ComfoAir 160

User manual

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Preface

📖 Carefully read this manual before use.

This manual provides all the information required for safe and optimal installation and maintenance of the ComfoAir 160. It is also intended as a reference for servicing, so that this can be carried out in a responsible manner. The device is subject to continuous development and improvement. As a result, the ComfoAir 160 may slightly differ from the descriptions.

NOTE

This manual has been compiled with the utmost care. However, no rights can be derived from it. In addition, we at all times reserve the right to change the contents of this manual, without prior notice.

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1 Introduction

The device's name is ComfoAir 160. In the following manual it will be referred to as ComfoAir.

The ComfoAir is a balanced ventilation system with heat recovery in order to create healthy, balanced and energy-efficient ventilation in houses. The ComfoAir has a CE marking on the identification plate. The identification plate can be found on top of the ComfoAir.

1.1 Warranty and liability

1.1.1 Guarantee conditions

The ComfoAir is covered by a manufacturer's warranty 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 ComfoAir must not be dismantled without written permission from the manufacturer. Spare parts are only covered by guarantee, if they were supplied by the manufacturer and have been installed by an approved installer.

The warranty becomes invalid if:
- The guarantee period has elapsed;
- The device is used without filters;
- Parts are used that have not been supplied by the manufacturer;
- Non-authorised changes or modifications have been made to the unit.

1.1.2 Liability

The ComfoAir 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 ComfoAir 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 manual;
- The use of components not supplied or recommended by the manufacturer.
  Responsibility for the use of such components lies entirely with the installer;
- Normal wear and tear.

1.2 Safety

1.2.1 Safety regulations

Always comply with safety regulations in this manual. Non-compliance with the safety regulations, warnings, notes and instructions in this manual can cause personal injury or damage to the ComfoAir.

- The ComfoAir may only be installed, connected, rendered operational and maintained by an appropriately approved installer, unless otherwise indicated in this manual;
- Installation of the ComfoAir must be carried out in accordance with the general and locally applicable construction, safety and installation instructions of the local council, electricity and water boards or other agencies;
- Observe the safety regulations, warnings, comments and instructions as prescribed in this manual at all times;
- Keep this manual with the ComfoAir throughout its life;
- Instructions with regard to cleaning or replacing the filters on the intake and exhaust valves must be carefully observed;
- The specifications stated in this document may not be changed;
- The ComfoAir is only suitable for connetion to 230V 50Hz mains;
- It is recommended to take out a maintenance contract so that the device is checked on a regular basis. The supplier can provide a list of registered installers nearby.

1.2.2 Safety provisions and measures

- The ComfoAir cannot be opened without using tools;
- It should not be possible to touch the fans, therefore ducting must be connected to the ComfoAir at a minimum duct length of 900mm.

1.2.3 Pictograms used

The following pictograms are used in this manual:

☞ *Point of attention.*

⚠ *Risk of:*
  - *damage to the device;*
  - *performance of the device is compromised if instructions are not observed carefully.*

⚠ *Risk of personal injury to the user or installer.*

2 For the user

Congratulations, you are the owner of a
ComfoAir 160,
a heat recovery unit from Zehnder.
We wish you lots of comfort.

2.1 Glossary

The ComfoAir features:

- Balanced ventilation;
- Heat recovery;
- Bypass for free cooling;
- Frost protection;
- Open fire programme;
- Wireless (RF) control (optional)
- Enthalpy (optional);
- Analogue input (0-10V).

A concise explanation of these concepts/features is given in the paragraphs below.

2.1.1 Balanced ventilation

The ComfoAir is a balanced ventilation system. Balanced ventilation means that pollutants from the kitchen, the bathroom, the toilet(s) and possibly the storage room are extracted, while the same amount of fresh air is blown into the living room and bedrooms. Gaps under or near the doors ensure a good through-flow of air in the dwelling. The air circulation is in balance.

⚠️ *Ensure that these gaps are never obstructed, for example by draught excluders or deep-pile carpet. Otherwise the system will not function optimally.*

A balanced ventilation system consists of:

