

Display menu

DucoBox Focus

L8000042-B 22.04.2026

01 Preliminary remarks

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



Depending on the software version and the presence of a Duco Connectivity Board, some items can be missing from the display menu.

Control

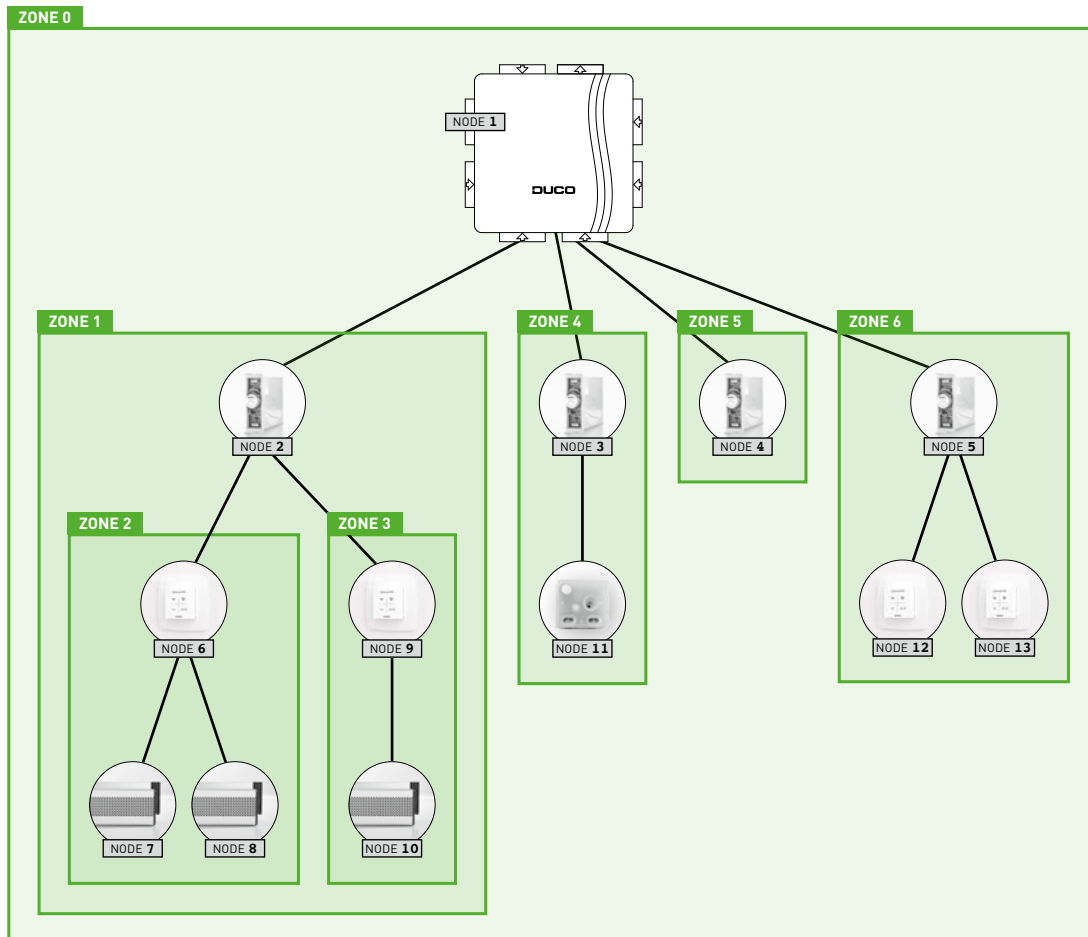
The DucoBox Focus is equipped with 3 buttons: up (▲), down (▼) and enter (■). You can use the arrow keys to scroll through the menu. At the end of each submenu there is always a **>Back** command to return to the parent menu. To return to the main menu, briefly press ▲ and ▼ together. If the keys are not pressed for 2 minutes, the display is deactivated. Press any button to reactivate the display.

