Information sheet

Display menu DucoBox Energy

L2004732-A 23.09.2024

DUCO

---

01   Preliminary remarks

The display menu can be used both to read parameters and to make changes to the network and settings of each DUCO component.

Controller

As the software is the same for several DUCO products such as the DucoBox Energy Premium and Comfort, further in the manual these products will be referred to as the controller.

> ⚠ **Depending on the type of controller, the software version and the presence of a Duco Connectivy Board, some items may be missing from the display menu.**

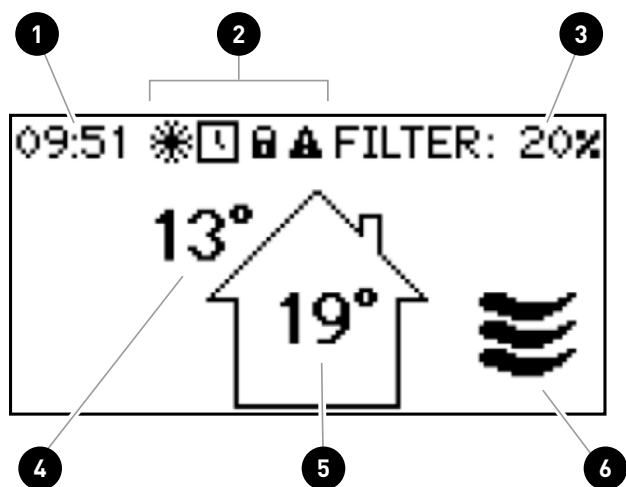## Control

The display on the DucoBox Energy has 3 buttons: up (▲), down(▼) and enter (■). The arrow keys can be used to scroll through the menu. If the display has not been used in the normal operating mode, it will be deactivated after 1 minute. Press any button at random on the display in order to reactivate it. Press enter (■) to retrieve the menu.

up (▲)

enter (■)

down (▼)
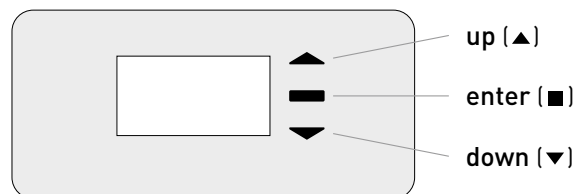
Main screen

The display will light up continuously when the DucoBox Energy starts up until calibration has been completed. Then the following main screen is visible:

❶	**Time**	
❷	**Symbols**	
	❄	Frost protection is active
	🕒	Timer program is active
	🔒	Menu is in advanced mode
	⚠	There is a fault. The system might not be working properly.
❸	**Filter status** • 100% = new filter • 0% = replace filter	
❹	**Outdoor temperature**	
❺	**Indoor temperature**	
❻	**Ventilation position** The pictogram indicates the active position of the system (only if '**CONTROL ON DEVICE**' is active).	

02 Menu structure DucoBox Energy

The chart below contains all the menus in the DucoBox Energy.

Menus with a padlock (🔒) are only visible to the installer, after entering the installer's code **9876**.

The chart below may differ depending on the DucoBox Energy software version.

There are 4 visible main menus and 2 main menus visible after entering the installer code, each with submenus:
- **INFO**
- **SETTINGS**
- **FILTER**
- **INSTALLATION**
- **CALIBRATION** 🔒
- **ADVANCED** 🔒

Each of the submenus is explained in more detail in the following chapters.

INFO		see page 3
TEMPERATURE SENSORS		see page 3
PRESSURE SENSORS	🔒	see page 3
BOX SENSORS	🔒	see page 3
ERROR LOG		see page 3
DUCO SERIAL NUMBER		see page 4
SOFTWARE VERSION		see page 4
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SERVICE CODE		see page 4
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FILTER		see page 13
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FILTER LIFETIME	🔒	see page 13

INSTALLATION	🔒	see page 14
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CALIBRATION	🔒	see page 15
WIZARD	🔒	see page 15
CALIB BY CODE	🔒	see page 16
VERIFY HIGH LEVEL	🔒	see page 17

| ADVANCED	/ CLOSE ADVANCED	🔒

¹ Not visible with DucoBox Comfort FR.

² Only visible with the DucoBox Energy Sky.

³ Only if at the first start-up, when choosing the country, "the Netherlands" was selected.

03 Submenu INFO

03.A | INFO | > | TEMPERATURE SENSORS |

The DucoBox Energy features 4 temperature sensors, which measure the temperature at each duct connection. The values of these temperature sensors are indicative. When an error occurs, "---" appears on the display.
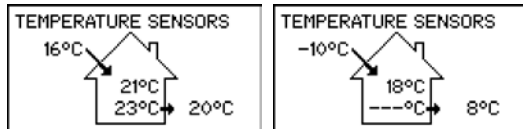

| Air ducts to **HOUSE**		Air ducts to **OUTDOORS**	
SUP Supply	Supply air from unit to house	**ODA** Outdoor Air	Supply air from outdoors to the unit
ETA Extract Air	Extract air from the house to the unit	**EHA** Exhaust Air	Exhaust air from the unit to outdoors
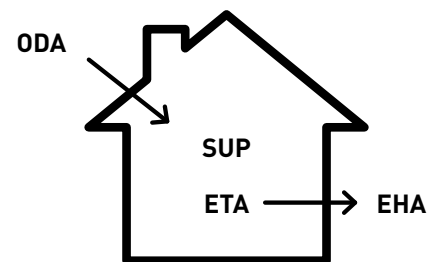
03.B | INFO | > | PRESSURE SENSORS |

The measured pressure in the device relative to the atmosphere is displayed. These values give an indication about the performance of the system calibration. The upper value is the SUP pressure sensor, the lower is the EHA pressure sensor. When an error occurs, "---" appears on the display.
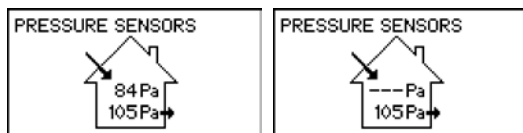
03.C | INFO | > | BOX SENSORS |