- ComfoAir (A);
- Duct system for the supply of outdoor air (B) and the exhaust of indoor air (C);
- Supply valves in the living room and bedrooms (D);
- Exhaust valves in the kitchen, bathroom, the toilet and (if present) the storage room (E).
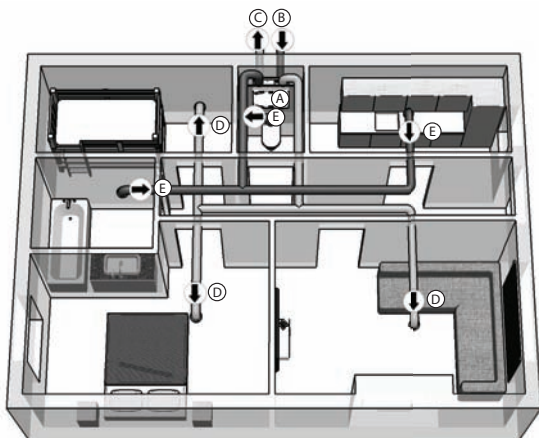
2.1.2 Heat recovery

Besides ensuring a healthy balance between incoming and outgoing air, the ComfoAir also provides the benefits of heat recovery. Heat recovery means that heat from the extracted air is transferred to the fresh, and usually colder, air from outside the building.

2.1.3 Bypass for free cooling

The bypass is often used during hot days in the summer season. By allowing colder outside air in at night, the indoor temperature of the dwelling can be kept low during hot days. The bypass works automatically: simply set the required comfort temperature.

☞ *The bypass will always stay open for half an hour*

2.1.4 Frost protection

The ComfoAir is also fitted with a frost protection device. This is an automatic protective system that temporarily reduces (or even briefly stops) the supply of outdoor air to the ComfoAir if there is a risk of freezing in the ComfoAir. This can occur in the event of moderate to sharp frost during the winter months.

2.1.5 Open fire programme

The ComfoAir is fitted with an Open fire programme. The Open fire programme is used in houses that have a fireplace, as there is a risk of air being sucked back from the chimney. The Open fire programme works automatically but requires activation by the installer.

☞ *While the Open fire programme is activated the supply and exhaust fan cannot be turned off manually.*

2.1.6 Wireless (RF) control (optional)

It is possible to set the ventilation positions of the ComfoAir with one or more wireless switches. To do this the ComfoAir needs a built in RF module or a connected CC Ease panel.

2.1.7 Enthalpy (optional)

It is possible to fit the ComfoAir with an enthalpy exchanger. An enthalpy exchanger helps to regulate humidity levels in the dwelling. In addition to heat recovery, the enthalpy exchanger also ensures moisture recovery. Moisture recovery means that moisture from extracted air is transferred to the supply air sourced from outside the dwelling. An enthalpy exchanger is also less sensitive to freezing.

2.1.8 Analogue input (0-10V)

The ComfoAir Luxe is fitted with one input (0-10V). This input can be used to connect a sensor or control system to the ComfoAir. Examples of the options include:
- CO_2 sensor; flow regulation using carbon dioxide levels;
- Moisture sensor; flow regulation using moisture levels;

2.2 Available operating devices

The ComfoAir is fitted with the following operating devices:
- Display on the unit;
- 3-position switch;
- 3-position switch with malfunction indicator;
- Wireless 3-position switch;
- Wireless 3-position switch with malfunction indicator;
- Bathroom switch to temporarily select the highest ventilation position;
- CC Ease panel.

A concise explanation of these operating devices is given in the paragraphs below.

2.2.1 Display on the unit

The ComfoAir can be operated by means of a digital display which is mounted on the unit.

MENU	select menu	▲	up
OK	OK	▼	down
⌂	supply off (led green)	⌂	supply on (led green)
↓↑	comfort temperature		

Shown in display

A	Ventilation setting absent
1	Ventilation setting low
2	Ventilation setting medium
3	Ventilation setting high
X X	Menu symbol
X X	Malfunction code (flashes)
•	Bypass

Access to the menus

Sequence	Press	Display	Description
1	MENU	P2	Time delay
2	▲	P9	Status
3	▲	P1	Status

Example

Setting bathroom switch delay

Sequence	Press	Display	Description
1	MENU	P2	Time delay
2	OK	P21	Activation delay
3	▲	P22	Select 22
4	OK	30	Current setting
5	▼(10 x or press and hold)	20	Select 20
6	OK	P22	Sets the value to 20
7	MENU	P2	
8	MENU	1	Fan setting

☞ *Changes to settings can only be made in the P2 menus. The other P-menus (P1 and P9) can only be read.*

Leaving Reading menu
- At action point 6 press "MENU" (instead of "OK").

☞ *The display can not be used for setting the ventilation positions of the ComfoAir. The arrow keys are only for setting the additional programmes.*

2.2.2 3-position switch

A 3-position switch can be used to set the ventilation positions of the ComfoAir. One or multiple 3-position switches can be fitted in the house (e.g. in the kitchen). The following types of switches can be used:
- Type 1 → Standard 3-position switch;
- Type 2 → 3-position switch with malfunction and filter alerts indicator;
- Type 3 → Wireless 3-position switch (RF)
- Type 4 → Wireless 3-position switch (RF) with malfunction and filter alerts indicator.

