based on the outdoor temperature.

1. Press the display of the unit for about 4 seconds until the  symbol disappears.
 - The child lock is disengaged.
2. On the unit's display, press "MENU".
 - The menu is shown on the display.
3. Press "Temp".
 - The programmed comfort temperature is shown on the display.
4. Press the up arrow to increase the comfort temperature.
Press the down arrow to decrease the comfort temperature.
5. Press the tick box to save changes and return to the menu screen.
Press the return arrow to NOT save changes and return to the menu screen.

2.4 Setting airflow rate

The unit is operated by a switch or a sensor. One or more switches and/or sensors can be fitted in the home (e.g. in the kitchen).





 **If multiple switches and/or sensors are available in the dwelling, then the unit applies the highest ventilation setting.**


Depending on the type of switch used, the unit is operated automatically or manually. More information regarding the use of any switches and sensors present is given in the section on switches and sensors.

2.5 Bathroom switch



The unit is equipped with a timer control to remove moisture from the bathroom as fast as possible. This is done by ventilating at setting 3. The timer control cannot be interrupted and lasts for 15 minutes. The timer of the timer control begins to count down once the bathroom switch is turned off.

2.6 Available switches

Appearance	Name
	SA 0-3 V
	SAI Flash (has a built-in malfunction or dirty filter alert)
	SA 1-3 V
	RFZ

 **The unit's display only shows the ventilation setting. A switch is needed to manually change the current ventilation setting.**

2.7 Available sensors

Appearance	Name
	CO ₂ sensor 0-10 V
	Humidity sensor 0-10 V

3 Certification and warranty

Warranty conditions

The manufacturer provides a warranty on the unit for a period of 24 months after fitting up to a maximum of 30 months after the date of manufacture. Warranty claims may only be submitted for material faults and/or construction faults arising during the warranty period. In the case of a warranty claim, the unit must not be dismantled without written permission from the manufacturer. Spare parts are only covered by the warranty if these parts are supplied by the manufacturer and have been installed by an approved installer.

The warranty is rendered invalid if:

- the warranty period has expired;
- the unit is used without filters;
- parts are used which were not supplied by the manufacturer;
- unauthorised changes or modifications are made to the installation;
- installation has not been carried out according to the applicable regulations;
- defects are caused by incorrect connection, incompetent use or contamination of the system.

The costs of disassembly and assembly are not covered by the warranty provisions. This also applies to normal wear and tear. Zehnder retains the right to change the construction and/or configuration of its products at any time without being obliged to alter previously delivered products.

EEC declaration of conformity

The unit is CE approved and manufactured in:
Zehnder Group Nederland B.V.
Lingenstraat 2 • NL-8028 PM Zwolle
T +31 (0)38 429 6911 • F + 31 (0)38 422 5694
Company Register of Zwolle 05022293



Liability

The unit has been designed and manufactured for use in balanced ventilation systems incorporating Zehnder heat recovery systems. Any other application is seen as inappropriate use and can result in damage to the unit or personal injury, for which the manufacturer cannot be held liable. The manufacturer is not liable for any damage originating from:

- Non-compliance with the safety, operating and maintenance instructions in this document;
- the use of components not supplied or recommended by the manufacturer.
The responsibility for the use of such components lies entirely with the fitter;
- normal wear and tear.

Disposal



Make sure the unit is disposed of in an environmentally friendly manner. Do not dispose of the unit with your domestic waste.

1. Contact the supplier regarding the options for returning the unit.
2. If you cannot return the unit, consult the local guidelines for recycling the parts.
3. Do not dispose of the batteries of wireless (RF) controls in normal household waste. Hand them in at the designated locations.

4 Maintenance

Zehnder recommends concluding a maintenance contract with a specialist company. Some companies offer a maintenance contract in which user maintenance can also be integrated.

To check whether the unit still works properly, a system test may be carried out on the unit every six months. A system test can be started in the SYSTEM TEST menu (MENU> Login> SYSTEM TEST). If this menu is not available, a system test is initiated automatically when the unit is switched on. The system test takes about 5-10 minutes.

Part of this system	Limit	Person responsible	Procedure
Filter	6 months	User	Replace filters
Valves	6 months	User	Clean valves/grilles
Controls	6 months	User	Clean controls
Condensation drain	6 months	User	Top up condensation drain
Inspecting and cleaning system	2 years	Fitter or service engineer	-

4.1 Replace filters



When indicated you must replace the filters

. The following indication methods are available:

- The display on the unit shows the warning message: REPLACE FILTERS
- The control can show a message.
The manual of the control contains more information about the indication on filter replacement.

! Replace the filters at least every six months. This will ensure a comfortable and healthy air quality and will protect the unit from pollution.

The warranty is rendered invalid if:

- Parts are used that have not been supplied by the manufacturer;
- The unit is used without filters.