This menu displays the measured values of a CO_2 Box sensor, Humidity Box Sensor or a Humidity Sensor:
- CO_2: xx ppm
- RH: xx %
- Temp: xx °C
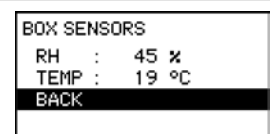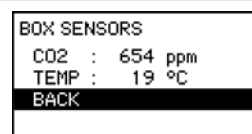
## 03.D | INFO | > | ERROR LOG |

If the fault symbol ⚠ is shown on the main display, you will find in this menu an overview of error messages and/or warnings that you can report to the DUCO Service Team. You can use the up (▲) or down (▼) buttons to scroll through the list, 1 error at a time. Errors are displayed on the screen in groups of 2. As long as "**BACK**" is not on the screen, there is a next screen.

Service instruction
Error codes
DucoBox Energy

Errors or warnings regarding the DucoBox itself

The items increase, based on the first number (XX) of the error code (XX.YY.ZZ).

3
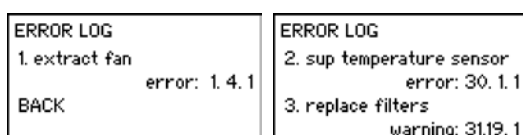
Errors or warnings regarding the components in the DucoBox network

Node numbers (increasing), e.g. error on paired component 4 (= type 10) with error code 3.17.3

```
ERROR LOG                    ERROR LOG
3. replace filters           4. user control rh
           warning: 31.19.1              error:  4-10: 3.17.3
4. user control rh           BACK
           error:  4-10: 3.17.3
```

03.E	INFO	> DUCO SERIAL NUMBER

Here you will find info on the serial number of the DucoBox as well as the circuit board:

```
DUCO SERIAL NUMBER           DUCO SERIAL NUMBER
DUCOBOX ENERGY                 DUCO SERIAL NUMBER:
BACK                              P0123456-012345-012
                               BOARD:
                                  PS01234567890
```

03.F	INFO	> SOFTWARE VERSION

In any communication with DUCO, you may be asked to state the software version of your DucoBox Energy. Please keep this number to hand for any communication. Please keep this info to hand.

If you retrieve the info from a component other than the DucoBox itself, an LED on this component will light up blue.

```
SOFTWARE VERSION             SOFTWARE VERSION
DUCOBOX ENERGY               SW: 19156.5.1.0
COMMUNICATION PRINT               15071.10.1.0
VALVES                       SN: PS1234567890
USER CONTROLS                     Jan  1  2022
```

- **Sw XXXXX** This indicates the software product type of the component.
  The software version of a component is a combination of the version numbers Release.Revision.Test, which leads to e.g.19156 4.3.0.
- **Sn XXXXX** This displays the serial number and manufacturing date of the printed circuit board.

03.G	INFO	> SOFTWARE UPLOAD

This functionality displays the status of the software update as a percentage (for the benefit of the DUCO Service Team).

Both the controller software and the underlying components in the network are updated.

During the update, the controller's LED flashes magenta (≈ purple). The update is complete as soon as the LED lights magenta continuously. During updating, it is possible that the controller restarts and the LED lights yellow temporarily.

```
SOFTWARE UPLOAD         SOFTWARE UPLOAD        SOFTWARE UPLOAD
UPDATE NODE 255         UPDATE NODE 4          SYSTEM UP-TO-DATE
SW: 12035.12.1.0        SW: 17046.13.1.0
             88%                     3%                    100%
```

03.H	INFO	> SERVICE CODE

This code lists the components in the network and their software version and provides insight into the system for service purposes. Note that the code is case-sensitive! The code can consist of several pages, allowing scrolling with the arrow key.

Example: 2221Cc137c12ae21Ab12fc12

DUCO

| 03.1 | INFO | > | DEVICE INFO |

In any communication with DUCO, you may be asked to provide unit details such as correct name, type, country setting.

Some examples:

DEVICE INFO
DB Energy Premium
TYPE: 325-1ZH-R
BELGIUM

DEVICE INFO
DB Energy Premium
TYPE: 400/570-2ZS-L
THE NETHERLANDS

DEVICE INFO
DB Energy Comfort
TYPE: 325-R
THE NETHERLANDS

DEVICE INFO
DB Energy Comfort Plus
TYPE: 450-H-R
UNITED KINGDOM

DEVICE INFO
DB Energy Comfort Plus
TYPE: 550-4Z-L
BELGIUM

DEVICE INFO
DB Energy Comfort FR
TYPE: 325-H-L
FRANCE

DEVICE INFO
DB Energy Sky
TYPE: 275-3Z-R
THE NETHERLANDS

04 Submenu SETTINGS

| 04.A | SETTINGS | > | COMFORT TEMPERATURE |

The DucoBox Energy will seek to maintain the temperature in the house at the set value (default 21°C – min. 10°C – max. 25,5°C) (in AUTO mode). The DucoBox Energy also features a smart algorithm which will automatically adjust the comfort temperature depending on the outdoor temperature. This will maintain the temperature in the house at the most comfortable level possible for the occupants.

With zoned control, a comfort temperature can be set for each zone.

DucoBox Energy without zoned control   **DucoBox Premium 2Z:**

COMFORT TEMPERATURE
21,5°C

COMFORT TEMPERATURE
ZONE 1
21,5°C

COMFORT TEMPERATURE
ZONE 2
21,5°C

Multi-zone DucoBox Energy Comfort (Plus):

COMFORT TEMPERATURE
ZONE 1
21,5°C

COMFORT TEMPERATURE
ZONE 2
21,5°C

COMFORT TEMPERATURE
ZONE 3
20,5°C

| 04.B | SETTINGS | > | CONTROL ON DEVICE |

The DucoBox Energy has the option to view and change the ventilation position via the display menu. If this option is active, the main screen will show the ventilation position and using the arrow keys will enable changing the ventilation position. The selected ventilation position on the unit is permanent (indicated in purple on the controls) until the user activates another mode. A user controller is needed if you want to set temporary manual positions. DUCO recommends the AUTO position for an optimal and energy-efficient operation.