The main menu contains the following items:

- **>Config** In this menu, you can **adjust settings of the DucoBox and of the components** in the network.
- **>Network** Displays an **overview of the network**. This menu allows you to query various parameters, such as sensor values or valve positions.
- **>FltLog** Gives an overview of the possible error codes.
- **>Perform** Gives an overview of the **different pressure drops** across the system's channels.
- **>SwUpdte** Displays the status of **software update**.
- **>ServCde** **(as of version 180327)**
Displays the status of the **software update**.
- **- Idetif -->** Allows identification of a control valve by opening one valve, closing the others and revving up the extract unit.

What is a zone?

Many parameters relate to the 'zone' where the component is located. A zone always contains a component and all its underlying components. If there are several room operating units (or room sensors) with underlying Tronic window ventilators in the same zone, they will form separate sub-zones (e.g. zone 2 and zone 3 in the example diagram below).





02 Config menu (modify settings)

This menu lists all possible components; they are therefore not actually present in the network. 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 selected component can be configured:

- 02.A DucoBox
- 02.B Control valves
- 02.C Room operating units / sensors
- 02.D Electronically controlled window ventilator
- 02.E Fixed voltage-free contacts of the DucoBox and wireless voltage-free contacts
- 02.F External communication (Modbus)
- 02.G Ethernet settings
- 02.H NightBoost

02.A Config: Box (DucoBox)

Displays the various configuration parameters of the DucoBox:

- Minimum ventilation setting in automatic mode (default = 10%).
- Maximum ventilation setting in automatic mode (default = 100%).
- Temperature-dependent ventilation when using Tronic window ventilators (**ON / OFF**) (default = **ON**).
This function limits nuisance from cold air for people present in the building by bringing in fresh air at a **smaller flow rate**. This is done by limiting the air opening of each Tronic window ventilator.
- Current time. Required for correct operation of NightBoost, among other things.
 - Time of day (e.g. 20:05)
 - Day of the month (e.g. 22)
 - Month (e.g. **March**)
 - Year (e.g. 2015)
 - Time zone (e.g. +1HRS)
- **Only applicable for non-zonal systems! (= central outlet)**
Indicates whether a property is ground-level (e.g. a house) or non-ground-level (e.g. an apartment). This setting in combination with **Persons** ensures an optimal adjustment of  (manual position 2 (= centre position)).
- **Only applicable for non-zonal systems! (= central outlet)**
Number of occupants. This setting, in combination with **GrndBnd**, ensures optimum adjustment of  (manual position 2 (= middle position)).
- Activate or deactivate the option to trigger automatic calibration of flow rates after a power failure.
- Indication choice of error (red) or notification (orange) within the DUCO network:
 - the control or room sensor does not show any LED indication.
 - the LED indication of the control or room sensor continues to demonstrate the error or notification continuously.
 - when modifying a manual action on the control or room sensor, the LED will flash.
- With central CO₂ detection, the ventilation flow rate is controlled based on an average CO₂ value for the entire house, calculated from all connected control valves with CO₂ detection.
This functionality is only possible if each connected control valve has a CO₂ sensor.

02.B Config: Valve (Control valves / iAV control valves)




Displays the various configuration parameters for the different control valves in the network, denoted by their node number (increasing number as components are registered, e.g.: **Node 2**, **Node 3**, etc.). Control valves have the following settings:

- Setting the desired flow rate in m³/h (default depending on the type of control valve: bathroom / washroom - toilet - living room / open kitchen - bedroom)
- Minimum ventilation setting in automatic mode (default = 10%).
- Maximum ventilation setting in automatic mode (default = 100%).
- Setpoint for any CO₂ sensor present in the control valve (default = 800 ppm).
- Temperature-dependent ventilation when using Tronic window ventilators (**ON / OFF**) (default = **ON**).
This function limits nuisance from cold air for people present in the building by making the system **less responsive** to high CO₂ values in the current zone. This is done by dynamically offsetting the CO₂ setpoint.
- Setpoint for the relative humidity sensor, if present, in the control valve (default=60%).