⚠ *A wireless 3-position switch needs to be re-tuned to the ComfoAir if a General Reset is undertaken.*

Type 1   Type 2   Type 4

Setting the ventilation using 3-position switch(es)

A 3-position switch can be used to set 3 different ventilation positions.

- Position 1 → Low.
  - Use for low ventilation levels.
- Position 2 → Normal.
  - Use when present and no extra ventilation is needed.
- Position 3 → High.
  - Use during cooking, showering and when additional ventilation is needed.
- Timer → Temporary High
  - Use during cooking, showering and when additional ventilation is needed for a short time.

The wireless 3-position switches have a separate button for the Timer. After the timer delay the ComfoAir will return to the ventilation setting which was active before the timer function was activated.

To use the Timer function with a wired 3-position switch choose setting 3 and immediately return to the setting you want after the timer delay.

The CC Ease panel has an integrated type 2 3-position switch. Next to the standard 3 ventilation settings the CC Ease panel also has an additional ventilation setting:

- Position A → Absent
  - Use when house is unoccupied.

☞ *At setting A, the house is ventilated using the minimum prescribed ventilation volume.*

☞ *If multiple position switches are available in the house, the ComfoAir will switch to the highest ventilation setting unless overruled by an automated software programme.*

2.2.3 Bathroom switch

A bathroom switch can be used to temporarily set the ComfoAir in the highest ventilation level. This switch is mostly fitted in the bathroom to extract any excess moisture after showering, as soon as possible. The bathroom switches vary widely in model and are therefore not illustrated here. If required, the bathroom switch can be turned on and off using a time delay entered via a digital operating device.

Delay timer

This ensures that the ComfoAir does not switch on at the highest setting when activated, but first waits for the delay timer to run its course.

☞ *If the bathroom switch is deactivated during the delay timer period, then the ComfoAir will remain at its current ventilation setting and not switch to the highest setting.*

⚠ *The delay timer does not work with all types of bathroom switches (e.g. pulse switches). In that case, leave the delay timer at 0.*

Overrun timer

This ensures that the ComfoAir does not switch back to the normal (or previous) setting when deactivated, but first waits for the overrun timer to run its course. Once the programmed overrun timer is complete, the ComfoAir returns to the normal (or previous) ventilation setting.

☞ *If the bathroom switch is turned off within the programmed delay timer period, then the overrun function will be terminated.*

Light switch

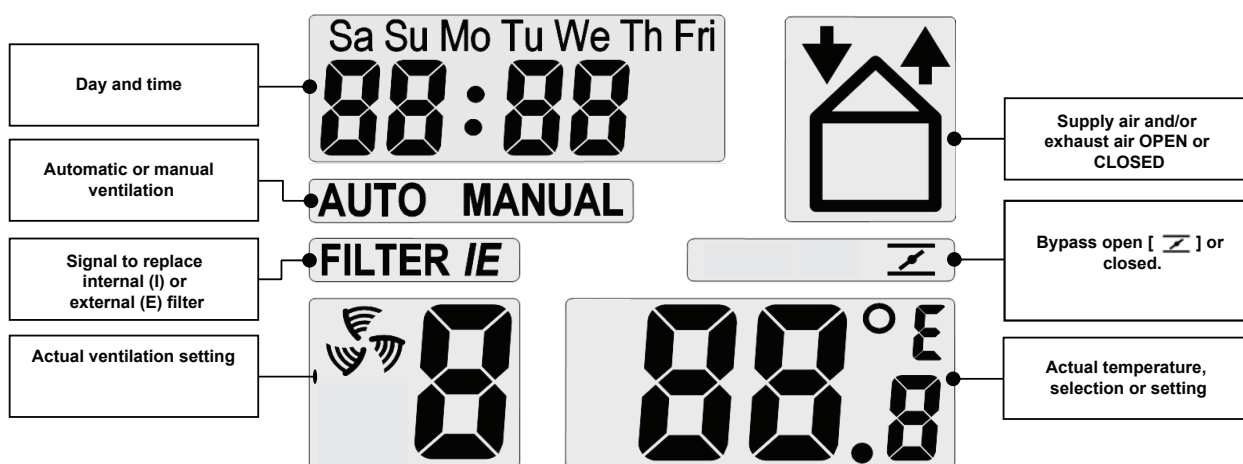The functions of the bathroom switch can also be integrated into a light switch.