CONTROL ON DEVICE
Control the device on
the main screen
ON

⊘ **Caution: an activated clock programme can only work in AUTO mode.**

DUCO

04.C	**SETTINGS**	**>**	**PROGRAM⁴**

⁴ Not visible with DucoBox Comfort FR.

Default: inactive

A set timetable can be programmed into the ventilation unit.

This is desirable when there are no CO_2 and/or humidity sensors in the ventilation system. With the timer program, the DucoBox Energy Comfort will increase or decrease the ventilation in the house.
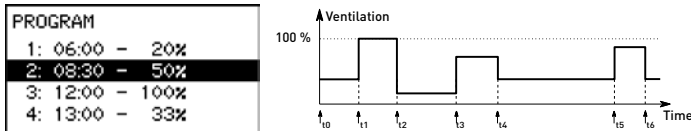
There are 2 possibilities:

1. DucoBox WITHOUT zone control
You immediately enter the programming menu.

PROGRAM	PROGRAM	PROGRAM
MODE	MODE	MODE
BACK	WORKWEEK	PROGRAM
	WEEKEND	BACK
	BACK	

Select **ADD** to insert a new time point (max. 8) into the program.

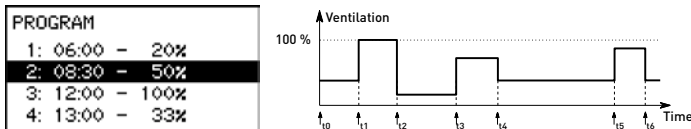| PROGRAM	
1: 06:00 — 20%
2: 08:30 — 50%
3: 12:00 — 100%
4: 13:00 — 33%

2. DucoBox WITH 2-zone or Multi-zone configurations
The timer program can be set differently for each zone.

PROGRAM	PROGRAM	PROGRAM	PROGRAM
ZONE 1	MODE	MODE	MODE
ZONE 2	BACK	WORKWEEK	PROGRAM
ZONE 3		WEEKEND	BACK
BACK		BACK	

Select **ADD** to insert a new time point (max. 8) into the program.

PROGRAM	
1: 06:00 — 20%
2: 08:30 — 50%
3: 12:00 — 100%
4: 13:00 — 33%

DUCO

04.D	SETTINGS	>	BYPASS

Default bypass settings:
* MODE = Auto
* ADAPTIVE = On

The system is able to partially or completely deactivate heat recovery if the temperature in the house rises too high, e.g. due to solar heat gain in hot summer weather.

In this case, the bypass will direct the air extracted from the house either partially across the heat exchanger or not at all. Fresh outdoor air will therefore not be heated up by warm stale indoor air. This relatively cooler outdoor air entering the house will be used to reduce the temperature in the house as far as possible down to the desired temperature.

STATUS: the current bypass status (informative)

0%	bypass shut	(= heat exchange active)
100%	bypass open	(= no heat exchange)

```
BYPASS
 STATUS      40%
 MODE        OPEN
 ADAPTIVE    ON
 BACK
```

MODE: with this submenu the bypass can be set manually

* AUTO (= standard): automatic operation based on measured temperature and comfort temperature setting
* OPEN: heat exchange at no time
* SHUT: heat exchange all the time

```
BYPASS
 MODE
 CLOSED
```

ADAPTIVE*
ON, the system will automatically seek the most pleasant-feeling temperature thanks to a smart comfort temperature control. The system will adjust the desired indoor temperature based on the outdoor temperature and the season of the year.

* This is only visible if the MODE is set to AUTO

```
BYPASS
 ADAPTIVE
 OFF
```

04.E	SETTINGS	>	DATE & TIME

The DucoBox Energy has an inbuilt clock which is required for the time-dependent controls.

During the initial installation, carried out by the installer, the date and time will be set correctly. Each DucoBox Energy will remember the date and time for a number of hours after a power interruption.

If the date and time have nevertheless been set incorrectly, they can be corrected manually via this menu by pressing the up- or down-button and to press enter to confirm or to move to the next line.

```
DATE & TIME

TIME:      08:05
DATE:      07/01/2020
TIMEZONE:  +01 GMT
```

04.F	SETTINGS	>	LANGUAGE

Default: ENGLISH

The menu language can be changed to match the user's language. The following languages are available: Dutch, English, French and German. All important installer settings (e.g. Wizard menus) will always appear in ENGLISH. Despite other language choice selected.

04.G	SETTINGS	>	SCREEN ORIENTATION[6]

[6] Only adjustable with a DucoBox Sky.

Depending on the positioning of the device, the display can be oriented differently. The options are STANDARD or UPDATED.

```
SCREEN ORIENTATION
Select orientation of the
main screen

   STANDARD
```
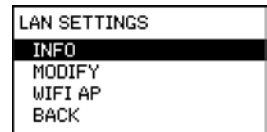
```
SCREEN ORIENTATION
Select orientation of the
main screen

   REVERSED
```
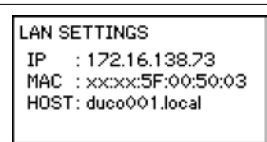
DUCO

04.H   SETTINGS   > LAN SETTINGS

This platform is only active when a Duco Connectivity Board is connected, AND there is a positive response to the IP address query.