- **>RHDelta** Possibility of activating delta control (**ON / OFF**) (default = **OFF**). This delta control increases ventilation when the moisture content rises by a certain amount in a given time period (e.g. 10% in 5 seconds). As this can cause the ventilation system to overreact, it is off by default.

02.C Config: Ctrl (Room operating units / room sensors)

Displays the configuration parameters for the user controls in the network. For example: **Node 4, Node 5**, etc. user controls have the following settings:

- **>Manual1** Ventilation rate for manual mode  (default = 15% for exhaust and 0% for window ventilator).
- **>Manual2** Ventilation flow rate for manual mode  (default = 50%).
- **>Manual3** Ventilation flow rate for manual mode  (default = 100%).
- **>ManTime** Time before a sensor or room operating unit returns to automatic mode (default = 15 minutes for outlet and 8 hours for supply)
- **>RHSetp** Setpoint for the relative humidity sensor, if present (default = 60%).
- **>RHDelta** Possibility of activating delta control (**ON / OFF** - default = **OFF**). This delta control increases ventilation when the moisture content rises by a certain amount in a given time period (e.g. 10% in 5 seconds). As this can cause the ventilation system to overreact, it is off by default.
- **>CO2Setp** Setpoint for any CO₂ sensor present in the control (default = 800 ppm).
- **>CO2Tcmp** Temperature-dependent ventilation when using Tronic window ventilators (**ON / OFF** - default = **ON**). This function limits nuisance from cold air for people present in the building by making the system **less responsive** to high CO₂ values in the current zone. This is done by dynamically offsetting the CO₂ setpoint.
- **>SenVLv1** Sensor visualisation level (**from version 180327**)
If the ventilation system detects excessive CO₂ or humidity levels (based on the set CO₂ or RH setpoint), the system will start ventilating at a certain percentage. By setting a percentage in **SenVLv1**, the AUTO button LED will light up blue (for humidity sensor) or purple (for CO₂ sensor) when the ventilation system ventilates at or above this percentage. This is useful for detecting why the ventilation system is operating at a high speed in a particular zone. For example: when **SenVLv1** is set to 50%, the AUTO button LED on the CO₂ sensor will light up purple when the ventilation system starts running at 50% or more due to excessive CO₂ concentration.

02.D Config: Vent (Electronically controlled supply window ventilator)

Displays the configuration parameters for different electronically controlled supply window ventilators in the network. For example: **Node 4, Node 5**, etc. Electronically controlled supply window ventilators have the following settings:

- **>Inlet** Determines the proportion of supply air from the grille versus return air in this zone (default = 0% → each window ventilator has the same supply "weighting").
- **>Automin** Minimum ventilation setting in automatic mode (default = 10%).
- **>Automax** Maximum ventilation setting in automatic mode (default = 100%).

02.E Config: Switch (dry contact)

Dry 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 dry contacts in the network. For example: **Node 4, Node 5**, etc. Fixed, dry contacts can also be configured on the DucoBox PCB. If a dry contact does not appear in the menu, it must be closed once to log on to the DucoBox.

Dry contacts have the following settings:

- **>SwMode** Indicates what the switch sensor is used for (default = **PRESENCE**).
 - PRESENCE** (e.g. toilet detection): indicates which ventilation mode is used to extract air from the toilet (default **SwValue** = 100%) .
 - HEATPUMP** (heat pump): specifies the ventilation level to which the flow rate must be increased depending on the connected heat pump (default **SwValue** = 150 m³/h).
 - OVERRULE**: indicates the ventilation level to which the system is overridden (0%-250% / **MAX**). If this is set to '**MAX**', the extract unit runs at maximum speed and the valve is fully opened (default **SwValue** = 100%).
 - ALARM**: indicates the ventilation level at which the system is overridden (0%-100%). Please note: this action takes precedence over all others. As long as the circuit is activated, no other actions can be performed. Within 1 zone only 1 value can be set for the alarm.
 - NONE**: no action.
 - COOLING**: only applicable to Duco Natural Cooling. By connecting an external cooling system via a dry contact, the DUCO system receives information to avoid conflicting action via Duco Natural Cooling.
 - HEATING**: only applicable to Duco Natural Cooling. By connecting an external heating system via a dry contact, the DUCO system receives information not to take any conflicting action through Duco Natural Cooling (e.g. it does not ventilate when the heating is on).
 - EMERGEN** . : only applicable to Duco Natural Cooling. By connecting an emergency switch to the DUCO system via a dry contact, the solar shading and ventilative cooling can be switched off, causing, for example, screens to rise and ventilation shutters to close.
- **>SwZone** Determines which zone must be switched.
- **>SwValue** The desired value of ventilation in the current zone when the switch sensor is activated. The value is expressed in % or m³/h, depending on the selected **SwMode**.