When to replace the filters:

1. Order new filters: Contact your installation company to order the right filters for you, or order the filters online at www.international.zehnder-systems.com
2. Once you have received the new filters:
Press the display of the unit for about 4 seconds until the symbol disappears.
- The child lock is disengaged.
3. Press "MENU".
- The menu is shown on the display.
4. Press "Filter".
- The unit enters standby mode.
5. Remove the two filter covers from the unit.
6. Remove the two dirty filters from the unit.

! Do not disconnect the power to the unit, unless instructed otherwise in the manual. This can lead to a build-up of moisture and results in problems with mould.

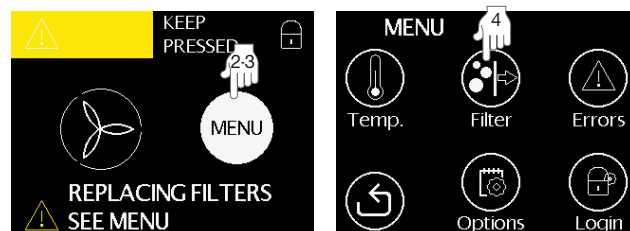
! Carry out the maintenance tasks every time within the period indicated. If you fail to do this, the performance of the ventilation system will be affected.

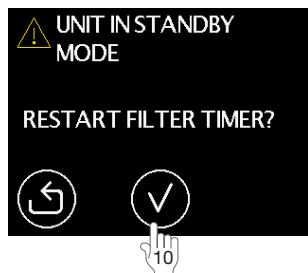
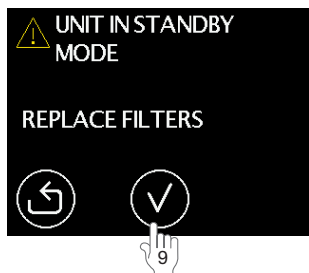
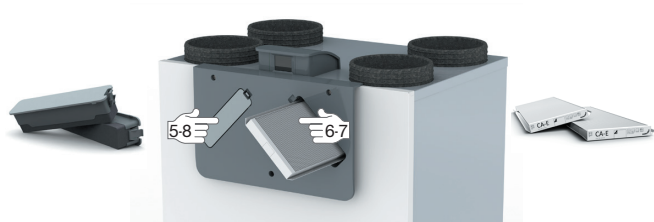
7. Place the two new filters in the unit with the arrows pointing upwards.
8. Refit the two filter covers to the unit.

! Place the click connection of the filter covers on top of the unit to guarantee an airtight lock.

9. Press the tick box to confirm that the filters have been replaced.
10. Press the tick box to reset the dirty filter timer.
- The unit resets to normal mode and returns to the main screen.
11. Fill in the maintenance logbook (if present).

www.international.zehnder-systems.com





4.2 Cleaning valves/grilles

⚠ Clean all valves at least once every six months.

1. Hold the valve on its outer edge and pull it with a rotating movement entirely from the wall or ceiling. If a rubber ring is fitted: Make sure when removing the valve that the rubber ring remains in place.



2. Note the location and setting of the valve.
 - Do not change the valve's settings. This could affect the performance of the system;
 - Do not swap the valves around. This could affect the performance of the system;
3. Remove the filter behind the valve (if present).



4. Clean the valve with a soft brush, vacuum cleaner or with soapy water.



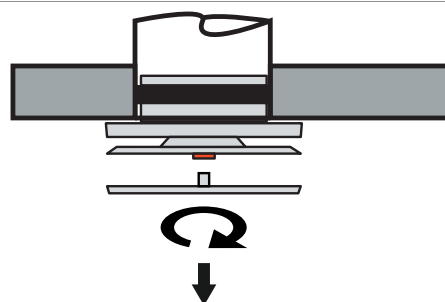
5. Rinse the valve well and dry.
6. Replace the filter behind the valve (if present).
7. Place the valve back in the wall or ceiling.

Supply valve ComfoValve Luna S125



Example of valve

The ComfoValve Luna S125 supply valve is fitted with a removable design cap. This valve does not therefore need to be removed from the wall or ceiling in its entirety to clean it.



Rotate the design cap anticlockwise one quarter turn and then remove the valve.

4.3 Cleaning controls

Clean all controls at least once every six months. Use a dry cloth or a vacuum cleaner to remove dust. Do not use water or any other fluid. Prior to cleaning the display on the unit, activate the child lock to prevent any changes to the settings caused by accidentally pressing the buttons.

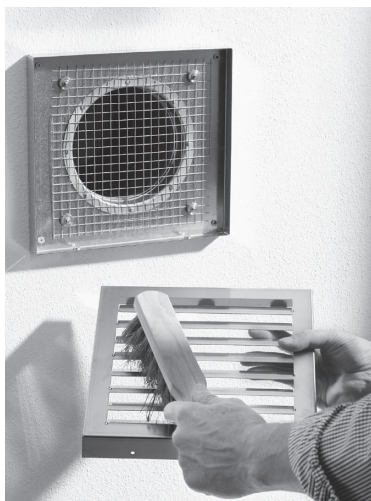
4.4 Topping up condensation drain

To prevent sewer smells from entering your home, the water seal of the domestic waste-water system must always contain water. You can achieve this by pouring a cup of water into the water seal.