The Duco Connectivity Board can be connected to the local network for use of the Duco Installation App. Under this submenu you will find the possible settings to set the network connection.

```
LAN SETTINGS
  INFO
  MODIFY
  WIFI AP
  BACK
```

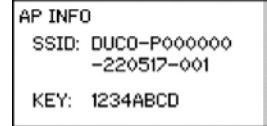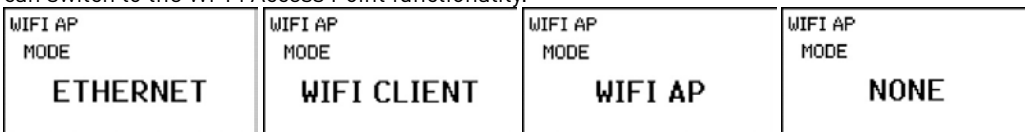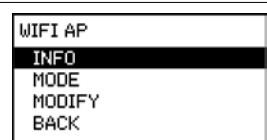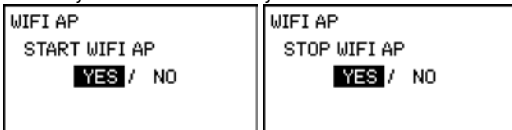|	
INFO: the network connection is read here. Information about the IP address, MAC address and HOST name is displayed.	```LAN SETTINGS IP : 172.16.138.73 MAC : xx:xx:5F:00:50:03 HOST: duco001.local```
MODIFY: this is where the network connection is set. • DHCP: Is set to ON by default. If this option is activated, the IP address of the DucoBox is retrieved automatically . Depending on the DHCP setting (ON/OFF), the following settings are visible: • STATIC IP: (If DHCP = OFF) The static IP address of the DucoBox can be changed here. • DEFAULT GATEWAY: (If DHCP = OFF) The default Gateway can be changed here. • HOSTNAME: Only visible when an "old" Communication Print is connected. Default: duco.001.local. This indicates the web address that can be surfed to via the web browser on the local network to read or change the parameters of the DucoBox . This web address is htttp://ducoxxx.local, with xxx = the entered number in this parameter.	```LAN SETTINGS HOSTNAME duco003.local```
WIFI AP: Wi-Fi Access Point - only visible when a Duco Installation Kit or Duco Connectivity Board is connected. • AP INFO: this menu provides information about the serial number and Wi-Fi key • MODE: This menu provides information about the network connection. By pressing any button you can switch to the Wi-Fi Access Point functionality.	```WIFI AP INFO MODE MODIFY BACK``` ```AP INFO SSID: DUCO-P000000 -220517-001 KEY: 1234ABCD```

```
WIFI AP          WIFI AP          WIFI AP          WIFI AP
  MODE             MODE             MODE             MODE

ETHERNET       WIFI CLIENT        WIFI AP            NONE
```

• MODIFY: adjust the network mode

```
WIFI AP          WIFI AP
  START WIFI AP    STOP WIFI AP
  BACK             BACK
```

Select yes or no to modify the network mode.

```
WIFI AP          WIFI AP
  START WIFI AP    STOP WIFI AP
    YES / NO         YES / NO
```

While the command is processing you will see the following screen:

```
WIFI AP          WIFI AP
  START WIFI AP    STOP WIFI AP
    Please Wait...   Please Wait...
```
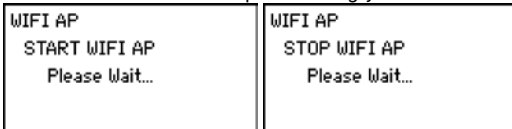
04.I   SETTINGS   >   MODBUS

In this platform, external Modbus-links can be set up. This is only active when a Duco Connectivity Board is connected, AND there is a positive response to the Modbus address query.

- ADDRESS: The Modbus address of the controller can be set here (default = 1).
- REGISTER OFFSET: Addresses start counting from 1 by default.
- SPEED: Adjustable only with a Communication Board instead of Duco Connectivity Board.
- PARITY: Adjustable only with a Communication Board instead of Duco Connectivity Board.

```
MODBUS
  ADDRESS
  REGISTER OFFSET
  SPEED
  PARITY
```

04.J   SETTINGS   >   CONFIG

This menu provides an overview of all possible components, regardless of whether these components are actually present in the network or not. The LED button of each component whose settings are currently being changed turns blue . Thus, the component selected in the menu is identified with the physical component in the ventilation system .

In the following submenus, the parameters of the respective component can be configured: BOX (DucoBox), EAV (valves or 2-zone configurations), UCRH/UCCO$_2$ (User controllers), BOX SENSOR LIST (box sensors) and SWITCH LIST (switch sensors).

BOX (DucoBox Energy)

This submenu displays the various configuration parameters of the controller.
- **AUTO MIN**: Minimum ventilation position in automatic mode (default = 10%).
- **AUTO MAX**: Maximum ventilation position in automatic mode (default = 100%).
- **UC ERROR MODE**: Indication selection of error (red) or warning (orange) within the DUCO network:
  - DISABLED: the user controller or room sensor does not show an LED indication.
  - AUTO: the LED indication of the user controller or room sensor continues to show the error or warning.
  - ON INPUT: when changing a manual action on the user controller or room sensor, the LED will flash.

```
1 - BOX                  1 - BOX              1 - BOX
  AUTO MIN                 AUTO MIN             UC ERROR MODE
  AUTO MAX
  UC ERROR MODE               10 %                 AUTO
  BACK
```

EAV (valves or 2-zone valve)

This submenu displays any multi-zone valves.
- AUTO MIN: Minimum ventilation position in automatic mode (default = 10%).
- AUTO MAX: Maximum ventilation position in automatic mode (default = 100%).

With the DucoBox Energy Comfort (Plus):

```
MULTIZONE VALVE LIST     2 - EAV              2 - EAV
  2 - EAV                  AUTO MIN             AUTO MIN
  3 - EAV                  AUTO MAX
  4 - EAV                  BACK                    30 %
  BACK
```

With the DucoBox Energy Premium:

```
2-ZONE VALVE             67 - ZONE 1
  67 - ZONE 1              AUTO MIN
  68 - ZONE 2              AUTO MAX
  BACK                     BACK
```

UCRH/UCCO$_2$ (Controls (humidity/CO$_2$)

For the various user controllers in the network, the various possible configuration parameters are shown here, preceded by their node number, e.g. Node 4, Node 5 ...