02.F Config: Extern (Modbus)

Here you can adjust the settings of external connections, such as the Modbus connection.

- **>#Modbus** Here you can set the Modbus address of the DucoBox (default = 1).
- **>RegOffs** Register offset. By default, addresses start counting from 1.

02.G Config: Tcplp (Ethernet settings)

If you use a Duco Connectivity Board, you can connect it to the local network so you can use the Duco Installation App. Network connection settings can be found below.

- **>DHCP** If this option is active, the DucoBox's IP address is retrieved automatically (default = **ON**).
- Depending on the DHCP setting, the following settings are visible:

>DynamIp (if **DHCP** = **ON**) This is the automatically retrieved IP address of the DucoBox.

>StatIp (if **DHCP** = **OFF**) This is the static IP address of the DucoBox.

>NetwMsk (if **DHCP** = **OFF**) This is the subnet mask.

>DftGtwy (if **DHCP** = **OFF**) This is the default gateway.

The display always shows one of the four digit groups. The other three digit groups are represented by a hyphen. Press enter (**■**) to go to the next digit group:

xxx. ___ → enter (**■**) → **_. xxx. ___** → enter (**■**) → **__ . xxx . _** → enter (**■**) → **___ . xxx** (where **xxx** = active digit group). With a static IP address (**DHCP** = **OFF**), the IP address, subnet mask and default gateway can be changed using the arrow keys (**▲**, **▼**).

- **>MacAddr** This is the MAC address of the DucoBox.

02.H Config: NghtBst (NightBoost)

DUCO's NightBoost function activates the ventilation system during the summer to help cool warm indoor spaces. The NightBoost function operates on a zonal basis. This function is mainly aimed at apartments and uses **small flow rates** (= basic ventilation). Consult the manual accompanying the DucoBox for more information.



Note: for the NightBoost function to work correctly, the time must be set properly, see chapter 02.A on page 3.

- **>StartMo** and **>StopMo** Start and end month of the period during which the NightBoost function may be active. The final month is included in the period. (default = May to September).
- **>StartTi** and **>StopTim** Start and end times when the NightBoost function is allowed to be active (default = 1:00 to 6:00).
- **>SetTemp** If the indoor temperature rises above the set value, the NightBoost function may be activated (default = 24°C).
- **>Mode** Turn the NightBoost function on or off (default = OFF).

03 Network menu (network overview)

03.A Introduction

The **Network** submenu provides an overview of the login structure. A tree structure is used for this purpose. On opening the submenu, you will see the following:

+Box 1

The plus (+) before the box indicates that there are still components registered beneath it. Press enter (■) to view which components are logged in.

- **-Valv 2** A control valve under which nothing is registered.
- **+Valv 2** A control valve under which other components, such as electronically controlled window ventilators, are registered.
- **>Ctrl 3** The room operating unit operates the component to which it is registered.

Example tree structure

The structure below corresponds to the example network, see chapter 'What is a zone?' on page 2.

```

+Box 1
  +Valv 2
    >Ctrl 6
    >Vent 7
    >Vent 8
    >Ctrl 9
    >Vent 10
  +Valv 3
    >Swit 11
  -Valv 4
  +Valv 5
    >Ctrl 12
    >Ctrl 13
  
```

Parameters

Apart from the overview, various parameters, such as current sensor values or ventilation modes, can also be read out. Press and hold Enter (■) on the selected component for five seconds to read the values.