4.5 Clean the grilles

 **Clean any grille present in and outside your home at least every six months.**

1. Remove the top cover of the external wall grille.
2. Clean the grille with a soft brush or vacuum cleaner.



3. Clean the grille with a soft brush or vacuum cleaner.
4. Place the grille back in the wall or ceiling.



5 Malfunctions

In the event of a malfunction:

- the display on the unit shows the corresponding malfunction code(s);
- The control can show a message.

The manual of the control contains more information about the message displayed.


In the event of a filter message, replace the filter as described in the section on maintenance. For any other malfunction, take the following steps:


1. Press the display of the unit for about 4 seconds until the  symbol disappears.
 - The child lock is disengaged.
2. Press "MENU".
 - The menu is shown on the display.
3. Press "Errors".
4. Press the reset icon .
 - The unit resets all malfunction codes and returns to the main screen.

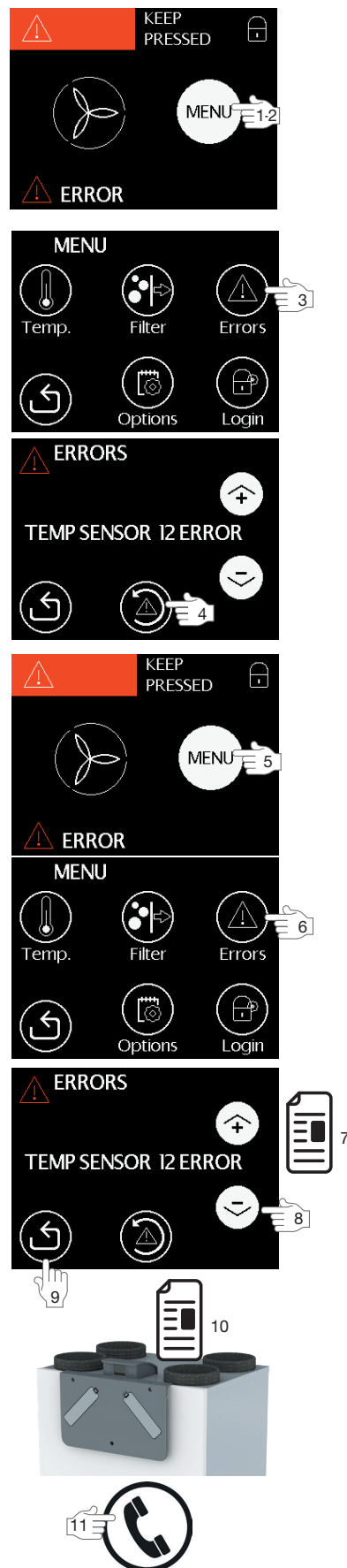
If the error reoccurs:

5. Press "MENU".
 - The menu is shown on the display.
6. Press "Errors".
7. Write down all malfunction codes
8. Press the down arrow to view more malfunction codes.
9. Press twice on the return arrow to return to the main screen.
10. Write down the unit type. This is given on the unit's identification plate.
11. Contact the fitter or service engineer and provide the noted information.

The system should remain connected to its power supply unless the unit requires taking out of service due to a serious malfunction or any other compelling reasons.

 **Do not disconnect the power to the unit, unless instructed otherwise in the manual. This can lead to a build-up of moisture and result in problems with mould.**

 **Condensation may form on the outside of the unit if the unit is fitted in a location with a higher-than-average ambient humidity. This is comparable to condensation on a window. The unit is not designed for these conditions.**



I Installation/test report

Date		Address	
Work instruction		Town/city	
Commissioning party		Project type	
Installed by		Residence type	
Measured with		Unit type	

Extract air

Room	Position	Required [m³/h]	Tested [m³/h]	Valve type	Valve settings
Kitchen					
Bathroom					
Toilet					
...					
...					
...					
Total:					

Supply air

Room	Position	Required [m³/h]	Tested [m³/h]	Valve type	Valve settings
Living room					
Bedroom 1					
Bedroom 2					
Bedroom 3					
...					
...					
...					
Total:					

Pressure

Measured	Supply air [Pa]	Extract air [Pa]
Press pressure		
Suction pressure		
Total:		

II Maintenance log

Minor service:
To be carried out every 6 months by the user or a specialist

Activity	Date	Date	Date
Replace the filters			
Clean the valves and grilles			

Date	Activity	Initials

Activity	Date	Date	Date
Clean the control			
Fill the condensation drain			

Date	Activity	Initials

Major service:

To be carried out every 24 months by a specialist

Activity	Date	Date	Date
Inspect and clean the casing of the unit			
Inspect and clean the heat exchanger			
Inspect and clean the fans			
Inspect and clean the bypass			
Inspect and clean the pre heater			
Inspect and clean the condensation drain of the unit			

[illegible]