2.2.4 CO$_2$-Sensor

The ComfoAir Luxe can also be operated using a CO$_2$ sensor. A CO$_2$ sensor measures the CO$_2$ levels in the room where it is placed. When the CO$_2$ sensor is set on 'automatic' the CO$_2$ sensor will control the ventilation setting according to the ventilation need in the room. When the CO$_2$ levels are high the ventilation setting will automatically increase. When the CO$_2$ levels are low the ventilation setting will automatically decrease. It is also possible to use the CO$_2$ sensor as a standard 3-position switch. The CO$_2$ levels in the room will then by ignored.

2.2.5 CC Ease panel

The ComfoAir Luxe can be operated by means of a CC Ease panel, which can be ordered separately.

The CC (Comfort Control) Ease panel is a digital operating device which can be mounted on the wall in the living room and from there communicates with the ComfoAir. The following overview summarizes the information that will be displayed.

Day and time	Sa Su Mo Tu We Th Fri 88:88
Automatic or manual ventilation	AUTO MANUAL
Signal to replace internal (I) or external (E) filter	FILTER IE
Actual ventilation setting	8
	Supply air and/or exhaust air OPEN or CLOSED
	Bypass open [⟋] or closed.
88.8 °E	**Actual temperature, selection or setting**

The CC Ease panel has a number of buttons to operate the ComfoAir and to enter the settings. These buttons are illustrated below.

Button	Description
(fan)	This button allows you to switch to the highest ventilation setting. - **Press** once ->Boost setting ON. - **Press** twice-> Boost setting OFF.
(house)	This button allows you to switch between supply/exhaust. - **Press** once → SUPPLY OFF (and EXHAUST ON). - **Press** twice → EXHAUST OFF (and SUPPLY ON). - **Press** 3 times → SUPPLY and EXHAUST both ON.
(thermometer)	With this button you can read or set the comfort temperature. - **Press** for less than 2 seconds → READ. - **Press** for longer than 2 seconds → SET.
(clock)	This button allows you to programme two settings. - **Press** for less than 2 seconds → Programme ventilation setting (AUTO / MANUAL). - **Press** longer than 2 seconds → Programme date and time.
(+ / −)	This button allows you to programme different settings: - In P menu → Set values. - In main screen → Enter ventilation setting (A, 1, 2, 3).

2.3 Operating the CC Ease panel

The CC Ease panel is used for the following:
- Reading and setting the day and time;
- Reading and setting the comfort temperature;
- Reading and setting the ventilation volume;
- Switching Boost on;
- Switching the supply and exhaust fan on/off;
- Setting a personal ventilation programme;
- Setting additional ventilation programmes/ options in the P menus.

A concise explanation of the above listing is given in the paragraphs below.

☞ *The CC ease will automatically return to the main screen when no buttons are pressed for 30 seconds.*

2.3.1 Setting the date and time

1. Press " ⊘ " longer than 2 seconds.

   - Wait until the day, e.g. "Sa", starts blinking.
2. Select the correct day using " + " or " ▽ ".

3. Press " ⊘ ".
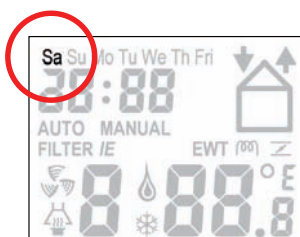
   - Wait until the hour, e.g. " 12 ", starts blinking.
4. Select the correct hour using " + " or " ▽ ".

5. Press " ⊘ ".

   - Wait until the minutes, e.g. " 00 ", start blinking.
6. Select the correct minutes using " + " or " ▽ ".

7. Press " ⊘ " to store the settings and return to the main screen.

2.3.2 Reading and setting the comfort temperature

The comfort temperature can be read, but also set to the desired indoor temperature. From this temperature setting the ComfoAir will determine if free cooling with the use of the bypass is desired.

Reading the comfort temperature

1. Press " 🌡 " briefly.

   - Wait until the comfort temperature appears.
2. Press " 🌡 " to return to the main screen.

Setting the comfort temperature

1. Press " 🌡 " longer than 2 seconds.

   - Wait until the comfort temperature, e.g. " 20.0 " starts blinking.
2. Select the desired comfort temperature using " + " or " ▽ ".
3. Press and briefly hold " 🌡 " to store the settings and return to the main screen.