Remote controls have the following settings:

- **MANUAL 1**: Ventilation flow rate for manual mode with 1 wave (standard = 10% for extraction and 0% for window ventilator)
- **MANUAL 2**: Ventilation flow rate for manual mode with 2 waves (standard = 50%)
- **MANUAL 3**: Ventilation flow rate for manual mode with 3 waves (standard = 100%)
- **MANUAL TIME**: Time before a sensor/ remote control returns to automatic setting (default = 15 min. for extraction and 8 hours for supply)
- **RH SETPOINT**: Setpoint for the relative humidity sensor, if present (default = 60% - max = 90%)
- **RH DELTA**: Possibility to activate delta control (on/off – default = off). This delta control increases the ventilation if there is a certain increase in the moisture content over a period of time (e.g. 10% in 5 seconds). Because this may cause the ventilation system to overreact, it is off by default.
- **CO$_2$ SETPOINT**: Setpoint for the CO$_2$ sensor, if present, in the user controller (default = 800 ppm - max. 2000 ppm)
- **CO$_2$ TEMP. DEP. CONTROL**: Temperature-dependent ventilation (ON/OFF) (default = ON).
  This function limits nuisance from cold air for people present in the building by making the system react less quickly to high CO$_2$ values in the current zone. This is done by dynamically compensating the CO$_2$ setpoint.
- **SENSOR VISU LEVEL**: Sensor visualisation level
  When the ventilation system detects a CO$_2$ or humidity level that is too high (based on the set CO$_2$ or RH setpoint), the system will start ventilating at a certain percentage. By setting a percentage in Sensor Visualisation Level, the AUTO button LED will light up blue (for Humidity Room sensor) or purple (for CO$_2$ Room sensor) when the ventilation level is ventilating at or above this percentage. This is useful to detect why the ventilation system is revving up high in a particular zone.For example: when Sensor Visualisation Level is set to 50%, the AUTO button LED on the CO$_2$ Room sensor will light up purple when the ventilation system starts running at 50% or more due to a CO$_2$ concentration that is too high.
- **UC ERROR MODE**: Indication selection of error (red) or warning (orange) within the DUCO network:
  - <u>Disabled</u>: the user controller or room sensor does not show an LED indication.
  - <u>Auto</u>: the LED indication of the user controller or room sensor continues to show the error or warning.
  - <u>On Input</u>: when changing a manual action on the user controller or room sensor, the LED will flash.

BOX SENSOR LIST

In this submenu, the setpoint for any CO$_2$ sensor or relative humidity sensor (box sensor) can be determined. Default RH = 60%; max = 90%.

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DUCO

SWITCH LIST (Dry contacts)

De-energised contacts are inputs that detect when a connected on/off component, e.g. a relay, switches . An action can be linked to this circuit via the display menu . The menu displays the various configuration parameters for the different de-energised contacts in the network . Eg: Node 4, Node 5,... A dry contact on the controller printed circuit board can also be set. If a dry contact does not appear in the menu, it must be closed once to be registered on the controller.

```
SWITCH LIST          134 - SWITCH         135 - SWITCH
  134 - SWITCH         SWITCH MODE          SWITCH MODE
  135 - SWITCH         SWITCH VALUE         SWITCH VALUE
  BACK                 BACK                 SWITCH ZONE
                                            BACK
```

Dry contacts have the following settings:

SWITCH MODE: Indicates what the dry contact is used for (default = PRESENCE)
- <u>PRESENCE</u>: (e.g. toilet detection): indicates which ventilation position should be used to extract air in the toilet (default SWITCH VALUE = 100%)
- <u>HEATPUMP</u>: (heat pump): indicates to which ventilation level the flow rate must be increased depending on the connected heat pump (default SWITCH VALUE = 150 m³/h)
- <u>OVERRULE</u> : (e.g. alarm): indicates the ventilation level at which the system is being overruled (0-250% / 'MAX'). If set to 'MAX', the fan revs up to maximum and the valve opens fully (default SWITCH VALUE = 100%)

Examples:
- **Mode / Value**

```
134 - SWITCH         134 - SWITCH
  SWITCH MODE          SWITCH VALUE

   PRESENCE             100 %
```

- **DucoBox Energy Premium – Zone**

```
135 - SWITCH         135 - SWITCH         135 - SWITCH
  SWITCH ZONE          SWITCH ZONE          SWITCH ZONE

  BOTH ZONES             ZONE 1               ZONE 2
```

- **DucoBox Energy Comfort (Plus) – Zone**

```
135 - SWITCH         135 - SWITCH
  SWITCH ZONE          SWITCH ZONE

   ALL ZONES            ZONE 4
```

DUCO

04.K   SETTINGS   >   FROST PROTECTION

Default: ON (cannot be switched off)

There is a possibility at low outdoor temperatures that the moisture in the exhaust air will condense in the heat exchanger. The DucoBox Energy is equipped with a mechanism to prevent freezing of this condensate.

The unit will adjust air flow rates in such a way that freezing will be prevented (= temporary imbalance method).

The frost symbol (❄) will be shown on the display whenever frost protection is in operation.

STATUS: informative: current status of frost protection
- STANDBY: frost protection not in operation
- ACTIVE: frost protection in operation

HEATER: only with a DucoBox Energy Premium with Heater
- AUTO: use heater to heat air
- OFF: do not use heater

PASSIVE HOUSE: only with DucoBox Energy Premium 325
- ON: deactivate imbalance method as frost protection
- OFF: normal frost protection operation (including allow imbalance method)

EXTERNAL HEATER: adjustable parameter only with DucoBox Energy Comfort (Plus)
- PRESENT: Pre-Heater connected to DucoBox
- ABSENT: Pre-Heater not connected to DucoBox

DucoBox Energy Comfort without heater:

DucoBox Energy Premium without heater:

04.L   SETTINGS   >   NIGHTBOOST

Default = Off

With DUCO's NightBoost function, the ventilation system is deployed during summer to support the cooling of warm indoor temperatures. The NightBoost function works zonally . This function is mainly aimed at homes and uses small flow rates (= basic ventilation) .