03.B Box parameters (DucoBox)

- **StatusXX** 00 = normal; 01 = manually overwritten; 99 = error.
- **Dbt XX%** Ventilation level of the box in %.
- Version numbers: **(as of version 170816)**
These parameters can be read from any component.

03.C Valv parameters (Control valve)

- **StatusXX** 00 = normal; 01 = manual override; 99 = error.
- **Dbt XX%** Ventilation level in %.
- **Tmp XXC** Temperature in °C.
- **CO2 XXXP** CO₂ level in ppm (0 = no CO₂ sensor present).
- **RH XX%** Relative humidity in % (0 = no humidity sensor present).

>CO2 1043

CO₂ level in ppm

- **Sw XXXXX** This is the software version of the component. This is only for internal communication and is not important for the installer or user.
 - **Rel XX** This is the release number of the component.
 - **Rev XX** This is the revision number of the component.
 - **Tst XX** This is the test number of the component.
- The software version of a component is a combination of the numbers **Rel . Rev . Tst**, leading, for example, to **4 . 3 . 0**.
- Version numbers: **(as of version 170816)** see chapter 03.B on page 7.

03.D Ctrl parameters (Room operating unit / Room sensor)

- **StatusXX** 00 = normal; 01 = manually overwritten; 99 = error.
- **Dbt XX%** Ventilation level in %.
- **Tmp XXC** Temperature in °C.
- **CO2 XXp** CO₂ level in ppm (0 = no CO₂ sensor present).
- **RH XX%** Relative humidity in % (0 = no humidity sensor present).
- Version numbers: **(as of version 170816)** see chapter 03.B on page 7.

03.E Vent parameters (electronically controlled window ventilator)

- **StatusXX** 00 = normal; 01 = manual override; 99 = error.
- **Dbt XX%** Ventilation setting in %.
- **Tmp XXC** Temperature in °C.
- **HtSw** Air preheating enabled (**ON / OFF**).
- **Heat** Preheating active (**ON / OFF**).
- Version numbers: **(as of version 170816)** see chapter 03.B on page 7.

03.F Switch parameters (dry contact)

- **Status00** 00 = normal; 01 = manually overwritten; 99 = error.
- **Dbt XX%** Ventilation setting in %.
- Version numbers: **(as of version 170816)** see chapter 03.B on page 7.

03.G Actr parameters (Actuatorprint)

- **Status00** 00 = normal; 01 = manually overwritten; 99 = error.
- **Dbt XX%** Ventilation setting in %.
- **Tmp XXC** Temperature in °C.
- Version numbers: **(as of version 170816)** see chapter 03.B on page 7.

04 FltLog menu (overview of error codes)

If there are error messages, you can use this menu to read the error codes. You can use these codes to communicate with DUCO in case of problems. More information on error codes can be found in the document L2003310 – Information sheet on error codes for mechanical ventilation systems at www.duco.eu.

05 Perform menu (system resistances)

This menu shows the total pressure drop that the extract unit must overcome. In addition, pressure drop can be displayed separately for each channel.

- **Tot XXPa** Total pressure drop the extract unit has to overcome.
- **Out XXPa** Pressure drop across the outlet duct and roof penetration.
- **VY XPa** Pressure drop across the channel with node number 'Y'.
- **Pavg XXW** Average power consumption.
- **Pmax XXW** Maximum power consumption.

06 SwUpdte (software update)

- **>Upload** **(up to and including version 180327)**
>SwUpdte **(from version 180327)**
 Displays the status of the software update.
 During a software update, the display shows that the update is in progress.
 Once the device is fully updated, the message **System up to date** appears.

07 ServCde menu (software version)

- **>ServCde** (as of version 180327)

This code lists the components in the network and their software versions and provides insight into the system for service purposes. **Note that the code is case-sensitive!** The code can consist of several pages, which can be scrolled through using the arrow key.



08 Identify

Allows identification of a control valve by opening one control valve, closing the others and revving the extract unit.

- **> Current** shows which zone is in identify mode.
- **> Config** Option to put a zone into identify mode.