☞ *It is best to set the comfort temperature at the same temperature as the room thermostat (of the Central Heating system)*

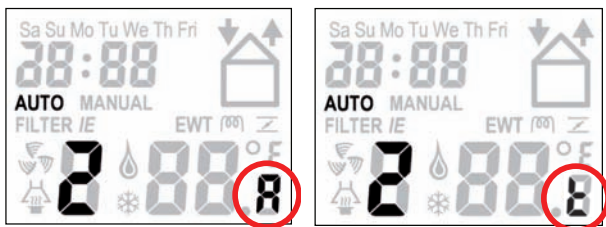### 2.3.3 Reading and setting the ventilation volume

Reading the ventilation volume

The current ventilation volume, e.g. "2 ", will always be displayed on the CC Ease panel. Normally the ComfoAir regulates the required ventilation volume automatically according to a preset personal ventilation programme. During automatic ventilation mode **"AUTO"** will be displayed on the CC Ease panel.

In addition to showing the programmed ventilation setting, the CC Ease panel also displays whether a temporary control system (such as a CO_2 sensor or a bathroom switch) is overriding the ventilation setting.

In the event a required ventilation setting is being overridden by a time delay function (such as the bathroom switch overrun timer). a 't' is displayed in the bottom right-hand corner of the CC Ease panel.

In the event a required ventilation setting is being overridden by a signal from a sensor (such as a CO_2 sensor), an 'A' is displayed in the bottom right-hand corner of the CC Ease panel.

Setting the ventilation volume

The ventilation volume can also be set <u>manually</u> by increasing or decreasing it. A total of 4 ventilation volumes/levels can be set. They are:
- Setting A → Absent.
  - Use when house is unoccupied.

☞ *At setting A, the house is ventilated using the minimum prescribed ventilation volume.*

- Setting 1 → Low.
  - Use for low ventilation levels.
- Setting 2 → Normal.
  - Use when present and no extra ventilation is needed.
- Setting 3 → High.
  - Use during cooking, showering and when additional ventilation is needed.
- Boost → Temporary High
  - Use during cooking, showering and when additional ventilation is needed for a short time.

☞ *The ComfoAir will switch to the highest ventilation position set in the house unless overruled by an automated software programme.*

The ventilation volume can be set as follows:
1. Press " [+] " to increase the ventilation volume.
2. Press " [−] " to decrease the ventilation volume.

During <u>manual</u> ventilation, the CC Ease panel will not display "**AUTO**", but "**MANUAL**".

3. Press " [⊘] " to return to automatic ventilation.

2.3.4 Switching Boost on

1. Press" [fan] " longer than 2 seconds.
   - Wait until '3t' appears.
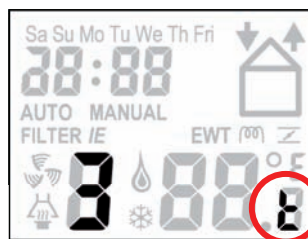
Once the programmed time delay is complete, the ComfoAir automatically switches back to the previous ventilation setting.

☞ *The Boost timer can be deactivated by pressing " [fan] ", " [+] " or " [−] ".*

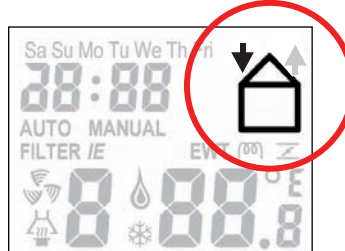### 2.3.5 Switching the supply and exhaust fan on/off

☞ *While the Open fire programme is activated the supply and exhaust fan cannot be turned off manually.*

1. Press " [house] " once (first time) to switch off the supply fan.
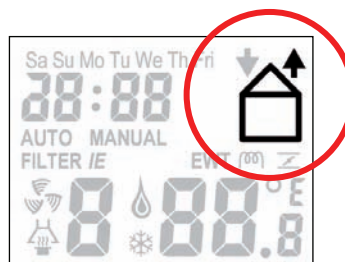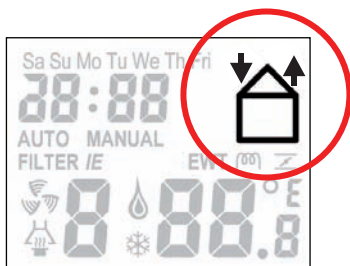

This mode can be used when the windows are open during the summer. In that case, fresh air is not supplied through the supply fan, but through the open windows.

2. Press " [house] " again (second time) to switch the exhaust fan off (and simultaneously switching the supply fan on).

3. Press " 🔲 " again (third time) to switch the supply and exhaust fans on again.

☞ *Bear in mind that switching off the supply or exhaust fan will temporarily immobilize your balanced ventilation system.*

2.3.6 Setting a personal ventilation programme

The ComfoAir has a factory default ventilation setting (setting 2).

If wanted, you can change the default ventilation setting to suit your individual situation. For example a weekday and weekend programm.