Caution: for the Nightboost function to work correctly, the time must be set correctly.
- **MODE**: ON or OFF
- **START MONTH & STOP MONTH**: Start and end month of the period in which the Nightboost function may be active (default = May to September)
- **START TIME & STOP TIME**: Start and end time when the Nightboost function can be active (default = 1:00 to 6:00)

## 04.M   SETTINGS   >   BUILDING TYPE

Only visible in "ADVANCED MODE" and if the country is set to "the Netherlands"!

SET BUILDING TYPE: Choice of parameter **HOUSE** (ground-based) or **FLAT** (non-ground-based).

DUCO

05 Submenu FILTER

If the filters of the DucoBox Energy need to be replaced, the system itself indicates this by means of an alert on the display: "**REPLACE FILTER**". The display stays lit up until the user takes action. This alert appears once. On the display, the warning symbol does remain on the display, even if the warning itself was deleted. The filter indicator shows 0%.

```
FILTER
FILTER STATUS
REPLACE FILTER
FILTER LIFE CONFIG
BACK
```
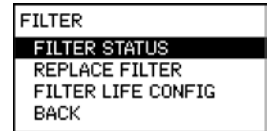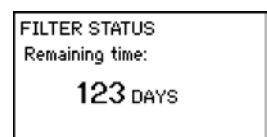
The estimated remaining service life of the filters is indicated in two ways:
1. At the top right of the display is the filter indication (100% = new filter, 0% = filter replaced)
2. The estimated remaining life of the filter (expressed in days) can be read in the menu **FILTER STATUS**.

05.A	**FILTER**	>	**FILTER STATUS**

The default lifespan is 180 days.

```
FILTER STATUS
Remaining time:
123 DAYS
```

05.B	**FILTER**	>	**REPLACE FILTER**

YES (by default after 6 months) / NO

Then step-by-step instructions on how to replace the filters.

```
REPLACE FILTER

YES / NO
```

```
REPLACE FILTER
1. Remove filter caps
2. Replace filters
3. Close filter caps
4. Press □
```
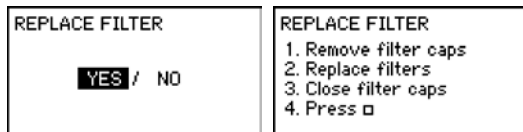
Only for the DucoBox Energy Comfort FR the correct position and type of filter is displayed:

```
REMPLACER LE FILTRE
Considérez les positions
correctes des filtres:
EPM1-55%  Coarse-65%
           Press □
```

05.C	**FILTER**	>	**CLEAN FILTER**

By default after 3 months. Step-by-step instructions on how to clean the filters:

 Service & Maintenance DucoBox Energy Comfort (Plus) Filters

 Service & Maintenance DucoBox Energy Premium Filters

05.D	**FILTER**	>	**FILTER LIFE CONFIG**

Only visible in ADVANCED; set to 180 by default. The parameter "Filter life time" can be adjusted (90 / 180 / 270 / 360).

```
FILTER LIFE CONFIG
Filter life time:
180 DAGEN
```

```
FILTER LIFE CONFIG
Filter life time:
360 DAYS
```
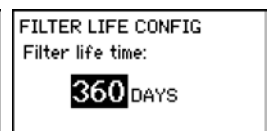
06 Submenu ADVANCED

Gaining access to menus only intended for installers requires the advanced mode to be activated. When the advanced mode is active, additional items will appear on the menu, which enable the unit to be put into operation.

06.A	**ADVANCED**	**>**	**CLOSE ADVANCED**

Activate/deactivate advanced mode to make functions with a lock (🔒) visible/invisible: enter installer code **9876** and press Enter. Now additional items are available in the menu. The padlock () on the display menu indicates that the advanced mode is active.

```
ADVANCED
Enter code:

      9876
```

```
MENU
  SETTINGS
  FILTER
  ADVANCED        🔒
  BACK
```

After 30 minutes of inactivity or after restarting the DucoBox Energy, the menu will leave the advanced mode. The advanced mode can also be closed down manually using the **CLOSE ADVANCED** menu command.

07 Submenu INSTALLATION

07.A	**INSTALLATION**	**>**	**WIZARD**

Follow this wizard to pair components to the system .
(See also the installation manual of the relevant DucoBox Energy)

DucoBox Energy Comfort (Plus) + DucoBox Energy Premium + DucoBox Sky without zones

```
WIZARD
Number of components
linked to DUCOBOX   : 5

Components can be added.
Press □ to continue.
```

DUC0.TV

DucoBox Energy Comfort (Plus) with multi-zone valves

```
WIZARD
Create multizone SUPPLY
network with external air
valves?
          YES / NO
```
```
WIZARD
Add external air valve for
SUPPLY  ZONE 1

Zones: 0  (min 2 / max 4)
```
```
WIZARD
Number of components
linked to ALL ZONES  : 3

Components can be added.
Press □ to continue.
```
```
WIZARD
Number of components
linked to ZONE 1     : 2

Components can be added.
Press □ to continue.
```
```
WIZARD
Number of components
linked to ZONE 2     : 1

Components can be added.
Press □ to continue.
```

DucoBox Energy Premium with 2 zones

```
WIZARD
Number of components
linked to BOTH ZONES : 4

Components can be added.
Press □ to continue.
```
```
WIZARD
Number of components
linked to ZONE 1     : 2

Components can be added.
Press □ to continue.
```
```
WIZARD
Number of components
linked to ZONE 2     : 1

Components can be added.
Press □ to continue.
```

WIZARD > ERROR

Too few or too many multizones were paired to the DucoBox. Follow the relevant installation manual.

```
WIZARD

ERROR
Illegal configuration

Too few external valves
```
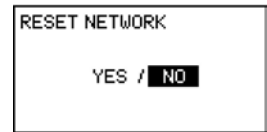```
WIZARD

ERROR
Illegal configuration

Too many external valves
```
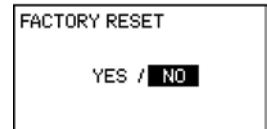
## 07.B   INSTALLATION   >   RESET NETWORK

This removes all registered control components (user controllers and/or room sensors) from the network.