The ventilation volume can be changed/set as follows:

1. Press " ⊘ " and " 🔲 " for two seconds simultaneously.

   - Wait until the ventilation programme appears.

2. Programme the desired day or series of days.
   - Select the desired option using " ⊕ " or " ▽ ".
   You can choose from:
   – Weekend: "SaSu";
   – Working week: "MoTuWeThFr";
   – Week: "SaSuMoTuWeThFri";
   – Separate days: "Sa", "Su", "Mo", "Tu", "We", "Th" and "Fri".

4. Press " ⊘ ".
   - Wait until the programme position, e.g. "1", starts blinking.

5. Select the desired programme position using " ⊕ " or " ▽ ".

6. Press " ⊘ ".
   - Wait until the hour, e.g. " 7 ", starts blinking.

7. Select the desired start time in hours using " ⊕ " or " ▽ ".

8. Press " ⊘ ".
   – Wait until the minutes , e.g. " 00 ", starts blinking.

9. Select the desired start time in minutes using " ⊕ " or " ▽ ".

10. Press " ⊘ " .
    – Wait until the ventilation setting e.g. " 3 ", starts blinking.

11. Select the desired ventilation level using " ⊕ " or " ▽ ".

☞ *When "d" is selected the selected programme position will be deleted.*

12. Press " 🔲 " to save the settings and return to the main screen.

13. **Programme** the next ventilation programme if required. Up to 8 program positions can be programmed.
    - Repeat steps 1 to 12.

☞ *The default ventilation setting (setting 2) will be loaded again if a General Reset is undertaken.*

2.3.7 Setting additional ventilation programmes/options in the P menus.

Some P menus in the CC Ease panel can be used to:
• Read the status of various ventilation programmes;
• Set time delays for various ventilation programmes.

☞ *The user can only access P menus P1, P2 and P9 to set additional programmes. The remaining P menus (P3 to P8) are for use by the installer only.*

Accessing the P menus

1. Press " 🔲 " and " ⊕ " for two seconds <u>simultaneously.</u>

    - Wait until "P 2" appears on the display.

2. Select the desired P sub-menu using " ⊕ " or " ▽ ", e.g., P menu "*2*".

3. Press " ⊘ ".

4. Select the desired P sub-menu using " ⊕ " or " ▽ ", e.g., P sub-menu " *23* ".

5. Press " ⊘ ".

Entering settings in P menus

☞ *The minimum and maximum values for the available parameters are preset in the software.*

6. Select a new value for the programme using " ⊕ " or " ▽ ".

7. Press " ⊘ " to store the settings.

8. Repeat steps 4 to 7 to set multiple parameters in succession.

    Or Press " 🔲 " to return to the P menu so steps 2 to 7 can be repeated.

9. **Press** " 🔲 " twice to return to the main screen.

☞ *Only in the P2 menus settings can be altered. The other P-menus (P1 and P9) can only be read.*

Leaving Reading menu

• Press " 🔲 " (instead of " ⊘ ") at step 7.

2.3.8 P menus for the user

Menu P1 → Status of programmes

Sub-menu	Description	Status
		Activated
P11	Is menu 21 currently active?	Yes (1) / No (0)
P12	Is menu 22 currently active?	Yes (1) / No (0)
P13	Is menu 23 currently active?	Yes (1) / No (0)
P14	Is menu 24 currently active?	Yes (1) / No (0)
P15	Is menu 25 currently active?	Yes (1) / No (0)
P16	Is menu 26 currently active?	Yes (1) / No (0)

Menu P2 → Setting time delays

Sub-menu	Description	Time delay values		
		Minimum	**Maximum**	**General Reset**
P21 (Optional) **Note:** **Only applies to systems fitted with a corded switch and a second switch in the bathroom.**	Delay timer for the bathroom switch (to switch to high position). • 'x' minutes after operating the bathroom switch, the ComfoAir switches to the HIGH SETTING. - Low voltage input	0 Min.	15 Min.	0 Min.
P22 (Optional) **Note:** **Only applies to systems fitted with a corded switch and a second switch in the bathroom.**	Overrun timer for the bathroom switch (to switch to normal position). • 'x' minutes after operating the bathroom switch, the ComfoAir switches back to the NORMAL SETTING. - Low voltage input	0 Min.	120 Min.	30 Min.
P23 (Optional) **Note:** **Only applies to systems fitted with a hardwired 3-position switch.**	Overrun timer for ventilation position 3 (using a wired 3-position switch). • If ventilation setting 3 (high) is switched on briefly (< 3 sec), the ComfoAir will switch to the HIGH SETTING for 'x' minutes and then automatically returns to the NORMAL SETTING. If any 3-position switch is operated during this lagging time the ComfoAir will instantly revert to the ventilation position as set at that time.	0 Min.	120 Min.	0 Min.
P24	Filter warning • 'x' weeks after cleaning the filters the "FILTER DIRTY" alert will reappear.	10 weeks	26 weeks	16 weeks
P25 **Note:** **Only applies to systems fitted with an RF switch.**	Overrun timer for ventilation setting 3 (using " ⊘ "). • After pressing " ⊘ " briefly (< 2 sec.), the ComfoAir will switch to the HIGH setting for 'x' minutes and then automatically returns to the NORMAL setting. If any 3-position switch is operated during this lagging time the ComfoAir will instantly revert to the ventilation position as set at that time.	1 Min.	20 Min.	10 Min.

			Time delay values		
Sub-menu	**Description**		**Minimum**	**Maxi-mum**	**General Reset**
P26 **Note:** **Only applies to systems fitted with an RF switch.**	Overrun timer for ventilation setting 3 " using ⊘ ". • After pressing " ⊘ " CONTINUOUSLY (> 2 sec.), the ComfoAir will switch to the HIGH setting for 'x' minutes and then automatically returns to the NORMAL setting. If any 3-position switch is operated during this lagging time the ComfoAir will instantly revert to the ventilation position as set at that time.		1 Min.	120 Min.	30 Min.
P27 **Note:** **Only applies to systems fitted with a CC Ease panel.**	Time for the Boost setting. • After pressing " 🌀 " continuosly (>2 sec.) on the CC Ease panel, the ComfoAir will switch to the high setting for 'x' minutes and then automatically returns tot the NORMAL setting If any 3-position switch is operated during this lagging time the ComfoAir will instantly revert to the ventilation position as set at that time.		0 Min.	120 Min.	30 Min.

Menu P9 → Status of programmes (from menu P5 and P6 additional programmes)

		Status
Sub-menu	**Description**	**Activated**
P90	Open fire programme active?	Yes (1) / No (0)
P91	Bypass Open?	Yes (1) / No (0)
P94	Analogue input (0-10V) active?	Yes (1) / No (0)
P95	Frost protection active?	Yes (1) / No (0)
P97	Enthalpy programme active?	Yes (1) / No (0)

2.4 Maintenance by the user

The following maintenance must be carried out by the user:
- Replacing the filters;
- Cleaning the valves (in the dwelling).

A concise explanation of these maintenance activities is given in the paragraphs below.

⚠️ *Failure to carry out (periodic) maintenance on the ComfoAir ultimately compromises the performance of the ventilation system.*

2.4.1 Replacing the filters

If so indicated on the digital operating device, the filters must be cleaned or replaced.

⚠️ *Replace the filters (at least) once every six months.*
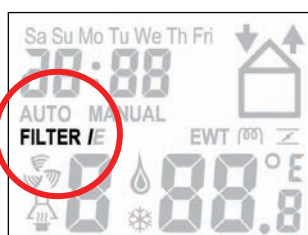
- On the display the message "FiL" and "tEr" will appear alternately.
- On the CC Ease panel "Filter" will appear.

To replace ...

1. Press " OK " on the display or press " 🖮 " on the CC Ease panel for at least 4 seconds until the filter alert disappears.
2. Disconnect the power from the ComfoAir.
3. Remove the filter caps (A) from the ComfoAir.

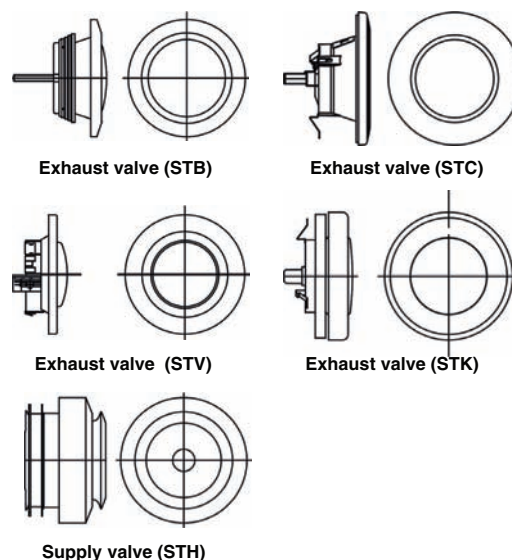4. Remove the old filters (B) from the ComfoAir

5. Slide the new filters back into the ComfoAir.
6. Refit the filter caps (A) to the ComfoAir.
7. Reconnect the power to the ComfoAir.