```
RESET NETWORK

     YES / NO
```

07.C   INSTALLATION   >   FACTORY RESET

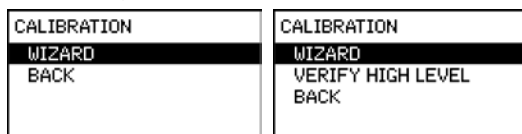Resets the entire system (= DucoBox Energy + paired components) to factory settings. The calibration will be lost.

```
FACTORY RESET

     YES / NO
```

08   Submenu CALIBRATION

**With DucoBox Energy Premium and DucoBox Energy Comfort FR:**
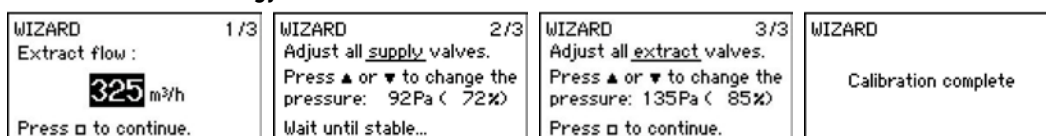VERIFY HIGH LEVEL appears if the WIZARD has been completed correctly.

```
CALIBRATION
WIZARD
BACK
```

```
CALIBRATION
WIZARD
VERIFY HIGH LEVEL
BACK
```

With DucoBox Energy Comfort (Plus):
VERIFY HIGH LEVEL appears if the WIZARD or CALIB BY CODE has been completed correctly.

```
CALIBRATION
WIZARD
CALIB BY CODE
BACK
```

```
CALIBRATION
WIZARD
VERIFY HIGH LEVEL
CALIB BY CODE
BACK
```
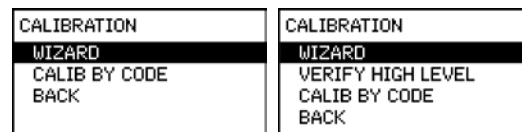
08.A   CALIBRATION   >   WIZARD

The order and whether or not the messages appear in the display depends on the type of DucoBox Energy.
Follow the wizard to set the flow rates correctly according to the installation manual provided.
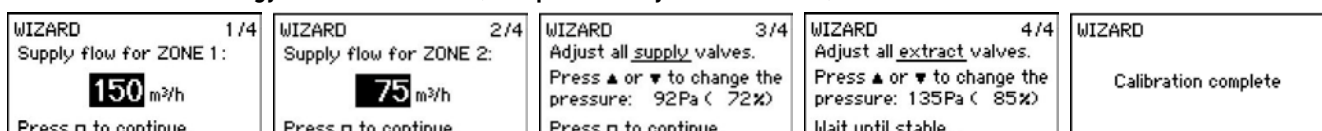
WIZARD DucoBox Energy without zones:

```
WIZARD            1/3
Extract flow :

    325 m³/h

Press □ to continue.
```

```
WIZARD            2/3
Adjust all supply valves.
Press ▲ or ▼ to change the
pressure:  92Pa ( 72%)
Wait until stable...
```

```
WIZARD            3/3
Adjust all extract valves.
Press ▲ or ▼ to change the
pressure: 135Pa ( 85%)
Press □ to continue.
```

```
WIZARD

Calibration complete
```

WIZARD DucoBox Energy Comfort FR

```
WIZARD            1/2
Select Building Index: 11
Type: T4      Bathrooms: 1
Toilets:1 or 2 Wet rooms:  1
Flows:   120 / 195 m³/h
```

```
WIZARD            2/2
Use the DUCO approved
default pressure values
for the selected building?
    YES / NO
```

```
WIZARD            3/6
Base flow condition
Adjust Supply pressure:
   68 Pa   (def: 74 Pa)
Press □ to continue.
```

```
WIZARD            4/6
Base flow condition
Adjust Extract pressure:
   44 Pa   (def: 41 Pa)
Press □ to continue.
```

```
WIZARD            5/6
Peak flow condition
Adjust Supply pressure:
  181 Pa   (def: 185 Pa)
Press □ to continue.
```

```
WIZARD            6/6
Peak flow condition
Adjust Extract pressure:
  101 Pa   (def: 96 Pa)
Press □ to continue.
```

```
WIZARD

Configuration complete
```

WIZARD DucoBox Energy Premium 2 zones (except if country selection = NL)

```
WIZARD            1/4
Supply flow for ZONE 1:

    150 m³/h

Press □ to continue.
```

```
WIZARD            2/4
Supply flow for ZONE 2:

     75 m³/h

Press □ to continue.
```

```
WIZARD            3/4
Adjust all supply valves.
Press ▲ or ▼ to change the
pressure:  92Pa ( 72%)
Press □ to continue.
```

```
WIZARD            4/4
Adjust all extract valves.
Press ▲ or ▼ to change the
pressure: 135Pa ( 85%)
Wait until stable...
```

```
WIZARD

Calibration complete
```

WIZARD DucoBox Energy Premium 2 zones (if country selection = NL)

WIZARD 1/6 Supply flow for ZONE 1: **150** m³/h Press □ to continue.	WIZARD 2/6 Supply flow for ZONE 2: **75** m³/h Press □ to continue.	WIZARD 3/6 Extract flow : **325** m³/h Press □ to continue.	WIZARD 4/6 Adjust <u>ZONE 1 supply</u> valves Press ▲ or ▼ to change the pressure: 120Pa (63%) Wait until stable...	WIZARD 5/6 Adjust <u>ZONE 2 supply</u> valves Press ▲ or ▼ to change the pressure: 65Pa (38%) Press □ to continue.
WIZARD 6/6 Adjust all <u>extract</u> valves. Press ▲ or ▼ to change the pressure: 135Pa (85%) Press □ to continue.	WIZARD Calibration complete			

WIZARD DucoBox Energy with multi-zone (except if country selection = NL)

|				
WIZARD 1/6 Supply flow for ZONE 1: **150** m³/h Press □ to continue.	WIZARD 2/6 Supply flow for ZONE 2: **75** m³/h Press □ to continue.	WIZARD 3/6 Adjust all <u>extract</u> valves. Press ▲ or ▼ to change the pressure: 135Pa (85%) Wait until stable...	WIZARD 4/6 Adjust <u>ZONE 1 supply</u> valves Press ▲ or ▼ to change the pressure: 120Pa (63%) Wait until stable...	WIZARD 5/6 Adjust <u>ZONE 2 supply</u> valves Press ▲ or ▼ to change the pressure: 65Pa (38%) Press □ to continue.
WIZARD 6/6 Calibration active Measuring all zones open Wait until stable...	WIZARD 6/6 Calibration active Calculations ongoing Wait until converged...	WIZARD Calibration complete		

WIZARD DucoBox Energy with multi-zone (except if country selection = NL)

|				
WIZARD 1/7 Supply flow for ZONE 1: **150** m³/h Press □ to continue.	WIZARD 2/7 Supply flow for ZONE 2: **75** m³/h Press □ to continue.	WIZARD 3/7 Extract flow : **325** m³/h Press □ to continue.	WIZARD 4/7 Adjust all <u>extract</u> valves. Press ▲ or ▼ to change the pressure: 135Pa (85%) Press □ to continue.	WIZARD 5/7 Adjust <u>ZONE 1 supply</u> valves Press ▲ or ▼ to change the pressure: 120Pa (63%) Wait until stable...
WIZARD 6/7 Adjust <u>ZONE 2 supply</u> valves Press ▲ or ▼ to change the pressure: 65Pa (38%) Press □ to continue.	WIZARD 7/7 Calibration active Measuring all zones open Wait until stable...	WIZARD 7/7 Calibration active Calculations ongoing Wait until converged...	WIZARD Calibration complete	

WIZARD > CALIBRATION ABORT

The Wizard cannot start due to action not performed correctly in **INSTALLATION > WIZARD**.
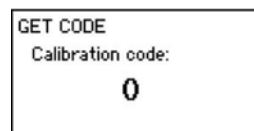Go to **INSTALLATION** and Reset Network. Read the installation manual to pair correctly.

WIZARD
calibration abort
ILLEGAL CONFIG
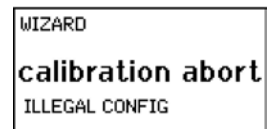

08.B	**CALIBRATION**	**>**	**CALIB BY CODE**

To copy the calibration from an existing system to another unit, a code can be requested or read in.

WIZARD

Calibration complete
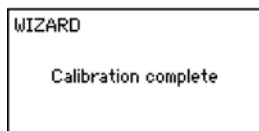
GET CODE: Note the code on the display. There is a code per installed zone. If the code equals 0, the DucoBox has not yet been calibrated.

GET CODE
Calibration code:
0

Calibrated DucoBox without zones:

GET CODE
Calibration code:
325092135
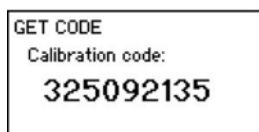
Calibrated DucoBox with zones:

GET CODES 1/3	GET CODES 2/3	GET CODES 3/3
Calibration code 1:	Calibration code 2:	Calibration code 3:
2325135	**2150120**	**1075065**
Press □ for next code	Press □ for next code	Press □ to finish

ENTER CODE: Enter the code on the display. The number of codes to enter depends on the number of zones installed.

ENTER CODES 1/3	ENTER CODES 2/3	ENTER CODES 3/3
Enter Calibration code 1:	Enter Calibration code 2:	Enter Calibration code 3:
0000000	**2150000**	**1075065**

CALIB BY CODE > ERROR

The last code entered is not compatible with the configuration of the DucoBox on which the code was entered. Recalibrate the DucoBox via the Wizard.

CALIB BY CODE	CALIB BY CODE
Calibrating... Please wait.	ERROR
	Entered code does not match with current installation

08.C   CALIBRATION   >   VERIFY HIGH LEVEL

This temporarily sets the system to high mode so that the calibrated flow rates can be controlled.

Only active if calibration (according to the wizard) has been performed.

DucoBox without zones
The set flow rate is displayed.

VERIFY HIGH LEVEL
Check flow on the valves.
Extract flow: 150 m³/h
Press □ to continue.

DucoBox with zones (except if country selection = NL)
The set flow rates of both or all zones are displayed.

VERIFY HIGH LEVEL		VERIFY HIGH LEVEL	VERIFY HIGH LEVEL
Check flow on the valves.		Check flow on the valves.	Check flow on the valves.
Flow ZONE 1: 150 m³/h	OR	ZONE 1/3: 75 m³/h ▲	ZONE 2/3: 100 m³/h ▲
Flow ZONE 2: 75 m³/h		ZONE 2/3: 100 m³/h ▼	ZONE 3/3: 125 m³/h ▼
Press □ to continue.		Press □ to continue.	Press □ to continue.

DucoBox with zones (if country selection = NL)
The set flow rates are shown separately per zone.

VERIFY HIGH LEVEL 1/3	VERIFY HIGH LEVEL 2/3	VERIFY HIGH LEVEL 3/3
Check flow on the valves.	Check flow on the valves.	Check flow on the valves.
Flow ZONE 1: 150 m³/h	Flow ZONE 2: 75 m³/h	Flow DUCOBOX 325 m³/h
Press □ to continue.	Press □ to continue.	Press □ to continue.