⚠️ *When using the ComfoAir for the first time, it is recommended to replace the filters and clean the valves first. During the construction phase the ventilation system could have become dirty with building dust.*

2.4.2 Cleaning the valves (in your dwelling)

The ventilation system may be fitted with the following valves:

Exhaust valve (STB)   **Exhaust valve (STC)**

Exhaust valve (STV)   **Exhaust valve (STK)**

Supply valve (STH)

You must clean the valves (at least) twice a year:
1. Mark the setting of the valve;
2. Remove the valve from the wall or ceiling;
3. Clean the valve in a solution of soap and warm water;
4. Rinse the valve thoroughly and wipe dry;
5. Place the valve back WITH EXACTLY THE SAME SETTING (and IN THE SAME HOLE);
6. Repeat this procedure for the other valves.

About the valve settings...

The ventilation air is supplied and discharged by means of valves. Gaps near doors in the dwelling ensure that the air flows in the right direction. In order to ensure that the correct ventilation volumes are maintained in the rooms, the following must be observed:
- **Do not** seal the gaps;
- **Do not** change the settings of the valves;
- **Do not** swop the valves.

The installer will have set all the valves to ensure the optimum performance of the ventilation system. Therefore, do not change the setting of the valves.

⚠️ ***After cleaning, make sure that all valves are placed back with the same setting (and in exactly the same ventilation hole in the wall or ceiling) AT ALL TIMES. Otherwise, system performance will be compromised.***
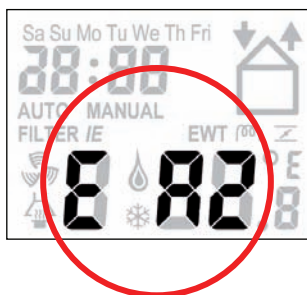
2.5 Malfunctions

Malfunctions in the ComfoAir are reported as follows:
- The malfunction alert appears on the display,
- The malfunction alert appears on the CC Ease panel;
- The malfunction indicator on the 3-position switch lights up.

A concise explanation of methods of reporting malfunctions is given in the paragraphs below.

2.5.1 Malfunction alerts on the digital operating device

In the event of a malfunction, the corresponding malfunction code will be displayed on the digital operating device of the ComfoAir.

2.5.2 3-position switch with malfunction indicators

The 3-position switches that are fitted with a malfunction indicator show when a malfunction or filter dirty alert has occurred. Depending on the type of the 3-position switch, this is done in one of the following two ways:
- 3-position switch with malfunction indicator.
  In the event of a malfunction or filter dirty alert the indicator lights up;
- Wireless 3-position switch with malfunction indicator.
  The malfunction indicators will light up once this 3-position switch is used. One indicator will light up green to indicate communication has been established. Subsequently, in the event of a malfunction or filter dirty alert both indicators will flash red 3 times. After that, both indicators will light up green once more.

2.5.3 What to do in the event of a malfunction

In the event of a malfunction, contact the installer. Note down the malfunction code that appears on the digital operating device. Make a note of your ComfoAir type.

This is given on the identification plate on the top of the ComfoAir. The system should not be disconnected from the power supply, unless the ComfoAir must be taken out of service due to a serious malfunction, or for filter cleaning/replacement or any other compelling reasons.

⚠️ ***If the ComfoAir is disconnected from the power supply, mechanical ventilation of the dwelling will cease. This can lead to a build-up of moisture and results in problems with mould. Long-term deactivation of the ComfoAir must therefore be prevented.***

☞ ***Condensation may form on the outside of the ComfoAir if the unit is fitted in a space with higher average humidity levels (such as a bathroom, shower, toilet or kitchen). This is not a problem for the ComfoAir.***

2.6 End of useful life

Consult with the supplier about what should be done with the ComfoAir at the end of its useful life. If the ComfoAir cannot be returned to the supplier, avoid disposing of it with the domestic waste, and ask your local council about the options for recycling the components or processing the materials in an environmentally friendly manner.

Furthermore, do **not** dispose of batteries from the wireless (RF) switches with the normal waste, but bring them to the specially designated disposal locations.

3   EEC declaration of conformity

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EEC declaration of conformity

Machine description   : **Heat recovery units: ComfoAir 160 series**

Complies with the following directives : Machinery Directive   (2006/42/EEC)
                                                                   Low Voltage Directive   (2006/95/EEC)
                                                                   EMC Directive   (2004/108/EEC)

Zwolle, 4 July 2011
Zehnder Group Nederland B.V.

E. van Heuveln,
Managing Director

zehnder